



April 14, 2023

Representative Joshua Boschee, Chair
Legislative Employee Benefits Programs Committee
North Dakota State Government

Re: North Dakota Public Employees Retirement System Legislative Studies – Provisions from Bill No. 23.0280.05021

Dear Representative Boschee:

In accordance with your request, we have analyzed the impact of provisions from Bill No. 23.0280.05021 on the North Dakota Public Employees Retirement System (NDPERS).

Systems Affected

North Dakota Public Employees Retirement System (PERS) and Defined Contribution Plan.

Summary

Bill No. 23.0280.05021 (Affects the Main System and the Defined Contribution Plan):

- The Main System is closed to new entrants effective January 1, 2025. New hires on January 1, 2025 and later will participate in a new Defined Contribution (DC) Plan. Employee contributions to the DC Plan are required to be 4% of pay, with an optional amount up to an additional 3% of pay. Employer contributions to the DC Plan are 4.12% of pay plus matching contributions for any additional contribution made by the employee. For members who enrolled after 2019, the employer also contributes an additional 1.14% of pay.
- State employees participating in the Main System on January 1, 2025 who are at least age 18 with less than 5 years of participation will be eligible to irrevocably elect to transfer to the existing DC Plan during a three-month election period ending March 31, 2025.
 - For members who elect to transfer to the existing DC Plan, NDPERS will transfer a lump sum from the Main System to the DC Plan based on the actuarial present value of the accrued benefit as of January 1, 2025, plus interest from January 1, 2025 to the date of transfer.
 - The lump sum will be based on an interest rate of one-half of one percent less than the actuarial interest assumption at the time of election (assumed to be 6.0%), the same assumptions and methods used in the actuarial valuation, and 100% assumed retirement at earliest normal retirement eligibility.
 - The state employer of an employee who elects to transfer to the existing DC Plan shall contribute an additional amount of \$3,333 annually for up to three years, provided the employee continues employment.

- For purposes of this analysis, we have assumed that employee and employer contributions to the existing DC Plan for transfers from the Main System will be the same as described above for new hires after 2024.
- Each biennium, the state treasurer shall transfer \$65 million from the state share of oil and gas taxes to the Main System. Based on input from NDPERS, we assumed:
 - these transfers will continue until the plan becomes 100% funded, and
 - tax revenues will be sufficient to fund each of these transfers.
- During the biennium from July 1, 2023 to June 30, 2025, the office of management and budget shall transfer \$135 million to the Main System.
- Employer contribution rates to the Main System for political subdivision employers are increased by 1.00% of pay, from 7.12% of pay to 8.12% of pay beginning in 2024
 - For members who enrolled after 2019, the political subdivision employer contributes an additional 1.14% of pay
- Likewise, state employer contributions are increased by 1.00% of pay beginning in 2024. In 2026, state employer contributions are changed to the amount sufficient to fund the Main System on an actuarial basis, with the amortization of the unfunded liability determined on a level percent of payroll basis over a closed period beginning January 1, 2026 and ending June 30, 2056. Payroll is based on compensation for all Main System participants, plus all DC Plan participants. The 2026 and 2027 contribution rate will be based on the July 1, 2024 actuarial analysis, and the 2028 and 2029 contribution rate will be based on the July 1, 2026 actuarial analysis, and so on.
- Additionally, state employers will contribute an amount to the Main System based on DC Plan participant compensation, at the biennial actuarially determined employer contribution (ADEC) rate determined in the previous paragraph less the amount of the employer contribution to the DC Plan.
- During the 2023-2024 interim, a study of the Main System, including funding options and political subdivision contributions, will be conducted by legislative management. The results of the study will be reported to the legislative assembly in 2025.

This analysis is based on projections of the actuarial valuation results for the Main System of the North Dakota Public Employees Retirement System (NDPERS) from the actuarial valuation as of July 1, 2022.



Assumed Rate of Return

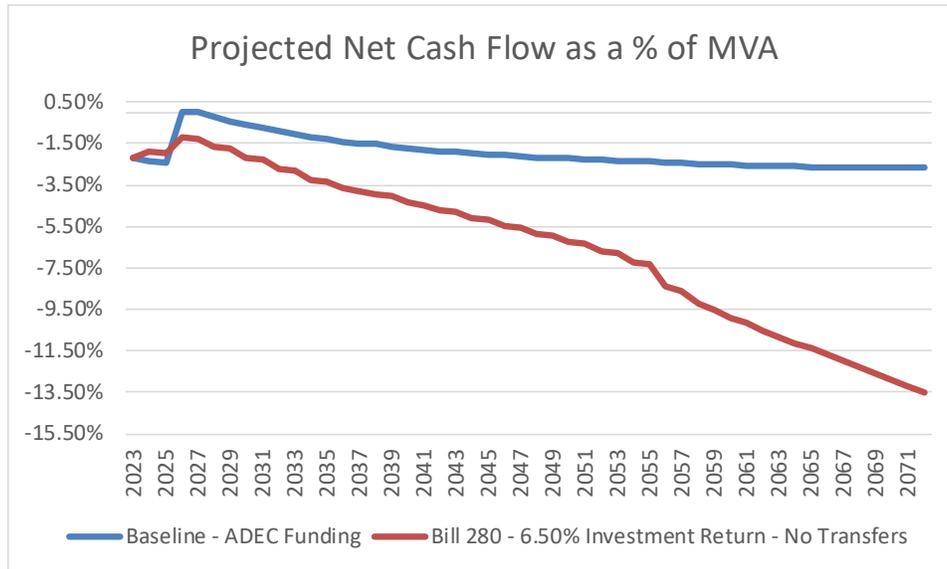
Our analysis includes alternate lower investment return assumptions to recognize that a closed plan with no new entrants will have increasing negative cash flow and is expected to require a change to the asset allocation over time. In an open plan, the asset pool will grow in real terms for decades. In a closed plan the asset pool may grow for a period, but if all assumptions are met exactly, the fund balance will decline to \$0 when the last dollar in benefits is paid. The growth and eventual stability of the asset pool in an open plan permits investment risk to be spread across an indefinite future, and therefore allows long term investment in a diversified portfolio. In a closed plan, all of the assets will ultimately be paid out, eventually constraining the asset allocation and driving it toward a fixed income allocation.

One measure of a plan's financial security is the ratio of the beginning of fiscal year value of assets to the benefit payments expected to be paid during the year. It is an approximate measurement of the number of years that a plan could be expected to pay out benefit payments in the absence of any additional contributions or investment income. It can also be called a benefit security measure. The current trust fund ratio for the Main System is around 15. If the plan remains open and the ADEC is contributed, the ratio dips initially but then increases as the Unfunded Actuarial Accrued Liability (UAAL) is amortized, stabilizing in the 17 area. A trust fund ratio of 17 means, for example, that there are \$17 worth of assets backing up each \$1 of benefit payments. This supports the ability to invest in a diversified portfolio and use of the current assumed rate of return of 6.5%.

In the closed plan case, the trust fund ratio falls well below the open plan ratio. After the UAAL is fully amortized in 2056, the ratio declines perpetually. In 2060, the trust fund ratio becomes 10, which means that 10% of the assets are being paid out in benefits annually. If the portfolio does not generate at least that much income (in interest and dividends), invested assets would have to be liquidated to pay benefits – possibly at a bad time. This pattern calls into question the ability of the fund to maintain an asset allocation targeted to earn 6.5%.

Another measure of a plan's ability to maintain a certain asset allocation is a plan's net cash flow as a percentage of its assets. The ratio of net cash flow to assets illustrates the portion of the assets at the beginning of the year that is expected to be needed to cover the benefit payments that are not covered by that year's contributions. Presented below is a graph that shows the projected net cash flow as a percentage of assets for the Main System if the plan remains open or is closed to new hires.





As shown from the graph above, at the time the plan is proposed to close, approximately 2.0% of the beginning of year assets (coming from either investment return or the liquidation of assets) is currently needed to cover benefit payments in excess of contributions. This is fairly typical of pension plan operation. In both the open and closed plan cases, net cash flow worsens from that point during the projection period. In the open plan situation, net cash flow stabilizes at about -2.7%. Since the assets are presumed to earn 6.5% this means that 2.7% is intended to be used to pay benefits, and the remaining return is used to stabilize the real value of the asset pool. In the open plan situation, it is not anticipated that the corpus of the trust would be used for benefit payments, only incoming contributions and a portion of investment return. However, if the Main System were closed to new hires, the cash flow requirements of the plan are expected to worsen to -6.7% within the next 30 years and to drop substantially after the UAAL is amortized. The corpus of the trust will be needed at some point.

The fact that in the open plan the negative cash flow stabilizes, and the level at which it stabilizes provides support for the ability to invest open plan assets in a diversified portfolio. In the closed plan situation, the net cash flow steadily declines and eventually plummets.

The above discussion suggests that if the plan is closed (1) it may not be possible to develop a portfolio that earns 6.5% return throughout the life of the plan; and (2) at some point, the asset allocation will be changed, and lower returns should be expected. We have included alternate lower investment return assumptions of 5.5% and 4.5% in our analysis. There is no way to quantitatively determine the actual closure cost of a defined benefit plan. In reality, the asset allocation would most likely be changed gradually over time, and costs will be different than shown for a number of reasons. For example, if we assume an investment return rate of 6.5% for 10 years, 5.5% for the next 10 years, 4.5% for the next 10 years, and 3.5% thereafter, the liabilities would be equivalent to assuming an investment return rate of 4.4% for the entire period.



Actuarial Impact of Bill 280 on the Main System

Based on the valuation projection as of July 1, 2022 which assumes (1) no increase in employee or employer contributions, (2) no changes to benefit provisions, and (3) no gains or losses and all actuarial assumptions from the 2022 valuation are realized, the Main System assets are projected to be depleted in approximately 80 years.

If we assume that the Main System receives employer contributions equal to the ADEC, the funded ratio of the Main System is projected to reach 84% in 2046, improving to 96% in 80 years. Note that this scenario is neither current policy nor the policy in bill 280, but is included for informational purposes. The ADEC is determined on a level percentage of payroll basis using an open amortization period of 20 years. An open amortization period is expected to gradually improve the funded ratio. However, the funded ratio is not expected to reach 100% under this method (assuming no actuarial gains and losses) because the remaining unfunded liability at each future actuarial valuation date is re-amortized over a new 20-year period.

To analyze Bill 280, we utilized three scenarios: 1) no transfers to existing DC Plan, 2) 50% of eligible members transfer to existing DC Plan, and 3) 100% of eligible members transfer to existing DC Plan. These election percentages are not predictions, but were selected to show a range of actuarial impact.

Our analysis indicates the number of members projected to be eligible to transfer to the existing DC Plan in 2025 is 2,337.

Based on the projection of the Main System results as of July 1, 2022, with the provisions proposed in bill 280, no gains or losses, and all actuarial assumptions from the 2022 valuation are realized, including annual investment returns of 6.5% per year, the funded ratio of the Main System is projected to reach 100% in 2056.

Under Bill 280, assuming an investment return rate of 4.5% and no transfers from the Main System to the existing DC Plan, the State will need to contribute an additional \$190.2 million to the Main System in the first year of ADEC funding – an increase of 31.6% of State employee compensation. If 50% of eligible members transfer, the additional contribution is \$183.6 million, or 30.5% of State employee compensation, and if 100% of eligible members transfer, the additional contribution is \$177.0 million, or 29.4% of State employee compensation (based on a 4.5% interest rate).

The following graphs and exhibits provide additional information on the projected funded ratio and contributions for the Main System under Baseline Scenario, Baseline assuming ADEC Funding, and the Scenario proposed in the Bill based on Investment Return Assumptions of 6.5%, 5.5%, and 4.5%:

- Graph I: Comparison of Projected Funded Ratios for the Main System
- Table Ia: Present Value of Employer Contributions for 2023 to 2056
- Table Ib: Present Value of Employer Contributions for 2023 to 2065
- Table Ic: Present Value of Employer Contributions from 2023 to 2056/2065 allocated to State and Non-State
- Table II: Detailed Summary of Contributions by Source and Type

Projected funded ratios are based on the actuarial value of assets.

Table Ia compares the present value of total employer contributions for 2023 to 2056 under the various scenarios. Assuming 6.50% investment returns, the present value of total employer contributions is \$2.13 billion in the baseline scenario, which assumes current fixed rate contributions. If we assume that the employer contributes the ADEC, but no other changes are made (i.e., the Main System remains open to new participants), the present value increases to \$2.96 billion.

Under Bill 280, assuming no transfers from the Main System to the existing DC Plan, the present value of total employer contributions increases an additional \$768 million to \$3.73 billion. If we assume transfer election rates of 50% or 100%, the present value of total employer contributions is projected to increase from \$3.73 billion under a scenario where no transfers are made to \$3.76 and \$3.80 billion under the 50% and 100% transfer scenarios, respectively. Present values are significantly greater when alternate lower investment return assumptions of 5.5% and 4.5% are reflected as an estimate of the cost of a more conservative investment policy.

Overall, the transfer of existing Main System members to the DC Plan increases the present value of total employer contributions for 2023 to 2056 under the 6.5% and 5.5% investment return rate scenarios, and decreases it under the 4.5% scenario. The transfers result in lower future Main System contributions (due to fewer Main System members) and higher future DC Plan contributions (including the additional employer contributions of up to \$3,333 per year for up to three years for transfers). Under the 6.5% and 5.5% investment return rate scenarios, the additional DC Plan costs are greater than the savings due to lower Main System contributions. Under the 4.5% investment return rate scenario, the savings due to lower Main System contributions are greater than the additional DC Plan costs.

Although the Main System is only 65% funded, the amount transferred from the Main System to the existing DC Plan for a transferring member is more than 100% of the accrued liability determined under the current actuarial assumptions, which increases the unfunded liability in the Main System at the time of the transfer.



The present value of employer contributions to the Main System through 2056 is higher under Bill 280, despite the closure of the plan to new entrants than in the scenario where the employer contributes the ADEC. This is due to a difference in amortization policy. Under the ADEC funding policy, the unfunded liability is amortized over an open period of 20 years, which delays full funding for more than 80 years. Under Bill 280, the amortization period is a closed 30-year period, which results in full funding in 2056.

We assumed that the employer contribution to the DC Plan will be the maximum amount of 8.26% of pay. This assumes employees will act in their best interest by contributing the amount to the DC Plan that will provide for the full employer match, as well as the most retirement security. This is only an assumption. If employer contributions to the DC Plan are less than assumed, contributions to the Main System will be greater than shown.

Under North Dakota Century Code Section 54-52-06.5, effective July 1 following the first actuarial valuation of the PERS Main System that shows a funded ratio of 100% or higher (based on the actuarial value of assets), the employee and employer contribution rates must be reduced to the rates in effect on July 1, 2013. House Bill 280 repeals this section of the code.

Policy Issue Analysis

Benefits Policy Issues

- Adequacy of Retirement Benefits

The bill would not impact the retirement benefits payable to the members of the defined benefit plan. Although determining the adequacy of defined contribution benefits is outside the scope of this project, there are many risks to benefit adequacy. The primary risks are that employees will not contribute enough and that investment returns will fall short of what is needed to provide an adequate retirement income. Even if sufficient assets are accumulated prior to retirement, retirees must also manage investment and longevity risks during retirement.

- Competitiveness

The majority of public employers offer a defined benefit pension plan. Closing the defined benefit plan will make public employment less attractive to employees who value the defined benefit plan. Alternatively, some employees may prefer a defined contribution plan.

- Benefits Equity and Group Integrity

Closing the defined benefit plan creates two groups of employees with different retirement benefits depending on hire date.

- Purchasing Power

The risks associated with defined contribution plans (described above) may lead to less purchasing power for participants.

- Preservation of Benefits

Increased contributions to the Main System in the form of cash infusions and actuarially determined contributions will improve the funded status of the Main System. Members' promised benefits will be more secure than without the additional funding.

- Portability

Defined contribution plan benefits are generally more portable than defined benefit pension plan benefits.



- Ancillary Benefits

In addition to retirement benefits, the Main System provides ancillary benefits in the event of pre-retirement death or disability. In a defined contribution plan, benefits are based on accumulated account balances, and may not provide income comparable to the benefits provided by the Main System.

- Social Security:

No impact

Funding Policy Issues

- Actuarial Impacts

As previously noted, the additional contributions provided by the bill will have a positive actuarial impact on the funded status of the Main System.

- Investment Impacts

The investment policy of the Main System will need to be updated to recognize the impact of increasing negative cash flow over time. In a closed plan, all of the assets will ultimately be paid out, eventually constraining the asset allocation and driving it toward a fixed income allocation.

Contributions to the defined contribution plan are invested based on individual investment policies. In general, an individual investment policy will be more risk averse than an investment policy for a large plan leading to lower investment returns on average.

Administration Issues

- Implementation Issues

Significant efforts will be required by NDPERS and employers to implement the changes in this bill.

- Administrative Costs

Administrative costs are expected to be higher due to the ongoing administration of two plans.

- Needed Authority

The bill appears to provide appropriate levels of administrative and governance authority to the PERS Board to implement the changes made by the bill.



- Integration

No impact.

- Communications

Employee and employer communications will be necessary to describe the impact to members.

- Miscellaneous and Drafting Issues

No Impact.

Projection Assumptions

Following is a summary of the assumptions made for new hires used in the projections. The average new hire information is based on the average of members with at least one year and less than five years of service. The average assumed new hire salary is based on projecting the valuation salary from the 2022 actuarial valuation back to hire age using the assumed salary increase assumption and then projecting forward to the 2022 actuarial valuation using the current assumed wage inflation assumption of 3.50%. The projections assume that the number of active members remains the same in each future year as the number as of the most recent actuarial valuation of July 1, 2022. Future assumed new hire salary is assumed to increase from the year 2022 by the wage inflation assumption (3.50%).

	Main System	
	Current Members	New Hires
Average Age	46.1	38.1
Average Benefit Service	9.3	0.0
Average Salary	\$49,425	\$37,043
Total Normal Cost Rate (Benefits)*	12.01%	11.14%

**Excludes administrative expense component of total normal cost rate.*

The percentage of assumed new hires assumed to participate in the PEP is consistent with the percentage of current active members participating. Under the PEP, a member may receive vested employer contributions made to the deferred compensation plan.

For purposes of determining contributions based on DC Plan compensation, only new entrants after 2024 who otherwise would have entered the Main System are reflected.



Disclosures and Additional Information

This analysis is based on projections of the actuarial valuation results for the North Dakota Public Employees Retirement System (NDPERS). The actuarial assumptions used in this analysis are the same assumptions used in the actuarial valuation as of July 1, 2022, including a discount rate of 6.50%.

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.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation, and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

We have reviewed the bill and provided an actuarial impact analysis as well as a policy issue analysis from our perspective as actuaries. However, the policy issue analysis should not be considered to be comprehensive and there may be additional benefits policy, administration issues or legal issues that are not discussed in this letter.

The signing actuaries are independent of the plan sponsor.

Bonita J. Wurst and Abra D. Hill are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

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

Sincerely,
Gabriel, Roeder, Smith & Company



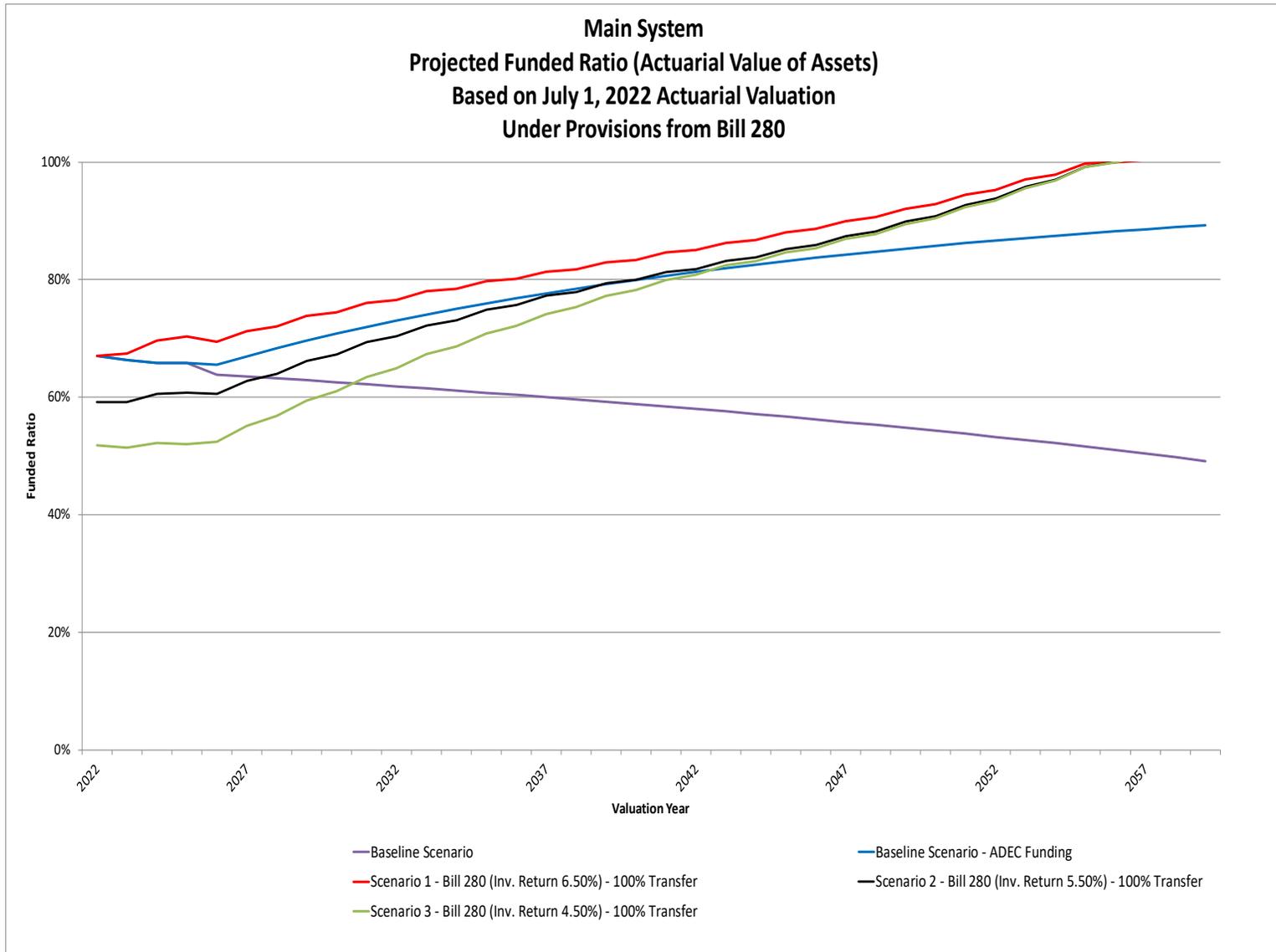
Bonita J. Wurst, ASA, EA, MAAA, FCA
Senior Consultant



Abra D. Hill, ASA, MAAA, FCA
Consultant

cc: Mr. Scott Miller, NDPERS
Mr. Joshua Murner, GRS





Contributions to the DB Plan Only			
	Present Value of Total Employer Contributions for 2023 to 2056 ¹	Difference from Baseline	Difference from Baseline - ADEC Funding
Baseline	\$2,134,958,846		
Baseline - ADEC Funding	\$2,958,600,294	\$823,641,448	
Bill 280 - 6.50% Investment Return - No Transfers	\$2,612,317,846	\$477,359,000	\$ (346,282,448)
Bill 280 - 5.50% Investment Return - No Transfers	\$3,809,856,122	\$1,674,897,276	\$ 851,255,828
Bill 280 - 4.50% Investment Return - No Transfers	\$5,441,217,536	\$3,306,258,690	\$ 2,482,617,242
Bill 280 - 6.50% Investment Return - Transfer 50%	\$2,596,658,328	\$461,699,483	\$ (361,941,966)
Bill 280 - 5.50% Investment Return - Transfer 50%	\$3,767,715,725	\$1,632,756,879	\$ 809,115,431
Bill 280 - 4.50% Investment Return - Transfer 50%	\$5,358,436,764	\$3,223,477,918	\$ 2,399,836,469
Bill 280 - 6.50% Investment Return - Transfer 100%	\$2,580,998,810	\$446,039,964	\$ (377,601,484)
Bill 280 - 5.50% Investment Return - Transfer 100%	\$3,725,575,327	\$1,590,616,481	\$ 766,975,033
Bill 280 - 4.50% Investment Return - Transfer 100%	\$5,275,655,991	\$3,140,697,145	\$ 2,317,055,697

Contributions to the DB Plan and DC Plan			
	Present Value of Total Employer Contributions for 2023 to 2056 ¹	Difference from Baseline	Difference from Baseline - ADEC Funding
Baseline	\$2,134,958,846		
Baseline - ADEC Funding	\$2,958,600,294	\$823,641,448	
Bill 280 - 6.50% Investment Return - No Transfers	\$3,726,749,042	\$1,591,790,196	\$ 768,148,747
Bill 280 - 5.50% Investment Return - No Transfers	\$5,161,730,770	\$3,026,771,924	\$ 2,203,130,475
Bill 280 - 4.50% Investment Return - No Transfers	\$7,093,771,816	\$4,958,812,970	\$ 4,135,171,522
Bill 280 - 6.50% Investment Return - Transfer 50%	\$3,762,886,210	\$1,627,927,364	\$ 804,285,916
Bill 280 - 5.50% Investment Return - Transfer 50%	\$5,177,262,447	\$3,042,303,601	\$ 2,218,662,153
Bill 280 - 4.50% Investment Return - Transfer 50%	\$7,075,603,894	\$4,940,645,048	\$ 4,117,003,599
Bill 280 - 6.50% Investment Return - Transfer 100%	\$3,799,023,379	\$1,664,064,533	\$ 840,423,084
Bill 280 - 5.50% Investment Return - Transfer 100%	\$5,192,794,123	\$3,057,835,277	\$ 2,234,193,829
Bill 280 - 4.50% Investment Return - Transfer 100%	\$7,057,435,971	\$4,922,477,125	\$ 4,098,835,677

¹ The employer contributions include cash infusions.

Note that numbers may not add due to rounding.

Contributions to the DB Plan Only			
	Present Value of Total Employer Contributions for 2023 to 2065 ¹	Difference from Baseline	Difference from Baseline - ADEC Funding
Baseline	\$2,447,270,428		
Baseline - ADEC Funding	\$3,234,238,675	\$786,968,247	
Bill 280 - 6.50% Investment Return - No Transfers	\$2,622,877,074	\$175,606,646	\$ (611,361,601)
Bill 280 - 5.50% Investment Return - No Transfers	\$3,836,054,264	\$1,388,783,836	\$ 601,815,589
Bill 280 - 4.50% Investment Return - No Transfers	\$5,490,034,766	\$3,042,764,338	\$ 2,255,796,091
Bill 280 - 6.50% Investment Return - Transfer 50%	\$2,607,010,728	\$159,740,300	\$ (627,227,947)
Bill 280 - 5.50% Investment Return - Transfer 50%	\$3,793,141,859	\$1,345,871,431	\$ 558,903,184
Bill 280 - 4.50% Investment Return - Transfer 50%	\$5,405,528,919	\$2,958,258,491	\$ 2,171,290,243
Bill 280 - 6.50% Investment Return - Transfer 100%	\$2,591,144,428	\$143,874,000	\$ (643,094,247)
Bill 280 - 5.50% Investment Return - Transfer 100%	\$3,750,284,129	\$1,303,013,701	\$ 516,045,453
Bill 280 - 4.50% Investment Return - Transfer 100%	\$5,321,146,963	\$2,873,876,535	\$ 2,086,908,288

Contributions to the DB Plan and DC Plan			
	Present Value of Total Employer Contributions for 2023 to 2065 ¹	Difference from Baseline	Difference from Baseline - ADEC Funding
Baseline	\$2,447,270,428		
Baseline - ADEC Funding	\$3,234,238,675	\$786,968,247	
Bill 280 - 6.50% Investment Return - No Transfers	\$4,042,641,359	\$1,595,370,931	\$ 808,402,684
Bill 280 - 5.50% Investment Return - No Transfers	\$5,626,447,723	\$3,179,177,295	\$ 2,392,209,047
Bill 280 - 4.50% Investment Return - No Transfers	\$7,774,943,398	\$5,327,672,970	\$ 4,540,704,723
Bill 280 - 6.50% Investment Return - Transfer 50%	\$4,079,200,167	\$1,631,929,739	\$ 844,961,492
Bill 280 - 5.50% Investment Return - Transfer 50%	\$5,642,098,193	\$3,194,827,765	\$ 2,407,859,518
Bill 280 - 4.50% Investment Return - Transfer 50%	\$7,756,317,822	\$5,309,047,394	\$ 4,522,079,146
Bill 280 - 6.50% Investment Return - Transfer 100%	\$4,115,759,021	\$1,668,488,593	\$ 881,520,346
Bill 280 - 5.50% Investment Return - Transfer 100%	\$5,657,803,338	\$3,210,532,910	\$ 2,423,564,663
Bill 280 - 4.50% Investment Return - Transfer 100%	\$7,737,816,137	\$5,290,545,709	\$ 4,503,577,462

¹ The employer contributions include cash infusions.
Note that numbers may not add due to rounding.

(in Millions)

Scenario	Return Assumption	Present Value of Employer Contributions to the Defined Benefit Plan from 2023 through 2056 ¹			Present Value of Employer Contributions to the Defined Benefit and Defined Contribution Plan from 2023 through 2056 ¹		
		State	Non-State	Total	State	Non-State	Total
		Baseline - July 1, 2022 Valuation	6.50%	\$ 1,015	\$ 1,120	\$ 2,135	\$ 1,015
Baseline - ADEC Funding	6.50%	1,408	1,551	2,959	1,408	1,551	2,959
Bill 280 - 6.50% Investment Return - No Transfers	6.50%	1,999	613	2,612	2,540	1,187	3,727
Bill 280 - 5.50% Investment Return - No Transfers	5.50%	3,140	670	3,810	3,795	1,367	5,162
Bill 280 - 4.50% Investment Return - No Transfers	4.50%	4,704	737	5,441	5,504	1,589	7,094
Bill 280 - 6.50% Investment Return - Transfer 50%	6.50%	1,984	613	2,597	2,576	1,187	3,763
Bill 280 - 5.50% Investment Return - Transfer 50%	5.50%	3,098	670	3,768	3,810	1,367	5,177
Bill 280 - 4.50% Investment Return - Transfer 50%	4.50%	4,621	737	5,358	5,486	1,589	7,076
Bill 280 - 6.50% Investment Return - Transfer 100%	6.50%	1,968	613	2,581	2,612	1,187	3,799
Bill 280 - 5.50% Investment Return - Transfer 100%	5.50%	3,056	670	3,726	3,826	1,367	5,193
Bill 280 - 4.50% Investment Return - Transfer 100%	4.50%	4,539	737	5,276	5,468	1,589	7,057

(in Millions)

Scenario	Return Assumption	Present Value of Employer Contributions to the Defined Benefit Plan from 2023 through 2065 ¹			Present Value of Employer Contributions to the Defined Benefit and Defined Contribution Plan from 2023 through 2065 ¹		
		State	Non-State	Total	State	Non-State	Total
		Baseline - July 1, 2022 Valuation	6.50%	\$ 1,162	\$ 1,285	\$ 2,447	\$ 1,162
Baseline - ADEC Funding	6.50%	1,538	1,696	3,234	1,538	1,696	3,234
Bill 280 - 6.50% Investment Return - No Transfers	6.50%	2,005	618	2,623	2,690	1,353	4,043
Bill 280 - 5.50% Investment Return - No Transfers	5.50%	3,159	677	3,836	4,022	1,605	5,626
Bill 280 - 4.50% Investment Return - No Transfers	4.50%	4,743	747	5,490	5,843	1,932	7,775
Bill 280 - 6.50% Investment Return - Transfer 50%	6.50%	1,989	618	2,607	2,727	1,353	4,079
Bill 280 - 5.50% Investment Return - Transfer 50%	5.50%	3,116	677	3,793	4,037	1,605	5,642
Bill 280 - 4.50% Investment Return - Transfer 50%	4.50%	4,658	747	5,406	5,824	1,932	7,756
Bill 280 - 6.50% Investment Return - Transfer 100%	6.50%	1,973	618	2,591	2,763	1,353	4,116
Bill 280 - 5.50% Investment Return - Transfer 100%	5.50%	3,073	677	3,750	4,053	1,605	5,658
Bill 280 - 4.50% Investment Return - Transfer 100%	4.50%	4,574	747	5,321	5,806	1,932	7,738

¹ The State employer contributions include cash infusions.
Note that numbers may not add due to rounding

Table IIa

Baseline Scenario												
Defined Benefit Plan												
ADEC as a Percent of Total Payroll (Defined Benefit and Defined Contribution)			Defined Benefit Plan					Defined Contribution Plan				
Valuation Year	ADEC as a Percent of Total Payroll (Defined Benefit and Defined Contribution)	Total Contribution	Total Defined Benefit Plan Contribution	Defined Benefit Employee Contribution	Cash Infusion	Total Defined Benefit Employer Contribution	State Portion of ER Contribution	Political Subdivision Portion of ER Contribution	Defined Contribution Portion of ER Contribution to DB Plan	Total Defined Contribution Plan Contribution	Defined Contribution Employee Contribution	Defined Contribution Portion of ER Contribution to DC Plan
2023	14.70%	176,407,969	176,407,969	86,128,242	-	90,279,726	43,903,229	46,376,497	-	-	-	-
2024	14.89%	184,416,017	184,416,017	89,611,432	-	94,804,585	45,909,924	48,894,661	-	-	-	-
2025	15.01%	192,532,056	192,532,056	93,186,204	-	99,345,852	47,968,296	51,377,556	-	-	-	-
2026	15.02%	200,838,064	200,838,064	96,871,105	-	103,966,959	50,054,387	53,912,572	-	-	-	-
2027	15.57%	209,383,733	209,383,733	100,670,183	-	108,713,550	52,213,995	56,499,555	-	-	-	-
2028	15.65%	218,152,523	218,152,523	104,566,969	-	113,585,554	54,436,727	59,148,827	-	-	-	-
2029	15.73%	227,151,658	227,151,658	108,566,969	-	118,584,689	56,712,050	61,872,639	-	-	-	-
2030	15.80%	236,450,188	236,450,188	112,703,428	-	123,746,760	59,075,445	64,671,315	-	-	-	-
2031	15.88%	246,048,552	246,048,552	116,974,152	-	129,074,399	61,516,212	67,558,187	-	-	-	-
2032	15.96%	255,930,491	255,930,491	121,370,927	-	134,559,564	64,034,863	70,524,702	-	-	-	-
2033	16.04%	266,103,463	266,103,463	125,896,042	-	140,207,422	66,637,196	73,570,225	-	-	-	-
2034	16.13%	276,596,711	276,596,711	130,564,803	-	146,031,908	69,322,953	76,708,955	-	-	-	-
2035	16.21%	287,402,712	287,402,712	135,374,252	-	152,028,459	72,095,081	79,933,378	-	-	-	-
2036	16.30%	298,525,275	298,525,275	140,323,328	-	158,201,947	74,959,629	83,242,318	-	-	-	-
2037	16.39%	309,994,803	309,994,803	145,430,227	-	164,564,575	77,919,690	86,644,885	-	-	-	-
2038	16.48%	321,794,772	321,794,772	150,685,280	-	171,109,493	80,969,109	90,140,383	-	-	-	-
2039	16.58%	333,953,105	333,953,105	156,102,050	-	177,851,055	84,112,899	93,738,156	-	-	-	-
2040	16.68%	346,434,608	346,434,608	161,662,383	-	184,772,225	87,329,581	97,442,644	-	-	-	-
2041	16.78%	359,285,093	359,285,093	167,391,803	-	191,893,290	90,629,920	101,263,370	-	-	-	-
2042	16.89%	372,494,973	372,494,973	173,285,165	-	199,209,808	94,028,242	105,181,565	-	-	-	-
2043	17.00%	386,140,504	386,140,504	179,380,190	-	206,760,313	97,529,487	109,230,827	-	-	-	-
2044	17.11%	400,205,760	400,205,760	185,667,319	-	214,538,441	101,141,146	113,397,295	-	-	-	-
2045	17.23%	414,692,071	414,692,071	192,146,254	-	222,545,818	104,865,001	117,680,816	-	-	-	-
2046	17.36%	429,630,916	429,630,916	198,833,624	-	230,797,291	108,707,878	122,089,413	-	-	-	-
2047	17.48%	445,036,189	445,036,189	205,735,243	-	239,300,947	112,689,291	126,611,655	-	-	-	-
2048	17.62%	460,905,368	460,905,368	212,850,694	-	248,054,674	116,801,964	131,252,710	-	-	-	-
2049	17.75%	477,306,279	477,306,279	220,218,782	-	257,087,497	121,049,965	136,037,532	-	-	-	-
2050	17.89%	494,262,785	494,262,785	227,852,302	-	266,410,484	125,431,317	140,979,167	-	-	-	-
2051	18.04%	511,790,907	511,790,907	235,757,706	-	276,033,201	129,963,421	146,069,780	-	-	-	-
2052	18.19%	529,886,791	529,886,791	243,933,117	-	285,953,674	134,645,885	151,307,789	-	-	-	-
2053	18.34%	548,589,269	548,589,269	252,396,444	-	296,192,825	139,481,591	156,711,234	-	-	-	-
2054	18.50%	567,942,992	567,942,992	261,168,323	-	306,774,670	144,480,478	162,294,192	-	-	-	-
2055	18.66%	587,941,536	587,941,536	270,245,735	-	317,695,801	149,645,907	168,049,894	-	-	-	-
2056	18.83%	608,566,725	608,566,725	279,618,622	-	328,948,104	154,980,933	173,967,171	-	-	-	-
2057	19.00%	629,885,631	629,885,631	289,318,135	-	340,567,495	160,493,974	180,073,521	-	-	-	-
2058	19.18%	651,933,905	651,933,905	299,361,893	-	352,572,012	166,183,876	186,388,136	-	-	-	-
2059	19.37%	674,711,496	674,711,496	309,749,950	-	364,961,545	172,059,231	192,902,314	-	-	-	-
2060	19.56%	698,265,544	698,265,544	320,503,630	-	377,761,914	178,130,512	199,631,402	-	-	-	-
2061	19.75%	722,630,256	722,630,256	331,637,265	-	390,992,991	184,403,941	206,589,050	-	-	-	-
2062	19.96%	747,851,166	747,851,166	343,171,761	-	404,679,405	190,888,545	213,790,860	-	-	-	-
2063	20.17%	773,959,734	773,959,734	355,120,502	-	418,839,232	197,589,610	221,249,622	-	-	-	-
2064	20.38%	800,996,548	800,996,548	367,500,992	-	433,495,556	204,518,710	228,976,846	-	-	-	-
2065	20.60%	828,993,093	828,993,093	380,326,562	-	448,666,532	211,688,315	236,978,217	-	-	-	-
TOTAL		18,712,022,232	18,712,022,232	8,679,859,990	-	10,032,162,242	4,741,200,407	5,290,961,835	-	-	-	-



Table IIb

Baseline ADEC Funding Scenario												
Defined Benefit Plan												
ADEC as a Percent of Total Payroll (Defined Benefit and Defined Contribution)		Total Contribution	Total Defined Benefit Plan Contribution	Defined Benefit Employee Contribution	Cash Infusion	Total Defined Benefit Employer Contribution	State Portion of ER Contribution	Political Subdivision Portion of ER Contribution	Defined Contribution Portion of ER Contribution to DB Plan	Total Defined Contribution Plan Contribution	Defined Contribution Employee Contribution	Defined Contribution Portion of ER Contribution to DC Plan
Valuation Year												
2023	14.70%	176,407,969	176,407,969	86,128,242	-	90,279,726	43,903,229	46,376,497	-	-	-	-
2024	14.89%	184,416,017	184,416,017	89,611,432	-	94,804,585	45,909,924	48,894,661	-	-	-	-
2025	15.01%	192,532,056	192,532,056	93,186,204	-	99,345,852	47,968,296	51,377,556	-	-	-	-
2026	15.02%	304,673,617	304,673,617	96,871,105	-	207,802,512	100,416,837	107,385,675	-	-	-	-
2027	15.08%	317,493,024	317,493,024	100,670,183	-	216,822,841	104,472,422	112,350,419	-	-	-	-
2028	14.64%	323,262,290	323,262,290	104,566,969	-	218,695,322	105,094,518	113,600,804	-	-	-	-
2029	14.22%	329,184,125	329,184,125	108,566,969	-	220,617,156	105,736,335	114,880,821	-	-	-	-
2030	13.83%	335,310,081	335,310,081	112,703,428	-	222,606,653	106,448,987	116,157,666	-	-	-	-
2031	13.44%	341,642,142	341,642,142	116,974,152	-	224,667,989	107,207,980	117,460,009	-	-	-	-
2032	13.08%	348,163,882	348,163,882	121,370,927	-	226,792,955	108,016,020	118,776,935	-	-	-	-
2033	12.73%	354,870,051	354,870,051	125,896,042	-	228,974,010	108,876,467	120,097,543	-	-	-	-
2034	12.40%	361,795,367	361,795,367	130,564,803	-	231,230,563	109,783,311	121,447,252	-	-	-	-
2035	12.08%	368,937,181	368,937,181	135,374,252	-	233,562,929	110,745,349	122,817,579	-	-	-	-
2036	11.77%	376,283,295	376,283,295	140,323,328	-	235,959,968	111,763,212	124,196,755	-	-	-	-
2037	11.48%	383,875,050	383,875,050	145,430,227	-	238,444,822	112,844,939	125,599,883	-	-	-	-
2038	11.20%	391,705,509	391,705,509	150,685,280	-	241,020,229	113,978,250	127,041,979	-	-	-	-
2039	10.93%	399,788,999	399,788,999	156,102,050	-	243,686,949	115,163,237	128,523,712	-	-	-	-
2040	10.67%	408,097,294	408,097,294	161,662,383	-	246,434,910	116,372,898	130,062,012	-	-	-	-
2041	10.43%	416,689,819	416,689,819	167,391,803	-	249,298,016	117,626,566	131,671,450	-	-	-	-
2042	10.19%	425,555,831	425,555,831	173,285,165	-	252,270,666	118,946,090	133,324,576	-	-	-	-
2043	9.97%	434,766,420	434,766,420	179,380,190	-	255,386,230	120,325,482	135,060,748	-	-	-	-
2044	9.75%	444,302,713	444,302,713	185,667,319	-	258,635,394	121,776,576	136,858,818	-	-	-	-
2045	9.55%	454,168,729	454,168,729	192,146,254	-	262,022,476	123,301,888	138,720,587	-	-	-	-
2046	9.35%	464,397,236	464,397,236	198,833,624	-	265,563,612	124,910,160	140,653,452	-	-	-	-
2047	9.16%	474,992,113	474,992,113	205,735,243	-	269,256,870	126,619,662	142,637,209	-	-	-	-
2048	8.98%	485,958,296	485,958,296	212,850,694	-	273,107,602	128,423,052	144,684,550	-	-	-	-
2049	8.81%	497,369,099	497,369,099	220,218,782	-	277,150,317	130,326,054	146,824,263	-	-	-	-
2050	8.64%	509,248,436	509,248,436	227,852,302	-	281,396,134	132,322,008	149,074,126	-	-	-	-
2051	8.49%	521,606,085	521,606,085	235,757,706	-	285,848,379	134,426,582	151,421,797	-	-	-	-
2052	8.34%	534,443,165	534,443,165	243,933,117	-	290,510,047	136,642,919	153,867,128	-	-	-	-
2053	8.19%	547,792,642	547,792,642	252,396,444	-	295,396,198	138,967,937	156,428,261	-	-	-	-
2054	8.05%	561,688,419	561,688,419	261,168,323	-	300,520,097	141,406,007	159,114,090	-	-	-	-
2055	7.92%	576,130,133	576,130,133	270,245,735	-	305,884,398	143,964,817	161,919,581	-	-	-	-
2056	7.80%	591,101,199	591,101,199	279,618,622	-	311,482,578	146,648,077	164,834,501	-	-	-	-
2057	7.68%	606,650,719	606,650,719	289,318,135	-	317,332,584	149,453,705	167,878,879	-	-	-	-
2058	7.56%	622,811,848	622,811,848	299,361,893	-	323,449,954	152,378,431	171,071,523	-	-	-	-
2059	7.45%	639,584,237	639,584,237	309,749,950	-	329,834,287	155,431,835	174,402,452	-	-	-	-
2060	7.35%	656,999,978	656,999,978	320,503,630	-	336,496,348	158,617,220	177,879,128	-	-	-	-
2061	7.25%	675,078,361	675,078,361	331,637,265	-	343,441,096	161,932,878	181,508,218	-	-	-	-
2062	7.15%	693,849,163	693,849,163	343,171,761	-	350,677,401	165,380,547	185,296,854	-	-	-	-
2063	7.06%	713,331,367	713,331,367	355,120,502	-	358,210,865	168,960,167	189,250,698	-	-	-	-
2064	6.97%	733,549,709	733,549,709	367,500,992	-	366,048,716	172,676,111	193,372,605	-	-	-	-
2065	6.89%	754,522,450	754,522,450	380,326,562	-	374,195,888	176,534,842	197,661,046	-	-	-	-
TOTAL		19,935,026,117	19,935,026,117	8,679,859,990	-	11,255,166,127	5,322,701,826	5,932,464,301	-	-	-	-



Table IIc

Bill 280 6.50% Investment Return Scenario - No Transfers												
		Defined Benefit Plan							Defined Contribution Plan			
Valuation Year	ADEC as a Percent of Total Payroll (Defined Benefit and Defined Contribution)	Total Contribution	Total Defined Benefit Plan Contribution	Defined Benefit Employee Contribution	Total Defined Benefit Employer Contribution	State Portion of ER Contribution	Political Subdivision Portion of ER Contribution	Defined Contribution Portion of ER Contribution to DB Plan	Total Defined Contribution Plan Contribution	Defined Contribution Employee Contribution	Defined Contribution Portion of ER Contribution to DC Plan	
												Cash Infusion
2023	14.52%	241,407,969	241,407,969	86,128,242	65,000,000	90,279,726	43,903,229	46,376,497	-	-	-	-
2024	11.89%	332,217,650	332,217,650	89,611,432	135,000,000	107,606,218	52,137,787	55,468,431	-	-	-	-
2025	11.31%	270,844,371	270,844,371	93,186,204	65,000,000	112,658,167	54,423,203	58,234,964	-	-	-	-
2026	11.29%	266,885,897	248,753,690	88,553,579	-	160,200,111	101,187,020	55,389,026	3,624,065	18,132,207	8,317,526	9,814,681
2027	10.70%	353,719,140	319,638,438	85,036,834	65,000,000	169,601,604	109,436,229	53,331,369	6,834,007	34,080,701	15,633,349	18,447,352
2028	10.37%	298,604,951	249,843,779	82,199,459	-	167,644,321	108,082,179	51,765,467	7,796,675	48,761,171	22,367,510	26,393,661
2029	9.82%	383,838,236	320,808,925	79,654,441	65,000,000	176,154,483	115,597,528	50,437,571	10,119,385	63,029,311	28,912,528	34,116,783
2030	9.53%	320,168,782	243,367,634	77,473,544	-	165,894,091	108,702,716	49,340,144	7,851,231	76,801,148	35,229,884	41,571,264
2031	9.04%	404,192,970	313,822,626	75,519,866	65,000,000	173,302,760	115,668,713	48,395,663	9,238,384	90,370,345	41,454,287	48,916,058
2032	8.79%	339,692,439	235,386,269	73,524,060	-	161,862,209	109,184,650	47,414,404	5,263,155	104,306,170	47,846,867	56,459,303
2033	8.31%	423,599,876	304,935,882	71,463,017	65,000,000	168,472,865	116,113,207	46,372,025	5,987,633	118,663,994	54,433,025	64,230,969
2034	8.11%	358,448,055	225,014,101	69,356,568	-	155,657,533	109,840,657	45,292,234	524,642	133,433,954	61,208,236	72,225,718
2035	7.68%	442,285,805	293,673,813	67,203,614	65,000,000	161,470,199	116,725,015	44,160,865	584,320	148,611,992	68,170,639	80,441,354
2036	7.49%	383,233,941	218,947,641	64,962,640	-	153,985,001	111,036,988	42,948,013	-	164,286,300	75,360,688	88,925,612
2037	7.09%	467,681,435	287,301,675	62,687,218	65,000,000	159,614,457	117,946,138	41,668,319	-	180,379,760	82,743,009	97,636,751
2038	6.92%	409,876,995	212,940,791	60,347,571	-	152,593,220	112,247,929	40,345,291	-	196,936,204	90,337,708	106,598,496
2039	6.53%	495,031,375	281,054,728	57,947,624	65,000,000	158,107,103	119,136,905	38,970,198	-	213,976,647	98,154,427	115,822,222
2040	6.38%	437,781,296	206,250,270	55,455,490	-	150,794,779	113,248,081	37,546,698	-	231,531,027	106,206,893	125,324,134
2041	6.01%	523,623,848	274,095,179	52,929,111	65,000,000	156,166,068	120,061,012	36,105,056	-	249,528,669	114,462,692	135,065,977
2042	5.87%	466,906,631	198,933,925	50,361,906	-	148,572,019	113,959,768	34,612,251	-	267,972,706	122,923,260	145,049,446
2043	5.50%	553,459,602	266,592,629	47,789,836	65,000,000	153,802,793	120,674,884	33,127,910	-	286,866,972	131,590,354	155,276,618
2044	5.37%	497,311,039	191,040,076	45,176,051	-	145,864,024	114,253,429	31,610,596	-	306,270,964	140,491,268	165,779,696
2045	5.02%	584,671,960	258,504,669	42,528,230	65,000,000	150,976,439	120,911,191	30,065,248	-	326,167,291	149,618,026	176,549,268
2046	4.91%	528,789,356	182,252,324	39,871,683	-	142,380,641	113,874,962	28,505,678	-	346,537,032	158,961,941	187,575,091
2047	4.53%	616,967,885	249,514,751	37,178,759	65,000,000	147,335,992	120,467,402	26,868,589	-	367,453,133	168,556,483	198,896,650
2048	4.44%	561,005,083	172,090,971	34,449,725	-	137,641,246	112,480,439	25,160,807	-	388,914,112	178,400,969	210,513,143
2049	4.03%	650,002,210	239,161,268	31,759,634	65,000,000	142,401,634	118,967,525	23,434,108	-	410,840,942	188,459,148	222,381,794
2050	3.94%	593,294,229	160,041,251	29,112,403	-	130,928,847	109,215,733	21,713,114	-	433,252,978	198,739,898	234,513,080
2051	3.45%	683,139,417	226,975,466	26,508,187	65,000,000	135,467,279	115,482,062	19,985,217	-	456,163,951	209,249,519	246,914,432
2052	3.39%	623,939,185	144,408,389	23,964,862	-	120,443,526	102,183,193	18,260,333	-	479,530,796	219,968,255	259,562,541
2053	2.71%	714,462,993	211,129,848	21,509,681	65,000,000	124,620,168	108,044,533	16,575,635	-	503,333,144	230,886,763	272,446,381
2054	2.66%	647,562,646	120,025,851	19,178,967	-	100,846,884	85,885,166	14,961,717	-	527,536,795	241,989,355	285,547,439
2055	0.89%	738,444,799	186,337,055	16,985,302	65,000,000	104,351,753	90,938,254	13,413,499	-	552,107,744	253,260,433	298,847,311
2056	0.29%	627,432,031	50,361,193	14,907,228	-	35,453,965	23,545,805	11,908,160	-	577,070,838	264,711,394	312,359,445
2057	0.25%	652,098,406	49,648,642	12,965,032	-	36,683,609	26,209,283	10,474,326	-	602,449,764	276,353,103	326,096,661
2058	0.22%	650,284,297	22,026,226	11,170,118	-	10,856,108	1,716,837	9,139,271	-	628,258,070	288,191,775	340,066,295
2059	0.20%	675,261,338	20,746,993	9,514,012	-	11,232,981	3,351,462	7,881,519	-	654,514,345	300,235,938	354,278,407
2060	0.18%	698,480,380	17,234,839	8,005,675	-	9,229,164	2,520,248	6,708,916	-	681,245,541	312,497,955	368,747,586
2061	0.17%	724,677,973	16,194,356	6,644,780	-	9,549,576	3,918,315	5,631,260	-	708,483,617	324,992,485	383,491,132
2062	0.15%	749,756,236	13,505,136	5,441,899	-	8,063,237	3,402,875	4,660,362	-	736,251,101	337,729,863	398,521,238
2063	0.14%	777,323,197	12,736,203	4,392,523	-	8,343,680	4,540,745	3,802,935	-	764,586,994	350,727,979	413,859,015
2064	0.13%	804,335,351	10,809,773	3,498,434	-	7,311,340	4,247,838	3,063,502	-	793,525,578	364,002,559	429,523,019
2065	0.12%	833,430,767	10,318,243	2,752,009	-	7,566,233	5,135,588	2,430,646	-	823,112,524	377,574,552	445,537,972
TOTAL		22,806,172,041	8,110,895,507	1,938,907,452	1,240,000,000	4,931,988,056	3,580,606,723	1,293,557,836	57,823,497	14,695,276,534	6,740,952,538	7,954,323,995



Table IId

Bill 280 5.50% Investment Return Scenario - No Transfers												
			Defined Benefit Plan						Defined Contribution Plan			
Valuation Year	ADEC as a Percent of Total Payroll (Defined Benefit and Defined Contribution)	Total Contribution	Total Defined Benefit Plan Contribution	Defined Benefit Employee Contribution	Total Defined Benefit Employer Contribution	State Portion of ER Contribution	Political Subdivision Portion of ER Contribution	Defined Contribution Portion of ER Contribution to DB Plan	Total Defined Contribution Plan Contribution	Defined Contribution Employee Contribution	Defined Contribution Portion of ER Contribution to DC Plan	
												Cash Infusion
2023	19.86%	241,407,969	241,407,969	86,128,242	65,000,000	90,279,726	43,903,229	46,376,497	-	-	-	-
2024	16.55%	332,217,650	332,217,650	89,611,432	135,000,000	107,606,218	52,137,787	55,468,431	-	-	-	-
2025	15.94%	270,844,371	270,844,371	93,186,204	65,000,000	112,658,167	54,423,203	58,234,964	-	-	-	-
2026	15.66%	336,430,333	318,298,126	88,553,579	-	229,744,547	165,230,006	55,389,026	9,125,514	18,132,207	8,317,526	9,814,681
2027	14.89%	430,634,948	396,554,247	85,036,834	65,000,000	246,517,413	176,011,694	53,331,369	17,174,351	34,080,701	15,633,349	18,447,352
2028	14.37%	374,508,293	325,747,122	82,199,459	-	243,547,663	170,596,969	51,765,467	21,185,227	48,761,171	22,367,510	26,393,661
2029	13.64%	466,037,785	403,008,474	79,654,441	65,000,000	258,354,033	180,532,168	50,437,571	27,384,294	63,029,311	28,912,528	34,116,783
2030	13.19%	401,120,111	324,318,963	77,473,544	-	246,845,419	170,378,264	49,340,144	27,127,011	76,801,148	35,229,884	41,571,264
2031	12.52%	490,899,807	400,529,462	75,519,866	65,000,000	260,009,596	179,694,133	48,395,663	31,919,801	90,370,345	41,454,287	48,916,058
2032	12.09%	423,991,041	319,684,871	73,524,060	-	246,160,811	169,628,171	47,414,404	29,118,236	104,306,170	47,846,867	56,459,303
2033	11.44%	513,454,073	394,790,079	71,463,017	65,000,000	258,327,062	178,828,654	46,372,025	33,126,384	118,663,994	54,433,025	64,230,969
2034	11.05%	444,208,074	310,774,120	69,356,568	-	241,417,552	168,231,851	45,292,234	27,893,467	133,433,954	61,208,236	72,225,718
2035	10.45%	533,324,407	384,712,415	67,203,614	65,000,000	252,508,801	177,281,603	44,160,865	31,066,334	148,611,992	68,170,639	80,441,354
2036	10.10%	462,268,244	297,981,944	64,962,640	-	233,019,304	166,494,162	42,948,013	23,577,130	164,286,300	75,360,688	88,925,612
2037	9.54%	551,052,780	370,673,020	62,687,218	65,000,000	242,985,802	175,430,741	41,668,319	25,886,742	180,379,760	82,743,009	97,636,751
2038	9.22%	478,801,321	281,865,117	60,347,571	-	221,517,546	164,782,414	40,345,291	16,389,841	196,936,204	90,337,708	106,598,496
2039	8.70%	567,272,185	353,295,538	57,947,624	65,000,000	230,347,914	173,569,698	38,970,198	17,808,017	213,976,647	98,154,425	115,822,222
2040	8.45%	494,627,572	263,096,545	55,455,490	-	207,641,055	163,418,495	37,546,698	6,675,862	231,531,027	106,206,893	125,324,134
2041	7.98%	582,776,123	333,247,455	52,929,111	65,000,000	215,318,344	172,018,490	36,105,056	7,194,798	249,528,669	114,462,692	135,065,977
2042	7.78%	515,934,577	247,961,871	50,361,906	-	197,599,965	162,987,714	34,612,251	-	267,972,706	122,923,260	145,049,446
2043	7.36%	604,213,675	317,346,702	47,789,836	65,000,000	204,556,866	171,428,957	33,127,910	-	286,866,972	131,590,354	155,276,618
2044	7.16%	546,309,689	240,038,725	45,176,051	-	194,862,674	163,252,078	31,610,596	-	306,270,964	140,491,268	165,779,696
2045	6.73%	635,387,972	309,220,681	42,528,230	65,000,000	201,692,451	171,627,203	30,065,248	-	326,167,291	149,618,024	176,549,268
2046	6.58%	577,808,295	231,271,263	39,871,683	-	191,399,580	162,893,902	28,505,678	-	346,537,032	158,961,941	187,575,091
2047	6.14%	667,692,857	300,239,723	37,178,759	65,000,000	198,060,964	171,192,374	26,868,589	-	367,453,133	168,556,483	198,896,650
2048	6.01%	610,093,425	221,179,313	34,449,725	-	186,729,588	161,568,781	25,160,807	-	388,914,112	178,400,969	210,513,143
2049	5.54%	700,788,296	289,947,353	31,759,634	65,000,000	193,187,719	169,753,611	23,434,108	-	410,840,942	188,459,148	222,381,794
2050	5.41%	642,601,919	209,348,941	29,112,403	-	180,236,537	158,523,423	21,713,114	-	433,252,978	198,739,898	234,513,080
2051	4.88%	734,156,277	277,992,326	26,508,187	65,000,000	186,484,138	166,498,921	19,985,217	-	456,163,951	209,249,519	246,914,432
2052	4.78%	673,639,977	194,109,181	23,964,862	-	170,144,319	151,883,986	18,260,333	-	479,530,796	219,968,255	259,562,541
2053	4.05%	765,887,269	262,554,124	21,509,681	65,000,000	176,044,444	159,468,808	16,575,635	-	503,333,144	230,886,763	272,446,381
2054	3.97%	697,814,693	170,277,898	19,178,967	-	151,098,931	136,137,213	14,961,717	-	527,536,795	241,989,355	285,547,439
2055	2.15%	790,443,324	238,335,580	16,985,302	65,000,000	156,350,278	142,936,779	13,413,499	-	552,107,744	253,260,433	298,847,311
2056	0.42%	677,779,605	100,708,767	14,907,228	-	85,801,539	73,893,379	11,908,160	-	577,070,838	264,711,394	312,359,445
2057	0.36%	704,192,176	101,742,412	12,965,032	-	88,777,379	78,303,053	10,474,326	-	602,449,764	276,353,103	326,096,661
2058	0.31%	654,872,267	26,614,197	11,170,118	-	15,444,079	6,304,807	9,139,271	-	628,258,070	288,191,775	340,066,295
2059	0.27%	680,008,581	25,494,236	9,514,012	-	15,980,224	8,098,705	7,881,519	-	654,514,345	300,235,938	354,278,407
2060	0.24%	701,725,977	20,480,436	8,005,675	-	12,474,761	5,765,845	6,708,916	-	681,245,541	312,497,955	368,747,586
2061	0.21%	728,036,248	19,552,631	6,644,780	-	12,907,851	7,276,591	5,631,260	-	708,483,617	324,992,485	383,491,132
2062	0.19%	751,925,709	15,674,608	5,441,899	-	10,232,709	5,572,347	4,660,362	-	736,251,101	337,729,863	398,521,238
2063	0.17%	779,568,125	14,981,130	4,392,523	-	10,588,608	6,785,673	3,802,935	-	764,586,994	350,727,979	413,859,015
2064	0.15%	805,701,590	12,176,013	3,498,434	-	8,677,579	5,614,077	3,063,502	-	793,525,578	364,002,559	429,523,019
2065	0.13%	834,844,637	11,732,113	2,752,009	-	8,980,103	6,549,458	2,430,646	-	823,112,524	377,574,552	445,537,972
TOTAL		24,877,304,245	10,182,027,711	1,938,907,452	1,240,000,000	7,003,120,260	5,356,909,415	1,293,557,836	352,653,009	14,695,276,534	6,740,952,538	7,954,323,995



Table IIe

Bill 280 4.50% Investment Return Scenario - No Transfers												
			Defined Benefit Plan						Defined Contribution Plan			
Valuation Year	ADEC as a Percent of Total Payroll (Defined Benefit and Defined Contribution)	Total Contribution	Total Defined Benefit Plan Contribution	Defined Benefit Employee Contribution	Total Defined Benefit Employer Contribution	State Portion of ER Contribution	Political Subdivision Portion of ER Contribution	Defined Contribution Portion of ER DB Plan	Total Defined Contribution Plan Contribution	Defined Contribution Employee Contribution	Defined Contribution Portion of ER DC Plan	
												Cash Infusion
2023	27.43%	241,407,969	241,407,969	86,128,242	65,000,000	90,279,726	43,903,229	46,376,497	-	-	-	-
2024	22.10%	332,217,650	332,217,650	89,611,432	135,000,000	107,606,218	52,137,787	55,468,431	-	-	-	-
2025	21.37%	270,844,371	270,844,371	93,186,204	65,000,000	112,658,167	54,423,203	58,234,964	-	-	-	-
2026	20.76%	417,938,765	399,806,557	88,553,579	-	311,252,979	240,286,414	55,389,026	15,577,538	18,132,207	8,317,526	9,814,681
2027	19.75%	520,764,022	486,683,320	85,036,834	65,000,000	336,646,487	254,036,088	53,331,369	29,279,030	34,080,701	15,633,349	18,447,352
2028	18.99%	462,660,877	413,899,706	82,199,459	-	331,700,247	243,220,111	51,765,467	36,714,670	48,761,171	22,367,510	26,393,661
2029	18.07%	561,586,914	498,557,603	79,654,441	65,000,000	353,903,162	255,966,438	50,437,571	47,499,153	63,029,311	28,912,528	34,116,783
2030	17.39%	494,508,993	417,707,845	77,473,544	-	340,234,301	241,521,991	49,340,144	49,372,167	76,801,148	35,229,884	41,571,264
2031	16.52%	590,929,568	500,559,224	75,519,866	65,000,000	360,039,358	253,548,473	48,395,663	58,095,222	90,370,345	41,454,287	48,916,058
2032	15.88%	520,781,741	416,475,571	73,524,060	-	342,951,511	239,077,804	47,414,404	56,459,303	104,306,170	47,846,867	56,459,303
2033	15.04%	616,696,496	498,032,502	71,463,017	65,000,000	361,569,485	250,888,730	46,372,025	64,308,731	118,663,994	54,433,025	64,230,969
2034	14.43%	542,532,704	409,098,750	69,356,568	-	339,742,182	235,165,400	45,292,234	59,284,548	133,433,954	61,208,236	72,225,718
2035	13.61%	637,701,937	489,089,945	67,203,614	65,000,000	356,886,331	246,697,333	44,160,865	66,028,133	148,611,992	68,170,639	80,441,354
2036	13.05%	559,771,410	395,485,110	64,962,640	-	330,522,471	229,977,360	42,948,013	57,597,097	164,286,300	75,360,688	88,925,612
2037	12.27%	654,327,590	473,947,829	62,687,218	65,000,000	346,260,611	241,234,788	41,668,319	63,357,504	180,379,760	82,743,009	97,636,751
2038	11.75%	573,187,578	376,251,374	60,347,571	-	315,903,803	223,807,911	40,345,291	51,750,601	196,936,204	90,337,708	106,598,496
2039	11.02%	666,850,987	452,874,340	57,947,624	65,000,000	329,926,716	234,728,054	38,970,198	56,228,464	213,976,647	98,154,425	115,822,222
2040	10.55%	583,293,145	351,762,119	55,455,490	-	296,306,628	216,884,069	37,546,698	41,875,861	231,531,027	106,206,893	125,324,134
2041	9.87%	676,082,341	426,553,672	52,929,111	65,000,000	308,624,561	227,388,500	36,105,056	45,131,004	249,528,669	114,462,692	135,065,977
2042	9.48%	591,001,382	323,028,676	50,361,906	-	272,666,770	209,782,169	34,612,251	28,272,350	267,972,706	122,923,260	145,049,446
2043	8.86%	682,921,403	396,054,431	47,789,836	65,000,000	283,264,595	219,870,904	33,127,910	30,265,782	286,866,972	131,590,354	155,276,618
2044	8.54%	598,446,345	292,175,382	45,176,051	-	246,999,331	203,346,626	31,610,596	12,042,109	306,270,964	140,491,268	165,779,696
2045	7.99%	689,712,204	363,544,912	42,528,230	65,000,000	256,016,682	213,127,032	30,065,248	12,824,402	326,167,291	149,618,021	176,549,268
2046	7.74%	613,324,555	266,787,523	39,871,683	-	226,915,840	198,410,162	28,505,678	-	346,537,032	158,961,944	187,575,091
2047	7.23%	704,445,208	336,992,075	37,178,759	65,000,000	234,813,316	207,944,726	26,868,589	-	367,453,133	168,556,483	198,896,650
2048	7.02%	643,280,953	254,366,841	34,449,725	-	219,917,116	194,756,309	25,160,807	-	388,914,112	178,400,969	210,513,143
2049	6.49%	735,123,631	324,282,688	31,759,634	65,000,000	227,523,054	204,088,946	23,434,108	-	410,840,942	188,459,148	222,381,794
2050	6.30%	673,466,124	240,213,146	29,112,403	-	211,100,743	189,387,629	21,713,114	-	433,252,978	198,739,898	234,513,080
2051	5.70%	766,090,339	309,926,388	26,508,187	65,000,000	218,418,201	198,432,983	19,985,217	-	456,163,951	209,249,519	246,914,432
2052	5.55%	702,211,511	222,680,715	23,964,862	-	198,715,852	180,455,519	18,260,333	-	479,530,796	219,968,255	259,562,541
2053	4.75%	795,449,582	292,116,438	21,509,681	65,000,000	205,606,757	189,031,122	16,575,635	-	503,333,144	230,886,763	272,446,381
2054	4.63%	724,081,646	196,544,851	19,178,967	-	177,365,884	162,404,167	14,961,717	-	527,536,795	241,989,355	285,547,439
2055	2.73%	817,623,169	265,515,425	16,985,302	65,000,000	183,530,123	170,116,624	13,413,499	-	552,107,744	253,260,433	298,847,311
2056	0.61%	700,879,077	123,808,238	14,907,228	-	108,901,011	96,992,850	11,908,160	-	577,070,838	264,711,394	312,359,445
2057	0.52%	728,092,802	125,643,038	12,965,032	-	112,678,006	102,203,680	10,474,326	-	602,449,764	276,353,103	326,096,661
2058	0.45%	661,730,459	33,472,389	11,170,118	-	22,302,271	13,162,999	9,139,271	-	628,258,070	288,191,775	340,066,295
2059	0.38%	687,104,857	32,590,512	9,514,012	-	23,076,500	15,194,981	7,881,519	-	654,514,345	300,235,938	354,278,407
2060	0.32%	706,627,390	25,381,849	8,005,675	-	17,376,174	10,667,257	6,708,916	-	681,245,541	312,497,955	368,747,586
2061	0.28%	733,107,824	24,624,208	6,644,780	-	17,979,427	12,348,167	5,631,260	-	708,483,617	324,992,485	383,491,132
2062	0.24%	755,242,905	18,991,804	5,441,899	-	13,549,905	8,889,543	4,660,362	-	736,251,101	337,729,863	398,521,238
2063	0.21%	783,000,694	18,413,700	4,392,523	-	14,021,177	10,218,242	3,802,935	-	764,586,994	350,727,879	413,859,015
2064	0.18%	807,821,754	14,296,176	3,498,434	-	10,797,742	7,734,240	3,063,502	-	793,525,578	364,002,559	429,523,019
2065	0.16%	837,038,715	13,926,191	2,752,009	-	11,174,182	8,743,536	2,430,646	-	823,112,524	377,574,552	445,537,972
TOTAL		27,061,909,587	12,366,633,053	1,938,907,452	1,240,000,000	9,187,725,602	7,012,204,098	1,293,557,836	881,963,668	14,695,276,534	6,740,952,538	7,954,323,995



Bill 280 6.50% Investment Return Scenario - 50% DC Transfer												
		Defined Benefit Plan							Defined Contribution Plan			
Valuation Year	ADEC as a Percent of Total Payroll (Defined Benefit and Defined Contribution)	Total Contribution	Total Defined Benefit Plan Contribution	Defined Benefit Employee Contribution	Total Defined Benefit Employer Contribution	State Portion of ER Contribution	Political Subdivision Portion of ER Contribution	Defined Contribution Portion of ER Contribution to DB Plan	Total Defined Contribution Plan Contribution	Defined Contribution Employee Contribution	Defined Contribution Portion of ER Contribution to DC Plan	
												Cash Infusion
2023	14.52%	241,407,969	241,407,969	86,128,242	65,000,000	90,279,726	43,903,229	46,376,497	-	-	-	-
2024	11.70%	332,217,650	332,217,650	89,611,432	135,000,000	107,606,218	52,137,787	55,468,431	-	-	-	-
2025	11.16%	266,092,561	266,092,561	88,434,394	65,000,000	112,658,167	54,423,203	58,234,964	-	-	-	-
2026	11.15%	274,995,950	244,062,389	84,219,835	-	159,842,554	99,194,214	55,389,026	5,259,314	30,933,561	12,651,270	18,282,291
2027	10.58%	360,786,313	314,854,830	80,968,618	65,000,000	168,886,211	107,364,621	53,331,369	8,190,222	45,931,483	19,701,565	26,229,919
2028	10.24%	304,902,049	244,876,072	78,281,208	-	166,594,864	106,155,096	51,765,467	8,674,301	60,025,977	26,285,760	33,740,217
2029	9.69%	387,062,066	315,721,312	75,841,853	65,000,000	174,879,460	113,595,851	50,437,571	10,846,039	71,340,754	32,725,116	38,615,637
2030	9.42%	322,839,359	237,878,327	73,730,478	-	164,147,849	106,790,413	49,340,144	8,017,293	84,961,032	38,972,950	45,988,081
2031	8.92%	406,621,991	308,189,288	71,821,536	65,000,000	171,367,752	113,683,551	48,395,663	9,288,538	98,432,703	45,152,616	53,280,087
2032	8.68%	341,733,408	229,458,195	69,868,536	-	159,589,659	107,319,316	47,414,404	4,855,940	112,275,213	51,502,391	60,772,822
2033	8.22%	425,494,297	298,956,821	67,851,328	65,000,000	166,105,493	114,177,760	46,372,025	5,555,708	126,537,477	58,044,714	68,492,763
2034	8.02%	360,384,589	219,171,601	65,788,204	-	153,383,398	108,091,164	45,292,234	-	141,212,988	64,776,600	76,436,388
2035	7.61%	444,044,608	287,751,821	63,680,313	65,000,000	159,071,508	114,910,643	44,160,865	-	156,292,787	71,693,939	84,598,848
2036	7.42%	385,731,075	213,873,173	61,489,427	-	152,383,745	109,435,732	42,948,013	-	171,857,903	78,833,900	93,024,002
2037	7.02%	470,059,502	282,219,963	59,265,301	65,000,000	157,954,662	116,286,342	41,668,319	-	187,839,539	86,164,926	101,674,613
2038	6.85%	412,333,277	208,053,381	56,978,905	-	151,074,476	110,729,185	40,345,291	-	204,279,896	93,706,374	110,573,522
2039	6.47%	497,362,504	276,171,993	54,638,513	65,000,000	156,533,480	117,563,282	38,970,198	-	221,190,511	101,463,537	119,726,974
2040	6.31%	440,184,697	201,584,133	52,212,584	-	149,371,550	111,824,851	37,546,698	-	238,600,563	109,449,800	129,150,764
2041	5.95%	525,891,270	269,450,623	49,758,479	65,000,000	154,692,144	118,587,088	36,105,056	-	256,440,647	117,633,324	138,807,323
2042	5.82%	469,241,076	194,523,745	47,268,041	-	147,255,704	112,643,453	34,612,251	-	274,717,330	126,017,124	148,700,206
2043	5.46%	555,649,800	262,219,075	44,778,940	65,000,000	152,440,135	119,312,225	33,127,910	-	293,430,725	134,601,250	158,829,475
2044	5.34%	499,557,929	186,912,310	42,251,897	-	144,660,413	113,049,817	31,610,596	-	312,645,619	143,415,421	169,230,197
2045	4.97%	586,770,125	254,425,005	39,694,364	65,000,000	149,730,641	119,665,394	30,605,248	-	332,345,120	152,451,890	179,893,230
2046	4.87%	530,926,162	178,429,086	37,137,718	-	141,291,368	112,785,690	28,505,678	-	352,497,076	161,695,906	190,801,169
2047	4.50%	618,945,627	245,756,275	34,547,467	65,000,000	146,208,809	119,340,219	26,868,589	-	373,189,352	171,187,776	202,001,576
2048	4.41%	563,007,039	168,597,969	31,929,102	-	136,668,867	111,508,060	25,160,807	-	394,409,071	180,921,592	213,487,479
2049	4.00%	651,817,829	235,764,048	29,368,424	65,000,000	141,395,625	117,961,516	23,434,108	-	416,053,781	190,850,358	225,203,423
2050	3.93%	595,107,074	156,969,919	26,871,955	-	130,097,964	108,384,850	21,713,114	-	438,137,155	200,980,346	237,156,809
2051	3.43%	684,735,371	224,034,732	24,427,138	65,000,000	134,607,595	114,622,377	19,985,217	-	460,700,639	211,330,568	249,370,070
2052	3.37%	625,520,637	141,818,386	22,051,351	-	119,767,035	101,506,702	18,260,333	-	483,702,251	221,881,766	261,820,484
2053	2.69%	715,819,476	208,687,159	19,766,941	65,000,000	123,920,218	107,344,583	16,575,635	-	507,132,317	232,629,503	274,502,814
2054	2.65%	648,888,581	117,914,765	17,602,352	-	100,312,413	85,350,695	14,961,717	-	530,973,816	243,565,971	287,407,845
2055	0.88%	739,560,674	184,369,668	15,570,961	65,000,000	103,798,707	90,385,208	13,413,499	-	555,191,006	254,674,773	300,516,233
2056	0.28%	628,452,305	48,641,799	13,650,500	-	34,991,299	23,083,139	11,908,160	-	579,810,506	265,968,122	313,842,384
2057	0.24%	652,928,268	48,060,968	11,856,071	-	36,204,897	25,730,571	10,474,326	-	604,867,300	277,462,064	327,405,236
2058	0.22%	651,082,958	20,720,556	10,204,828	-	10,515,727	1,376,456	9,139,271	-	630,362,402	289,157,065	341,205,337
2059	0.19%	675,883,243	19,569,286	8,688,502	-	10,880,784	2,999,265	7,881,519	-	656,313,957	301,061,448	355,252,509
2060	0.18%	699,065,908	16,309,846	7,312,776	-	8,997,071	2,288,155	6,708,916	-	682,756,062	313,190,854	369,565,208
2061	0.16%	725,113,172	15,381,875	6,072,450	-	9,309,425	3,678,164	5,631,260	-	709,731,297	325,564,815	384,166,482
2062	0.15%	750,156,502	12,890,389	4,976,297	-	7,914,092	3,253,730	4,660,362	-	737,266,113	338,195,465	399,070,648
2063	0.14%	777,606,048	12,211,377	4,022,029	-	8,189,348	4,386,413	3,802,935	-	765,394,671	351,098,473	414,296,198
2064	0.13%	804,586,907	10,430,664	3,209,138	-	7,221,526	4,158,024	3,063,502	-	794,156,243	364,291,854	429,864,388
2065	0.12%	833,602,204	10,001,245	2,527,956	-	7,473,289	5,042,643	2,430,646	-	823,600,959	377,798,605	445,802,354
TOTAL		22,884,170,051	7,966,632,250	1,836,356,384	1,240,000,000	4,890,275,866	3,536,030,677	1,293,557,836	60,687,354	14,917,537,801	6,838,751,796	8,078,786,005



Table IIg

Bill 280 5.50% Investment Return Scenario - 50% DC Transfer												
			Defined Benefit Plan						Defined Contribution Plan			
Valuation Year	ADEC as a Percent of Total Payroll (Defined Benefit and Defined Contribution)	Total Contribution	Total Defined Benefit Plan Contribution	Defined Benefit Employee Contribution	Total Defined Benefit Employer Contribution	State Portion of ER Contribution	Political Subdivision Portion of ER Contribution	Defined Contribution Portion of ER Contribution to DB Plan	Total Defined Contribution Plan Contribution	Defined Contribution Employee Contribution	Defined Contribution Portion of ER Contribution to DC Plan	
												Cash Infusion
2023	19.86%	241,407,969	241,407,969	86,128,242	65,000,000	90,279,726	43,903,229	46,376,497	-	-	-	-
2024	16.22%	332,217,650	332,217,650	89,611,432	135,000,000	107,606,218	52,137,787	55,468,431	-	-	-	-
2025	15.65%	266,092,561	266,092,561	88,434,394	65,000,000	112,658,167	54,423,203	58,234,964	-	-	-	-
2026	15.38%	345,090,903	314,157,342	84,219,835	-	229,937,506	161,192,354	55,389,026	13,356,126	30,933,561	12,651,270	18,282,291
2027	14.61%	437,873,218	391,941,735	80,968,618	65,000,000	245,973,116	171,814,379	53,331,369	20,827,368	45,931,483	19,701,565	26,229,919
2028	14.10%	380,452,234	320,426,257	78,281,208	-	242,145,048	166,534,642	51,765,467	23,844,940	60,025,977	26,285,760	33,740,217
2029	13.38%	468,665,877	397,325,124	75,841,853	65,000,000	256,483,271	176,312,594	50,437,571	29,733,106	71,340,754	32,725,116	38,615,637
2030	12.93%	402,775,970	317,814,939	73,730,478	-	244,084,461	166,182,712	49,340,144	28,561,605	84,961,032	38,972,950	45,988,081
2031	12.27%	492,079,047	393,646,344	71,821,536	65,000,000	256,824,808	175,338,728	48,395,663	33,090,417	98,432,703	45,152,616	53,280,087
2032	11.85%	424,380,623	312,105,410	69,868,536	-	242,236,874	165,318,958	47,414,404	29,503,513	112,275,213	51,502,391	60,772,822
2033	11.22%	513,369,625	386,832,149	67,851,328	65,000,000	253,980,821	174,357,467	46,372,025	33,251,329	126,537,477	58,044,714	68,492,763
2034	10.83%	443,592,485	302,379,497	65,788,204	-	236,591,294	163,907,812	45,292,234	27,391,248	141,212,988	64,776,600	76,436,388
2035	10.23%	532,247,470	375,954,683	63,680,313	65,000,000	247,274,369	172,797,210	44,160,865	30,316,294	156,292,787	71,693,939	84,598,848
2036	9.90%	460,858,245	289,000,342	61,489,427	-	227,510,915	162,264,170	42,948,013	22,298,732	171,857,903	78,833,900	93,024,002
2037	9.35%	549,191,631	361,352,092	59,265,301	65,000,000	237,086,791	171,046,107	41,668,319	24,372,365	187,839,539	86,164,926	101,674,613
2038	9.04%	476,826,967	272,547,072	56,978,905	-	215,568,166	160,765,321	40,345,291	14,457,555	204,279,896	93,706,374	110,573,522
2039	8.54%	564,861,046	343,670,534	54,638,513	65,000,000	224,032,022	169,407,449	38,970,198	15,654,374	221,190,511	101,463,537	119,726,974
2040	8.30%	492,495,111	253,894,547	52,212,584	-	201,681,964	159,757,273	37,546,698	4,377,992	238,600,563	109,449,800	129,150,764
2041	7.85%	580,236,371	323,795,724	49,758,479	65,000,000	209,037,245	168,226,856	36,105,056	4,705,333	256,440,647	117,633,324	138,807,323
2042	7.66%	516,409,696	241,692,366	47,268,041	-	194,424,324	159,812,073	34,612,251	-	274,717,330	126,017,124	148,700,206
2043	7.24%	604,479,086	311,048,361	44,778,940	65,000,000	201,269,420	168,141,511	33,127,910	-	293,430,725	134,601,250	158,829,475
2044	7.05%	546,716,379	234,070,760	42,251,897	-	191,818,863	160,208,267	31,610,596	-	312,645,619	143,415,421	169,230,197
2045	6.63%	635,581,440	303,236,321	39,694,364	65,000,000	198,541,957	168,476,709	30,065,248	-	332,345,120	152,451,890	179,893,230
2046	6.48%	578,132,143	225,635,067	37,137,718	-	188,497,349	159,991,671	28,505,678	-	352,497,076	161,695,906	190,801,169
2047	6.06%	667,794,544	294,605,192	34,547,467	65,000,000	195,057,725	168,189,136	26,868,589	-	373,189,352	171,187,776	202,001,576
2048	5.92%	610,320,746	215,911,675	31,929,102	-	183,982,574	158,821,767	25,160,807	-	394,409,071	180,921,592	213,487,479
2049	5.47%	700,767,903	284,714,122	29,368,424	65,000,000	190,345,698	166,911,590	23,434,108	-	416,053,781	190,850,358	225,203,423
2050	5.34%	642,709,862	204,572,707	26,871,955	-	177,700,752	155,987,638	21,713,114	-	438,137,155	200,980,346	237,156,809
2051	4.82%	733,988,231	273,287,592	24,427,138	65,000,000	183,860,454	163,875,237	19,985,217	-	460,700,639	211,330,568	249,370,070
2052	4.72%	673,616,662	189,914,412	22,051,351	-	167,863,061	149,602,728	18,260,333	-	483,702,251	221,881,766	261,820,484
2053	4.00%	765,583,336	258,451,019	19,766,941	65,000,000	173,684,078	157,108,443	16,575,635	-	507,132,317	232,629,503	274,502,814
2054	3.92%	697,662,233	166,688,418	17,602,352	-	149,086,066	134,124,348	14,961,717	-	530,973,816	243,565,971	287,407,845
2055	2.11%	790,029,425	234,838,419	15,570,961	65,000,000	154,267,457	140,853,958	13,413,499	-	555,191,006	254,674,773	300,516,233
2056	0.40%	677,537,442	97,726,936	13,650,500	-	84,076,437	72,168,276	11,908,160	-	579,810,506	265,968,122	313,842,384
2057	0.34%	703,715,816	98,848,516	11,856,071	-	86,992,445	76,518,119	10,474,326	-	604,867,300	277,462,064	327,405,236
2058	0.30%	655,260,269	24,897,868	10,204,828	-	14,693,039	5,553,768	9,139,271	-	630,362,402	289,157,065	341,205,337
2059	0.26%	680,205,571	23,891,614	8,688,502	-	15,203,112	7,321,593	7,881,519	-	656,313,957	301,061,448	355,252,509
2060	0.23%	702,017,162	19,261,100	7,312,776	-	11,948,324	5,239,408	6,708,916	-	682,756,062	313,190,854	369,565,208
2061	0.20%	728,166,885	18,435,588	6,072,450	-	12,363,138	6,731,878	5,631,260	-	709,731,297	325,564,815	384,166,482
2062	0.18%	752,128,969	14,862,856	4,976,297	-	9,886,559	5,226,197	4,660,362	-	737,266,113	338,195,465	399,070,648
2063	0.16%	779,647,118	14,252,447	4,022,029	-	10,230,418	5,627,483	3,802,935	-	765,394,671	351,098,473	414,296,198
2064	0.15%	805,831,302	11,675,059	3,209,138	-	8,465,921	5,402,419	3,063,502	-	794,156,243	364,291,854	429,864,388
2065	0.13%	834,889,982	11,289,023	2,527,956	-	8,761,067	6,330,421	2,430,646	-	823,600,959	377,798,605	445,802,354
TOTAL		24,887,907,205	9,970,369,404	1,836,356,384	1,240,000,000	6,894,013,020	5,244,712,888	1,293,557,836	355,742,297	14,917,537,801	6,838,751,796	8,078,786,005



Table IIh

Bill 280 4.50% Investment Return Scenario - 50% DC Transfer													
Defined Benefit Plan													
Valuation Year	ADEC as a Percent of Total Payroll (Defined Benefit and Defined Contribution)	Total Contribution	Total Defined Benefit Plan			Total Defined Benefit Employer Contribution			Political Subdivision Portion of ER Contribution	Defined Contribution Portion of ER Contribution to DB Plan	Defined Contribution Plan		
			Total Defined Contribution	Defined Benefit Employee Contribution	Cash Infusion	Total Defined Benefit Employer Contribution	State Portion of ER Contribution	Political Subdivision Portion of ER Contribution	Total Defined Contribution Plan	Defined Contribution Employee Contribution	Defined Contribution Portion of ER Contribution to DC Plan		
2023	27.43%	241,407,969	241,407,969	86,128,242	65,000,000	90,279,726	43,903,229	46,376,497	-	-	-	-	
2024	21.60%	332,217,650	332,217,650	89,611,432	135,000,000	107,606,218	52,137,787	55,468,431	-	-	-	-	
2025	20.89%	266,092,561	266,092,561	88,434,394	65,000,000	112,658,167	54,423,203	58,234,964	-	-	-	-	
2026	20.30%	427,022,001	396,088,440	84,219,835	-	311,868,605	233,653,074	55,389,026	22,826,505	30,933,561	12,651,270	18,282,291	
2027	19.30%	527,919,165	481,987,682	80,968,618	65,000,000	336,019,063	247,140,443	53,331,369	35,547,252	45,931,483	19,701,565	26,229,919	
2028	18.55%	468,083,875	408,057,897	78,281,208	-	329,776,689	236,554,823	51,765,467	41,456,399	60,025,977	26,285,760	33,740,217	
2029	17.64%	563,322,258	491,981,504	75,841,853	65,000,000	351,139,652	249,043,147	50,437,571	51,658,934	71,340,754	32,725,116	38,615,637	
2030	16.97%	494,872,710	409,911,678	73,730,478	-	336,181,200	234,617,303	49,340,144	52,223,753	84,961,032	38,972,950	45,988,081	
2031	16.11%	590,535,121	492,102,418	71,821,536	65,000,000	355,280,881	246,380,713	48,395,663	60,504,506	98,432,703	45,152,616	53,280,087	
2032	15.48%	519,240,362	406,965,149	69,868,536	-	337,096,613	231,925,956	47,414,404	57,756,253	112,275,213	51,502,391	60,772,822	
2033	14.65%	614,404,813	487,867,336	67,851,328	65,000,000	355,016,008	243,468,061	46,372,025	65,175,922	126,537,477	58,044,714	68,492,763	
2034	14.05%	539,305,650	398,092,663	65,788,204	-	332,304,459	227,880,443	45,292,234	59,131,782	141,212,988	64,776,600	76,436,388	
2035	13.25%	633,722,509	477,429,722	63,680,313	65,000,000	348,749,409	239,142,219	44,160,865	65,446,324	156,292,787	71,693,939	84,598,848	
2036	12.70%	555,198,277	383,340,374	61,489,427	-	321,850,947	222,705,625	42,948,013	56,197,309	171,857,903	78,833,900	93,024,002	
2037	11.94%	648,893,651	461,054,112	59,265,301	65,000,000	336,788,811	233,697,209	41,668,319	61,423,283	187,839,539	86,164,926	101,674,613	
2038	11.44%	567,584,260	363,304,364	56,978,905	-	306,325,459	216,717,389	40,345,291	49,262,780	204,279,896	93,706,374	110,573,522	
2039	10.73%	660,521,372	439,330,861	54,638,513	65,000,000	319,692,348	227,381,319	38,970,198	53,340,831	221,190,511	101,463,537	119,726,974	
2040	10.28%	577,150,354	338,549,791	52,212,584	-	286,337,207	210,170,365	37,546,698	38,620,144	238,600,563	109,449,800	129,150,764	
2041	9.62%	669,247,596	412,806,949	49,758,479	65,000,000	298,048,470	220,435,655	36,105,056	41,507,759	256,440,647	117,633,324	138,807,323	
2042	9.26%	584,735,194	310,017,863	47,268,041	-	262,749,822	203,654,244	34,612,251	24,483,327	274,717,330	126,017,124	148,700,206	
2043	8.66%	676,208,195	382,777,470	44,778,940	65,000,000	272,998,530	213,527,233	33,127,910	26,343,388	293,430,725	134,601,250	158,829,475	
2044	8.37%	592,712,501	280,066,882	42,251,897	-	237,814,984	198,009,221	31,610,596	8,195,167	312,645,619	143,415,421	169,230,197	
2045	7.84%	683,418,824	351,073,704	39,694,364	65,000,000	246,379,340	207,602,556	30,065,248	8,711,537	332,345,120	152,451,890	179,893,230	
2046	7.60%	612,209,565	259,712,489	37,137,718	-	222,574,771	194,069,093	28,505,678	-	352,497,076	161,695,906	190,801,169	
2047	7.10%	703,057,980	329,868,629	34,547,467	65,000,000	230,321,162	203,452,573	26,868,589	-	373,189,352	171,187,776	202,001,576	
2048	6.89%	642,187,488	247,778,417	31,929,102	-	215,849,315	190,688,508	25,160,807	-	394,409,071	180,921,592	213,487,479	
2049	6.37%	733,736,771	317,682,990	29,368,424	65,000,000	223,314,566	199,880,458	23,434,108	-	416,053,781	190,850,358	225,203,423	
2050	6.20%	672,418,113	234,280,958	26,871,955	-	207,409,003	185,695,889	21,713,114	-	438,137,155	200,980,346	237,156,809	
2051	5.61%	764,726,269	304,025,631	24,427,138	65,000,000	214,598,493	194,613,275	19,985,217	-	460,700,639	211,330,568	249,370,070	
2052	5.46%	701,242,735	217,540,485	22,051,351	-	195,489,134	177,228,801	18,260,333	-	483,702,251	221,881,766	261,820,484	
2053	4.68%	794,167,403	287,035,086	19,766,941	65,000,000	202,268,145	185,692,510	16,575,635	-	507,132,317	232,629,503	274,502,814	
2054	4.56%	723,232,669	192,258,853	17,602,352	-	174,656,501	159,694,783	14,961,717	-	530,973,816	243,565,971	287,407,845	
2055	2.67%	816,488,544	261,297,538	15,570,961	65,000,000	180,726,577	167,313,077	13,413,499	-	555,191,006	254,674,773	300,516,233	
2056	0.57%	700,295,644	120,485,138	13,650,500	-	106,834,638	94,926,478	11,908,160	-	579,810,506	265,968,122	313,842,384	
2057	0.49%	727,263,337	122,396,037	11,856,071	-	110,539,966	100,065,640	10,474,326	-	604,867,300	277,462,064	327,405,236	
2058	0.42%	661,540,757	31,178,356	10,204,828	-	20,973,527	11,834,256	9,139,271	-	630,362,402	289,157,065	341,205,337	
2059	0.36%	686,704,088	30,390,131	8,688,502	-	21,701,629	13,820,110	7,881,519	-	656,313,957	301,061,448	355,252,509	
2060	0.31%	706,502,232	23,746,171	7,312,776	-	16,433,395	9,724,479	6,708,916	-	682,756,062	313,190,854	369,565,208	
2061	0.26%	732,807,665	23,076,368	6,072,450	-	17,003,918	11,372,658	5,631,260	-	709,731,297	325,564,815	384,166,482	
2062	0.23%	755,166,267	17,900,154	4,976,297	-	12,923,857	8,263,495	4,660,362	-	737,266,113	338,195,465	399,070,648	
2063	0.20%	782,790,055	17,395,383	4,022,029	-	13,373,355	9,570,420	3,802,935	-	765,394,671	351,098,473	414,296,198	
2064	0.17%	807,777,713	13,621,470	3,209,138	-	10,412,333	7,348,831	3,063,502	-	794,156,243	364,291,854	429,864,388	
2065	0.16%	836,904,251	13,303,292	2,527,956	-	10,775,335	8,344,690	2,430,646	-	823,600,959	377,798,605	445,802,354	
TOTAL		26,995,036,413	12,077,498,613	1,836,356,384	1,240,000,000	9,001,142,229	6,827,771,240	1,293,557,836	879,813,153	14,917,537,801	6,838,751,796	8,078,786,005	



Bill 280 6.50% Investment Return Scenario - 100% DC Transfer													
Defined Benefit Plan													
Valuation Year	ADEC as a Percent of Total Payroll (Defined Benefit and Defined Contribution)	Total Contribution	Total Defined Benefit Plan			Total Defined Benefit Employer Contribution			Political Subdivision Portion of ER Contribution	Defined Contribution Portion of ER Contribution to DB Plan	Defined Contribution Plan		
			Total Defined Contribution	Defined Benefit Employee Contribution	Cash Infusion	Total Defined Benefit Employer Contribution	State Portion of ER Contribution	Total Defined Contribution Plan			Defined Contribution Employee Contribution	Defined Contribution Portion of ER Contribution to DC Plan	
2023	14.52%	241,407,969	241,407,969	86,128,242	65,000,000	90,279,726	43,903,229	46,376,497	-	-	-	-	
2024	11.51%	332,217,650	332,217,650	89,611,432	135,000,000	107,606,218	52,137,787	55,468,431	-	-	-	-	
2025	11.02%	261,340,751	261,340,751	83,682,584	65,000,000	112,658,167	54,423,203	58,234,964	-	-	-	-	
2026	11.02%	282,932,653	239,197,739	79,886,092	-	159,311,647	97,201,408	55,389,026	6,721,212	43,734,914	16,985,013	26,749,901	
2027	10.45%	367,713,092	309,930,826	76,900,403	65,000,000	168,030,423	105,293,013	53,331,369	9,406,041	57,782,265	23,769,780	34,012,486	
2028	10.12%	311,070,921	239,780,137	74,362,957	-	165,417,180	104,245,321	51,765,467	9,406,392	71,290,784	30,204,011	41,086,772	
2029	9.58%	390,162,264	310,510,068	72,029,264	65,000,000	173,480,803	111,612,151	50,437,571	11,431,082	79,652,196	36,537,705	43,114,492	
2030	9.31%	325,416,688	232,295,773	69,987,412	-	162,308,360	104,913,197	49,340,144	8,055,020	93,120,915	42,716,016	50,404,899	
2031	8.82%	408,960,635	302,465,574	68,123,207	65,000,000	169,342,367	111,734,811	48,395,663	9,211,893	106,495,062	48,850,946	57,644,116	
2032	8.59%	343,791,350	223,547,093	66,213,011	-	157,334,082	105,507,045	47,414,404	4,412,633	120,244,257	55,157,916	65,086,341	
2033	8.13%	427,252,505	292,841,545	64,239,638	65,000,000	163,601,907	112,297,369	46,372,025	4,932,512	134,410,960	61,656,404	72,754,556	
2034	7.94%	362,916,905	213,924,884	62,219,840	-	151,705,045	106,412,811	45,292,234	-	148,992,021	68,344,964	80,647,057	
2035	7.52%	446,461,509	282,487,927	60,157,013	65,000,000	157,330,914	113,170,049	44,160,865	-	163,973,582	75,217,240	88,756,343	
2036	7.35%	388,228,408	208,798,902	58,016,215	-	150,782,687	107,834,674	42,948,013	-	179,429,506	82,307,113	97,122,393	
2037	6.95%	472,437,773	277,138,455	55,843,384	65,000,000	156,295,071	114,626,752	41,668,319	-	195,299,318	89,586,843	105,712,475	
2038	6.78%	414,789,771	203,166,183	53,610,239	-	149,555,944	109,210,653	40,345,291	-	211,623,587	97,075,040	114,548,547	
2039	6.40%	499,693,853	271,289,477	51,329,401	65,000,000	154,960,077	115,989,878	38,970,198	-	228,404,375	104,772,649	123,631,726	
2040	6.26%	442,588,324	196,918,224	48,969,677	-	147,948,547	110,401,848	37,546,698	-	245,670,100	112,692,706	132,977,393	
2041	5.90%	528,158,925	264,806,300	46,587,846	65,000,000	153,218,454	117,113,397	36,105,056	-	263,352,625	120,803,957	142,548,669	
2042	5.77%	471,575,763	190,113,808	44,174,177	-	145,939,631	111,327,380	34,612,251	-	281,461,955	129,110,988	152,350,966	
2043	5.41%	557,840,250	257,845,771	41,768,044	65,000,000	151,077,727	117,949,817	33,127,910	-	299,994,478	137,612,146	162,382,332	
2044	5.29%	501,805,078	182,784,804	39,327,744	-	143,457,060	111,846,464	31,610,596	-	319,020,274	146,339,575	172,680,699	
2045	4.94%	588,868,558	250,345,611	36,860,498	65,000,000	148,485,113	118,419,865	30,065,248	-	338,522,948	155,285,576	183,237,192	
2046	4.84%	533,063,246	174,606,127	34,403,753	-	140,202,374	111,696,695	28,505,678	-	358,457,120	164,429,871	194,027,248	
2047	4.46%	620,923,657	241,998,087	31,916,174	65,000,000	145,081,913	118,213,324	26,868,589	-	378,925,570	173,819,069	205,106,501	
2048	4.38%	565,009,294	165,105,264	29,408,478	-	135,696,786	110,535,979	25,160,807	-	399,904,030	183,442,216	216,461,814	
2049	3.98%	653,633,757	232,367,137	26,977,213	65,000,000	140,389,924	116,955,815	23,434,108	-	421,266,620	193,241,569	228,025,051	
2050	3.90%	596,920,239	153,898,907	24,631,507	-	129,267,400	107,554,286	21,713,114	-	443,021,332	203,220,795	239,800,538	
2051	3.42%	686,331,655	221,094,329	22,346,088	65,000,000	133,748,241	113,763,023	19,985,217	-	465,237,326	213,411,618	251,825,709	
2052	3.36%	627,102,431	139,228,726	20,137,840	-	119,090,886	100,830,553	18,260,333	-	487,873,705	223,795,278	264,078,428	
2053	2.67%	717,176,313	206,244,823	18,024,201	65,000,000	123,220,622	106,644,987	16,575,635	-	510,931,490	234,372,243	276,559,247	
2054	2.63%	650,214,882	115,804,046	16,025,737	-	99,778,309	84,816,591	14,961,717	-	534,410,837	245,142,586	289,268,251	
2055	0.86%	740,676,930	182,402,661	14,156,621	65,000,000	103,246,041	89,832,541	13,413,499	-	558,274,268	256,089,114	302,185,154	
2056	0.27%	629,472,972	46,922,798	12,393,771	-	34,529,027	22,620,867	11,908,160	-	582,550,173	267,224,850	315,325,323	
2057	0.23%	653,758,537	46,473,701	10,747,110	-	35,726,591	25,252,265	10,474,326	-	607,284,836	278,571,026	328,713,810	
2058	0.21%	651,881,618	19,414,886	9,239,539	-	10,175,347	1,036,075	9,139,271	-	632,466,733	290,122,355	342,344,378	
2059	0.19%	676,505,147	18,391,579	7,862,992	-	10,528,587	2,647,068	7,881,519	-	658,113,569	301,886,958	356,226,610	
2060	0.17%	699,651,436	15,384,854	6,619,876	-	8,764,977	2,056,061	6,708,916	-	684,266,583	313,883,753	370,382,829	
2061	0.16%	725,548,371	14,569,393	5,500,119	-	9,069,274	3,438,013	5,631,260	-	710,978,977	326,137,146	384,841,832	
2062	0.15%	750,556,767	12,275,643	4,510,695	-	7,764,948	3,104,586	4,660,362	-	738,281,124	338,661,066	399,620,058	
2063	0.14%	777,888,899	11,686,551	3,651,534	-	8,035,016	4,232,082	3,802,935	-	766,202,348	351,468,967	414,733,381	
2064	0.13%	804,838,462	10,051,554	2,919,842	-	7,131,712	4,068,211	3,063,502	-	794,786,908	364,581,150	430,205,757	
2065	0.12%	833,773,642	9,684,247	2,303,904	-	7,380,344	4,949,698	2,430,646	-	824,089,394	378,022,658	446,066,736	
TOTAL		22,962,559,850	7,822,760,783	1,733,805,316	1,240,000,000	4,848,955,466	3,491,820,845	1,293,557,836	63,576,786	15,139,799,067	6,936,551,054	8,203,248,014	



Bill 280 5.50% Investment Return Scenario - 100% DC Transfer												
		Defined Benefit Plan							Defined Contribution Plan			
Valuation Year	ADEC as a Percent of Total Payroll (Defined Benefit and Defined Contribution)	Total Contribution	Total Defined Benefit Plan Contribution	Defined Benefit Employee Contribution	Cash Infusion	Total Defined Benefit Employer Contribution	State Portion of ER Contribution	Political Subdivision Portion of ER Contribution	Defined Contribution Portion of ER Contribution to DB Plan	Total Defined Contribution Plan Contribution	Defined Contribution Employee Contribution	Defined Contribution Portion of ER Contribution to DC Plan
2023	19.86%	241,407,969	241,407,969	86,128,242	65,000,000	90,279,726	43,903,229	46,376,497	-	-	-	-
2024	15.90%	332,217,650	332,217,650	89,611,432	135,000,000	107,606,218	52,137,787	55,468,431	-	-	-	-
2025	15.35%	261,340,751	261,340,751	83,682,584	65,000,000	112,658,167	54,423,203	58,234,964	-	-	-	-
2026	15.10%	353,392,391	309,657,476	79,886,092	-	229,771,385	157,154,702	55,389,026	17,227,656	43,734,914	16,985,013	26,749,901
2027	14.34%	444,740,450	386,958,185	76,900,403	65,000,000	245,057,781	167,617,065	53,331,369	24,109,348	57,782,265	23,769,780	34,012,486
2028	13.84%	386,161,073	314,870,289	74,362,957	-	240,507,332	162,507,524	51,765,467	26,234,341	71,290,784	30,204,011	41,086,772
2029	13.13%	471,036,427	391,384,231	72,029,264	65,000,000	254,354,967	172,129,593	50,437,571	31,787,803	79,652,196	36,537,705	43,114,492
2030	12.69%	404,220,193	311,099,278	69,987,412	-	241,111,866	162,053,580	49,340,144	29,718,143	93,120,915	42,716,016	50,404,899
2031	12.03%	493,052,506	386,557,444	68,123,207	65,000,000	253,434,237	171,052,274	48,395,663	33,986,301	106,495,062	48,850,946	57,644,116
2032	11.61%	424,688,910	304,444,653	66,213,011	-	238,231,642	161,110,761	47,414,404	29,706,478	120,244,257	55,157,916	65,086,341
2033	10.98%	513,220,095	378,809,135	64,239,638	65,000,000	249,569,497	169,991,095	46,372,025	33,206,377	134,410,960	61,656,404	72,754,556
2034	10.61%	442,870,946	293,878,925	62,219,840	-	231,659,085	159,712,315	45,292,234	26,654,536	148,992,021	68,344,964	80,647,057
2035	10.04%	531,072,310	367,098,728	60,157,013	65,000,000	241,941,715	168,446,127	44,160,865	29,334,723	163,973,582	75,217,240	88,756,343
2036	9.71%	459,406,475	279,976,969	58,016,215	-	221,960,754	158,200,800	42,948,013	20,811,941	179,429,506	82,307,113	97,122,393
2037	9.16%	547,425,862	352,126,544	55,843,384	65,000,000	231,283,160	166,834,186	41,668,319	22,780,654	195,299,318	89,586,843	105,712,475
2038	8.88%	475,145,069	263,521,482	53,610,239	-	209,911,243	156,946,197	40,345,291	12,619,755	211,623,587	97,075,040	114,548,547
2039	8.39%	562,774,742	334,370,366	51,329,401	65,000,000	218,040,966	165,450,323	38,970,198	13,620,444	228,404,375	104,772,649	123,631,726
2040	8.16%	490,571,646	244,901,546	48,969,677	-	195,931,869	156,292,306	37,546,698	2,092,865	245,670,100	112,692,706	132,977,393
2041	7.73%	577,927,497	314,574,772	46,587,846	65,000,000	202,987,026	164,638,467	36,105,056	2,243,502	263,352,625	120,803,957	142,548,669
2042	7.54%	517,091,746	235,629,791	44,174,177	-	191,455,614	156,843,363	34,612,251	-	281,461,955	129,110,988	152,350,966
2043	7.13%	604,958,714	304,964,236	41,768,044	65,000,000	198,196,191	165,068,282	33,127,910	-	299,994,478	137,612,146	162,382,332
2044	6.95%	547,344,736	228,324,462	39,327,744	-	188,996,718	157,386,122	31,610,596	-	319,020,274	146,339,575	172,680,699
2045	6.54%	636,004,343	297,481,396	36,860,498	65,000,000	195,620,898	165,555,650	30,065,248	-	338,522,948	155,285,576	183,237,192
2046	6.39%	578,693,444	220,236,324	34,403,753	-	185,832,572	157,326,893	28,505,678	-	358,457,120	164,429,871	194,027,248
2047	5.97%	668,141,948	289,216,378	31,916,174	65,000,000	192,300,204	165,431,614	26,868,589	-	378,925,570	173,819,069	205,106,501
2048	5.84%	610,802,439	210,898,409	29,408,478	-	181,489,931	156,329,124	25,160,807	-	399,904,030	183,442,216	216,461,814
2049	5.40%	701,010,680	279,744,059	26,977,213	65,000,000	187,766,846	164,332,738	23,434,108	-	421,266,620	193,241,569	228,025,051
2050	5.28%	643,090,312	200,068,979	24,631,507	-	175,437,472	153,724,358	21,713,114	-	443,021,332	203,220,795	239,800,538
2051	4.76%	734,102,137	268,864,810	22,346,088	65,000,000	181,518,722	161,533,505	19,985,217	-	465,237,326	213,411,618	251,825,709
2052	4.67%	673,885,282	186,011,577	20,137,840	-	165,873,737	147,613,404	18,260,333	-	487,873,705	223,795,278	264,078,428
2053	3.95%	765,581,461	254,649,971	18,024,201	65,000,000	171,625,770	155,050,135	16,575,635	-	510,931,490	234,372,243	276,559,247
2054	3.88%	697,822,536	163,411,699	16,025,737	-	147,385,962	132,424,245	14,961,717	-	534,410,837	245,142,586	289,268,251
2055	2.07%	789,939,157	231,664,888	14,156,621	65,000,000	152,508,268	139,094,768	13,413,499	-	558,274,268	256,089,114	302,185,154
2056	0.38%	677,630,400	95,080,227	12,393,771	-	82,686,455	70,778,295	11,908,160	-	582,550,173	267,224,850	315,325,323
2057	0.32%	703,586,201	96,301,365	10,747,110	-	85,554,256	75,079,930	10,474,326	-	607,284,836	278,571,026	328,713,810
2058	0.28%	655,648,271	23,181,538	9,239,539	-	13,941,999	4,802,728	9,139,271	-	632,466,733	290,122,355	342,344,378
2059	0.25%	680,402,561	22,288,992	7,862,992	-	14,426,000	6,544,481	7,881,519	-	658,113,569	301,886,958	356,226,610
2060	0.22%	702,308,347	18,041,764	6,619,876	-	11,421,888	4,712,972	6,708,916	-	684,266,583	313,883,753	370,382,829
2061	0.20%	728,297,522	17,318,544	5,500,119	-	11,818,425	6,187,164	5,631,260	-	710,978,977	326,137,146	384,841,832
2062	0.18%	752,332,228	14,051,104	4,510,695	-	9,540,409	4,880,047	4,660,362	-	738,281,124	338,661,066	399,620,058
2063	0.16%	779,726,112	13,523,763	3,651,534	-	9,872,229	6,069,294	3,802,935	-	766,202,348	351,468,967	414,733,381
2064	0.15%	805,961,013	11,174,105	2,919,842	-	8,254,263	5,190,761	3,063,502	-	794,786,908	364,581,150	430,205,757
2065	0.13%	834,935,328	10,845,934	2,303,904	-	8,542,030	6,111,384	2,430,646	-	824,089,394	378,022,658	446,066,736
TOTAL		24,901,969,878	9,762,170,811	1,733,805,316	1,240,000,000	6,788,365,495	5,138,672,791	1,293,557,836	356,134,868	15,139,799,067	6,936,551,054	8,203,248,014



Bill 280 4.50% Investment Return Scenario - 100% DC Transfer												
Defined Benefit Plan												
Valuation Year	ADEC as a Percent of Total Payroll (Defined Benefit and Defined Contribution)	Total Contribution	Total Defined Benefit Employer Contribution			Total Defined Benefit Employer Contribution		Political Subdivision Portion of ER Contribution	Defined Contribution Portion of ER DB Plan	Defined Contribution Plan		
			Total Defined Contribution	Defined Benefit Contribution	Cash Infusion	Total Defined Contribution	State Portion of ER Contribution			Total Defined Contribution	Defined Contribution Employee Contribution	Defined Contribution Portion of ER DC Plan
2023	27.43%	241,407,969	241,407,969	86,128,242	65,000,000	90,279,726	43,903,229	46,376,497	-	-	-	-
2024	21.09%	332,217,650	332,217,650	89,611,432	135,000,000	107,606,218	52,137,787	55,468,431	-	-	-	-
2025	20.41%	261,340,751	261,340,751	83,682,584	65,000,000	112,658,167	54,423,203	58,234,964	-	-	-	-
2026	19.84%	435,510,896	391,775,981	79,886,092	-	311,889,889	227,019,733	55,389,026	29,481,130	43,734,914	16,985,013	26,749,901
2027	18.86%	534,516,381	476,734,116	76,900,403	65,000,000	334,833,713	240,244,798	53,331,369	41,257,546	57,782,265	23,769,780	34,012,486
2028	18.12%	473,094,696	401,803,912	74,362,957	-	327,440,955	229,937,985	51,765,467	45,737,503	71,290,784	30,204,011	41,086,772
2029	17.21%	564,669,935	485,017,738	72,029,264	65,000,000	347,988,474	242,170,182	50,437,571	55,380,721	79,652,196	36,537,705	43,114,492
2030	16.56%	494,868,664	401,747,749	69,987,412	-	331,760,336	227,804,715	49,340,144	54,615,478	93,120,915	42,716,016	50,404,899
2031	15.71%	589,851,704	483,356,642	68,123,207	65,000,000	350,233,435	239,308,562	48,395,663	62,529,211	106,495,062	48,850,946	57,644,116
2032	15.09%	517,488,697	397,244,440	66,213,011	-	331,031,429	224,913,244	47,414,404	58,703,782	120,244,257	55,157,916	65,086,341
2033	14.27%	611,834,410	477,423,450	64,239,638	65,000,000	348,183,812	236,191,758	46,372,025	65,620,029	134,410,960	61,656,404	72,754,556
2034	13.69%	535,967,368	386,975,348	62,219,840	-	324,755,508	220,784,241	45,292,234	58,679,033	148,992,021	68,344,964	80,647,057
2035	12.90%	629,653,692	465,680,110	60,157,013	65,000,000	340,523,097	231,782,860	44,160,865	64,579,373	163,973,582	75,217,240	88,756,343
2036	12.37%	550,620,397	371,190,891	58,016,215	-	313,174,676	215,668,806	42,948,013	54,557,858	179,429,506	82,307,113	97,122,393
2037	11.62%	643,597,435	448,298,117	55,843,384	65,000,000	327,454,732	226,403,134	41,668,319	59,383,279	195,299,318	89,586,843	105,712,475
2038	11.14%	562,074,964	350,451,377	53,610,239	-	296,841,137	209,899,827	40,345,291	46,596,019	211,623,587	97,075,040	114,548,547
2039	10.45%	654,461,929	426,057,554	51,329,401	65,000,000	309,728,153	220,317,408	38,970,198	50,440,547	228,404,375	104,772,649	123,631,726
2040	10.03%	571,205,475	325,535,375	48,969,677	-	276,565,698	203,762,282	37,546,698	35,256,718	245,670,100	112,692,706	132,977,393
2041	9.39%	662,639,225	399,286,600	46,587,846	65,000,000	287,698,753	213,799,316	36,105,056	37,794,381	263,352,625	120,803,957	142,548,669
2042	9.04%	578,959,369	297,497,414	44,174,177	-	253,323,237	197,868,784	34,612,251	20,842,202	281,461,955	129,110,988	152,350,966
2043	8.47%	669,643,048	369,648,570	41,768,044	65,000,000	262,880,526	207,538,084	33,127,910	22,214,532	299,994,478	137,612,146	162,382,332
2044	8.20%	587,391,886	268,371,613	39,327,744	-	229,043,869	193,043,086	31,610,596	4,390,187	319,020,274	146,339,575	172,680,699
2045	7.70%	677,569,627	339,046,679	36,860,498	65,000,000	237,186,182	202,462,361	30,065,248	4,658,573	338,522,948	155,285,576	183,237,192
2046	7.47%	611,481,948	253,024,829	34,403,753	-	218,621,076	190,115,397	28,505,678	-	358,457,120	164,429,871	194,027,248
2047	6.98%	702,071,608	323,146,038	31,916,174	65,000,000	226,229,864	199,361,275	26,868,589	-	378,925,570	173,819,069	205,106,501
2048	6.78%	641,508,995	241,604,965	29,408,478	-	212,196,487	187,035,680	25,160,807	-	399,904,030	183,442,216	216,461,814
2049	6.27%	732,779,237	311,512,616	26,977,213	65,000,000	219,535,403	196,101,295	23,434,108	-	421,266,620	193,241,569	228,025,051
2050	6.11%	671,814,658	228,793,326	24,631,507	-	204,161,819	182,448,705	21,713,114	-	443,021,332	203,220,795	239,800,538
2051	5.53%	763,822,165	298,584,839	22,346,088	65,000,000	211,238,751	191,253,533	19,985,217	-	465,237,326	213,411,618	251,825,709
2052	5.39%	700,750,212	212,876,506	20,137,840	-	192,738,667	174,478,334	18,260,333	-	487,873,705	223,795,278	264,078,428
2053	4.62%	793,377,990	282,446,501	18,024,201	65,000,000	199,422,299	182,846,664	16,575,635	-	510,931,490	234,372,243	276,559,247
2054	4.51%	722,893,918	188,483,081	16,025,737	-	172,457,344	157,495,627	14,961,717	-	534,410,837	245,142,586	289,268,251
2055	2.64%	815,881,879	257,607,610	14,156,621	65,000,000	178,450,990	165,037,490	13,413,499	-	558,274,268	256,089,114	302,185,154
2056	0.53%	700,258,908	117,708,735	12,393,771	-	105,314,964	93,406,803	11,908,160	-	582,550,173	267,224,850	315,325,323
2057	0.46%	726,999,530	119,714,694	10,747,110	-	108,967,585	98,493,259	10,474,326	-	607,284,836	278,571,026	328,713,810
2058	0.39%	661,351,056	28,884,323	9,239,539	-	19,644,784	10,505,513	9,139,271	-	632,466,733	290,122,355	342,344,378
2059	0.34%	686,303,319	28,189,751	7,862,992	-	20,326,758	12,445,239	7,881,519	-	658,113,569	301,886,958	356,226,610
2060	0.29%	706,377,075	22,110,493	6,619,876	-	15,490,616	8,781,700	6,708,916	-	684,266,583	313,883,753	370,382,829
2061	0.25%	732,507,506	21,528,528	5,500,119	-	16,028,409	10,397,148	5,631,260	-	710,978,977	326,137,146	384,841,832
2062	0.22%	755,089,629	16,808,504	4,510,695	-	12,297,809	7,637,447	4,660,362	-	738,281,124	338,661,066	399,620,058
2063	0.19%	782,579,415	16,377,067	3,651,534	-	12,725,532	8,922,598	3,802,935	-	766,202,348	351,468,967	414,733,381
2064	0.17%	807,733,673	12,946,765	2,919,842	-	10,026,923	6,963,421	3,063,502	-	794,786,908	364,581,150	430,205,757
2065	0.15%	836,769,787	12,680,393	2,303,904	-	10,376,489	7,945,844	2,430,646	-	824,089,394	378,022,658	446,066,736
TOTAL		26,932,938,677	11,793,139,610	1,733,805,316	1,240,000,000	8,819,334,294	6,653,058,357	1,293,557,836	872,718,102	15,139,799,067	6,936,551,054	8,203,248,014

