





























































































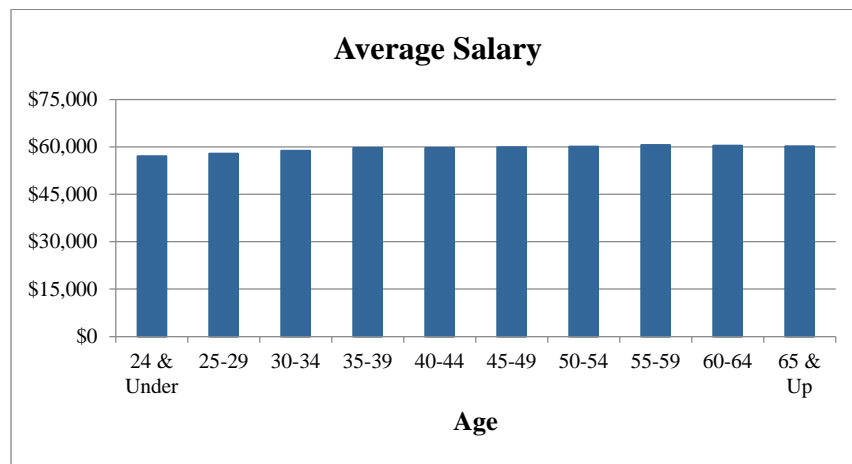
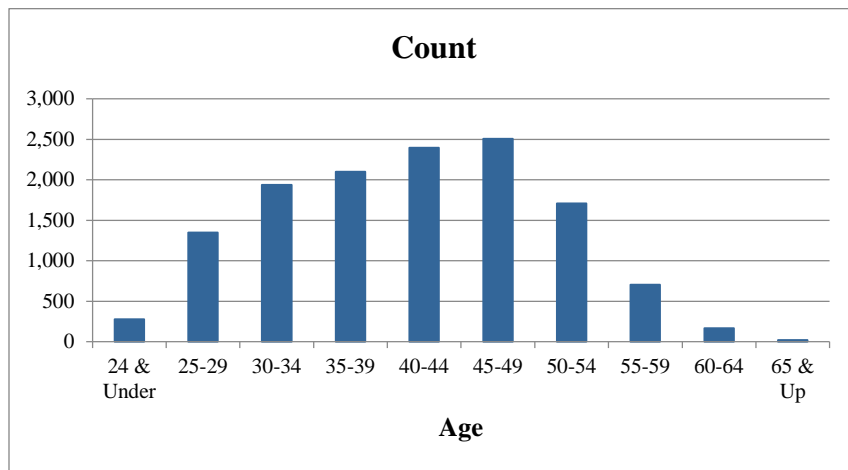






**ACTIVE MEMBERS  
As of June 30, 2017 for the June 30, 2018 Valuation**

<u>Age</u>	<u>Count of Members</u>			<u>FY 2017 Annual Membership Data Salary</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
24 & Under	252	28	280	\$ 14,470,399	\$ 1,520,173	\$ 15,990,572
25-29	1,254	96	1,350	72,122,837	5,939,387	78,062,224
30-34	1,833	103	1,936	107,309,088	6,402,735	113,711,823
35-39	1,977	122	2,099	117,727,871	7,665,730	125,393,601
40-44	2,256	139	2,395	134,384,497	8,564,777	142,949,274
45-49	2,395	112	2,507	143,441,567	6,830,985	150,272,552
50-54	1,616	93	1,709	96,735,548	5,945,809	102,681,357
55-59	681	25	706	41,237,893	1,576,584	42,814,477
60-64	162	7	169	9,772,216	442,691	10,214,907
65 & Up	<u>20</u>	<u>0</u>	<u>20</u>	<u>1,203,705</u>	<u>0</u>	<u>1,203,705</u>
<b>Total</b>	<b>12,446</b>	<b>725</b>	<b>13,171</b>	<b>\$ 738,405,621</b>	<b>\$ 44,888,871</b>	<b>\$ 783,294,492</b>





**AGE AND SERVICE DISTRIBUTION  
As of June 30, 2017 for the June 30, 2018 Valuation**

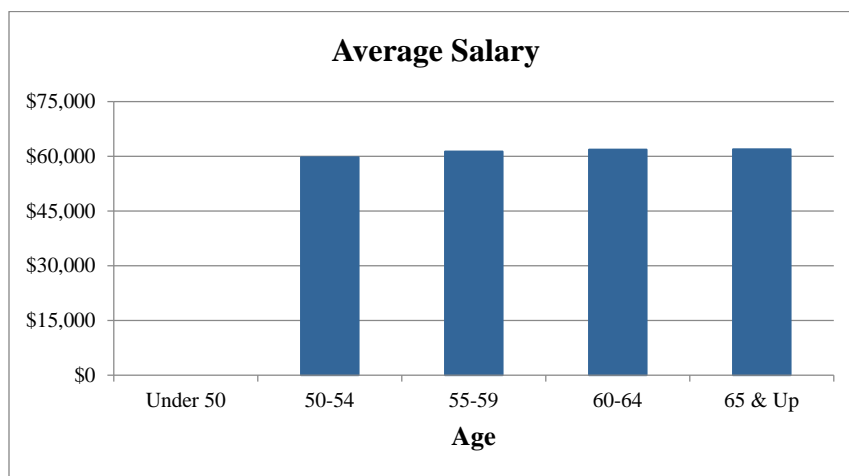
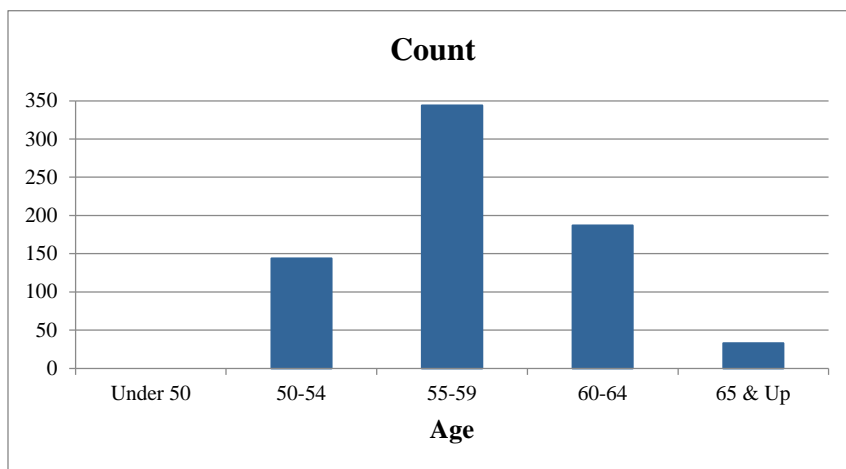
Age		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
<b>24 &amp; Under</b>	Number	280	0	0	0	0	0	0	0	280
	Total Salary	\$ 15,990,572	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 15,990,572
	Average Sal.	\$ 57,109	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 57,109
<b>25-29</b>	Number	1,268	82	0	0	0	0	0	0	1,350
	Total Salary	\$ 73,384,577	\$ 4,677,646	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 78,062,224
	Average Sal.	\$ 57,874	\$ 57,044	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 57,824
<b>30-34</b>	Number	989	781	166	0	0	0	0	0	1,936
	Total Salary	\$ 57,594,590	\$ 46,220,672	\$ 9,896,561	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 113,711,823
	Average Sal.	\$ 58,235	\$ 59,181	\$ 59,618	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 58,735
<b>35-39</b>	Number	374	624	912	188	1	0	0	0	2,099
	Total Salary	\$ 21,571,000	\$ 37,141,750	\$ 55,284,183	\$ 11,340,602	\$ 56,065	\$ 0	\$ 0	\$ 0	\$ 125,393,601
	Average Sal.	\$ 57,676	\$ 59,522	\$ 60,619	\$ 60,322	\$ 56,065	\$ 0	\$ 0	\$ 0	\$ 59,740
<b>40-44</b>	Number	35	332	820	1,057	151	0	0	0	2,395
	Total Salary	\$ 1,833,292	\$ 19,329,238	\$ 49,296,493	\$ 63,720,644	\$ 8,769,607	\$ 0	\$ 0	\$ 0	\$ 142,949,274
	Average Sal.	\$ 52,380	\$ 58,221	\$ 60,118	\$ 60,284	\$ 58,077	\$ 0	\$ 0	\$ 0	\$ 59,687
<b>45-49</b>	Number	17	28	436	973	904	148	1	0	2,507
	Total Salary	\$ 900,485	\$ 1,689,376	\$ 26,021,636	\$ 58,421,379	\$ 54,054,006	\$ 9,112,410	\$ 73,258	\$ 0	\$ 150,272,552
	Average Sal.	\$ 52,970	\$ 60,335	\$ 59,683	\$ 60,043	\$ 59,794	\$ 61,570	\$ 73,258	\$ 0	\$ 59,941
<b>50-54</b>	Number	6	4	30	409	523	647	90	0	1,709
	Total Salary	\$ 269,324	\$ 205,277	\$ 1,851,411	\$ 23,955,723	\$ 30,910,225	\$ 39,698,722	\$ 5,790,675	\$ 0	\$ 102,681,357
	Average Sal.	\$ 44,887	\$ 51,319	\$ 61,714	\$ 58,571	\$ 59,102	\$ 61,358	\$ 64,341	\$ 0	\$ 60,083
<b>55-59</b>	Number	3	0	5	34	140	285	239	0	706
	Total Salary	\$ 148,350	\$ 0	\$ 296,786	\$ 2,007,541	\$ 8,295,768	\$ 17,230,158	\$ 14,835,873	\$ 0	\$ 42,814,477
	Average Sal.	\$ 49,450	\$ 0	\$ 59,357	\$ 59,045	\$ 59,255	\$ 60,457	\$ 62,075	\$ 0	\$ 60,644
<b>60-64</b>	Number	1	1	0	7	15	60	85	0	169
	Total Salary	\$ 45,240	\$ 49,945	\$ 0	\$ 451,117	\$ 915,596	\$ 3,480,523	\$ 5,272,486	\$ 0	\$ 10,214,907
	Average Sal.	\$ 45,240	\$ 49,945	\$ 0	\$ 64,445	\$ 61,040	\$ 58,009	\$ 62,029	\$ 0	\$ 60,443
<b>65 &amp; Up</b>	Number	0	0	0	2	2	0	16	0	20
	Total Salary	\$ 0	\$ 0	\$ 0	\$ 123,907	\$ 146,290	\$ 0	\$ 933,509	\$ 0	\$ 1,203,705
	Average Sal.	\$ 0	\$ 0	\$ 0	\$ 61,953	\$ 73,145	\$ 0	\$ 58,344	\$ 0	\$ 60,185
<b>Total</b>	Number	2,973	1,852	2,369	2,670	1,736	1,140	431	0	13,171
	Total Salary	\$ 171,737,430	\$ 109,313,904	\$ 142,647,070	\$ 160,020,914	\$ 103,147,558	\$ 69,521,814	\$ 26,905,801	\$ 0	\$ 783,294,491
	Average Sal.	\$ 57,766	\$ 59,025	\$ 60,214	\$ 59,933	\$ 59,417	\$ 60,984	\$ 62,426	\$ 0	\$ 59,471



**APPENDIX A – MEMBERSHIP DATA**

**ACTIVE MEMBERS IN DROP  
As of June 30, 2017 for the June 30, 2018 Valuation**

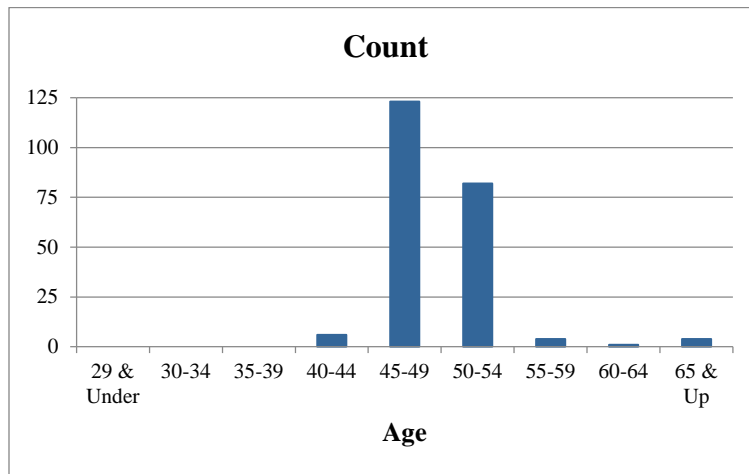
<u>Age</u>	<u>Count of Members</u>			<u>FY 2017 Annual Membership Data Salary</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 50	0	0	0	\$ 0	\$ 0	\$ 0
50-54	138	6	144	8,213,805	391,516	8,605,321
55-59	319	25	344	19,362,859	1,737,558	21,100,417
60-64	178	9	187	10,957,543	614,076	11,571,619
65 & Up	28	5	33	1,710,347	332,905	2,043,252
<b>Total</b>	<b>663</b>	<b>45</b>	<b>708</b>	<b>\$ 40,244,554</b>	<b>\$ 3,076,055</b>	<b>\$ 43,320,609</b>





**INACTIVE VESTED MEMBERS**  
**As of June 30, 2017 for the June 30, 2018 Valuation**

<u>Age</u>	<u>Count of Members</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>
29 & Under	1	0	1
30-34	0	0	0
35-39	0	0	0
40-44	6	1	7
45-49	118	6	124
50-54	75	7	82
55-59	5	0	5
60-64	2	0	2
65 & Up	<u>4</u>	<u>0</u>	<u>4</u>
Total	211	14	225



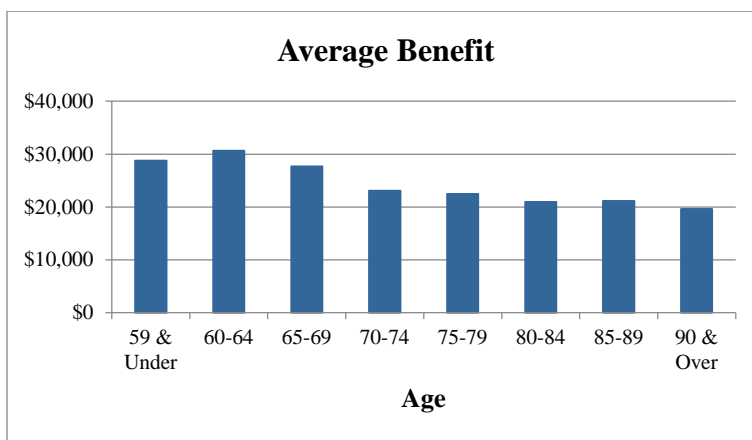
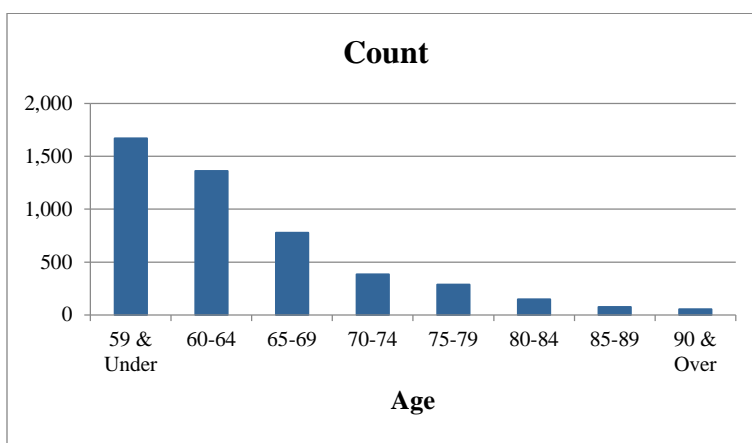




**APPENDIX A – MEMBERSHIP DATA**

**MEMBERS AND BENEFICIARIES RECEIVING BENEFITS  
As of June 30, 2017 for the June 30, 2018 Valuation**

<u>Age</u>	<u>Count of Members</u>			<u>Annual Benefits</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
59 & Under	1,336	333	1,669	\$ 39,876,595	\$ 8,153,212	\$ 48,029,807
60-64	1,196	166	1,362	38,024,987	3,711,204	41,736,191
65-69	633	144	777	18,733,596	2,765,086	21,498,682
70-74	276	106	382	7,060,479	1,741,765	8,802,244
75-79	194	92	286	5,031,754	1,400,017	6,431,771
80-84	80	66	146	2,060,664	1,000,350	3,061,014
85-89	31	45	76	877,508	730,245	1,607,753
90 & Over	<u>18</u>	<u>35</u>	<u>53</u>	<u>504,686</u>	<u>534,474</u>	<u>1,039,160</u>
Total	3,764	987	4,751	\$ 112,170,269	\$ 20,036,353	\$ 132,206,622





**MEMBERS AND BENEFICIARIES RECEIVING BENEFITS  
As of June 30, 2017 for the June 30, 2018 Valuation**

**Schedule of Average Benefit Payments <sup>1</sup>**

For the Year Ended June 30, 2018	Years of Credited Service						Total
	< 10	10 - 14	15 - 19	20 - 24	25 - 29	30 +	
Average Monthly Defined Benefit	\$1,924	\$1,993	\$1,938	\$1,984	\$2,589	\$2,984	\$2,319
Average Final Average Salary	\$43,021	\$50,113	\$47,985	\$46,569	\$49,576	\$52,614	\$48,753
Number of Benefit Recipients <sup>2</sup>	239	241	286	1,843	1,330	812	4,751

**Schedule of Benefit Recipients by Type of Benefit Option <sup>1</sup>**

Amount of Monthly Benefit (in dollars)	Number of Recipients by Benefit Option			Total Benefit Recipients
	Joint with 60% Survivor Benefits	Survivors	Disability	
1 - 500	0	12	0	12
501 - 1,000	4	144	23	171
1,001 - 1,500	112	367	83	562
1,501 - 2,000	474	163	210	847
2,001 - 2,500	947	46	276	1,269
2,501 - 3,000	883	20	139	1,042
Over 3,000	762	11	75	848
Total	3,182	763	806	4,751

<sup>1</sup> Calculated using the prior year census data, adjusted for certain activity during the fiscal year.

<sup>2</sup> Members with less than 20 years of service are primarily members receiving a disability benefit.



MEMBERS AND BENEFICIARIES RECEIVING BENEFITS  
As of June 30, 2017 for the June 30, 2018 Valuation

Schedule of Retirees and Beneficiaries

	<u>Added to Rolls</u>		<u>Removed from Rolls</u>		<u>Rolls - End of Year</u>		Percent Change In Total Annual Benefits <sup>1,2</sup>	Average Annual Benefit	Percent Change In Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits			
2018 <sup>3</sup>	429	\$14,914	52	\$1,002	4,751	132,207	11.6%	27,827	2.7%
2017 <sup>3</sup>	407	13,321	37	642	4,374	118,472	12.6	27,085	3.1
2016 <sup>3</sup>	312	10,074	44	834	4,004	105,218	9.2	26,278	1.9
2015 <sup>3</sup>	283	8,858	38	727	3,736	96,336	10.3	25,786	3.1
2014 <sup>3</sup>	0	0	0	0	3,491	87,301	0.0	25,008	0.0
2013	326	10,098	43	845	3,491	87,301	13.5	25,008	4.3
2012	281	7,900	39	814	3,208	76,917	12.8	23,977	4.3
2011	218	6,179	34	609	2,966	68,179	13.2	22,987	6.2
2010	208	4,918	34	641	2,782	60,220	8.4	21,646	1.6
2009	102	2,571	24	479	2,608	55,564	3.7	21,305	0.6

<sup>1</sup> Dollar amounts are in thousands except for the average annual benefit.

<sup>2</sup> End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.

<sup>3</sup> The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.



## APPENDIX B – SUMMARY OF PLAN PROVISIONS

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### Definitions

Fiscal year	Twelve month period ending June 30.
Participation	All full-time, fully-paid police officers and firefighters who work for employers participating in the 1977 Fund and who are hired or rehired after April 30, 1977.
Member contributions	Members are assumed to contribute at the rate of 6% of salary until they have completed 32 years of service.

### Eligibility for Benefits

Deferred vested	20 or more years of creditable service and no longer active.
Disability retirement	As determined by a disability medical panel.
Early retirement	Age 50 with 20 or more years of creditable service.
Normal retirement	Age 52 with 20 or more years of creditable service.
Pre-retirement death	Immediate.

### Monthly Benefits Payable

Normal retirement	The retirement benefit valued was 50% of the base salary (first-class salary) of a First Class Police Officer and Firefighter with 20 years of service, plus an additional 1% for each completed 6 months of service over 20 years up to a maximum of 74% with 32 years of service.
Early retirement	Early retirement benefits are reduced by 7% per year for commencement between ages 50 and 52.
Deferred retirement	<p>If a member ends employment other than by death or disability before completing 20 years of active service, the member shall be entitled to the member's contributions plus accumulated interest. This benefit is not available to converted members.</p> <p>If termination is after earning 20 years of service, the termination benefit is the accrued retirement benefit determined as of the termination date and payable commencing of the normal retirement date. The member may elect to receive a reduced early retirement benefit.</p>



## APPENDIX B – SUMMARY OF PLAN PROVISIONS

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### Disability

#### Hired before 1990

This disability benefit is only available to members hired prior to January 1, 1990 and who do not choose to be covered by the disability benefit for members hired after 1989. The disability benefit is equal to the benefit the member would have received if the member had retired. If the member does not have 20 years of service or is not at least age 52 on the date of disability, the benefit is computed as if the member does have 20 years of service and is age 52 on the date of disability.

#### House Enrolled Act Number 1617 Enhanced Disability:

For catastrophic physical personal injuries that result in a degree of impairment of at least 67% and permanently prevents the member from performing any gainful work, the member will receive a disability benefit equal to 100% of base salary. Additionally, the benefit is increased by the increase in the base salary.

#### Hired after 1989

This disability benefit is for members hired after 1989, or hired prior to January 1, 1990, who have chosen to be covered by this disability benefit. The following describes the three different classes of impairments and the amount of base benefit for each class:

#### Class 1 Impairment:

A personal injury that occurs while on duty, while responding to an emergency, or due to an occupational disease. The disability benefit is equal to a base benefit of 45% of base salary, plus an additional amount between 10% and 45% of this salary based on degree of impairment. The benefit is payable for life, at which time the member is entitled to a retirement benefit based on the salary and service the member would have earned had the member remained in active service.

#### Class 2 Impairment:

A proven duty-related disease. The disability benefit is equal to a base benefit of 22% of base salary, plus an additional 0.5% of this salary for each year of service up to a maximum of 30 years of service, plus an additional amount between 10% and 45% of this salary based on degree of impairment. If the member's total benefit is less than 30% of this salary and the member has fewer than 4 years of service, then the benefit is payable for a period equal to the years of service of the member. Otherwise, the benefit is payable for life.



Class 3 Impairment:

All other impairments that are not Class 1 or Class 2. The disability benefit is equal to a base benefit of 1% of base salary for each year of service up to a maximum of 30 years of service, plus an additional amount between 10% and 45% of this salary based on degree of impairment. If the member's total benefit is less than 30% of this salary and the member has fewer than 4 years of service, then the benefit is payable for a period equal to the years of service of the member. Otherwise, the benefit is payable until age 52, at which time the member is entitled to a retirement benefit based on 20 years of service.

2017 House Enrolled Act No. 1617 Enhanced Disability:

For catastrophic physical personal injuries that result in a degree of impairment of at least 67% and permanently prevents the member from performing any gainful work, the member will receive a disability benefit equal to 100% of base salary. Additionally, the benefit is increased by the increase in the base salary.

Pre-retirement death  
Surviving spouse

If a member dies other than in the line of duty, the spouse's benefit is equal to 60% of the monthly benefit the member was receiving or was entitled to receive on the date of death.

If a member dies in the line of duty, the spouse's benefit is equal to the monthly benefit the member was receiving or was entitled to receive on the date of death.

In either case, if the member does not have 20 years of service or is not at least age 52 on the date of death, the benefit is computed as if the member does have 20 years of service and is age 52 on the date of death.

Children

A payment shall be made to each child of a deceased member equal to 20% of the member's benefit until the later of (a) the date the child becomes age 18, or (b) the date the child becomes age 23 if enrolled in a qualified school. If a child is at least 18 and is mentally or physically incapacitated, the child is entitled to an amount equal to the greater of 30% of the base salary, or 55% of the member's benefit payable for the duration of the incapacity. If the member does not have 20 years of service or is not at least age 52 on the date of death, the benefit is computed as if the member does have 20 years of service and is age 52 on the date of death.



## APPENDIX B – SUMMARY OF PLAN PROVISIONS

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Dependent parents	If a deceased member leaves no surviving spouse and no qualified child but does leave a dependent parent or parents, an amount equal to 50% of the member's benefit shall be paid to the parent or parents jointly during their lifetime. If the member does not have 20 years of service or is not at least age 52 on the date of death, the benefit is computed as if the member does have 20 years of service and is age 52 on the date of death.
No spouse or dependent	If a deceased member leaves no surviving spouse, no qualified dependent child, nor a dependent parent, a refund of the member's contributions plus accumulated interest will be made to the member's estate.
Additional death benefits	A funeral death benefit is paid to the heirs or estate upon the member's death from any cause and is equal to at least \$12,000. An additional death benefit of \$150,000 is paid from the Pension Relief Fund to a surviving spouse, children, or parent(s) if death occurs in the line of duty.
Deferred retirement option plan (“DROP”)	<p>The DROP is an optional form of benefit, which allows members who are eligible for an unreduced retirement benefit to continue to work and earn a salary while accumulating a DROP benefit payable in a lump sum or three annual installments. A member who elects to enter the DROP shall execute an irrevocable election to retire on the DROP retirement date. The member shall select a DROP retirement date not less than 12 months and not more than 36 months after the member's DROP entry date. While in the DROP, the member shall continue to make applicable fund contributions.</p> <p>When a member enters the DROP, a “DROP frozen benefit” will be calculated. This is equal to the member's monthly retirement benefit based on accrued service and base salary as of the date member enters the DROP. Upon DROP retirement, the member is eligible to receive a lump sum equal to the amount of the DROP frozen benefit multiplied by the number of months in the DROP. You may elect to receive this amount in three annual installments instead of in a single lump sum. In addition, the member will receive a monthly retirement benefit equal to the DROP frozen benefit. The member will not continue to accrue service credit for the years in the DROP. Cost of living adjustments will not apply to the frozen monthly benefit while in the DROP. The cost of living adjustments will begin to be applied to the frozen monthly benefit, however, in the year after the year in which the member retires.</p>

















## APPENDIX D – GLOSSARY OF ACTUARIAL TERMS

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<b>Accrued Service</b>	Service credited under the plan that was rendered before the date of the actuarial valuation.
<b>Actuarial Assumptions</b>	Estimates of future experience with respect to demographic or economic events. Demographic assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.
<b>Actuarial Cost Method</b>	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of retirement plan benefits between future normal cost and actuarial accrued liability. Sometimes referred to as the “actuarial funding method.”
<b>Actuarial Equivalent</b>	A single amount or series of amounts of equal value to another single amount or series of amounts computed on the basis of a given set of actuarial assumptions.
<b>Actuarial Accrued Liability</b>	The difference between the actuarial present value of plan benefits and the actuarial value of future normal costs. Also referred to as “accrued liability” or “actuarial liability.”
<b>Actuarial Present Value</b>	The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest and by probabilities of payment.
<b>Amortization</b>	Paying off an interest-discounted amount with periodic payments of interest and principal, as opposed to paying off with lump sum payment.
<b>Experience Gain (Loss)</b>	The difference between actual experience and actuarial assumptions anticipated experience during the period between two actuarial valuation dates.
<b>Normal Cost</b>	The actuarial present value of retirement plan benefits allocated to the current year by the actuarial cost method.
<b>Unfunded Actuarial Accrued Liability</b>	<p>The difference between actuarial liability and the actuarial value of assets. Sometimes referred to as “unfunded accrued liability” or “unfunded liability”.</p> <p>Most retirement plans have unfunded actuarial liability. They arise anytime new benefits are added and anytime an actuarial loss is realized.</p>