

Forest Preserve District Employees' Annuity and Benefit Fund of Cook County

Actuarial Valuation Report as of
December 31, 2017

June 2018

Board of Trustees
Forest Preserve District Employees' Annuity and Benefit Fund of Cook County
Chicago, Illinois

Certification of Actuarial Valuation

Ladies and Gentlemen:

This report summarizes the actuarial valuation results of the Forest Preserve District Employees' Annuity and Benefit Fund of Cook County ("FPEABF" or "the Fund") as of December 31, 2017 performed by Conduent HR Consulting, LLC ("Conduent"), formerly Buck Consultants, LLC. For purposes of GASB Statement No. 67 and GASB Statement No. 74, we have performed separate actuarial valuations of the pension benefits and retiree health insurance benefits provided by the FPEABF and have prepared actuarial reports based on these valuations. As has been done in past years, we have also performed this combined actuarial valuation of the pension and retiree health insurance benefits provided by the Fund to measure the overall funded status and contribution requirements of the Fund. We believe that such a combined valuation is required under Section 9-199 of the Illinois Pension Code which provides that the Fund shall submit a report each year "containing a detailed statement of the affairs of the Fund, its income and expenditures, and assets and liabilities....". This report is intended to present the results of the combined valuation. For more details on the Plans, readers are encouraged to review the separate GASB 67 and 74 reports. In particular, the separate GASB 75 report values retiree health liabilities at an unfunded 3.16% discount rate, while this combined report values retiree health liabilities at the funded discount rate of 7.25%.

The actuary performs the valuation annually. The last valuation for the Plan was completed for the December 31, 2016 plan year. All Schedules in the report, with the exception of Section 2, were prepared by the actuary. The actuarial valuation is based on audited financial and member data provided by the FPEABF staff summarized in this report. The benefits considered are those delineated in the Plan, the FPEABF was established on July 1, 1931 and is governed by legislation contained in the Illinois Compiled statutes, particularly Chapter 40, as amended and restated effective December 31, 2017. The actuary did not verify the data submitted, but did perform tests for consistency and reasonableness.

All costs, liabilities and other factors under the Plan were determined in accordance with generally accepted actuarial principles and procedures. An actuarial cost method is used to measure the actuarial liabilities which we believe is reasonable. Certain historical information with respect to costs, liabilities, assets, accounting disclosure information, etc. has been derived from the prior actuary's reports and information provided by the Plan sponsor. That information is presented for comparison purposes Conduent has not verified the validity of any of those calculations or data. Conduent is solely responsible for the actuarial data and actuarial results presented in this report, excluding the historical information and data just described. This report fully and fairly discloses the actuarial position of the Plan.

The FPEABF is funded by Employer and Member Contributions. The Forest Preserve levies a tax annually equal to the total amount of contributions made by the members in the calendar year 2 years prior to the year of the levy, multiplied by 1.30. This funding mechanism is insufficient to meet the needs of the FPEABF. We project that the FPEABF will become insolvent in 2040. We recommend that a funding policy be legislated that is sufficient to pay the Normal Costs of active plan members, Plan expenses, and amortize the Unfunded Actuarial Accrued Liability as a level percent of Member Compensation over a period no longer than 30 years.

The actuary for the FPEABF performs an analysis of Plan experience periodically and recommends changes in basic assumptions if, in the opinion of the actuary, assumption changes are needed to more accurately reflect expected future experience. Many of the assumptions used in this valuation are based on an experience analysis of the FPEABF, over the period 2013 through 2016. This experience study was performed by Buck in February, 2018. A summary of the actuarial assumptions and methods used in this actuarial valuation are shown in Section 5.2 beginning on page 48.

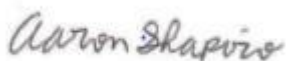
The assumptions and methods used to determine the Actuarial Required Contributions (ARC) of the FPEABF as outlined in this report and all supporting schedules meet the parameters and requirements for disclosure of Governmental Accounting Standards Board (GASB) Statement No. 67, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans. Based on member data and asset information provided by the Executive Director and staff of the FPEABF, we have prepared the Schedule of Funding Progress and Schedule of Employer Contributions that are included in the Financial Section of the Comprehensive Annual Financial Report.

No one may make any representations or warranties based on any statements or conclusions contained in this report without the written consent of Conduent.

Aaron Shapiro is a Fellow of the Society of Actuaries, and Enrolled Actuary, and a Member of the American Academy of Actuaries. Bob Besenhofer is an Associate of the Society of Actuaries, and Enrolled Actuary, and a Member of the American Academy of Actuaries. Aaron and Bob meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all Applicable Actuarial Standards of Practice. They are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate.

Respectfully submitted,

CONDUENT HR CONSULTANTING, LLC



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Executive Summary



Overview

The FPEABF provides pension and ancillary benefit payments to the active, retired and separated employees of the Forest Preserve District. A Retirement Board comprised of retiree, employee, and appointed representatives is responsible for administering the Plan and providing oversight of the investment policy. This report presents the results of the actuarial valuation of the Plan benefits as of the valuation date of December 31, 2017.

Purpose

An actuarial valuation is performed on the Plan annually as of the end of the fiscal year. The main purposes of the actuarial valuation detailed in this report are:

1. To determine the employer contribution necessary to fund the FPEABF in an actuarially sound manner;
2. To disclose the funding assets and liability measures as of the valuation date;
3. To review the current funded status of the Plan;
4. To compare actual and expected experience under the Plan during the last fiscal year;
5. And to report trends in contributions, assets, liabilities, and funded status over the last several years.

Because of the risk of misinterpretation of actuarial results, you should ask us to review any statement you wish to make on the results contained in this report. Conduent will accept no liability for any such statement made without our prior review. This actuarial valuation provides a “snapshot” of the funded position of the Plan based on the Plan provisions, membership, assets, and actuarial assumptions as of the valuation date. Actuarial projections are also performed to provide a long-term view of the expected future funding status and contribution patterns.

Membership

Actives: As of December 31, 2017, there were 548 employees in active service (including 3 on disability) covered under the provisions of the Plan. The significant age, service, salary and accumulated contribution information for these employees is summarized below, along with comparative figures from the last actuarial valuation one year earlier.

	December 31, 2017	December 31, 2016
Number of active employees	548	572
Average age	45.9	45.2
Average years of service	9.8	9.1
Total annual salary	\$35,078,173	\$34,509,011
Average annual salary	\$64,011	\$60,330
Total accumulated contributions	\$28,911,383	\$28,775,015
Average accumulated contributions	\$52,758	\$50,306

The number of active members decreased by 4.2% from the previous valuation date. The average age of the active members increased by 0.7 years, and the average service increased by 0.7 years. The total annual salary increased by 1.7%. The average salary increased by 6.1% from the previous valuation.

Distributions of active members by age, service, and salary are given in Sections 4.2 and 4.3, beginning on page 30. The salaries shown for active members are the actual salaries reported, but limited by the dollar amount defined under Internal Revenue Code Section 401(a)(17) for affected Tier 1 members and to the paycap legislated for affected Tier 2 members.

A schedule of active member data and reconciliation of the active membership from the previous year is shown in Sections 4.4 and 4.5 beginning on page 32.

Disabilities: There were 3 disabled members (included in the active data). There were 6 disabilities in the prior year.

Retirees and Beneficiaries: In addition to the active members, there were 381 retired members and 146 beneficiaries who are receiving monthly benefit payments on the valuation date. The significant age and annual benefit information for these members are summarized below with comparative figures from the last actuarial valuation performed one year earlier.

	December 31, 2017	December 31, 2016
Number of members receiving payments		
Retirees	381	378
Beneficiaries	146	152
Total	527	530
Average age		
	72.0	72.0
Annual benefit amounts		
Retirees	\$13,426,824	\$13,112,177
Beneficiaries	\$2,681,524	\$2,625,741
Total	\$16,108,348	\$15,737,918
Average annual benefit payments		
	\$30,566	\$29,694

The number of retired members and beneficiaries decreased by 0.6% from the previous valuation date. The average age of the retired members remained the same. The total annual benefit payments for these members increased by 2.4% from the previous valuation date.

Distributions of retired members by age and form of payment are given in Section 4.6 through 4.9 on pages 34 through 37.

Inactives: In addition to the active and retired members, there were 1,365 inactive members who did not elect to receive their accumulated contributions when they left covered employment. The age information for these inactive members is summarized below with comparative figures from the last actuarial valuation one year earlier.

	December 31, 2017	December 31, 2016
Number of inactive members	1,365	1,296
Average age	42.4	42.0

The number of inactive members increased by 5.3% from the previous valuation. The average age of the inactive members increased by 0.4 years.

In our opinion, the membership data collected and prepared for use in this actuarial valuation meets the data quality standards required under Actuarial Standards of Practice No. 23.

Plan Assets

The Plan's assets are held in trust and invested for the exclusive benefit of Plan members. The trust is funded by member and employer contributions, and pays benefits directly to eligible members in accordance with Plan provisions. The assets are audited annually and are reported at fair value. On a fair value basis, the Plan has Net Position Available for Benefits of \$210.4 million as of December 31, 2017. This includes an increase of \$19.2 million over the Net Position Available for Benefits of \$191.2 million as of December 31, 2016. During the prior year, the fair value of assets experienced an investment rate of return of 16.6% (net of investment expenses), as reported by the investment consultant.

In order to reduce the volatility investment gains and losses can have on the Plan's actuarially required contribution and funded status, the Board has adopted a five-year smoothing method to determine the actuarial value of assets used for funding purposes. This method recognizes gains and losses, i.e. the difference between actual investment return during the year and the expected return based on the valuation interest rate, on a level basis over a five year period. In our opinion, this method complies with Actuarial Standards of Practice No. 44.

As of December 31, 2017, the assets available for benefits on an actuarial value basis were \$204.3 million. This includes an increase of \$6.1 million over the actuarial value of assets of \$198.2 million as of December 31, 2016. During 2017, the actuarial value of assets experienced an actuarial rate of return of 9.0% which is based on a five-year averaging of investment returns.

A summary of the assets held for investment, a summary of changes in assets, and the development of the actuarial value of assets is shown in Section 2 beginning on page 18.

Actuarial Experience

Differences between the expected experience based on the actuarial assumptions and the actual experience create changes in the actuarial accrued liability, actuarial value of assets, and the unfunded actuarial accrued liability from one year to the next. These changes create an actuarial gain if the experience is favorable and an actuarial loss if the experience is unfavorable. The Plan experienced a total net actuarial gain of \$6.5 million during the prior year, primarily due to favorable demographic and investment experience. This net gain is about 2.0% of the Plan's prior year actuarial accrued liability. The gains and losses are a combination of two principal factors, demographic experience and investment performance under actuarial smoothing. Below is a more detailed discussion.

The demographic experience tracks actual changes in the Plan's population compared to the assumptions for decrements such as mortality, turnover, and retirement, as well as pay increases. The Plan experienced a demographic gain of \$3.6 million during the year ending December 31, 2017. This gain decreased the unfunded actuarial accrued liability by \$3.6 million and increased the funded ratio by 0.7%.

There were 491 active members who were also reported active in the December 31, 2016 actuarial valuation. The total salary for this group increased by 6.1%, which was higher than the 4.4% increase we expected for the group.

Continued tracking of the demographic experience is warranted in order to confirm the appropriateness of the actuarial assumptions. Details of the demographic, economic, and other assumptions used to value the Plan liabilities and normal cost can be found in Section 5.3. In our opinion, the economic assumptions comply with Actuarial Standards of Practice No. 27 and the demographic assumptions comply with Actuarial Standards of Practice No. 35.

On the asset side, the rate of return on the fair value of assets for the year ending December 31, 2017 was reported to be 16.6%, which was higher than the assumed rate of 7.5%.

The Plan experienced a gain on an actuarial value of assets basis. The rate of return on the actuarial value of Plan assets for the year ending December 31, 2017 was approximately 9.0%

compared to the assumption of 7.5%, resulting in an asset gain of \$2.9 million. This gain decreased the unfunded actuarial accrued liability by \$2.9 million and increased the funded ratio by 0.9%.

The rate of return on the fair value of assets for the year ending December 31, 2017 was higher than the assumed rate of 7.5%. The actuarial value of the assets recognizes only 20% of the 2017 unexpected change in fair value, delaying the recognition of the remaining 80% over the next four years. Moreover, the actuarial value of assets also recognizes deferred portions of prior years' gains and losses on fair value. The investment gain recognized this year is primarily due to the investment gain in 2013 and 2017. It should be noted that the Plan's assumed asset return of 7.50% during 2017 is a long-term rate and short-term performance is not necessarily indicative of expected long-term future returns.

A summary of the actuarial gains and losses experienced during the prior year is shown in Section 1.5 on page 15.

Actuarial Contributions

The current contribution mechanism is not sufficient to fund the FPEABF in an actuarially sound manner. The Forest Preserve levies a tax annually equal to the total amount of contributions made by the members in the calendar year 2 years prior to the year of the levy, multiplied by 1.30. This funding policy is insufficient to meet the needs of the FPEABF. We project that the FPEABF will become insolvent in 2040. **We recommend that a funding policy be legislated that is sufficient to pay the Normal Costs of active plan members, Plan expenses, and amortize the unfunded actuarial accrued liability as a level percent of payroll over a period no longer than 30 years.** We summarize those costs in the next paragraph.

The normal cost represents the cost of the benefits that accrue during the year for active members under the Entry Age Actuarial Cost Method. It is determined as a level percentage of pay which, if paid from entry age to the assumed retirement age, assuming all the actuarial assumptions are exactly met by experience would accumulate to a fund sufficient to pay all benefits provided by the Plan. The expected member contributions are subtracted from this amount to determine the employer normal cost. The employer normal cost for 2018 has been determined to be \$3.4 million, or 9.73% of pay. This represents a decrease in the employer normal cost rate of 0.47% of pay from last year's employer normal cost rate of 10.20%.

The cost method also determines the actuarial accrued liability which represents the value of all accumulated past normal cost payments. This amount is compared to the actuarial value of assets to determine if the Plan is ahead or behind in funding as of the valuation date. The difference between the total actuarial accrued liability and the actuarial value of assets equals the amount of unfunded actuarial accrued liability or surplus (if negative) on the valuation date. This amount is amortized and added to the employer normal cost to determine the annual actuarially required employer contribution for the year.

The unfunded actuarial accrued liability as of December 31, 2017 is \$126.6 million. This represents a decrease of \$5.4 million in the unfunded actuarial accrued liability from last year's amount of \$132.0 million. The annual payment required to amortize the unfunded actuarial accrued liability of \$126.6 million over a 30-year period as of December 31, 2017 is \$9.8 million, or 27.81% of pay.

The annual actuarially required employer contribution for 2018 is \$13.2 million, or 37.5% of pay. This represents a decrease of \$0.7 million in the employer contribution amount of \$13.9 million for 2017, or a decrease of 2.8% of pay from last year's employer contribution rate of 40.3%.

The actuarial liabilities and development of the annual actuarial employer contribution is shown in Sections 1.1 and 1.2 beginning on page 11.

In our opinion, the measurement of the benefit obligations and determination of the actuarial cost of the Plan is performed in compliance with Actuarial Standards of Practice No. 4.

Funded Status

The funded status is a measure of the progress that has been made in funding the Plan as of the valuation date. It is determined as a ratio of the actuarial value of assets divided by the total actuarial accrued liability on the valuation date. A ratio of over 100% represents a plan that is ahead in funding, and a ratio of less than 100% represents a plan that is behind in funding on the valuation date.

Where presented, references to "funded ratio" and "unfunded accrued liability" are typically measured on an actuarial value of assets basis. It should be noted that the same measurements using market value of assets would result in different funded ratios and unfunded accrued liabilities. Moreover, the funded ratio presented is appropriate for evaluating the need and level of future contributions but makes no assessment regarding the funded status of the plan if the plan were to settle (i.e. purchase annuities) for a portion or all of its liabilities.

As of December 31, 2017, the funded ratio of the Plan is 61.7%. This represents an increase of 1.7% from last year's funded ratio of 60.0% as of December 31, 2016.

A history of the unfunded actuarial accrued liability and the funded ratio is shown in Section 1.6 on page 16.

Accounting Information

The Governmental Accounting Standards Board (GASB) issues statements which establish financial reporting standards for defined benefit pension plans and accounting for the pension expenditures and expenses for governmental employers. The required financial reporting information for the Plan and the Employer under GASB No. 67 and GASB No. 74 can be found in separate reports.

Projections

As part of the annual actuarial valuation, a forecast of expected future valuation results is performed over a 30-year period beginning on the valuation date. This analysis provides a dynamic look into the future to identify trends in future employer contributions and funded status. The forecast replaces active members who are assumed to decrement (retire, separate, etc.) during the period with new employees resulting in a stable active membership. The forecast assumes all actuarial assumptions are exactly realized each year during the forecast period. The results of these forecasts can be found in Section 3.

Changes in Plan Provisions

There were no changes in benefits or other plan provisions considered in the pension valuation since the last valuation performed as of December 31, 2016.

The following changes in benefits and other plan provisions in the Retiree Health Insurance actuarial valuation have been made since the last valuation performed as of December 31, 2016:

- The 2018 subsidy for member health benefits was changed from 52% to 50% for annuitants in the Choice Plan Medicare, the Choice Plan non-Medicare and the ChoicePlus Plan Medicare.
- The 2018 subsidy for survivor health benefits was changed from 67% to 65% for annuitants in the Choice Plan Medicare, the Choice Plan non-Medicare and the ChoicePlus Plan Medicare.
- The 2018 subsidy for member health benefits was changed from 47% to 45% for annuitants in the ChoicePlus Plan non-Medicare.
- The 2018 subsidy for survivor health benefits was changed from 62% to 60% for annuitants in the ChoicePlus Plan non-Medicare.

The new provisions decreased the liability of the plan by \$1.1M as of December 31, 2017.

Changes in Actuarial Assumptions, Methods, or Procedures

The assumptions used in this valuation were updated from those used in the December 31, 2016 valuation based on recommendations made and approved by the Board as part of an Experience Study covering plan years from January 1, 2013 through December 31, 2016. This experience study was performed by Conduent in February, 2018 and resulted in changes in the following assumptions:

- The rates of mortality, termination, retirement, salary increases and percent married were changed to reflect the results of the experience review for the four-year period ended December 31, 2016 presented to the Retirement Board on March 7, 2018.
- The discount rate decreased from 7.50% to 7.25% based on the 50-basis point decrease in the inflation rate reflected in the experience review.
- In addition, the Board also adopted the following changes to the OPEB only assumptions based on the assumption study:
 - The percentage of active employees who elect medical coverage upon retirement was reduced from 70% to 65%. The percentage of those retirees who elect spouse coverage was reduced from 40% to 35%. The percentage of vested terminated participants who elect medical coverage upon retirement was increased from 30% to 40%.
 - The age at which vested terminated employees retire and elect medical coverage was changed to age 61, from an assumption that varied by age.
 - The per capita plan costs were updated to reflect the most recent year of claims experience and working premium rates were updated for 2018.
 - Future retirees are assumed to elect among the plan choices in the same proportion as employees who retired during the last year. This election percentage was updated to reflect current retiree experience.
 - The estimate of the High-Cost Plan Excise Tax was updated based on the 2018 working premium rates.

The new assumptions decreased the liability of the plan by \$8.1M as of December 31, 2017. A description of these new assumptions can be found in Section 5.3 of the report, beginning on page 50.

Comparative Summary of Key Actuarial Valuation Results

	Actuarial Valuation as of	
	December 31, 2017	December 31, 2016
Summary of Member Data		
Number of Members Included in the Valuation		
• Active Members	548	572
• Retirees and Beneficiaries	527	530
• Inactive Members	1,365	1,296
• Total	2,440	2,398
Annual Payroll		
• Average	\$64,011	\$60,330
Annual Benefit Payments		
• Retirees and Beneficiaries (Average) ¹	\$30,566	\$29,694
Investment Returns		
Fair Value		
• <i>Rate of Return (net of investment expenses)</i> ²	16.6%	5.7%
Actuarial Value		
• <i>Rate of Return</i>	9.0%	8.6%
Summary of Assets and Liabilities		
Total Actuarial Accrued Liability	\$330,912,840	\$330,207,622
Actuarial Value of Assets	\$204,273,172	\$198,244,885
Unfunded Actuarial Accrued Liability	\$126,639,668	\$131,962,737
Funded Ratio	61.73%	60.04%
Employer Actuarial Required Contribution		
Fiscal Year Ending	December 31, 2019	December 31, 2018
Employer Normal Cost	\$3,413,533	\$3,519,522
Amortization of Unfunded Actuarial Accrued Liability (Surplus)	\$9,755,637	\$10,393,905
Employer Actuarial Required Contribution	\$13,169,170	\$13,913,427
Actual/Statutory Contribution	\$4,015,088	\$3,494,903
Amount by which employer contributions are expected to fall short of the actuarially determined contribution	\$9,154,082	\$10,418,524
Required tax multiple for employer contribution to meet actuarially determined contribution	4.26	5.18
Solvency Date	2040	2042

¹ The average annual benefit payments for retirees only is \$35,241 as of December 31, 2017 and \$34,688 as of December 31, 2016.

² Rate of return determined by the investment consultant.

Section 1: Actuarial Funding Results

Section 1.1 – Actuarial Liabilities and Normal Cost

Actuarial Liabilities	Totals
1. Present Value of Projected Benefits for Active Members	
a. Retirement Benefits	129,566,749
b. Withdrawal Benefits	9,228,891
c. Death Benefits	2,040,567
d. Retiree Health Insurance	17,504,579
Total	158,340,786
2. Retired Members and Beneficiaries Receiving Pension Benefits	184,465,544
3. Retired Members' Retiree Health Insurance	16,626,401
4. Inactive Members with Deferred Pension Benefits	15,407,865
5. Inactive Members' Retiree Health Insurance	1,027,455
6. Total Present Value of Projected Benefits (1. + 2. + 3. + 4. + 5.)	375,868,051
7. Present Value of Future Normal Costs	44,955,212
8. Total Actuarial Accrued Liability (6. - 7.)	330,912,839

Normal Cost	Totals	% of Pay
1. Total Normal Cost		
a. Retirement Benefits	4,074,654	11.63%
b. Withdrawal Benefits	1,261,786	3.60%
c. Duty Disability Benefits	0	0.00%
d. Ordinary Disability Benefits	33,972	0.10%
e. Death Benefits	93,687	0.27%
f. Retiree Health Insurance	762,640	2.17%
g. Administrative Expenses	168,439	0.48%
Total	6,395,178	18.23%
2. Expected Member Contribution	2,981,645	8.50%
3. Employer Normal Cost (1. - 2.)	3,413,533	9.73%

Section 1.2 – Actuarial Contributions*



Valuation Date	December 31, 2017	December 31, 2016
1. Valuation Payroll	35,078,173	34,509,011
2. Total Actuarial Accrued Liability		
a. Active Members		
i. Retirement Benefits	97,907,876	93,442,793
ii. Withdrawal Benefits	3,087,518	2,524,592
iii. Death Benefits	1,344,736	2,097,286
iv. Retiree Health Insurance	11,045,445	11,766,819
v. Total	113,385,575	109,831,490
b. Retired Members and Beneficiaries Receiving Benefits	184,465,544	183,610,860
c. Retired Members' Retiree Health Insurance	16,626,401	17,445,276
d. Inactive Members with Deferred Benefits	15,407,865	18,584,197
e. Inactive Members' Retiree Health Insurance	1,027,455	735,799
f. Total (2.a. + 2.b. + 2.c. + 2.d. + 2.e.)	330,912,840	330,207,622
3. Actuarial Value of Assets	204,273,172	198,244,885
4. Unfunded Actuarial Accrued Liability (UAAL) (2.f - 3.)	126,639,668	131,962,737
5. Funded Ratio (3. / 2.f)	61.73%	60.04%
6. UAAL as a Percent of Annual Payroll (4. / 1.)	361.02%	382.40%

Development of Employer Contribution	Fiscal Year Ending December 31, 2019	Fiscal Year Ending December 31, 2018
7. Amortization Payment for UAAL		
a. Amount	9,755,637	10,393,905
b. As a % of pay	27.81%	30.12%
8. Employer Normal Cost		
a. Amount	3,413,533	3,519,522
b. As a % of pay	9.73%	10.20%
9. Employer Actuarial Required Contribution		
a. Amount	13,169,170	13,913,427
b. As a % of pay	37.54%	40.32%
10. Actual/Statutory Contribution	4,015,088	3,494,903
11. Required tax multiple for Employer ARC	4.26	5.18
12. Funding Period (years)	30	30

* The contribution rates above are amounts needed to fund the FPEABF in an actuarially responsible manner.

Section 1.3 – Actuarial Balance Sheet

Financial Resources	December 31, 2017
1. Actuarial Value of Assets	204,273,172
2. Present Value of Future Contributions	
a. Expected Member Contributions	20,959,619
b. Employer Normal Cost	<u>23,995,593</u>
c. Total	44,955,212
3. Unfunded Actuarial Accrued Liability/(Reserve)	126,639,668
4. Total Assets [1. + 2.c. + 3.]	375,868,052

Benefit Obligations	December 31, 2017
1. Present Value of Future Benefits	
a. Active Members	158,340,786
b. Retirees and Beneficiaries	201,091,945
c. Inactive Members	<u>16,435,320</u>
d. Total	375,868,051

Section 1.4 – Solvency Test

Year Ended	Aggregate Accrued Liability For:			Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Assets		
	(1)	(2)	(3)		(1)	(2)	(3)
	Active and Inactive Members Accumulated Contributions	Members Currently Receiving Benefits	Active and Inactive Members Employer Portion				
December 31, 2008	\$30,401,379	\$126,422,220	\$81,104,031	\$196,277,679	100.00%	100.00%	48.65%
December 31, 2009	31,830,611	147,429,265	94,772,475	188,396,534	100.00%	100.00%	9.64%
December 31, 2010	32,798,650	152,812,779	96,779,724	184,077,516	100.00%	99.00%	0.00%
December 31, 2011	32,856,582	163,519,080	92,945,412	178,126,063	100.00%	88.84%	0.00%
December 31, 2012	30,638,516	174,477,644	99,334,842	172,566,956	100.00%	81.34%	0.00%
December 31, 2013	29,531,719	187,595,031	89,792,520	182,554,587	100.00%	81.57%	0.00%
December 31, 2014	29,765,059	195,545,122	89,924,666	189,917,999	100.00%	81.90%	0.00%
December 31, 2015	31,403,346	198,790,240	92,570,555	193,729,043	100.00%	81.66%	0.00%
December 31, 2016	32,875,566	201,056,136	96,275,920	198,244,885	100.00%	82.25%	0.00%
December 31, 2017	32,887,656	201,091,945	96,933,239	204,273,172	100.00%	85.23%	0.00%

Section 1.5 – Reconciliation of Change in Unfunded Actuarial Liability

Development of Unfunded Actuarial Liability	Amount
1. Unfunded Actuarial Accrued Liability as of December 31, 2016	131,962,737
2. Employer Contribution Requirement of Normal Cost Plus Interest on Unfunded Liability for Period January 1, 2017 to December 31, 2017	13,680,691
3. Actual Employer Contribution for the Year, Plus Interest	3,675,230
4. Increase in Unfunded Liability Due to Employer Contribution Plus Interest Being Less Than Normal Cost Plus Interest on Unfunded Liability (2. -3.)	10,005,461
5. Increase/(Decrease) in Unfunded Liability Due to:	
a. Investment Return Lower/(Higher) Than Assumed	(2,908,636)
b. Salary Increases Higher/(Lower) Than Assumed	1,473,961
c. Assumption and Method Changes	(8,134,544)
d. Plan changes	(1,124,460)
e. Other Sources	(4,634,851)
6. Net Increase/(Decrease) in Unfunded Liability for the Year (4. + 5a. + 5b. + 5c. + 5d. + 5e.)	(5,323,069)
7. Unfunded Actuarial Liability as of December 31, 2017 (1. + 6.)	126,639,668

Section 1.6 – History of UAAL and Funded Ratio

Valuation Date	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Funded Ratio (AVA as a % of AAL)	Unfunded Actuarial Accrued Liability (UAAL)
December 31, 2008	237,927,630	196,277,679	82.49%	41,649,951
December 31, 2009	274,032,351	188,396,534	68.75%	85,635,817
December 31, 2010	282,391,153	184,077,516	65.19%	98,313,637
December 31, 2011	289,321,074	178,126,063	61.57%	111,195,011
December 31, 2012	304,451,002	172,566,956	56.68%	131,884,046
December 31, 2013	306,919,270	182,554,587	59.48%	124,364,683
December 31, 2014	315,234,847	189,917,999	60.25%	125,316,848
December 31, 2015	322,764,141	193,729,043	60.02%	129,035,098
December 31, 2016	330,207,622	198,244,885	60.04%	131,962,737
December 31, 2017	330,912,840	204,273,172	61.73%	126,639,668

Section 2: Plan Assets

Section 2.1 – Summary of Fair Value of Assets

Asset Category	Fair Value as of December 31, 2017		Fair Value as of December 31, 2016	
	Amount	%	Amount	%
1. Short-Term Investments	\$5,574,696	2.62%	\$4,707,634	2.32%
2. Investments at Fair Value				
a. U.S. and International Equities	\$112,414,952	52.79%	\$97,193,590	47.84%
b. U.S. Government and Government Agency Obligations	0	0.00%	11,442,228	5.63%
c. Corporate Bonds	0	0.00%	5,868,280	2.89%
d. Collective International Equity Fund	14,607,348	6.86%	12,456,752	6.13%
e. Commingled Fixed Income Fund	35,051,663	16.46%	18,807,947	9.26%
f. Exchange Traded Funds	4,315,663	2.03%	4,485,230	2.21%
g. Private Equities	0	0.00%	0	0.00%
h. Hedge Funds	21,691,553	10.19%	20,282,707	9.98%
i. Real Estate	13,440,254	6.31%	12,627,540	6.21%
j. Total	\$201,521,433	94.63%	\$183,164,274	90.15%
3. Collateral Held for Securities Lending	\$5,865,002	2.75%	\$15,307,189	7.53%
4. Total Assets (1. + 2.j + 3.)	\$212,961,131	100.00%	\$203,179,097	100.00%
5. Receivables				
a. Interest and Dividends	\$198,409		\$280,241	
b. Investments Sold	320,866		577,903	
c. Other Receivables	3,490,299		3,385,497	
d. Total	\$4,009,574		\$4,243,641	
6. Payables				
a. Investments Purchased	\$288,853		\$212,347	
b. Securities Lending Collateral	5,865,002		15,307,189	
c. Other Payables	445,904		700,804	
d. Total	\$6,599,759		\$16,220,340	
7. Net Position for Pension Benefits [4. + 5.d – 6.d.]	\$210,370,946		\$191,202,398	

Section 2.2 – Changes in Fair Value of Assets

Transactions	December 31, 2017	December 31, 2016
Additions		
1. Contributions		
a. Contributions from Employers	\$3,544,707	\$3,391,381
b. Contributions from Plan Members	3,300,222	3,184,051
c. Total	\$6,844,929	\$6,575,432
2. Net Investment Income		
a. Interest and Dividends	\$2,403,075	\$2,955,679
b. Net Appreciation (Depreciation)	28,746,514	8,074,762
c. Net Securities Lending Income	24,725	69,712
d. Total	\$31,174,314	\$11,100,153
e. Less Investment Expense	674,299	622,361
f. Net Investment Income	30,500,015	10,477,792
g. Miscellaneous	595,665	317,217
d. Employee Transfers	0	0
3. Total Additions	\$37,940,609	\$17,370,441
Deductions		
4. Benefits and Expenses		
a. Retirement Benefits	\$18,002,969	\$17,458,251
b. Refund of Contributions	554,417	740,586
c. Administrative Expenses	160,418	157,577
d. Employee Transfers	54,257	133,999
5. Total Deductions	\$18,772,061	\$18,490,413
6. Net Increase (Decrease)	\$19,168,548	(\$1,119,972)
7. Net Position Held in Trust for Pension Benefits		
a. Beginning of Year	\$191,202,398	\$192,322,370
b. End of Year	\$210,370,946	\$191,202,398

Section 2.3 – Actuarial Value of Assets

Development of Actuarial Value of Assets		Amount																												
1. Actuarial Value of Assets as of December 31, 2016		198,244,885																												
2. Unrecognized Return as of December 31, 2016		(7,042,487)																												
3. Fair Value of Assets as of December 31, 2016 (1. + 2.)		191,202,398																												
4. Contributions																														
a. Member (includes purchased service)		3,300,222																												
b. Employer		3,544,707																												
c. Miscellaneous contributions		541,408																												
d. Total		7,386,337																												
5. Distributions																														
a. Benefit payments		18,002,969																												
b. Refund of contributions		554,417																												
c. Administrative expenses		160,418																												
d. Total		18,717,804																												
6. Expected Return at 7.50% on																														
a. Item 1.		14,868,366																												
b. Item 2.		(528,187)																												
c. Item 4.d.		271,980																												
d. Item 5.d.		689,228																												
e. Total [a. + b. + c. - d.]		13,922,931																												
7. Actual Return on Fair Value for Fiscal Year, Net of Investment Expenses		30,500,015																												
8. Return to be Spread for Fiscal Year (7. - 6.e) *		16,577,084																												
9. Total Fair Value of Assets as of December 31, 2017		210,370,946																												
10. Return to be Spread																														
	<table border="1"> <thead> <tr> <th>Fiscal Year</th> <th>Return to be Spread</th> <th>Unrecognized Percent</th> <th>Unrecognized Return</th> </tr> </thead> <tbody> <tr> <td>2017</td> <td>16,577,084</td> <td>80%</td> <td>13,261,667</td> </tr> <tr> <td>2016</td> <td>(3,519,332)</td> <td>60%</td> <td>(2,111,599)</td> </tr> <tr> <td>2015</td> <td>(12,123,404)</td> <td>40%</td> <td>(4,849,362)</td> </tr> <tr> <td>2014</td> <td>(1,014,662)</td> <td>20%</td> <td>(202,932)</td> </tr> <tr> <td>2013</td> <td>17,264,428</td> <td>0%</td> <td>0</td> </tr> <tr> <td colspan="3" style="text-align: right;">Total</td> <td>6,097,774</td> </tr> </tbody> </table>	Fiscal Year	Return to be Spread	Unrecognized Percent	Unrecognized Return	2017	16,577,084	80%	13,261,667	2016	(3,519,332)	60%	(2,111,599)	2015	(12,123,404)	40%	(4,849,362)	2014	(1,014,662)	20%	(202,932)	2013	17,264,428	0%	0	Total			6,097,774	
Fiscal Year	Return to be Spread	Unrecognized Percent	Unrecognized Return																											
2017	16,577,084	80%	13,261,667																											
2016	(3,519,332)	60%	(2,111,599)																											
2015	(12,123,404)	40%	(4,849,362)																											
2014	(1,014,662)	20%	(202,932)																											
2013	17,264,428	0%	0																											
Total			6,097,774																											
11. Actuarial Value of Assets (9. - 10.)		204,273,172																												
12. Recognized Rate of Return for the Year on Actuarial Value of Assets		9.01%																												
13. Rate of Return for the Year on Fair Value of Assets (reported by investment consultant - net of inv. exp.)		16.58%																												

* Annual Return to be Spread calculation based on assumed 7.50% investment return which includes an assumption that all expenses and revenues are on average paid at mid-year

Section 3: Projections

Section 3.1 – Projection Assumptions and Methods

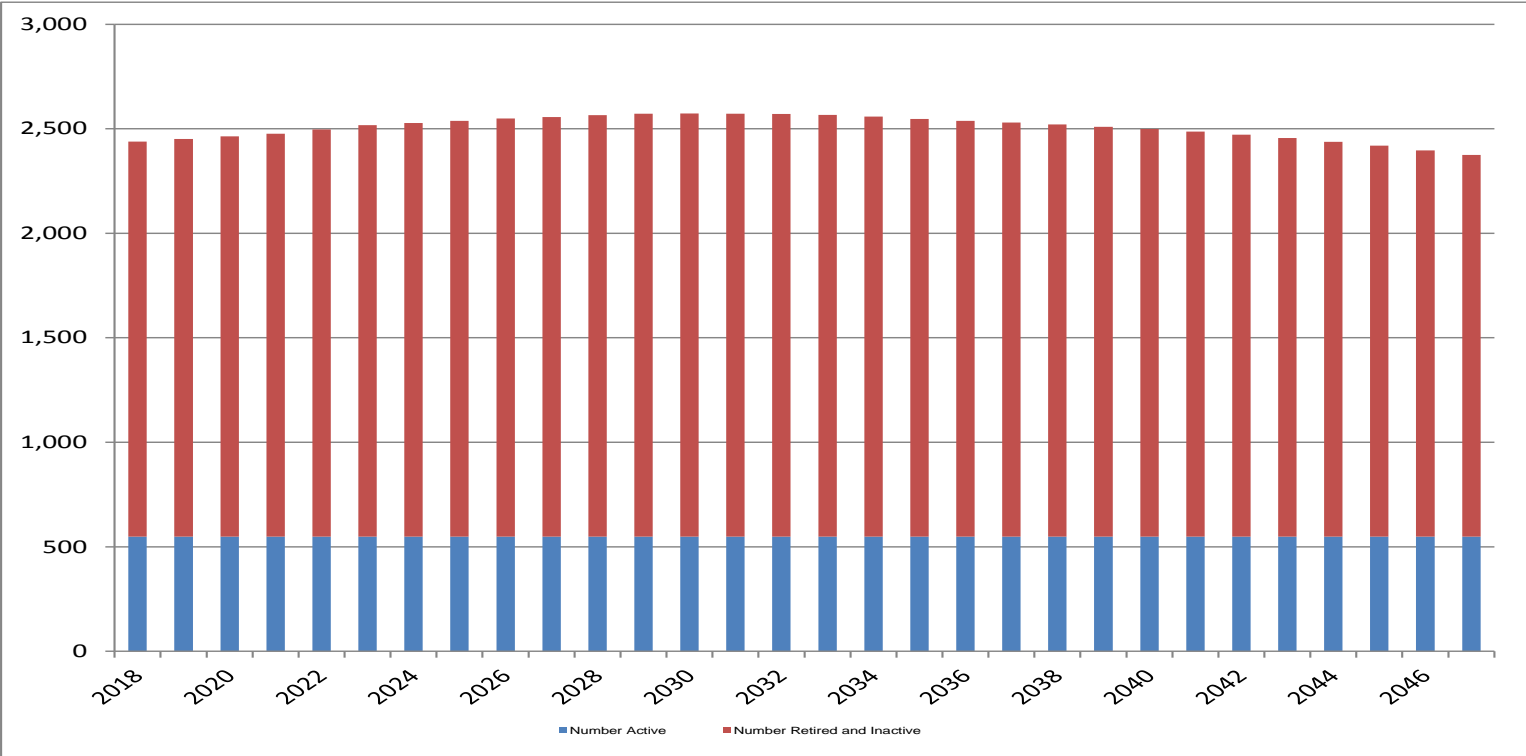
Actuarial assumptions:

- | | |
|--|-------|
| - Projected Salary Increases for New Hires | 2.75% |
| - Projected Returns | 7.25% |
| - Contributions Based on the Current Levy | N/A |

Section 3.2 – Membership Projection



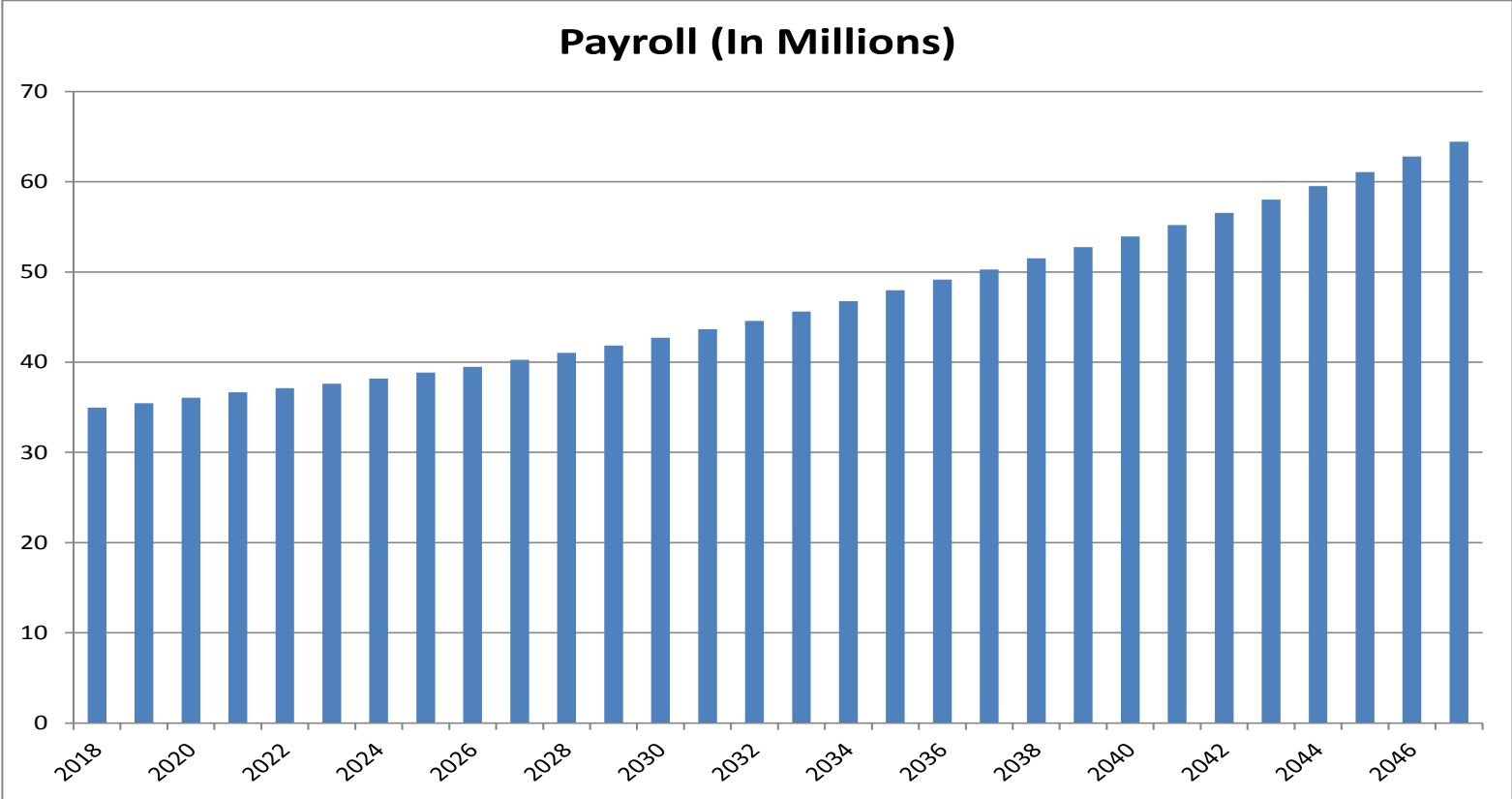
Projected Member Count



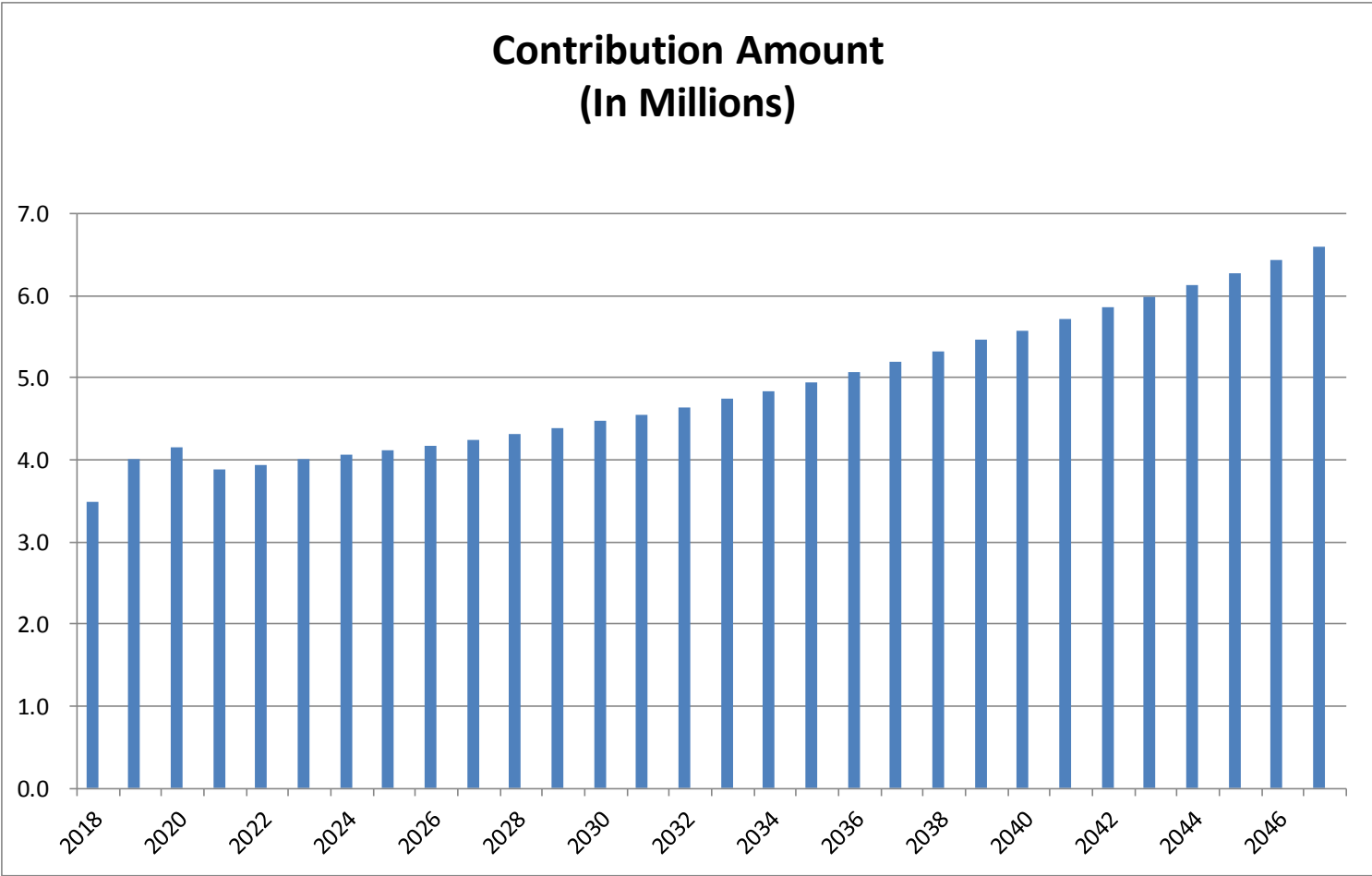
Section 3.2 – Membership Projection



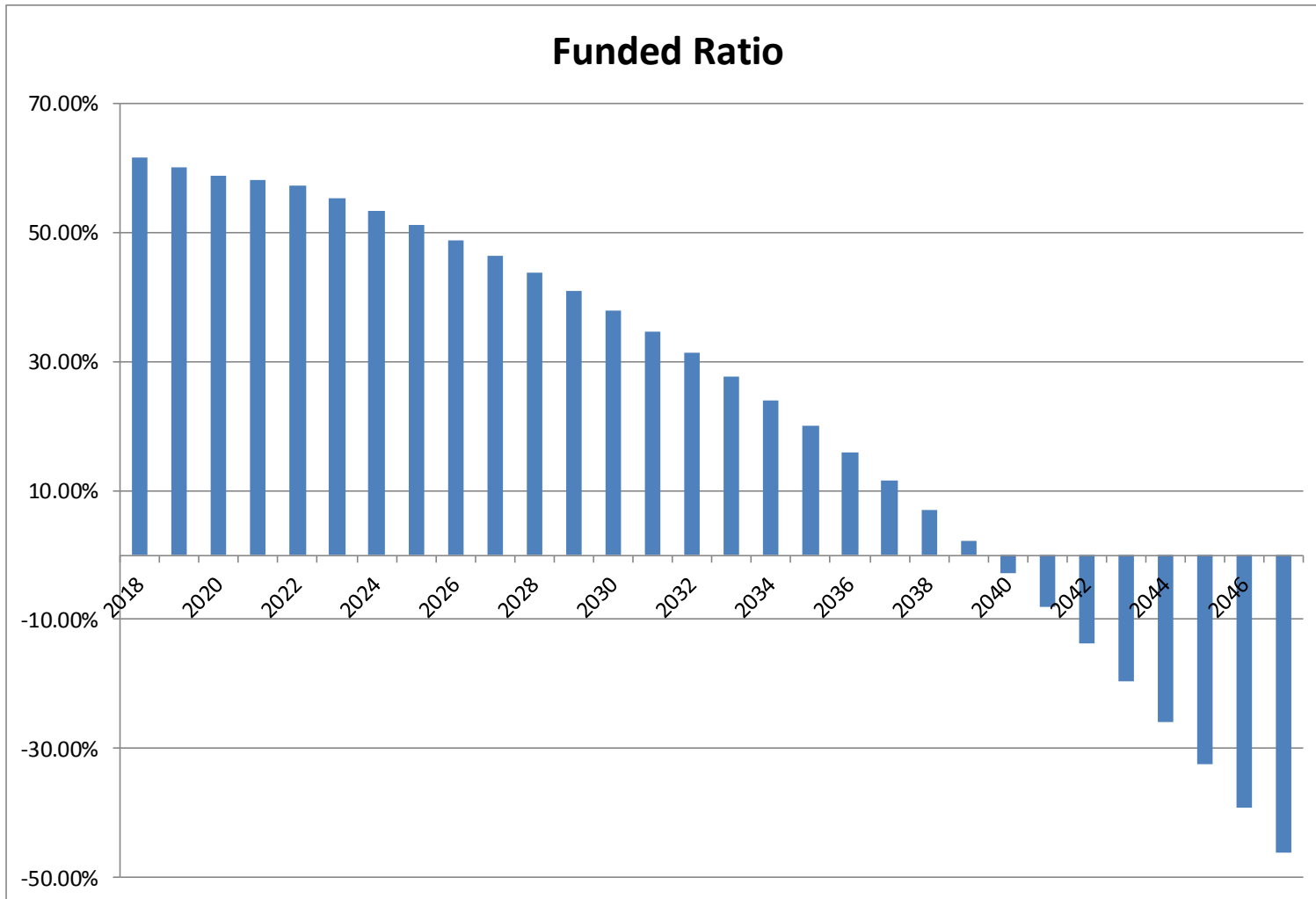
Projected Current and New Member Payroll



Section 3.3 – Projection of Employer Contribution Amounts



Section 3.4 – Projection of Funded Status



Section 3.5 – Table of Projected Actuarial Results

Calendar Year	Payroll	Total Pension Payout	Employee Contributions	Employer Contributions		Beginning of Year				
				Based on Tax Levy	as % of payroll	Total Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio	Assumed Return
2018	35.0	18.6	0.0	3.5	10.0%	331	204	127	61.7%	7.25%
2019	35.5	19.2	0.9	4.0	11.3%	341	205	135	60.2%	7.25%
2020	36.0	19.9	1.7	4.2	11.5%	350	206	144	58.9%	7.25%
2021	36.7	20.9	2.3	3.9	10.6%	360	209	151	58.1%	7.25%
2022	37.1	21.8	3.0	3.9	10.6%	369	212	158	57.3%	7.25%
2023	37.6	22.7	4.0	4.0	10.6%	378	210	168	55.4%	7.25%
2024	38.2	23.5	5.1	4.1	10.7%	386	206	180	53.4%	7.25%
2025	38.8	24.2	6.2	4.1	10.6%	394	202	192	51.2%	7.25%
2026	39.5	24.8	7.4	4.2	10.6%	402	197	206	48.9%	7.25%
2027	40.3	25.5	8.8	4.2	10.5%	410	190	220	46.4%	7.25%
2028	41.0	26.2	10.2	4.3	10.5%	418	183	235	43.8%	7.25%
2029	41.8	26.8	11.7	4.4	10.5%	425	174	251	41.0%	7.25%
2030	42.7	27.4	13.4	4.5	10.5%	432	164	268	38.0%	7.25%
2031	43.6	28.0	15.2	4.6	10.4%	439	153	287	34.8%	7.25%
2032	44.6	28.5	17.2	4.6	10.4%	447	140	306	31.4%	7.25%
2033	45.6	28.9	19.3	4.7	10.4%	454	126	328	27.8%	7.25%
2034	46.8	29.3	21.6	4.8	10.4%	461	111	350	24.0%	7.25%
2035	48.0	29.7	24.1	4.9	10.3%	469	94	375	20.1%	7.25%
2036	49.2	30.2	26.7	5.1	10.3%	477	76	401	15.9%	7.25%
2037	50.3	30.8	29.6	5.2	10.3%	485	56	429	11.6%	7.25%
2038	51.5	31.2	32.7	5.3	10.3%	493	35	459	7.1%	7.25%
2039	52.8	31.7	36.1	5.5	10.3%	502	11	491	2.3%	7.25%
2040	53.9	32.3	39.7	5.6	10.3%	511	(14)	525	-2.8%	7.25%
2041	55.2	32.8	43.7	5.7	10.4%	519	(42)	562	-8.1%	7.25%
2042	56.5	33.2	47.9	5.9	10.4%	528	(73)	601	-13.7%	7.25%
2043	58.0	33.6	52.4	6.0	10.3%	538	(106)	643	-19.7%	7.25%
2044	59.5	34.0	57.3	6.1	10.3%	547	(142)	689	-25.9%	7.25%
2045	61.1	34.3	62.6	6.3	10.3%	557	(180)	737	-32.4%	7.25%
2046	62.8	34.6	68.2	6.4	10.3%	567	(222)	789	-39.2%	7.25%
2047	64.4	34.8	74.2	6.6	10.3%	578	(267)	846	-46.3%	7.25%
2048	66.2	35.0	80.6	6.8	10.2%	590	(316)	906	-53.6%	7.25%
2049	68.0	35.3	79.6	7.0	10.3%	602	(368)	970	-61.2%	7.25%
2050	69.8	35.5	78.9	7.2	10.3%	615	(424)	1,039	-69.0%	7.25%
2051	71.6	35.9	78.3	7.3	10.3%	629	(485)	1,114	-77.1%	7.25%
2052	73.5	36.4	77.6	7.5	10.3%	644	(550)	1,193	-85.4%	7.25%

The estimates above are based upon assumptions regarding future events, which may or may not materialize. The basis for this projection is the December 31, 2017 Actuarial Valuation performed by Conduent.

Section 4: Member Data

Section 4.1 – Summary of Members Included

As of December 31	2017	2016
Active Members (includes 3 disabled in 2017 and 6 in 2016)		
(1) Number	548	572
(2) Average Age	45.9	45.2
(3) Average Credited Service	9.8	9.1
(4) Average Annual Earnings (limited for Pension purposes)	\$64,011	\$60,330
Retirees and Beneficiaries		
(1) Number	527	530
(2) Average Age	72.0	72.0
(3) Average Monthly Pension Benefit	\$2,552	\$2,483
Inactive Members (not refunded contributions or commenced benefits)		
(1) Number	1,365	1,296
(2) Average Age	42.4	42.0
Total Number of Members	2,440	2,398



Section 4.2 – Age and Service Distribution of Active Members

(as of December 31, 2017)

Total

Attained Age		Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Up	Total
Under 25	Number	10	0	0	0	0	0	0	0	0	10
	Average Salary	37,782	0	0	0	0	0	0	0	0	37,782
25-29	Number	48	11	0	0	0	0	0	0	0	59
	Average Salary	46,243	48,270	0	0	0	0	0	0	0	46,621
30-34	Number	47	25	5	0	0	0	0	0	0	77
	Average Salary	53,435	60,808	56,018	0	0	0	0	0	0	55,997
35-39	Number	30	18	10	1	0	0	0	0	0	59
	Average Salary	62,669	60,711	68,974	79,647	0	0	0	0	0	63,428
40-44	Number	23	10	8	2	2	0	0	0	0	45
	Average Salary	59,659	81,351	60,657	67,392	72,551	0	0	0	0	65,573
45-49	Number	16	20	11	5	5	9	0	0	0	66
	Average Salary	70,610	68,199	68,102	77,130	80,290	69,869	0	0	0	70,588
50-54	Number	20	11	17	3	5	16	3	0	0	75
	Average Salary	60,584	104,683	72,840	67,953	61,662	77,221	72,211	0	0	74,211
55-59	Number	26	12	10	4	5	12	7	2	0	78
	Average Salary	60,203	69,036	58,920	62,628	75,816	70,097	75,675	55,172	0	65,304
60-64	Number	11	10	8	1	8	7	2	1	1	49
	Average Salary	60,952	77,182	65,242	102,440	87,681	79,991	50,567	76,455	85,507	73,289
65-69	Number	2	5	3	1	6	5	0	1	0	23
	Average Salary	72,787	64,534	64,297	52,291	69,648	62,763	0	58,144	0	65,360
70 & Up	Number	1	1	0	2	1	1	0	0	1	7
	Average Salary	46,114	120,648	0	51,192	58,144	103,168	0	0	101,712	76,024
TOTAL	Number	234	123	72	19	32	50	12	4	2	548
	Average Salary	56,111	69,240	65,924	69,030	75,357	73,649	70,624	61,236	93,610	\$64,011

Salaries are limited to the dollar amount defined under Internal Revenue Code Section 401(a)(17) for affected Tier 1 members and to the paycap legislated for the Tier 2 members.

Section 4.3 – Age and Salary Distribution of Active Members

(as of December 31, 2017)

Age	Number	Annual Salaries	Average Annual Salary
Male			
Under 20	0	\$0	\$0
20-24	2	74,331	37,166
25-29	38	1,772,595	46,647
30-34	53	3,039,456	57,348
35-39	40	2,486,066	62,152
40-44	24	1,690,248	70,427
45-49	32	2,289,683	71,553
50-54	67	4,878,643	72,816
55-59	59	3,781,093	64,086
60-64	35	2,612,490	74,643
65-69	17	1,117,948	65,762
70 and over	8	575,087	71,886
Total Male	375	\$24,317,640	\$64,847
Female			
Under 20	0	\$0	\$0
20-24	6	212,707	35,451
25-29	19	825,949	43,471
30-34	18	917,929	50,996
35-39	24	1,542,630	64,276
40-44	20	1,191,632	59,582
45-49	30	2,155,398	71,847
50-54	11	741,119	67,374
55-59	23	1,631,371	70,929
60-64	16	1,151,401	71,963
65-69	5	323,099	64,620
70 and over	1	67,298	67,298
Total Female	173	\$10,760,533	\$62,200
Male and Female	548	\$35,078,173	\$64,011

Section 4.4 – Schedule of Active Member Data

Valuation Date	Number	Annual Earnings	Annual Average Earnings	Percent Increase/(Decrease) in Average Earnings
December 31, 2011	408	\$22,678,566	\$55,585	2.1%
December 31, 2012	467	26,252,071	56,214	1.1%
December 31, 2013	534	29,485,857	55,217	-1.8%
December 31, 2014	525	29,811,912	56,785	2.8%
December 31, 2015	568	32,007,657	56,352	-0.8%
December 31, 2016	572	34,509,011	60,330	7.1%
December 31, 2017	548	35,078,173	64,011	6.1%

Section 4.5 – Member Data Reconciliation

	Active Members	Retired Members	Beneficiaries	Inactive Members	Total
As of 12/31/2016	572	378	152	1,296	2,398
Retirements	(12)	24		(12)	0
Deaths With Beneficiary	0	(8)	8		0
Deaths Without Beneficiary		(14)	(15)		
Terminations	(69)			54	(15)
Rehires	14			(14)	0
Miscellaneous		1	1	41	43
Net Change	(67)	3	(6)	69	(1)
New Entrants During the Year	43				43
As of 12/31/2017	548	381	146	1,365	2,440



Section 4.6 – Schedule of Retired Member Data

Year Ended	Added to Rolls		Removed from Rolls		Rolls – End of Year		Average Annual Benefits	% Increase in Average Annual Benefits
	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits		
December 31, 2010	30	\$1,108,528	26	\$632,898	494	\$11,320,902	\$22,917	3.5%
December 31, 2011	35	1,400,374	31	480,969	498	12,240,307	24,579	7.3%
December 31, 2012	30	1,051,757	17	259,746	511	13,032,318	25,504	3.8%
December 31, 2013	48	1,547,583	28	324,780	531	14,255,121	26,846	5.3%
December 31, 2014	32	1,287,991	28	629,998	535	14,913,114	27,875	3.8%
December 31, 2015	24	1,007,969	30	656,536	529	15,264,547	28,855	3.5%
December 31, 2016	21	888,082	20	414,711	530	15,737,918	29,694	2.9%
December 31, 2017	26	1,094,739	29	724,309	527	16,108,348	30,566	2.9%

Section 4.7 – Schedule of Retired Members by Type of Benefit and Option Elected

Amount of Monthly Pension Benefit			Number of Recipients	Type of Pension Benefit		Option Selected		
				1	2	1	2	3
\$	1	– \$ 500	67	40	27	36	24	7
	501	– 1,000	69	36	33	42	27	0
	1,001	– 1,500	55	30	25	40	15	0
	1,501	– 2,000	53	39	14	32	21	0
	2,001	– 2,500	45	28	17	28	17	0
	2,501	– 3,000	46	37	9	31	15	0
	3,001	– 3,500	49	38	11	28	21	0
	3,501	– 4,000	36	30	6	14	22	0
	4,001	– 4,500	18	16	2	9	9	0
	4,501	– 5,000	25	24	1	7	18	0
	5,001	– 5,500	17	16	1	4	13	0
	5,501	– 6,000	21	21	0	2	19	0
	6,001	– 6,500	10	10	0	4	6	0
	6,501	– 7,000	5	5	0	0	5	0
	7,001	– 7,500	7	7	0	1	6	0
	7,501	– 8,000	1	1	0	0	1	0
	8,001	– 8,500	1	1	0	0	1	0
	8,501	– 9,000	1	1	0	0	1	0
	9,001	– 9,500	0	0	0	0	0	0
	9,501	– 10,000	0	0	0	0	0	0
	10,001	– 10,500	0	0	0	0	0	0
	10,501	– 11,000	0	0	0	0	0	0
	11,001	– 11,500	0	0	0	0	0	0
	11,501	– 12,000	0	0	0	0	0	0
	12,001	– 12,500	0	0	0	0	0	0
	12,501	– 13,000	0	0	0	0	0	0
	13,001	– 13,500	1	1	0	0	1	0
	13,501	– 14,000	0	0	0	0	0	0
	14,001	– 14,500	0	0	0	0	0	0
	14,501	– 15,000	0	0	0	0	0	0
	Over \$15,000		0	0	0	0	0	0
Totals			527	381	146	278	242	7

Type of Pension Benefit

1. Regular retirement
2. Survivor payment

Option Selected

1. Whole Life Annuity
2. 65% Joint and Contingent Annuity
3. Temporary Annuity

Section 4.8 – Schedule of Retired Members and Beneficiaries

As of December 31	2017	2016
Retired		
(1) Number, Fiscal Year Start	378	383
(2) Net Change	<u>3</u>	<u>(5)</u>
(3) Number, Fiscal Year End	381	378
(4) Average Current Age	71.3	71.4
(5) Average Monthly Pension Benefit	\$2,937	\$2,891
Beneficiaries		
(1) Number, Fiscal Year Start	152	146
(2) Net Change	<u>(6)</u>	<u>6</u>
(3) Number, Fiscal Year End	146	152
(4) Average Current Age	74.1	73.4
(5) Average Monthly Pension Benefit	\$1,531	\$1,440
Total		
(1) Number, Fiscal Year Start	530	529
(2) Net Change	<u>(3)</u>	<u>1</u>
(3) Number, Fiscal Year End	527	530
(4) Average Current Age	72.0	72.0
(5) Average Monthly Pension Benefit	\$2,552	\$2,483

Section 4.9 – Schedule of Benefit Payments

Attained Ages	Number	Annual Payments
< 30	6	17,568
30-34	0	0
35-39	0	0
40-44	0	0
45-49	4	20,957
50-54	8	184,998
55-59	29	985,689
60-64	64	2,472,507
65-69	102	3,553,304
70-74	95	3,147,647
75	26	652,660
76	17	641,522
77	24	652,389
78	16	406,464
79	13	307,730
80	17	422,831
81	15	437,388
82	10	206,915
83	10	261,151
84	11	321,034
85	10	386,295
86	4	86,889
87	6	81,857
88	9	220,474
89	4	105,145
90	7	50,008
91	5	120,811
92	2	35,253
93	2	78,435
94	1	75,255
95	2	17,817
96	3	78,968
97	3	48,167
98	0	0
99	1	4,950
100	1	25,270
Total	527	16,108,348

Section 5: Basis of the Actuarial Valuation

Section 5.1A – Brief Summary of Benefit Provisions

Participant. A person employed by the Forest Preserve District whose salary or wages is paid in whole or in part by the Forest Preserve District. An employee in service on or after January 1, 1984 shall be deemed as a participant regardless of when he or she became an employee.

Service. For all purposes except the minimum retirement annuity and ordinary disability benefit, service during four months in any calendar year constitutes one year of service. For the minimum retirement annuity, all service is computed in whole calendar months. Service for any 15 days in a calendar month shall constitute a month of service.

For purposes of the minimum retirement annuity, service shall include:

- a. Any time during which the employee performed the duties of his or her position and contributed to the Fund.
- b. Vacations and leaves of absence with whole or part pay.
- c. Periods during which the employee receives a disability benefit from the Fund, and
- d. Certain periods of accumulated sick leave.

Retirement Annuity - Eligibility. An employee who withdraws from service with 10 or more years of service is entitled to a retirement annuity upon attainment of age 50.

Retirement Annuity - Amount

Money Purchase Annuity. The amount of annuity based on the sum accumulated from the employee's salary deductions for age and service annuity plus 1/10 of the sum accumulated from the contributions by the Forest Preserve District for age and service annuity for each completed year of service after the first 10.

Minimum Formula Annuity. The amount of annuity provided is equal to 2.4% of final average salary for each year of service. Final average salary is the highest average monthly salary for any 48 consecutive months within the last 10 years of service. Salary for pension purposes is actual salary earned exclusive of overtime or extra salary. The maximum amount of annuity is 80% of final average salary.

If an employee retires before age 60, the annuity is reduced by .5% for each full month or fraction thereof that the employee is under age 60 when the annuity begins, unless the employee has 30 or more years of service, in which case there is no reduction for retirement before age 60.

If the Minimum Formula Annuity is greater than the Money Purchase Annuity, the employee is entitled to receive the Minimum Formula Annuity.

Section 5.1A – Brief Summary of Benefit Provisions. continued

Automatic Increase in Retirement Annuity. Employees who retire from service having attained age 60 or more, or, if retirement occurs on or after January 1, 1991, with at least 30 years of service, 3% of the annuity beginning January of the year following the year in which the first anniversary of retirement occurs. If retirement is before age 60 with less than 30 years of service, increases begin in January of the year immediately following the year in which age 60 is attained. Beginning January 1, 1998, increases are calculated as 3% of the monthly annuity payable at the time of the increase.

Optional Plan of Contributions and Benefits. During the period through June 30, 2005, an employee may establish optional credit for additional benefits by making additional contributions of 3% of salary. The additional benefit is equal to 1% of final average salary for each year of service for which optional contributions have been paid. The additional benefit shall be included in the calculation of the automatic annual increase and the calculation of the survivor's annuity.

Surviving Spouse's Annuity - Death in Service

Money Purchase Annuity. The amount of annuity based on the accumulated salary deductions and Forest Preserve District contributions for both the employee and the spouse.

Minimum Formula Annuity. A minimum annuity is provided for the eligible surviving spouse of an employee who dies in service with any number of years of service. The amount of such minimum spouse's annuity is equal to 65% of the annuity the employee would have been entitled to as of the date of death, provided the spouse on such date is age 55 or older, or that the employee had 30 or more years of service. If the spouse is under age 55 and the employee had less than 30 years of service, the amount of the spouse's annuity shall be discounted by .5% for each month that the spouse is less than age 55 on the date of the employee's death. The amount of the surviving spouse's annuity shall not be less than 10% of the employee's final average salary as of the date of death.

If the Minimum Formula Annuity is greater than the Money Purchase Annuity, the surviving spouse shall be entitled to receive the Minimum Formula Annuity.

Surviving Spouse's Annuity - Death after Retirement. The amount of the annuity is the greater of the money purchase annuity or the minimum formula annuity. The surviving spouse of an annuitant who dies on or after July 1, 2002 shall be entitled to an annuity of 65% of the employee's annuity at the time of death if the employee had at least 10 years of service, reduced by .5% per month that the spouse is under age 55 at the time of the employee's death. There is no reduction for age if the employee had at least 30 years of service.

Automatic Annual Increase in Surviving Spouse's Annuity. On the January 1 occurring on or immediately after the first anniversary of the deceased employee's death, the surviving spouse's annuity shall be increased by 3% of the amount of annuity payable at the time of the increase. On each January 1 thereafter, the annuity shall be increased by an additional 3% of the amount of annuity payable at the time of the increase.

Section 5.1A – Brief Summary of Benefit Provisions, continued

Child's Annuity. Annuities are provided for unmarried children of a deceased employee who are under age 18. An adopted child is entitled to the child's annuity if such child was legally adopted at least one year before the child's annuity becomes payable. The child's annuity is payable under the following conditions:

(a) the death of the employee was a duty related death; or (b) if the death is not a duty related death, the employee died while in service and had completed at least four years of service from the date of his or her original entrance in service and at least two years from the latest re-entrance; or (c) if the employee died while in receipt of an annuity, her or she must have withdrawn from service after attainment of age 50

The amount of the annuity is the greater of 10% of the employee's final salary at the date of death or \$140 per month for each child.

Duty Disability Benefits. Duty disability benefits are payable to an employee who becomes disabled as a result of an accidental injury incurred while in the performance of an act of duty. Benefits begin on the first regular and normal work date for which the employee does not receive a salary. The amount of the duty disability benefit is equal to 75% of the employee's salary at the date of injury, reduced by the amount the employee receives from Workers' Compensation. However, if the disability, in any measure has resulted from any physical defect or disease that existed at the time such injury was sustained, the duty disability benefit shall be 50% of salary. The Fund contributes the 8.5% of salary normally contributed by the employee for pension purposes.

If the disability commences prior to age 60, duty disability benefits are payable during disability until the employee attains age 65. If the disability begins after age 60, the benefit is payable during disability for a period of 5 years.

Recipients of duty disability benefits also have a right to receive child's disability benefits of \$10 per month on account of each unmarried child less than age 18. Total children's disability benefits shall not exceed 15% of the employee's salary.

Ordinary Disability Benefits. Ordinary disability benefits are provided for employees who become disabled as the result of any cause other than injury incurred in the performance of an act of duty. The amount of the benefit is 50% of the employee's annual salary at the time of disability. The Fund contributes the 8.5% of salary normally contributed by the employee for pension purposes.

Ordinary disability benefits are payable after the first 30 days of disability provided the employee is not then in receipt of salary. Ordinary disability benefits are payable until the first of the following shall occur:

- (a) the disability ceases; or
- (b) the date that total payments equal the lesser of (1) 1/4 of the total service rendered prior to disability, and (2) five years.

An employee unable to return to work at the expiration of ordinary disability benefit is entitled to an annuity beginning on the date of the employee's withdrawal from service regardless of age on such date.

Section 5.1A – Brief Summary of Benefit Provisions, continued

Death Benefit. Upon the death of an active or retired employee, a death benefit of \$1,000 is payable to the employee's designated beneficiary or to the employee's estate if no beneficiary has been designated.

Group Health Benefits. The Fund may pay all or any portion of the premium for health insurance on behalf of each annuitant who participates in any of the Fund's health care plans. As of January 1, 2006, the Fund is paying 55% of the premiums for retiree annuitants and 70% of the premiums for survivor annuitants.

Refund to Employee Upon Withdrawal from Service. Upon withdrawal from service, an employee under the age of 55, or anyone with less than 10 years of service is eligible for a refund. The employee is entitled to a refund of the amount accumulated to his or her credit for age and service annuity and the survivor's annuity together with the total amount contributed for the automatic annual increase, without interest. Upon receipt of such refund, the employee forfeits all rights to benefits from the Fund.

Election of Refund in Lieu of Annuity. If an employee's annuity or spouse's annuity is less than \$150.00 per month, such employee or spouse annuitant may elect a refund of the employee's accumulated contributions in lieu of a monthly annuity.

Refund for Surviving Spouse's Annuity. If an employee is unmarried at the time of retirement, all contributions for surviving spouse's annuity will be refunded with interest at the rate of 3% per year, compounded annually.

Refund of Remaining Amounts. In the event that the total amount accumulated to the account of employee from employee contributions for annuity purposes has not been paid to the employee and surviving spouse as a retirement or surviving spouse's annuity before the death of the survivor of the employee and spouse, a refund of any excess amount shall be paid to the children of the employee, in equal parts, or if there are no children, to the beneficiaries of the employee or the administrator of the estate.

Employee Contributions. Employees contribute through salary deductions 8.5% of salary to the Fund, 6.5% being for the retirement annuity, 1.5% being for the surviving spouse's annuity, and .5% being for the automatic increase in retirement annuity.

Employer Contributions. The Forest Preserve District levies a tax annually equal to the total amount of contributions made by employees in the calendar year 2 years prior to the year of the levy, multiplied by 1.30.

Employer Pick-up of Employee Contributions. Since April 15, 1982, regular employee contributions have been designated for federal income tax purposes as being made by the employer. The employee's W-2 salary is therefore reduced by the amount of contribution. For pension purposes, the salary remains unchanged. For purposes of benefits, refunds, and financing, these contributions are treated as employee contributions.

Section 5.1A – Brief Summary of Benefit Provisions, continued

Persons Who First Become Participants On or After January 1, 2011

The following changes to the aforementioned provisions apply to persons who first become participants on or after January 1, 2011:

1. The highest salary for annuity purposes is equal to the average monthly salary obtained by dividing the participant's total salary during the 96 consecutive months of service within the last 120 months of service in which the total compensation was the highest by the number of months in that period.
2. For 2011, the annual salary is limited to the Social Security wage base of \$106,800. Limitations for future years shall automatically be increased by the lesser of 3% or one-half of percentage change in the Consumer Price Index-U for the 12 months ending in September.
3. A participant is eligible to retire with unreduced benefits at age 67 with at least 10 years of service credit. However, a participant may elect to retire at age 62 with at least 10 years of service credit and receive a retirement annuity reduced by one-half of 1% for each month that his or her age is under 67.
4. The initial survivor's annuity is equal to 66-2/3% of the participant's earned retirement annuity at the date of death, subject to automatic annual increases of the lesser of 3% or one-half of the increase in the Consumer Price Index-U for the 12 months ending in September, based on the originally granted survivor's annuity.
5. Automatic annual increases in the retirement annuity then being paid are equal to the lesser of 3% or one-half the annual change in the Consumer Price Index-U, whichever is less, based on the originally granted retirement annuity.

Section 5.1B – Summary of Substantive Plan Provisions for Retiree Health Care

Eligibility

Tier 1 retirement (hired before January 1, 2011)

- Age 50 and 10 years of service

Tier 2 retirement (hired on or after January 1, 2011)

- Age 62 and 10 years of service

All active employee members who separate with 10 or more years of service can receive postretirement health benefits under the Plan upon receipt of annuity benefits, provided that if they elect to retire under the Illinois Reciprocal Act, FPEABF is their final retirement system.

Surviving dependents of actively employed members and surviving dependents of covered annuitants are eligible for postretirement health benefits under the Plan upon receipt of annuity benefits.

Eligible annuitants may cover their spouses and dependent children under the age of 26 and all disabled children (no age limitation).

Medical Plans

Non-Medicare retirees can choose from:

- United Healthcare Choice HMO
- United Healthcare Choice Plus PPO

Medicare eligible retirees can choose from:

- United Healthcare Choice HMO
- United Healthcare Choice Plus PPO

All Medicare plans are supplemental to Medicare Part A & B benefits.

A retail and mail pharmacy benefit through CVS/Caremark is included with the election of any medical plan.

Section 5.1B – Summary of Substantive Plan Provisions for Retiree Health Care, continued

PLAN FEATURES	UNITED HEALTHCARE		
	CHOICE HMO	CHOICE PLUS PPO IN-NETWORK	CHOICE PLUS PPO OUT-OF-NETWORK
Annual Deductible	\$0	\$300 Individual/\$600 Family	\$600 Individual/\$1200 Family
Out-of-Pocket Maximum	\$1,500 Individual/ \$3,000 Family	\$1,500 Individual/ \$3,000 Family	\$5,000 Individual/ \$10,000 Family
Annual Maximum	None	\$1,250,000	\$1,250,000
Doctors and Specialists			
Primary Care Visit	\$15 Copay	15% after deductible	40% after deductible
Specialist Visit	\$25 Copay	15% after deductible	40% after deductible
Physician Services			
Immunizations	Covered in full	15% after deductible	40% after deductible
Preventive Care	Covered in full	15% after deductible	40% after deductible
Hospital Services			
Inpatient Care	Covered in full	15% after deductible	40% after deductible
Room & Board	\$100 Copay (per admission)	15% after deductible	40% after deductible
Outpatient Services			
Outpatient Surgery	Covered in full	15% after deductible	40% after deductible
Diagnostic Tests and X-rays	Covered in full	15% after deductible	40% after deductible
Chemotherapy / Radiation Therapy	Covered in full	15% after deductible	40% after deductible
Speech, Physical & Occupational Therapy	\$15 Copay (60 visit combined limit/calendar year)	15% after deductible (60 visit combined limit/calendar year)	40% after deductible(60 visit combined limit/calendar year)
Chiropractor	\$15 Copay (30 visit limit)	15% after deductible (30 visit limit)	40% after deductible (30 visit limit)
Behavioral Health Services			
Mental Health – Outpatient	\$15 Copay	15% after deductible	40% after deductible
Mental Health – Inpatient	\$100 Copay	15% after deductible	40% after deductible
Substance Abuse – Outpatient	\$15 Copay	15% after deductible	40% after deductible
Substance Abuse – Inpatient	\$100 Copay	15% after deductible	40% after deductible

PLAN FEATURES	UNITED HEALTHCARE		
	CHOICE HMO	CHOICE PLUS PPO IN-NETWORK	CHOICE PLUS PPO OUT-OF-NETWORK
Emergency Services			
Emergency Room	\$100 Copay (waived if admitted)	\$100 Copay (waived if admitted)	\$100 Copay (waived if admitted)
Ambulance	Covered in full	15% after deductible	40% after deductible
Urgent Care Facility	\$40 Copay (in-network only)	15% after deductible	15% after deductible
Hospital Alternatives			
Skilled Nursing Facility	\$100 Copay (90 day limit per calendar year)	40% after deductible (90 days per calendar year)	15% (90 days per calendar year) ¹
Home Health Care	Covered in full	15% after deductible	15% after deductible
Prescription Plan (same for all):	30 Day Supply at Retail: \$10 Generic/\$35 Preferred Brand/\$50 Non-Preferred Brand – 90 Day Supply at CVS or Caremark Mail: \$20 Generic / \$65 Preferred Brand / \$100 Non-Preferred Brand		
¹ 50% coverage with Medicare supplement (90 days per calendar year).			
Coverage is identical between non-Medicare and Medicare supplement plans except where noted.			

Section 5.1B – Summary of Substantive Plan Provisions for Retiree Health Care, continued

Contributions

FPEABF pays 50% of the total premium for all post-Medicare retiree annuitants and pre-Medicare retiree annuitants on the Choice plan, including the cost of family coverage, and 65% of the total premium for all post-Medicare survivor annuitants and pre-Medicare survivor annuitants on the Choice plan, including the cost of family coverage.

FPEABF pays 45% of the total premium for all pre-Medicare retiree annuitants on the Choice Plus plan, including the cost of family coverage, and 60% of the total premium for all pre-Medicare survivor annuitants on the Choice Plus plan.

The following are the annual working rates effective January 1, 2018. These rates represent an estimated cost of self-insured coverage and include administrative expenses.

	Choice HMO	Choice Plus PPO
Single w/o Medicare	\$15,552	\$23,707
Two w/o Medicare	\$31,104	\$47,414
Single w/ Medicare	\$5,760	\$5,520
Two w/ Medicare	\$11,520	\$11,040

Section 5.2 - Description of Actuarial Methods and Valuation Procedures

A. Actuarial Cost Method

Liabilities and contributions shown in this report are computed using the Entry Age Actuarial Cost Method of funding.

Sometimes called a “funding method,” this is a particular technique used by actuaries for establishing the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily the annual contribution to the Plan is comprised of (1) the normal cost and (2) an amortization payment on the unfunded actuarial accrued liability.

Under the Entry Age Actuarial Cost Method, the Normal Cost is computed as the level percentage of pay which, if paid from the earliest time each Member would have been eligible to join the Plan if it then existed (thus, entry age) until his retirement or termination, would accumulate with interest at the rate assumed in the valuation to a fund sufficient to pay all benefits under the Plan.

The Normal Cost for the Plan is determined by summing individual results for each active Member and determining an average normal cost rate by dividing the summed individual normal costs by the total payroll of Members before assumed retirement age.

The **Actuarial Accrued Liability** under this method at any point in time is the theoretical amount of the fund that would have accumulated had annual contributions equal to the Normal Cost been made in prior years (it does not represent the liability for benefits accrued to the valuation date.)

The **Unfunded Actuarial Accrued Liability** is the excess of the Actuarial Accrued Liability over the Actuarial Value of Plan Assets actually on hand on the valuation date. The Unfunded Actuarial Accrued Liability is amortized as a level dollar over an open 30-year period.

Under this method experience gains or losses, i.e. decreases or increases in accrued liabilities attributable to deviations in experience from the actuarial assumptions, adjust the Unfunded Actuarial Accrued Liability.

Section 5.2 - Description of Actuarial Methods and Valuation Procedures, continued

B. Asset Valuation Method

The actuarial value of assets is based on a five-year smoothing method and is determined by spreading the effect of each year's investment return in excess of or below the expected return. The Fair Value of assets at the valuation date is reduced by the sum of the following:

- (i) 80% of the return to be spread during the first year preceding the valuation date,
- (ii) 60% of the return to be spread during the second year preceding the valuation date,
- (iii) 40% of the return to be spread during the third year preceding the valuation date, and
- (iv) 20% of the return to be spread during the fourth year preceding the valuation date.

The return to be spread is the difference between (1) the actual investment return on Fair Value and (2) the expected return on Fair Value.

C. Valuation Procedures

No actuarial liability is included for members who terminated non-vested prior to the valuation date, except those due a refund of contributions.

The compensation amounts used in the projection of benefits and liabilities were December 31, 2017, rates of pay provided by staff of the FPEABF.

No termination or retirement benefits were projected to be greater than the dollar limitation required by the Internal Revenue Code Section 415 for governmental plans.

The pension liabilities limit annual increases in salary to the dollar amount defined under Internal Revenue Code Section 401(a)(17) for affected members. The Retiree Health Care liabilities use unlimited pay.

Section 5.3A – Summary of Actuarial Assumptions and Changes in Assumptions

The actuarial assumptions used for the December 31, 2017 actuarial valuation are summarized below. Consistent with past practice, the mortality rate, termination rate, retirement rate, and salary assumptions are based on an experience analysis of FPEABF, over the period 2013 through 2016. These assumptions were adopted by the Board as of December 31, 2017, based on the recommendation from the actuary.

Mortality Rates. The RP-2014 Blue Collar table with the following adjustments:

Pre-commencement: adjust all rates by 75%

Post-commencement: adjust rates as follows:

Age	Adjustment Factor
Less than 50	No adjustment
50 - 64	150%
65-69	130%
70-79	110%
80 and over	No adjustment

Fully generational mortality improvement projection assumptions are applied to the above table from base year 2006 using the Conduent Modified MP-2017 projection scale. The substantive difference between the Conduent scale and that published by the SOA is that the Conduent scale reaches an ultimate improvement rate of 0.75% versus the SOA's scale which reaches an ultimate improvement rate of 1.0%.

Termination Rates. Termination rates based on the recent experience of the Fund were used. The following is a sample of the termination rates used:

Rates of Termination

Attained Age	Age at Entry							
	Males				Females			
	22	27	32	37	22	27	32	37
22	.330				.321			
27	.075	.174			.122	.161		
32	.028	.117	.140		.030	.128	.158	
37	.028	.037	.093	.200	.030	.033	.096	.200
42	.028	.037	.034	.070	.030	.033	.034	.056
47	.028	.037	.034	.025	.030	.033	.034	.026

Section 5.3A – Summary of Actuarial Assumptions and Changes in Assumptions

Retirement Rates. For persons who became participants prior to January 1, 2011, rates of retirement for each age from 50 to 80 based on the recent experience of the Fund. The following are samples of the rates of retirement used:

Age	Male		Female	
	Less than 30 years of service	30 or more years of service	Less than 30 years of service	30 or more years of service
50	2.5%	40.0%	2.0%	38.0%
51	2.5%	40.0%	2.0%	30.0%
52-53	2.5%	35.0%	2.0%	30.0%
54	4.0%	30.0%	3.0%	30.0%
55-56	4.0%	30.0%	4.5%	30.0%
57	6.0%	30.0%	4.5%	30.0%
58	7.0%	30.0%	5.0%	30.0%
59	12.5%	32.0%	10.0%	35.0%
60	15.0%	25.0%	15.0%	35.0%
61	12.5%	18.0%	12.0%	30.0%
62	12.5%	24.0%	12.0%	30.0%
63	12.5%	30.0%	13.0%	30.0%
64	15.0%	22.5%	16.0%	30.0%
65	20.0%	24.0%	22.0%	35.0%
66	20.0%	30.0%	20.0%	30.0%
67-68	20.0%	24.0%	20.0%	30.0%
69	20.0%	24.0%	20.0%	30.0%
70	25.0%	35.0%	24.0%	35.0%
71	28.0%	35.0%	20.0%	24.0%
72	25.0%	35.0%	28.0%	28.0%
73	30.0%	60.0%	24.0%	25.0%
74-75	30.0%	75.0%	25.0%	30.0%
76-77	40.0%	75.0%	40.0%	40.0%
78-79	50.0%	75.0%	50.0%	50.0%
80+	100.0%	100.0%	100.0%	100.0%

Section 5.3A – Summary of Actuarial Assumptions and Changes in Assumptions, continued

Retirement rates for Deputy Sheriffs who are members of the Cook County Police Department with 20 or more years of service at retirement.

Age	Rate
50	10.0%
51	10.0%
52	10.0%
53	10.0%
54	10.0%
55	10.0%
56	15.0%
57	25.0%
58	10.0%
59	10.0%
60	35.0%
61	35.0%
62	35.0%
63	35.0%
64	35.0%
65	100.0%

Retirement Rates for persons who became or will become participants on or after January 1, 2011, rates of retirement for each age from 62 to 75 were used. The following are samples of the rates of retirement that were used.

Age	Rates of Retirement	
	Males	Females
62	.400	.350
64	.225	.150
67	.400	.350
70	.450	.200
75	1.000	1.000

Interest Rate. 7.25% per year, compounded annually.

Inflation Rate. 2.75% per year, compounded annually.

Section 5.3A – Summary of Actuarial Assumptions and Changes in Assumptions, continued

Salary Rate (net of inflation):

Age	Rate
25	4.85%
30	4.25%
35	2.75%
40	1.50%
45+	7.50%

Loading for Reciprocal Benefits. Costs and liabilities of active employees were loaded by 1% for reciprocal annuities where the County is the last employer. It was assumed that 50% of inactive members with one or more year of service would receive a reciprocal annuity where the County is not the last employer. These reciprocal annuities were valued as of the member's retirement date as 10 times an inactive member's accumulated contributions.

Marital Status. 70% of participants were assumed to be married.

Spouse's Age. The spouse of a male employee was assumed to be four years younger than the employee. The spouse of a female employee was assumed to be four years older than the age of the employee.

Inactives. Benefits were estimated based on service and pay and valued as deferred to 55 annuities.

Section 5.3B – Summary of Actuarial Assumptions and Methods for Retiree Health Care

The actuarial assumptions used for the December 31, 2017 actuarial valuation are summarized below. The mortality rates, termination rates, retirement rates, salary, inflation, participation, and Medicare primary assumptions are based on an experience analysis of FPEABF, over the period 2013 through 2016. These assumptions were adopted by the Board on April 5, 2018. Per capita cost and medical trend rate assumptions are revisited annually.

Valuation Date: December 31, 2017

Discount Rate: 7.25%

Salary Scale: The following rates include salary inflation of 2.75% and a merit component that varies by age.

Age	Total	Age	Total
<24	8.00%	35	5.50%
25	7.60%	36	5.25%
26	7.20%	37	5.00%
27	7.20%	38	4.75%
28	7.20%	39	4.40%
29	7.00%	40	4.25%
30	7.00%	41	4.00%
31	6.50%	42	4.00%
32	6.25%	43	3.90%
33	5.75%	44	3.80%
34	5.75%	45+	3.50%

Inflation: 2.75%

Section 5.3B – Summary of Actuarial Assumptions and Methods for Retiree Health Care

Termination Rates

The following is a sample of the termination rates used.

Attained Age	Age at Entry					
	Males			Females		
	27	32	37	27	32	37
27	.174			.161		
32	.117	.140		.128	.158	
37	.037	.093	.200	.033	.096	.200
42	.037	.034	.070	.033	.034	.056
47	.037	.034	.025	.033	.034	.026

Retirement Rates

For other members who became participants prior to January 1, 2011 (Tier 1):

Svc at Ret	< 30 Years		≥ 30 Years	
Age	Male	Female	Male	Female
50	.025	.200	.400	.380
55	.040	.045	.300	.300
60	.150	.150	.250	.350
65	.200	.220	.240	.350
70	.250	.240	.350	.350
75	.300	.250	.750	.300
80	1.000	1.000	1.000	1.000

For members who became participants on or after January 1, 2011 (Tier 2):

Age	Male	Female
62	.400	.350
64	.225	.150
67	.400	.350
70	.450	.200
75	1.000	1.000

Section 5.3B – Summary of Actuarial Assumptions and Methods for Retiree Health Care, continued

Mortality Rates

The RP-2014 Blue Collar table with the following adjustments:

Pre-commencement: adjust all rates by 75%

Post-commencement: adjust rates as follows:

Age	Adjustment Factor
Less than 50	No adjustment
50 - 64	150%
65-69	130%
70-79	110%
80 and over	No adjustment

Fully generational mortality improvement projection assumptions are applied to the above table from base year 2006 using the Conduent Modified MP-2017 projection scale. The substantive difference between the Conduent scale and that published by the SOA is that the Conduent scale reaches an ultimate improvement rate of 0.75% versus the SOA's scale which reaches an ultimate improvement rate of 1.0%.

Disability Rates

Included in termination and retirement rates.

Anticipated Plan Participation

65% of eligible employees are assumed to elect retiree medical benefits.

40% of vested terminated employees are assumed to elect retiree medical benefits upon retirement, and are assumed to retire at age 61.

Based on recent experience, future annuitants are assumed to elect from among the available plans as follows:

% Who Elect	Choice HMO	Choice Plus PPO
Pre-Medicare	95%	5%
Post-Medicare	77%	23%

Current annuitants who elect coverage are assumed to remain in coverage. Current annuitants who have waived or deferred coverage are not assumed to participate in the future.

Section 5.3B – Summary of Actuarial Assumptions and Methods for Retiree Health Care, continued

Dependent Coverage

35% of future annuitants are assumed to cover a dependent. 35% of surviving dependents are assumed to elect coverage upon the death of an actively employed member and are assumed to commence benefits when the actively employed member would have reached age 61. Males are assumed to be 4 years older than females. Actual ages were used for dependents of current annuitants.

Medicare Coordination

Medicare is assumed to remain the primary payer for current and future retirees and spouses who are at least age 65 and who are currently on Medicare. Medicare is assumed to become primary for 95% of retirees and spouses who retired before January 1, 2014 and who are not yet age 65, when they attain that age. For all other retirees and spouses, Medicare is assumed to be the primary payer at the time they reach age 65.

Per Capita Health Plan Costs

Estimated net annual per capita incurred claim costs per covered adult for fiscal 2018 at age 65, reflecting administrative expenses and drug rebates.

	Choice HMO	Choice Plus PPO
Not Medicare eligible	\$18,600	\$22,872
Medicare eligible	\$4,608	\$4,260

Per capita medical costs were developed using claims and enrollment for the period from January 1, 2016 through December 31, 2017 provided by the Fund. The resulting costs were adjusted for age morbidity.

The valuation relies on the accuracy of the rate calculations. We understand that the rates represent medical and prescription drug benefit costs only for annuitants under the Fund.

Age-based Morbidity

Per capita costs are adjusted to reflect expected cost differences due to age and gender. The morbidity factors for pre-Medicare morbidity were developed from "Health Care Costs—From Birth to Death" sponsored by the Society of Actuaries and prepared by Dale H. Yamamoto (May 2013). Table 4 from Mr. Yamamoto's study formed the basis of Medicare morbidity factors that are gender distinct and assumed a cost allocation of 60% for pharmacy, 20% for inpatient, 10% for outpatient, and 10% for professional services. Adjustments were made to Table 4 factors for inpatient costs at age 70 and below to smooth out what appears to be a spike in utilization for Medicare retirees gaining healthcare for the first time through Medicare. While such retirees were included in the study, their specific experience is not applicable for a valuation of an employer retiree medical plan where participants had group active coverage before retirement. Morbidity factors at sample ages are shown below

Section 5.3B – Summary of Actuarial Assumptions and Methods for Retiree Health Care, continued

Age	Male	Female
50	0.4612	0.5736
55	0.6085	0.6667
60	0.7829	0.7791
65	1.0000	0.9438
70	1.1873	1.1094
75	1.2752	1.2009
80	1.3381	1.2697
85	1.3479	1.3171
90	1.3235	1.3303

Health Care Cost Trend Rates

Health care cost trend rates apply to expected claims, premiums and retiree contributions:

Year	Pre-Medicare	Post-Medicare
2018	7.25%	5.75%
2019	7.00%	5.50%
2020	6.75%	5.25%
2021	6.50%	5.00%
2022	6.25%	4.75%
2023	6.00%	4.75%
2024	5.75%	4.75%
2025	5.50%	4.75%
2026	5.25%	4.75%
2027	5.00%	4.75%
2028+	4.75%	4.75%

Section 5.3B – Summary of Actuarial Assumptions and Methods for Retiree Health Care, continued

Census Data

The active, deferred vested and retiree census were provided by the Fund.

Actuarial Cost Method

The entry age actuarial cost as a percentage of earnings was used.

Amortization Method

30 years open, level dollar.

Assets

The valuation assumes FPEABF or the District has not set aside any assets to prefund its retiree medical liabilities.

IBNR

The calculations do not include any explicit amount for incurred but not reported claims (IBNR).

Retiree Drug Subsidy

FPABF will no longer be receiving the Retiree Drug Subsidy due to their switch to an Employer Group Waiver Program (“EGWP”) plan effective January 1, 2017.

Miscellaneous

The valuation was prepared on an on-going plan basis. This assumption does not imply that an obligation to continue the plan actually exists.

Considerations of the Patient Protection and Affordable Care Act (PPACA)

Summary of Effects of Selected Provisions

Expansion of Child Coverage to Age 26: The impact of covering retiree children to age 26 is assumed to be reflected in the working rates provided and in the claims experience.

Medicare Part D Retiree Drug Subsidy: FPEABF will no longer be receiving the Retiree Drug Subsidy due to their switch to an EGWP plan effective January 1, 2017.

Excise Tax on High-Cost Employer Health Plans (aka “Cadillac Tax”) - Health Care Reform includes various revenue raisers. One of the more complex revenue raisers is the High Cost Plan Excise Tax, also known as the Cadillac Tax. While its stated intent is to tax only high cost plans that provide what might be considered “Cadillac” benefits, as legislated, it is likely to have much broader impact. The tax limits above which the benefits are taxed increase only at Chained CPI (assumed to be 2.48% in this valuation) while we continue to assume that health care costs will increase faster, reflecting real growth in GDP and technology innovations. Given that assumption, any health benefit, no matter how frugal initially, will ultimately be assumed to cost more than the limit resulting in a tax. Based on our understanding of the tax, we think it is clear that the tax does not apply directly to FPEABF. Rather, the tax applies to the administrator of the benefits, which in turn is then expected to pass the additional cost along to FPEABF. We assume that the cost of any Cadillac tax will be included in the form of higher premiums, and have estimated the impact by use of a higher “loaded” trend rate assumption for premiums that apply up to the maximum reimbursement amounts. This resulted in an approximate increase of 3.9% to liabilities. On January 22, 2018, the Budget Continuing Resolution was signed. This resolution deferred the application of the Cadillac tax from 2020 to 2022. This delay has been reflected in the measurement of the benefit obligation.

The tax is 40% of the excess of a) the cost of coverage over b) the limit. We modeled the cost of the tax by calculating “a” (the cost of coverage) using the working rates projected with trend. We calculated “b” (the limit) starting with the statutory limits (\$10,200 single and \$27,500 family), adjusted for the following:

- Limits will increase from 2018 to 2019 by Chained CPI plus 1%;
- Limits will increase after 2019 by Chained CPI; and
- For retirees over age 55 but not on Medicare, the limit is increased by an additional dollar amount of \$1,650 for single coverage, \$3,450 for family coverage.

We also examined the possibility that the limits would be increased due to excess trend. An estimate of trend for the period from 2010 through 2018 for the federal standard Blue Cross Blue Shield option (using actual increase rates from 2010 to 2017 and the valuation trend from 2017 to 2018) is compared to the statutory “assumed” 55% trend, with trend in excess of 55% applied on the base amount before the additional amount for “early” retirees. However, it appears due to favorable experience in the federal benchmark Blue Cross Blue Shield plan that there will not be any excess trend.

Other Revenue Raisers: The PPACA legislation includes a variety of other revenue raisers that involve additional costs on employers, providers (such as medical device manufacturers) and insurers. We considered these factors when developing the trend assumption used.

Other: We have not identified any other specific provision of the PPACA legislation that would be expected to have a significant impact on the measured obligation. As additional guidance on the legislation is issued, we will continue to monitor any potential impacts.

<i>Actuarial Accrued Liability</i>	Total accumulated cost to fund pension or Other Postemployment Benefits (OPEB) arising from service in all prior years.
<i>Actuarial Cost Method</i>	Technique used to assign or allocate, in a systematic and consistent manner, the expected cost of a pension or OPEB plan for a group of plan members to the years of service that give rise to that cost.
<i>Actuarial Present Value of Future Benefits</i>	Amount which, together with future interest, is expected to be sufficient to pay all future benefits.
<i>Actuarial Valuation</i>	Study of probable amounts of future pension benefits and the necessary amount of contributions to fund those benefits.
<i>Actuary</i>	Person who performs mathematical calculations pertaining to pension or OPEB and insurance benefits based on specific procedures and assumptions.
<i>Annual Required Contribution</i>	Disclosure measure of annual pension or OPEB cost.
<i>GASB 67</i>	Governmental Accounting Standards Board Statement Number 67
<i>GASB 74</i>	Governmental Accounting Standards Board Statement Number 74 which specifies how the Net OPEB Liability is to be calculated and disclosure requirement for FPEABF.
<i>GASB 75</i>	Governmental Accounting Standards Board Statement Number 75 which specifies how to calculate the OPEB Expense that the employer recognizes.
<i>Maturity Ratio</i>	The ratio of the actuarial accrued liability for members who are no longer active to the total actuarial accrued liability. A ratio of over 50% indicates a mature plan. The higher the maturity ratio, the more volatile the contribution rate will be from year to year given actuarial gains and losses.
<i>Normal Cost</i>	That portion of the actuarial present value of benefits assigned to a particular year in respect to an individual participant or the Plan as a whole.
<i>Unfunded Actuarial Accrued Liability (UAAL)</i>	The portion of the actuarial accrued liability not offset by plan assets.
<i>Vested Benefits</i>	Benefits which are unconditionally guaranteed regardless of employment status.

Summary of Legislative Changes

1982 Session

SB 1147

- Actuarial reporting to Insurance Department and Pension Laws Commission. Actuarial statements prepared by a qualified actuary for plan years ending after December 31, 1984 including actuarial present value of credited projected benefits.

SB 1452

- Allows a participant who served as Village Trustee and was not then eligible to participate in the IMRF for such service, to obtain credit in this fund by making the required contributions. Four-year maximum credit.

SB 1579

- Permitted investment list moved to general section of the statute. Expanded fiduciary standards, prohibited transactions, civil action may be brought by Attorney General or by a participant.

HB 2286

- Deputy Sheriff may elect between January 1, 1983 and January 15, 1983 to transfer credit to this Fund from the State Employees' Retirement System.

1983 Session

SB 22

- Delegation of investment authority restrictions.

HB 514

- 10% prudent person investment category.
- 10% increase in spouse benefits to spouses receiving benefits as of January 1, 1984.
- Immediate participation rather than after 1 year of service.
- Refunds if off the payroll at least 30 days.
- Money purchase annuity for Forest Preserve District Sheriffs service not counted for Sheriff Formula.
- Elected sheriff may be covered by Sheriff Formula with contributions.

HB 637

- Allows an active member of the General Assembly to establish credit in this fund for time for which he or she could have elected to participate with interest at 6% and to transfer credits to the Park Fund.

1984 Session

- No legislative changes.

Summary of Legislative Changes, continued

1985 Session

HB 17

- For withdrawals on or after July 1, 1985, 10 year vesting formula (for employee minimum and spouse minimum annuity) providing the employee 2% of final average earnings for each year of service reduced 0.5% (for ages 55-60) for each month under age 60 (but no reduction with at least 30 years of service). Spouse minimum amount is 50% of the employee's amount at retirement (reduced 0.5% for each month the spouse is under age 60) but not less than 10% of the final average earnings.
- Unisex money purchase factors for widows/widowers.
- Disability provisions extended to 70 in certain cases.
- Sheriff formula for withdrawals after December 31, 1985 after having attained age 50 in service with 20 or more years of service of 50% of 4 year average earnings plus 2% for each year or fraction of service over 20.
- Changes in the reversionary annuity provisions.
- Optional plan of 3% contributions for 1% optional benefit per year of service. Provisions for payment of past service with interest. Provisions expire July 1, 1990. Such plan, if elected by a member, would require a 3% of salary contribution (with interest for past service) and would produce an additional 1% per year of service benefit and would increase the employee annuity, post-retirement increase and spouse annuity. Membership in this plan is optional and as such, it is possible to delay election to just prior to retirement. Therefore, at this time, there is no accurate estimate of how many members will actually elect the optional benefits. The liabilities and the annual cost requirements of the fund may be substantially understated (up to 50% in some cases) if participation is high. It is difficult to pre-fund an unknown benefit. Actuarial losses may occur as experience develops.

1986 Session

HB 2630

- Allows for a member of a Forest Preserve District police department to establish service credit for approved leaves of absence without pay, during which the employee served as head of an employee association consisting of other police officers by making the required contributions.
- Allows for the use of service of less than one year for calculating reciprocal annuities in the case of employees who transfer or are transferred as a class from one participating system to another.

Summary of Legislative Changes, continued

HB 2715

- For withdrawals after January 1, 1988, and for employees with at least 10 years of service and age 50, the minimum formula annuity is increased to 2.2% of the Final Average Salary for each of the first 20 years of service and 2.4% for each year thereafter, not to exceed the maximum of 80% of Final Average Salary. For retirement between age 50 (new minimum retirement age) and age 60, the annuity thus computed will be reduced 0.5% for each month the employee is under age 60 unless the employee has 30 or more years of service in which case no reduction will apply.
- The surviving spouse of an employee who retires on or after January 1, 1988, with at least 10 years of service is entitled to 50% of the annuity including increases that the deceased annuitant was receiving as of his or her date of death. Such annuity to be reduced 0.5% for each month the surviving spouse is under age 60 at the date of the annuitant's death.
- Effective January 1, 1988, any child's annuity being paid shall be increased from \$140 per month to 10% of the employee's salary at the date of death provided that the increased annuity would be greater than \$140 per month, subject to Statutory maximums.
- Effective January 1, 1987, the maximum age conditions for any disability are removed for employees whose disability continued past that date.
- A Deputy Sheriff with at least 15 years of service as a Deputy Sheriff can receive credit under the Police formula for other Cook County service by electing to pay an additional contribution prior to retirement. In addition, any Police Officer who has rendered at least 20 years of service and who separates from service prior to age 50 and does not withdraw his or her contributions can apply for pension benefits at age 50 without returning to duty.
- Effective July 1, 1988, all employee and surviving spouse annuitants will receive a one-time increase. Such increase to be an additional 1% for each full year that the annuitant has received benefits as of July 1, 1988.
- An alternative plan for elected officials of 3% of the Final Average Salary for the first 8 years, 4% for the next 4 years and 5% thereafter, subject to the maximum of 80%, is available. The elected official must contribute an additional 3% of salary to receive these benefits.
- Effective December 1, 1988, the Retirement Board will be increased from 5 to 7 Trustees. One annuitant Trustee to be elected for a 3 year term by those persons receiving annuity or disability benefits and 1 Forest Preserve District Trustee to be elected by the Forest Preserve District contributors for a term of 3 years beginning December 1, 1988.

1988 Session

- No legislative changes

Summary of Legislative Changes, continued

1989 Session

SB 95

- Allows active members of the General Assembly to transfer credits and creditable service established in the Fund to a Fund established under Article 5 of the Pension Code.
- For withdrawals on or after July 1, 1985, provides that for employees with at least 30 years of service, no reduction for age less than 60 will apply for the spouse annuity.

SB 1096

- Extends the Optional Plan of benefits from the original expiration date of July 1, 1990 to July 1, 1992.

HB 332

- Signed August 23, 1989.
- Eliminated age-related discriminatory provisions as required by Federal law or regulations.
- Provided for age discrimination changes effective January 1, 1988 to eliminate age 65 requirements for marriage in service and children's benefits, provided contributions after age 65 for spouse benefits, provided employee accumulation annuities be computed after age 70. provided employee and spouse accumulation annuities not be "fixed" at age 65, provided no age 70 restriction on disability benefits, provided for active members over age 65 that their accounts be "unfixed" and accumulate interest until the date of withdrawal, and provided that there be no age 70 membership limitation and removed the permitted "no spouse" refund at age 65.
- Provides that for employees retiring after January 1, 1988, but before age 55, Section 20-131 shall not apply; therefore, they are not entitled to the alternative formula set forth in Section 20-122 repealed in 1975.

HB 158

- Provides for payment by the Fund of 50% of the health care premiums for annuitants who participate in any of the Forest Preserve District's health care programs beginning January 1, 1990 and ending December 31, 1993, subject to the following maximums:

Single coverage, no Medicare	\$130.00 per month
Single coverage, with Medicare	39.00 per month
Annuitant + 1 family member, no Medicare	212.00 per month
Annuitant + 1 family member. 1 with Medicare	168.00 per month
Annuitant + 1 family member, both with Medicare	78.00 per month
Annuitant + 2 or more family members, no Medicare	280.00 per month

Summary of Legislative Changes, continued

1990 Session

SB 1951

- Signed January 14, 1991.
- Raises the maximum annuity for a Deputy Sheriff from 75% of final average salary to 80% of final average salary.
- Provides for a revised table to be used for reversionary annuities to allow for the younger age 50 retirement approved in previous legislation.
- Allows for the refund of the additional 0.5% contributions that are paid by a Deputy Sheriff for the special Sheriff's formula to be refunded if the regular formula is used to calculate the employee annuity at the time of retirement. The refund, if given, is to include the interest as well as the 0.5% contributions.
- In the case where an employee who is disabled and cannot return to work after all his/her disability credit has expired, and chooses the option to pay for up to one additional year of service under Section 9-174, this additional service will not affect the resignation date for annuity purposes, but the salary and service will be used for such purposes.
- Provides for employees who retire on or after November 1, 1990, any accumulated vacation paid out in a lump-sum at the time of retirement will not affect the employees' withdrawal date for purposes of annuity. Any service will be granted and used for annuity purposes, but the final average salary will not include the salary for any vacation paid out.

SB 136

- Amends Chapter 120, Paragraph 671 of the Revenue Act to provide for a separate listing on the tax bill of the dollar amount of tax due from the person assessed which is allocable to a tax levied under the Illinois Pension Code, or any other tax levied by a municipality or township for public pension or retirement purposes. Effective January 1, 1990.

Summary of Legislative Changes, continued

1991 Session

HB 971

- Signed November 19, 1991.
- Early Retirement Window for employees attaining age 55 prior to withdrawal and withdrawing on or after January 1, 1992, but before December 31, 1992, the service requirement for minimum formula annuity is reduced to 5 years. In addition, for the same period above, the age discount for retirement prior to age 60 is reduced to 0.25% per month under age 60 at retirement. The widow(er)'s annuity for the above early retirement window is 50% of the employee's annuity reduced by 0.5% for each month the widow(er) is under the age 60 at the time of the employee's death.

Other Changes

- Provides that the 3% annuity increase will begin on January 1st following the first anniversary of retirement for employees who retired with 30 or more years of service and were under age 60 at retirement.
- Extends the Optional Plan of Benefits for an additional 5 years to July 1, 1997.
- Allows for an employee to make contributions and receive service credit for any unused accumulated sick leave up to 180 days, at retirement.
- Employees may now discontinue making contributions to the Pension Fund after 35 (previously 42) years of contributing service upon notification to the Retirement Board at least 60 days before the deductions cease.
- For widow(er)s of employees or annuitants who die after November 19, 1991, the maximum limit on the spouse annuity is removed provided that the employee was at least 60 with at least 20 years of service or also if retirement occurred on or after January 1, 1982, at age 65 or over with at least 10 years of service for retirements.
- For widow(er)s of employees who retired on or after January 1, 1984, but before July 1, 1985. with at least 30 years of service, the annuity is 50% of the employee's annuity as of the date of retirement with no discount for under age 60.
- Beginning with retirements or deaths on January 1, 1992, with at least 10 years of service, the age discount for a widow(er)'s annuity will be 0.5% for each month the widow(er) is under age 55 at the date of the employee's death. This is reduced from age 60 for prior deaths or retirements.
- Beginning on November 19, 1991, provides for a \$1,000.00 death benefit payable upon the death of employee or annuitant to the employee's designated beneficiary, or to the employee's estate if no beneficiary has been named.
- Beginning December 1, 1991, the Fund may pay, on behalf of each of the Fund's annuitants who choose to participate in any of the Forest Preserve District's health care plans, all or any portion of the total health care premium (including coverage for other family members) due from each such annuitant.
- Allows the annuitant to authorize the withholding of dues from annuity checks for certain labor organizations.

Summary of Legislative Changes, continued

- Allows participation for all employees with at least one month of service.
- Provides for a repayment of contributions and transfer of service from the General Assembly and for former members of the General Assembly through February 1, 1993.
- Grants the authority to rent or lease office space to the Board of Trustees when deemed desirable for the purposes of the Fund.
- Allows the Pension Fund to withhold contributions to a labor organization from annuity checks provided that at least 100 annuitants authorize withholdings from their checks.
- Provides for the repayment of contributions by former members of the Forest Preserve District Police who were the head of an employee association, to include both the employee and employer shares.

1992 Session

SB 1770

- Signed September 16, 1992.
- Early Retirement Incentive
 - Provides an extra 1% per year of Forest Preserve District service, up to 10 maximum, times the final four year average salary for those eligible employees. There is no cost to the employee. The age discount from age 55 to 60 is eliminated if eligible.
 - Eligible if a contributing member on May 1, 1992 and:
 - Retires on or after December 1, 1992 and on or before May 29, 1993;
 - Attains age 55 or more on or before the date of retirement; and
 - Has at least 10 years of creditable service.

1993 Session

SB 1650

- Signed January 26, 1993.
- Provides that the 3% annuity increase will begin no later than January 1, 1993 for employees who retire before age 60 before January 1, 1991 with at least 30 years of service.
- For widow(er)s of annuitants who die on or after January 1, 1993, the widow(er)'s annuity shall be 50% of employee's retirement annuity at death discounted 0.5% per month the widow(er)'s age is less than 55, except if the employee had 30 years of service.
- Allows an employee with 25 years of service to pay for up to 2 years of military service, whether or not followed by Forest Preserve District service.
- Two year minimum subsequent service is changed to six months for employees who apply to repay a refund between January 1, 1993 and March 1, 1993.
- Employees may transfer to Forest Preserve District up to 10 years with Municipal or Laborers' until March 1 1993.

Summary of Legislative Changes, continued

- Allows for transfer of Forest Preserve District service credit to Judges.
- Allows a State Policeman to transfer all or some of his service with Forest Preserve District Police to State Employees Retirement System until July 1, 1993 and reinstate service credit terminated by a refund by paying 6% compounded annually until July 1, 1993.
- Former members of Forest Preserve District Police who retire January 1, 1993 to March 1, 1993 do not have to pay employer contribution for periods served as head of an employee association.

1994 Session

- No legislative changes.

1995 Session

SB 114

- Approved July 14, 1995.
- The amount of earnings that may be taken into account by any retirement system is limited to the maximum dollar limitation specified in Section 401(a)(17) of the Internal Revenue Code, except for persons who became participants before 1996.
- Allows for active participants employed by the Cook County State's Attorney's office on January 1, 1995 to transfer to this Fund credits accumulated under a pension fund established under Article 5 of this Code and to transfer said credits from said fund to the Cook County fund upon payment of both employee and employer contributions with 6% interest to the Forest Preserve District Employees' Annuity and Benefit Fund.
- The Fund is authorized to make certain involuntary distributions required by Section 401(a)(9) of the Internal Revenue Code.

SB 424

- Approved July 7, 1995.
- The Pension Laws Commission was created as a legislative support services agency.

1996 Session

SB 1456

- Approved August 9, 1996.
- Any chief of the Forest Preserve District Police Department or undersheriff of the Forest Preserve District Sheriffs Department may elect to be included as a deputy sheriff.

1997 Session

HB 313

- Signed June 27, 1997.
- Change Forest Preserve District size necessary for fund creation to 3,000,000 from the previously required 500,000.

Summary of Legislative Changes, continued

- As of January 1, 1998 the automatic annual increase for employee and spouse annuitants changed to 3% compounded for all past, current, and future annuitants, regardless of the effective date of the annuity. Term annuities are not eligible for the automatic annual increase.
- Early Retirement Incentive
 - Provides an extra 1% per year of Forest Preserve District service, up to 10 maximum, times the final four year average salary for those eligible employees. There is no cost to the employee. The age discount from age 55 to 60 is eliminated if eligible.
 - Eligible if a contributing member on May 1, 1997 and:
 - Retires on or after September 1, 1997 and on or before February 28, 1998;
 - Attains age 55 or more on or before the date of retirement; and
 - Has at least 10 years of creditable service.
- Effective January 1, 1998 all widow(er) annuitants will have their annuities increased by 3% and will receive the automatic increase of 3% compounded annually. Those widow(er) annuitants receiving a Term annuity will not be eligible for the automatic annual increase.
- Extends the Optional Plan of benefits to July 1, 2002.
- Allows members of the Cook County police department to transfer their service into the Policemen's fund until July 1, 1998. and to reinstate service credit terminated by a refund by paying 6% compounded annually.
- Allows members of the fund with at least 20 years of service credit to make contributions, until June 1, 1998, into the fund based on CTA compensation and creditable service is granted for this period for up to 10 years of service credit.

1998 Session

- Effective July 1, 1999, Public Act 90-731, allows an alternate payee (former spouse, child, or dependent) designated in a Qualified Domestic Relations Order to receive all or a specified portion of a member's retirement benefits or refund otherwise payable to the member.

1999 Session

- No legislative changes.

2000 Session

- Passed Public Act 87-1130, which removes the remarriage penalty. Effective September 6, 2000 widow annuities will no longer be ceased due to their remarriage.

Summary of Legislative Changes, continued

2001 Session

- No legislative changes.

2002 Session

HB 5168

- Signed June 28, 2002.
- Contractual service to the Retirement Board, of at least 5 years, can be purchased as creditable service in the fund for up to 10 years of services by making a written application to the board before July 1, 2003. A person who establishes such credit may, at the same time, reinstate credit in the Fund and repay a refund without a return to service.
- An employee, who withdraws on or after July 1, 1996 but before August 1, 1996, at age 55 or over with 8 or more years of service, may elect to receive a minimum formula annuity equal to 2.2% of the Final Average Salary for each of the first 20 years of service and 2.4% for each year thereafter, not to exceed the maximum of 80% of Final Average Salary. There will be an age discount of 0.25% for each month that the employee is under the age of 60, unless the employee has at least 30 years of service.
- For withdrawals after June 30, 2002, with at least 10 years of service and age 50. the minimum formula annuity is increased to 2.4% of the Final Average Salary for each year of service, not to exceed the maximum of 80% of Final Average Salary.
- Early Retirement Incentive
 - Provides an extra 1% per year of Forest Preserve District service, up to 10 maximum, times the highest consecutive four year average salary in the last 10 years of service for those eligible employees. There is no cost to the employee. The age discount for attained age under 60 is eliminated if eligible.
 - Eligible if a contributing member on January 1, 2001 and:
 - Retires on or after November 30, 2002 and on or before March 31, 2003;
 - Attains age 50 or more on or before the date of retirement; and
 - Has at least 20 years of creditable service in the Fund.
- For widow(er)s of annuitants who die in service or after July 1, 2002, or has at least 10 years of service and dies on or after July 1, 2002 while receiving an annuity, the widow(er)'s annuity shall be 65% of employee's retirement annuity at death discounted 0.5% per month the widow(er)'s age is less than 55, except if the employee had 30 years of service.
- For widow(er)s of annuitants who were not married at the time of retirement, but married after retirement for at least one year prior to annuitant's death, the widow(er) will be eligible for an annuity if the refunded contributions for a widow(er)s annuity are repaid, plus interest at the rate of 6% per year. (The Pension Fund Board has received a legal opinion that has interpreted this to include the current widow(er). The legal opinion was that, since in these instances no refund of spouse contributions was made, there is no payment due from the widow.)
- Extends the Optional Plan of benefits to July 1. 2005.

Summary of Legislative Changes, continued

2003 Session

- No legislative changes.

2004 Session

- No legislative changes.

2005 Session

SB 1446

- Made certain changes to the provisions relating to QILDRO, effective July 1, 2006. It makes an alternate payee entitled to receive death benefits and allows the alternate payee to receive a percentage of the employee's retirement benefits (instead of only a fixed dollar amount).
- Public Act 94-0079, prohibits Illinois public pension funds from investing or depositing in entities doing business in or with the government of Sudan.

2006 Session

- No legislative changes.

2007 Session

HB 49

- Public Act 95-279, effective January 1, 2008.
- Provides that legally adopted children shall be entitled to the same benefits as other children, and no child's or survivor's benefit shall be disallowed because the child is an adopted child.

HB 3578

- Public Act 95-0654, effective January 1, 2008.
- Eliminated the alternative formula for Forest Preserve District officers elected after January 1, 2008.

HB 5168

- Signed into law on August 23, 2007 as Public Act 95-0369.
- Provided that members who were in active employee status on December 31, 2006, applies for a refund of contributions between the dates of August 23, 2007 and October 7, 2007, and resigns their position between August 23, 2007 and October 22, 2007, shall be entitled to receive a one-time lump sum retirement cancellation payment equal to the member's accumulated contributions with interest, multiplied by 1.5, in lieu of any retirement annuity or other benefit provided by the fund. An employee who receives a retirement cancellation payment may not be rehired until after being out of service for at least 365 days. A person who has received an alternative retirement cancellation payment and who returns to service under the Fund must repay the regular refund with interest at 3% per year and the 50% enhancement payment with interest at 6% per year.

Summary of Legislative Changes, continued

- Eliminated the requirement to maintain various reserve accounts no longer needed for the administration of the fund.

SB 1380

- Signed into law on August 28, 2007 as Public Act 95-0504.
- Provides that for 6 months from the effective date, an employee may transfer to this Fund up to 6 years of creditable service accumulated under Article 3 of the Pension Code upon payment to this Fund of the amount of employee and employer contribution that would have been required if the employee had participated in this Fund during the period for which credits is being transferred plus interest at the rate of 6% per year.

2008 Session

SB 2520

- Public Act 95-1036, effective February 17, 2009.
- Provides that duty disability and child's disability benefits shall not be allowed unless application therefor is made while the disability exists; except that this limitation does not apply if the Board finds that there was reasonable cause for delay in filing the application while the disability existed. Provides that this is intended to be a restatement and clarification of existing law and does not imply that application for a duty disability benefit made after the disability had ceased, without a finding of reasonable cause, was previously allowed under this Article.
- Provides that (i) before any action may be taken by the Board of Trustees on an application for duty disability benefit or widow's compensation or supplemental benefit, the related applicant must file a timely claim under the Workers' Compensation Act or the Workers' Occupational Diseases Act, as applicable, to establish that the disability or death resulted from an injury incurred in the performance of an act or acts of duty, and the applicant must receive compensation or payment from the claim or the claim must otherwise be finally adjudicated and (ii) with respect to duty disability', satisfactory proof must be provided to the Board that the final adjudication of the claim established that the disability or death resulted from an injury incurred in the performance of an act or acts of duty.
- Amends the Cook County Forest Preserve Article of the Illinois Pension Code. Adds a provision imposing forfeiture of benefits upon conviction of a felony arising out of or in connection with the member's employment.

2009 Session

SB 0364

- Public Act 96-0006 effective April 3, 2009.
- Requires Board members to file a verified written statement of economic interest annually with the office of the Clerk of Cook County.
- Requires the Board to adopt a policy that sets quantifiable utilization goals for the management of assets in specific asset classes for emerging investment managers. Goals shall be separated by minority ownership, female ownership, and person with a disability ownership.

Summary of Legislative Changes, continued

- Requires that if at least one emerging firm meets criteria of search process, at least one shall be invited to present to the Board for final consideration.
- Requires the Board to adopt a policy that sets forth goals for increasing the racial, ethnic, and gender diversity of its fiduciaries, including its consultants and senior staff.
- Requires the Board to adopt a policy that sets forth goals for utilization of WMDBE firms for all contracts and services, based on the percentage of total dollar amounts of all contracts let.
- Requires the Board to adopt a policy that sets forth goals for increasing the utilization of minority broker-dealers.
- Requires an annual report to the Governor and General Assembly on the utilization of "emerging firms" as defined by Article 1 of the Pension Code.
- Requires the Board to award all contracts for investment services using a competitive process that is substantially similar to the process required for the procurement of professional services under Article 35 of the Illinois Procurement Code. Requires the Board to adopt a procurement policy which will be posted on the Fund's website and filed with the Illinois Procurement Policy Board.
- Provides that a person may not act as a consultant or investment adviser unless that person is registered as an investment adviser or bank under the federal Investment Advisers Act of 1940.
- Requires investment contracts between the Retirement Board and investment service providers to include certain required information.
- Provides consultant contracts cannot exceed five years in duration; however, incumbent consultants may compete for new contracts.
- Requires investment consultants and advisers to disclose all direct and indirect fees, commissions, penalties, and other compensation paid by or on behalf of the investment consultant or adviser in connection with the services provided.
- Requires that a description of every contract let for investment services be posted on the website, including name of entity awarded the contract, amount of contract, total fees paid, and disclosure describing the factors that contributed to the selection.
- Requires the Fund to maintain a website that shall include standard investment reporting, a copy of relevant Board policies, a listing of investment consultants and managers, a notification of any requests for investment services, and the names and e-mail addresses of Board members, Fund directors, and senior staff.
- Requires Board members to attend at least eight hours of ethics training per year and requires each Board to annually certify its member's compliance and submit an annual certification to the Division of Insurance of the Department of Financial and Professional Regulation.

Summary of Legislative Changes, continued

- Prohibits any Fund trustee or employee or their spouses or immediate family living with them to intentionally solicit or accept any gift from any prohibited source as prescribed in Article 10 of the State Officials and Employees Ethics Act, including educational materials and missions and travel expenses for discussing Fund business.
- Provides that any person who knowingly makes any false statement or falsifies or permits falsifying any record of the pension fund in an attempt to defraud is guilty of a Class 3 felony.
- Provides that no person or entity shall retain a person or entity to influence the outcome of an investment decision or the procurement of investment advice to a pension fund for compensation, contingent upon the decision of the Board.
- Requires approval for travel or education mission expense of a Trustee by a majority of the Board prior to mission.

SB 0189

- Public Act 96-0542 effective August 17, 2009.
- Amends the Open Meetings Act and the Freedom of Information Act.

2010 Session

SB 1946 and SB 550

- Public Acts 96-0889, effective April 14, 2010, added 5/1-160 and Public Act 96-1490, effective December 30, 2010, made technical changes 5/1-160. These acts created a 2nd Tier of benefits for all reciprocal systems of the Pension Code.
- Members first participating in any reciprocal fund, except Judges and GARS, on or after January 1, 2011 will be Tier 2 members.
- Tier 2 members will have their salary capped at \$106,800 for all purposes. The amount of the cap is subject to increase annually at the lesser of 1/2 of the change in CPI-U or 3%. If the change in CPI-U is zero or negative, the cap will not change.
- Tier 2 member's Final Average Salary (FAS) used in annuity benefit calculations will be based on the highest consecutive 96 months in the last 10 years.
- Tier 2 members will not be able to receive an unreduced retirement annuity until age 67 and the earliest they can receive any retirement annuity is age 62. Annuities payable before age 67 are reduced 1/2₂% for each full month under 67 regardless of service. Tier 2 members must have at least 10 years of service to qualify for a retirement annuity.
- Tier 2 members will not be able to receive a COLA until the January 1 following their 67th birthday or following the 1 year anniversary of retirement, whichever is later. The COLA will not be compounded and will be the lesser of 1/2 the change in CPI-U or 3%. If the change in CPI-U is zero or negative, there will be no increase.
- The Tier 2 surviving spouse annuity will be 66-2/3% of the member's retirement annuity at death. If the member is not retired, it is 66-2/3% of the member's earned retirement annuity.

Summary of Legislative Changes, continued

- The Tier 2 COLA for a surviving spouse annuity will begin the January 1 following the member's death if the member was retired. If the member was not retired it will begin on the January 1 following the 1 year anniversary of the member's death. The COLA will not be compounded and will be the lesser of the 1/2 change in CPI-U or 3%. If the change in CPI-U is zero or negative, there will be no increase.
- Tier 2 members receiving a retirement annuity will have their annuity suspended if they go to work on a full time basis with any reciprocal fund except Judges and GARS.
- There was no change in the member's benefit accrual percentage (2.4% per year) or the employee or employer contributions.

HB 4644

- Public Act 96-0961 effective July 2, 2010 added 5/9-128.2 allows elected officials to establish earnings credit for the amount of stipend that was not received.
- Member must pay employee contributions and employer's normal cost on the stipend not received and actuarially assumed interest. Payment must be received by January 2, 2011.

2011 Session

SB 1716

- Public Act 96-1513 effective June 1, 2011 allows 2 unmarried people to enter into a Civil Union. Partners of a Civil Union are to be treated the same as a spouse in the State of Illinois.
- The Fund will now grant spouse annuity benefits to a partner of a Civil Union and annuitants can cover their Civil Union partners under the Fund's Health Benefit plan. A Civil Union certificate will be treated as the equivalent to a Marriage certificate.

SB 1672

- Public Act 97-0530 effective August 23, 2011 requires all Funds to comply with the Federal H.E.A.R.T. Act of 2008.
- Public Act 97-0609 effective January 1, 2012 amends 5/1-160(h) stating members that first become participants on or after the effective date will have their retirement annuity suspended if they return to work for the employer on a contractual basis.
- The member is required to notify the Fund prior to accepting the contractual employment.

HB 1670

- Public Act 97-0504 effective January 1, 2012 amends the Open Meetings Act to require elected or appointed members of public bodies to take electronic training by the Attorney General's Public Access Counselor. Training must be completed by the end of 2012. Members that are elected or appointed after January 1, 2012 must complete the training within 90 days of taking the oath or assuming the responsibilities of the position.

Summary of Legislative Changes, continued

HB 3813

- Public Act 97-0651 effective January 5, 2012 amends Article 1 in regards to Fraud and Fiduciary Liability.
- Requires fiduciaries to report reasonable suspicion of false statements. The Board of Trustees must report reasonable suspicion of false statements to the State's Attorney.
- The Act also amends 5/9-219 requiring sheriff police and correction officers that purchase service while on approved leave to represent a labor organization to remain in sworn status during the leave to be eligible to purchase service credit.

2012 Session

HB 3969

- Public Act 97-0967 effective August 16, 2012 amends Article 1 adding 5/1-166 which requires an employer to pay GARS for any additional liability created from a reciprocal retirement if the retiree's FAS is higher than their highest GARS salary, and they were employed by the non-GARS agency for 2 years or less since leaving GARS.

2013 Session

SB 1921

- Public Act 98-0551 effective August 27, 2013 amends Article 9 adds 5/9-119.1, which defines "earned annuity" to clarify how the Fund should administer Tier 2 Spouse Annuity benefits.
- Adds 5/9-202.1 to allow images to be treated as original records.
- Amends 5/9-112 to simplify the definition of salary and spells out how salary is defined for determining Ordinary Disability benefits.

SB 1

- Public Act 98-0599 effective June 1, 2014 amends Article 9 sections 219 and 220 so that new employees starting on or after June 1, 2014 shall not receive credit for lump sum vacation time paid and will not be allowed to purchase unused sick time. **Note: this Act was later overturned as unconstitutional by the Illinois Supreme Court on May 8, 2015.**

2014 Session

SB 2809

- Public Act 98-1137 effective June 1, 2015 amends Article 5/1-115 to allow the Attorney General to bring a civil action to enjoin the payment of benefits to any person who is convicted of any felony relating to or arising out of or in connection with that person's service as an employee under the Code.

Summary of Legislative Changes, continued

2015 Session

SB 842

- Public Act 99-0008 effective July 1, 2015 creates Articles 5/9-184.5 and 5/10-107.5 which, if the County or Forest Preserve District fails to transmit the required contribution to the Fund, allows the IL State Comptroller to deduct the amount due from payments of State Funds due to the Employer and remit to the Fund.

SB 1334

- Public Act 99-0462 effective January 1, 2016 amends Article 5/1-109.1 to include aspirational goals for retirement systems to use emerging investment managers for not less than 20% of the total funds under management. It also sets aspirational goal that not less than 20% of investment advisors and other contracts to utilize businesses owned by minorities, females, and persons with disabilities as those terms are defined in the Business Enterprise from Minorities, Females, and Persons with Disabilities Act.

2016 Session

SB 2817

- Public Act 99-0578 effective July 15, 2016 adds Article 5/9-108.3 to define "In Service".
- Amends 5/9-158 to clarify that a Board Appointed Physician is not necessary for certain maternity or duty disability claims.
- Amends 5/9-179.2 to close "Other Governmental Service" provision to new participants after July 14, 2016.
- Adds 5/9-241 to clarify the Board's ability to correct any calculation errors.

HB 6030

- Public Act 99-0683 effective July 29, 2016 adds Article 5/1-140 to allow the Illinois Department of Vital Records to share death reporting information to pension systems in Illinois.

2017 Session

SB 42

- Public Act 100-0023 effective July 6, 2017 makes many changes to the pension code adding Tier 3 for new hires of the Chicago (Municipal and Laborers) and State (SERS, SURS, TRS) funds and Optional Tier 3 for Cook County and other local systems (Chicago Teachers and Chicago Park).
- Adds 5/1-162 which would allow the Cook County Board (Employer) to opt into a Tier 3 plan. If the plan is adopted by Employer ordinance, it would allow any future new hire to elect the current Tier 2 plan or the new Tier 3 plan.
- Section 1-162 gives the Employer the ability to opt into Tier 3. Changes will be effective the later of 7/1/2018 or the date the Board adopts an ordinance to adopt the changes. If adopted it would then impact any new hires after 6 months after the adoption date. The earliest impact would be for new hires on or after January 1, 2019.

Summary of Legislative Changes, continued

- If adopted new hires after 1/1/2019 (or later depending on ordinance date) would have the option of the current Tier 2 benefit under Section 1-160 or the new hybrid plan established under Section 1-162.
- New hires must make an election of which plan within 30 days of becoming a participant. The Fund has an obligation to establish process for making this election and can adopt rules for participation.
- For those that elect the benefits under 1-162 the new Tier 3 benefit structure would be:
 - The Section establishes a Hybrid Defined Benefit(DB)/Defined Contribution(DC) plan
 - FAS would be an average of the last 120 months (10 years)
 - Salary shall not exceed the SS Wage Base
 - Retirement benefits can begin at age 67 (or normal retirement age determined by SSA but not earlier than age 67) if retiree has at least 10 years of service
 - Employees accrue 1.25% per year of service for DB plan
 - COLA begins on first anniversary of annuity start date, calculated based on ½ CPI-w
 - Survivor benefit is 66-2/3% of retiree annuity at death or earned annuity for death of employee
 - Employees contribute 6.2% to DB plan, but contribution cannot exceed normal cost of benefit
 - Fund establishes a DC plan
 - Employee contributes at least 4% of salary to DC plan
 - Employer contributes between 2% and 6% to DC plan after one year of employment. The contribution can vary by individual employee and employer contributions immediately vest into an employee's account.
 - Employee contributions are reduced to cover the cost of offering DC plan

SB 1714

- Public Act 100-0542 effective November 8, 2017 requires investment consultants to report annually to the Fund regarding search disclosures for MBE, WBE, and DBE.
- Requires annual disclosure of all compensation or economic opportunity received during the last 24 months from investment advisors retained by the Fund.
- Beginning January 1, 2018 no contract for consulting services shall be awarded by the board without first requiring the consultant to make the economic opportunity and the MBE, WBE, and DBE disclosures.

SB 402

- Public Act 100-0554 effective November 16, 2017 requires the Fund, as a lobbying entity, to have a sexual harassment policy.