

Section VII – Deferred Outflows/Inflows

Amounts reported as deferred outflows of resources related to pensions resulting from State contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2022 (Reporting Date). Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense.

Deferred Outflows and Inflows for Differences between Expected and Actual Experience (\$ in thousands)					
Year	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Pension Expense through 2021 (c)	Balances as of June 30, 2022 (Reporting Date)	
				Deferred Outflows (a) – (c)	Deferred Inflows (b) – (c)
				2021	\$7,018
2020	0	7	4	0	3
2019	0	0	0	0	0
2018	17,311	0	17,012	299	0
2017	0	5,780	5,780	0	0
Total				<u>\$5,729</u>	<u>\$3</u>

Deferred Outflows and Inflows for Differences from Assumption Changes (\$ in thousands)					
Year	Assumption Losses (a)	Assumption Gains (b)	Amounts Recognized in Pension Expense through 2021 (c)	Balances as of June 30, 2022 (Reporting Date)	
				Deferred Outflows (a) – (c)	Deferred Inflows (b) – (c)
				2021	\$1,677
2020	0	0	0	0	0
2019	2,286	0	1,539	747	0
2018	0	0	0	0	0
2017	0	3,598	3,598	0	0
Total				<u>\$2,045</u>	<u>\$0</u>



Section VII – Deferred Outflows/Inflows

Deferred Outflows and Inflows for Differences from Investment Experience (\$ in thousands)					
Year	Investment Losses (a)	Investment Gains (b)	Amounts Recognized in Pension Expense through 2021 (c)	Balances as of June 30, 2022 (Reporting Date)	
				Deferred Outflows (a) – (c)	Deferred Inflows (b) – (c)
				2021	\$0
2020	16,668	\$0	\$6,668	\$10,000	\$0
2019	1,653	0	993	660	0
2018	0	1,828	1,460	0	368
2017	0	20,907	20,907	0	0
Total				<u>\$10,660</u>	<u>\$70,894</u>
Net difference between projected and actual earnings on investments					\$60,234



Section VII – Deferred Outflows/Inflows

Amortization of Collective Deferrals (\$ in thousands)											
Fiscal Year End	Reporting Year End	2016 Investment Loss		2016 Experience Loss		2017 Investment Gain		2017 Experience Gain		2017 Assumption Changes Gain	
		Amount Recognized	EOY Balance	Amount Recognized	EOY Balance	Amount Recognized	EOY Balance	Amount Recognized	EOY Balance	Amount Recognized	EOY Balance
6/30/2020	6/30/2021	(\$4,566)	\$0	(\$644)	\$0	\$4,181	\$4,183	\$1,323	\$488	\$823	\$306
6/30/2021	6/30/2022	0	0	0	0	4,183	0	488	0	306	0
6/30/2022	6/30/2023	0	0	0	0	0	0	0	0	0	0
6/30/2023	6/30/2024	0	0	0	0	0	0	0	0	0	0
6/30/2024	6/30/2025	0	0	0	0	0	0	0	0	0	0
6/30/2025	6/30/2026	0	0	0	0	0	0	0	0	0	0
6/30/2026	6/30/2027	0	0	0	0	0	0	0	0	0	0
6/30/2027	6/30/2028	0	0	0	0	0	0	0	0	0	0

Amortization of Collective Deferrals (\$ in thousands)											
Fiscal Year End	Reporting Year End	2018 Investment Gain		2018 Experience Loss		2019 Investment Loss		2019 Assumption Changes Loss		2020 Investment Loss	
		Amount Recognized	EOY Balance	Amount Recognized	EOY Balance	Amount Recognized	EOY Balance	Amount Recognized	EOY Balance	Amount Recognized	EOY Balance
6/30/2020	6/30/2021	\$365	\$733	(\$4,253)	(\$4,552)	(\$331)	(\$991)	(\$513)	(\$1,260)	(\$3,334)	(\$13,334)
6/30/2021	6/30/2022	365	368	(4,253)	(299)	(331)	(660)	(513)	(747)	(3,334)	(10,000)
6/30/2022	6/30/2023	368	0	(299)	0	(331)	(329)	(513)	(234)	(3,334)	(6,666)
6/30/2023	6/30/2024	0	0	0	0	(329)	0	(234)	0	(3,334)	(3,332)
6/30/2024	6/30/2025	0	0	0	0	0	0	0	0	(3,332)	0
6/30/2025	6/30/2026	0	0	0	0	0	0	0	0	0	0
6/30/2026	6/30/2027	0	0	0	0	0	0	0	0	0	0
6/30/2027	6/30/2028	0	0	0	0	0	0	0	0	0	0



Section VII – Deferred Outflows/Inflows

Amortization of Collective Deferrals (\$ in thousands)												
Fiscal Year End	Reporting Year End	2020 Experience Gain		2021 Investment Gain		2021 Experience Loss		2021 Assumption Changes Loss		Total Deferrals		
		Amount Recognized	EOY Balance	Amount Recognized	EOY Balance	Amount Recognized	EOY Balance	Amount Recognized	EOY Balance	Amount Recognized	EOY Balance	
6/30/2020	6/30/2021	\$2	\$5	\$0	\$0	\$0	\$0	\$0	\$0	(\$6,947)	(\$14,422)	
6/30/2021	6/30/2022	2	3	17,632	70,526	(1,588)	(5,430)	(379)	(1,298)	\$12,578	\$52,463	
6/30/2022	6/30/2023	2	1	17,632	52,894	(1,588)	(3,842)	(379)	(919)	\$11,558	\$40,905	
6/30/2023	6/30/2024	1	0	17,632	35,262	(1,588)	(2,254)	(379)	(540)	\$11,769	\$29,136	
6/30/2024	6/30/2025	0	0	17,632	17,630	(1,588)	(666)	(379)	(161)	\$12,333	\$16,803	
6/30/2025	6/30/2026	0	0	17,630	0	(666)	0	(161)	0	\$16,803	\$0	
6/30/2026	6/30/2027	0	0	0	0	0	0	0	0	\$0	\$0	
6/30/2027	6/30/2028	0	0	0	0	0	0	0	0	\$0	\$0	



Section VIII – Required Supplementary Information

There are several tables of Required Supplementary Information (RSI) that need to be included in the System's financial statements. They are provided in Schedule C. In addition, the following should be noted regarding the RSI.

Changes of assumptions.

- 2021
 - The expectation of retired life mortality was changed to the PubS.H-2010(B) Retiree Table with the following adjustments:
 - For males, 95% of male rates up to age 60, 110% for ages 61 to 75, and 101% for ages above 77.
 - For females, 84% of female rates up to age 72 scaled up to 100% for ages above 76.
 - Projection scale MP-2020 will be used to project future improvements in life expectancy generationally.
 - The expectation of contingent life mortality was changed to the PubS.H-2010(B) Retiree Table with the following adjustments:
 - For males, 97% of male rates for all ages.
 - For females, 110% of female rates for all ages.
 - Projection scale MP-2020 will be used to project future improvements in life expectancy generationally.
 - The expectation of disabled mortality was changed to PubG.H-2010 Disabled Retiree Table for disabled retirees with the following adjustments:
 - For males, 134% of male rates at all ages.
 - For females, 121% of female rates at all ages.
 - Projection scale MP-2020 will be used to project future improvements in life expectancy generationally.
 - The investment rate of return assumption was reduced from 7.75% to 7.55%.
 - The price inflation assumption was reduced from 2.75% to 2.40%.
 - The wage inflation assumption was reduced from 3.00% to 2.65%.
 - Withdrawal rates, pre-retirement mortality rates, disability rates, and service retirement rates were also adjusted to reflect actual experience more closely.



Section VIII – Required Supplementary Information

- 2019
 - The expectation of retired life mortality was changed to the PubS.H-2010(B) Retiree Table with the following adjustments:
 - For males, 112% of male rates from ages 18 to 75 scaled down to 105% for ages 80 to 119.
 - For females, 85% of the female rates from ages 18 to 65 scaled up to 102% for ages 75 to 119.
 - Projection scale MP-2018 will be used to project future improvements in life expectancy generationally.
 - The expectation of disabled mortality was changed to PubT.H-2010 Disabled Retiree Table for disabled retirees with the following adjustments:
 - For males, 137% of male rates at all ages.
 - For females, 115% of female rates at all ages.
 - Projection scale MP-2018 will be used to project future improvements in life expectancy generationally.
 - The price inflation assumption was reduced from 3.00% to 2.75%.
 - The wage inflation assumption was reduced from 3.25% to 3.00%.
 - Pre-retirement mortality rates were also adjusted to reflect actual experience more closely.
- 2017
 - The expectation of retired life mortality was changed to the RP-2014 Healthy Annuitant Blue Collar Mortality Table projected with Scale BB to 2022.
 - The wage inflation assumption was reduced from 3.75% to 3.25%.
 - Pre-retirement mortality, withdrawal and disability retirement rates were also adjusted to reflect actual experience more closely.
 - Assumed rates of salary increase were adjusted to reflect actual and anticipated experience more closely.
- 2016
 - The assumed rate of interest credited to employee contributions was changed from 3.50% to 2.00%.



Section VIII – Required Supplementary Information

- 2015
 - The expectation of retired life mortality was changed to the RP-2014 Healthy Annuitant Blue Collar Table projected to 2016 using Scale BB rather than the RP-2000 Mortality Table, which was used prior to 2015.
 - The expectation of disabled mortality was changed to the RP-2014 Disabled Retiree Table, rather than the RP-2000 Disabled Mortality Table, which was used prior to 2015.
 - Withdrawal rates, pre-retirement mortality rates, disability rates and service retirement rates were also adjusted to reflect actual experience more closely.
 - Assumed rates of salary increase were adjusted to reflect actual and anticipated experience more closely.
 - The price inflation and investment rate of return assumptions were changed from 3.50% to 3.00% and 8.00% to 7.75%, respectively.

Changes in benefit provisions.

- 2016
 - The interest rate on employee contributions shall be calculated based on the money market rate as published by the Wall Street Journal on December 31 of each preceding year with a minimum rate of one percent and a maximum rate of five percent.

Method and assumptions used in calculations of actuarially determined contributions. The actuarially determined contribution rates in the schedule of employer contributions are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported (Fiscal Year End 2021 Employer Contributions are developed from June 30, 2019 valuation). The following actuarial methods and assumptions were used to determine the most recent contribution rate reported in that schedule:

Actuarial cost method	Entry age
Amortization method	Level percentage of payroll, open
Remaining amortization period	17.7 years
Asset valuation method	5-year smoothed market
Price Inflation	2.75 percent
Salary increase	3.00 percent to 8.56 percent, including inflation
Investment rate of return	7.75 percent, net of pension plan investment expense, including inflation



Schedule A – Statement of Actuarial Assumptions and Methods

INTEREST RATE: 7.55% per annum, compounded annually (net of investment expenses only). The expected return on assets consists of 2.40% price inflation and 5.15% real rate of return.

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of separation from active service are as follows:

Age	Withdrawal		Death*		Disability		Service Service	Retirement**
	Less than 20 years of service	20 or more years of service	Males	Females	Non-Duty	Duty		
25	7.000%	3.500%	0.0567%	0.0189%	0.0360%	0.0023%	5	7.5%
30	4.000	2.000	0.0630	0.0259	0.0450	0.0068	10	7.5%
35	2.750	1.375	0.0714	0.0350	0.0585	0.0180	15	7.5%
40	2.000	1.000	0.0893	0.0483	0.0765	0.0248	20	7.5%
45	2.000	1.000	0.1218	0.0665	0.1125	0.0225	25	20.0%
50	2.000	1.000	0.1764	0.0917	0.1890	0.0180	30	15.0%
55	0.000	0.000	0.2594	0.1274	0.3420	0.0068	35	35.0%
60	0.000	0.000	0.3980	0.1757	0.5805	0.0023	40+	100.0%

* Adjusted Base Rates.

** The annual rate of service retirement is 100% at age 63.

It is assumed that a member will be granted 1¾ years of service credit for unused leave at termination of employment. In addition, it is assumed that, on average, ¼ year of service credit for peace-time military service will be granted to each member.

SALARY INCREASES: Representative values of the assumed annual rates of salary increases are as follows:

Age	Merit & Seniority	Annual Rates of	
		Base (Economy)	Increase Next Year
20	5.91%	2.65%	8.56%
25	2.66	2.65	5.31
30	1.84	2.65	4.49
35	1.84	2.65	4.49
40	1.84	2.65	4.49
45	1.35	2.65	4.00
50	0.85	2.65	3.50
55	0.85	2.65	3.50
60	0.35	2.65	3.00



Schedule A – Statement of Actuarial Assumptions and Methods

DEATH AFTER RETIREMENT:

Service Retirees*

<u>Membership Table</u>	<u>Adjustment to Rates</u>	<u>Projection Scale</u>
PubS.H-2010(B) Retiree	Male: 95% up to age 60, 110% for ages 61 to 75, and 101% for ages above 77 Female: 84% up to age 72, 100% for ages above 76	MP-2020

Contingent Annuitants*

<u>Membership Table</u>	<u>Adjustment to Rates</u>	<u>Projection Scale</u>
PubS.H-2010(B) Contingent Annuitant	Male: 97% for all ages Female: 110% for all ages	MP-2020

Disabled Retirees*

<u>Membership Table</u>	<u>Adjustment to Rates</u>	<u>Projection Scale</u>
PubG.H-2010 Disabled	Male: 134% for all ages Female: 121% for all ages	MP-2020

* Please note that none of the recommended tables have any setbacks or setforwards.

Representative values of the assumed rates of death after retirement are as follows:

AGE	Rates of Death After Retirement*					
	Service Retirees		Contingent Annuitants		Disabled Retirees	
	Male	Female	Male	Female	Male	Female
45	0.2983%	0.0983%	0.7692%	0.5104%	1.4660%	1.1919%
50	0.4190%	0.1638%	0.8837%	0.6556%	2.2780%	1.7956%
55	0.5197%	0.2738%	1.0156%	0.7843%	2.9855%	2.1078%
60	0.7771%	0.4578%	1.2397%	1.0131%	3.6475%	2.4684%
65	1.3211%	0.7652%	1.6286%	1.4157%	4.5426%	2.9730%
70	2.1758%	1.2785%	2.4153%	1.9998%	5.8129%	3.8127%
75	3.8566%	2.3659%	3.7209%	3.0052%	7.6661%	5.2683%
80	6.2640%	4.2530%	5.7734%	4.7289%	10.8125%	7.7779%
85	11.0605%	7.3240%	9.2228%	7.8562%	15.7785%	11.9947%
90	17.6902%	12.6470%	14.6577%	13.4530%	22.7224%	17.5353%

*Adjusted Base Rates



Schedule A – Statement of Actuarial Assumptions and Methods

PAYROLL GROWTH: 2.65% per annum, compounded annually.

ADMINISTRATIVE EXPENSES: 0.28% of payroll.

TIMING OF DECREMENT AND PAY INCREASES: Middle of Year.

ASSUMED INTEREST RATE ON EMPLOYEE CONTRIBUTIONS: 2.00%

MARRIAGE ASSUMPTION: 100% married with the husband three years older than his wife.

SURVIVING CHILD BENEFITS ASSUMPTION: A small load is applied for surviving children.

ASSET VALUATION METHOD: Market value of assets.

MAXIMUM COVERED EARNINGS ASSUMPTION GROWTH: 2.65%

MODIFIED CASH REFUND: Benefits were valued with a twelve-year certain period for retirees and five-year certain for active members to estimate the value of the modified cash refund feature.

VALUATION METHOD: The valuation is prepared on the projected benefit basis, which is used to determine the present value of each member's expected benefit payable at retirement, disability, or death. The calculations are based on the member's age, years of service, sex, compensation, expected future salary increases, and an assumed future interest earnings rate (currently 7.55%). The calculations consider the probability of a member's death or termination of employment prior to becoming eligible for a benefit and the probability of the member terminating with a service, disability, or survivor's benefit. The present value of the expected benefits payable to active members is added to the present value of the expected future payments to current benefit recipients to obtain the present value of all expected benefits payable to the present group of members and survivors.

The employer contributions required to support the benefits of HSPRS are determined following a level funding approach and consist of a normal contribution and an accrued liability contribution.

The normal contribution is determined using the "entry age normal" method. Under this method, a calculation is made for pension benefits to determine the uniform and constant percentage rate of employer contribution which, if applied to the compensation of the average new member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf.

The unfunded actuarial accrued liability is determined by subtracting the current assets and the present value of prospective employer normal contributions and member contributions from the present value of expected benefits to be paid from the HSPRS. The accrued liability contribution amortizes the balance of the unfunded actuarial accrued liability over a period of years from the valuation date.



Schedule B – Summary of Main Benefit and Contribution Provisions

The following summary presents the main benefit and contribution provisions of the System in effect June 30, 2021, as interpreted in preparing the actuarial valuation.

DEFINITIONS

Average Compensation	Average annual covered earnings of an employee during the four highest consecutive years of service.
Covered Earnings	Gross salary not in excess of the maximum amount on which contributions were required.
Fiscal Year	Year commencing on July 1 and ending June 30.
Credited Service	Service while a contributing member plus additional service as described below.
Unused Sick and Vacation Leave	Service credit is provided at no charge to members for unused sick and vacation time that has accrued at the time of retirement. A payment of up to 240 hours of leave may be used in the Average Compensation definition.
Additional Service	Additional service credit may be granted for service prior to July 1, 1958, active duty military service, and retroactive service



Schedule B – Summary of Main Benefit and Contribution Provisions

The maximum covered earnings for employers and employees over the last ten years are as follows:

EMPLOYER AND EMPLOYEE RATES OF CONTRIBUTION AND MAXIMUM COVERED EARNINGS

Fiscal Date From	Fiscal Date To	Employer Rate	Employee Rate	Maximum Covered Earnings*
7/1/2008	12/31/2011	30.30%	7.25%	
1/1/2012	6/30/2012	35.21	7.25	
7/1/2012	6/30/2017	37.00	7.25	
7/1/2018	6/30/2021	49.08	7.25	

*Maximum covered earnings equal wages paid, not to exceed wages paid to the Commissioner of the Department of Public Safety (currently \$175,665).

Effective July 1, 2020, additional contributions from SB 2659 and HB 1015 are estimated to be \$3,700,000 combined.



Schedule B – Summary of Main Benefit and Contribution Provisions

BENEFITS

Superannuation Retirement

Condition for Retirement

A retirement allowance is payable to any member who retires and has attained age 55 and completed at least five years of membership service, or has attained age 45 and completed at least 20 years of creditable service, or has completed 25 years of creditable service regardless of age.

Any member who has attained age 63 shall be retired forthwith. Effective July 1, 2011, the Commissioner of Public Safety is authorized to allow a member who has attained age 63 to continue in active service. Such continued service may be authorized annually until the member attains age 65.

Amount of Allowance

The annual retirement allowance payable to a retired member is equal to:

1. A member's annuity which is the actuarial equivalent of the member's accumulated contributions at the time of his or her retirement, plus
2. An employer's annuity which, together with the member's annuity, is equal to 2-1/2% of his or her average compensation for each year of membership service, plus
3. A prior service annuity equal to 2-1/2% of average compensation for each year of prior service.

The aggregate amounts of (2) and (3) above shall not exceed 100% of average compensation, regardless of service, for retirements on or after January 1, 2000; 85% for retirements prior to January 1, 2000.

The minimum allowance for both service and disability retirement based on the following table for each year of creditable service, reduced if necessary as indicated below.

Service	Monthly Benefit
Less than 10 years	\$250
10-15 years	\$300
15 or more years	\$500



Schedule B – Summary of Main Benefit and Contribution Provisions

The annual retirement allowance payable to a member who retires under condition (a) above prior to age 55 is computed in accordance with the above formula except that the employer’s annuity and prior service annuity are reduced 3% for each year of age below age 55, or 3% for each year of service below 25 years of creditable service, whichever is less.

Deferred Vested

Condition for Vesting

Any member who withdraws from service prior to his or her attainment of age 55 but after having completed five or more years of creditable service is entitled to receive, in lieu of a refund of his or her accumulated contributions, a retirement allowance commencing at age 55.

Amount of Allowance

The annual retirement allowance payable at age 55 is equal to:

1. A member’s annuity which is the actuarial equivalent of the member’s accumulated contributions at the time of his or her retirement, plus
2. An employer’s annuity which, together with the member’s annuity, is equal to 2-1/2% of his or her average compensation for each year of membership service, plus
3. A prior service annuity equal to 2-1/2% of average compensation for each year of prior service.

The aggregate amounts of (2) and (3) above shall not exceed 100% of average compensation, regardless of service, for retirements on or after January 1, 2000; 85% for retirements prior to January 1, 2000.

The minimum allowance for both service and disability retirement based on the following table for each year of creditable service, reduced if necessary as indicated below.

Service	Monthly Benefit
Less than 10 years	\$250
10-15 years	\$300
15 or more years	\$500



Schedule B – Summary of Main Benefit and Contribution Provisions

Disability Retirement

Non-Duty-Related

Non-duty related disability benefits are available to vested members under the age of 55. Vested members age 55 or older are not eligible for disability benefits but may apply for service retirement benefits. For purposes of disability benefits, average annual compensation is calculated using the last two years of salary before retirement.

Duty-Related

If you become permanently disabled due to sickness or injury caused or sustained as a direct result of duty, you may be eligible for duty-related disability retirement. You are covered for this benefit from the first day of employment if you have not reached age 55, regardless of your years of service. Duty-related disability retirement benefits are calculated at either 50 percent of average compensation of the last two years of salary before retirement (this portion is not taxable) or the non-duty-related disability retirement amount, whichever provides the higher benefit.

Death Benefits

Non-Duty-Related

If you are vested, your spouse and dependent children may be eligible to receive certain statutory benefits. Claims for non-duty-related death benefits are calculated at 2.5 percent of average compensation for each year of service credit, as calculated under Option 9, Maximum Benefit. Under this option, 50 percent of the accrued benefit is payable to your spouse until death, with 25 percent of the accrued benefit payable to one dependent child and 50 percent of the accrued benefit payable for two or more dependent children (under age 19 and never married or under age 23 if a full-time student and never married). Upon application and approval by the Medical Board, benefits to a physically or mentally disabled child may continue as long as the disability exists.

Duty-Related

Coverage for duty-related death benefits begins on the first day of employment and is available to your spouse and dependent children regardless of your vesting status. If you are vested, your spouse and dependent children may be eligible to receive benefits under either non-duty or duty-related death benefit provisions, whichever provided the higher benefit.



Schedule B – Summary of Main Benefit and Contribution Provisions

Claims for duty-related death benefits are calculated at 50 percent of average compensation, payable to your spouse until death, with 25 percent of average compensation payable to one dependent child and 50 percent of average compensation payable for two or more dependent children (under age 19 and never married or under age 23 if a full-time student and never married). Upon application and approval by the Medical Board, benefits to a physically or mentally disabled child may continue as long as the disability exists.

Death After Retirement

Upon the death of a highway patrolman who has retired for service or disability and who has not elected any other optional form of benefit, his widow or her widower is eligible for a benefit equal to 50% of his or her retirement allowance and each child (but not more than 2) who has not attained age 19 (23 if a full-time student) is eligible for a benefit equal to 25% of his or her retirement allowance. The benefit to the widow is payable for life and to children until they attain age 19 (23 if a full-time student) or for life if they are totally and permanently disabled.

Refund of Contributions

Upon a member's termination of employment for any reason before retirement, his or her accumulated contributions, together with regular interest thereon, are refunded. Upon the death of a member who is not eligible for any other death benefit, his or her accumulated contributions, together with regular interest thereon, are paid to his or her beneficiary.

Effective July 1, 2016, the interest rate on employee contributions shall be calculated based on the money market rate as published by the Wall Street Journal on December 31 of each preceding year with a minimum rate of one percent and a maximum rate of five percent.

Normal Form of Benefit

The normal form of benefit is an allowance payable during the life of the member. Upon death the benefits described above are payable.

Optional Benefits

A member upon retirement may elect to receive his allowance in one of the following forms which are computed to be actuarially equivalent to the applicable retirement allowance.



Schedule B – Summary of Main Benefit and Contribution Provisions

Option 1. Reduced allowance with the provision that if the pensioner dies before he receives the value of the member's annuity as it was at the time of retirement, the balance shall be paid to his or her beneficiary.

Option 2. Upon his or her death, his or her reduced retirement allowance shall be continued throughout the life of, and paid to, his or her beneficiary.

Option 3. Upon his or her death, 50% of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary and the other 50% of his or her reduced retirement allowance to some other designated beneficiary.

Option 4. Upon his or her death, 75% of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.

Option 4A. Upon his or her death, 50% of his or her reduced retirement allowance shall be continued throughout the life of, and paid to, a designated beneficiary.

Option 4B. A reduced retirement allowance shall be continued throughout the life of the pensioner, but with the further guarantee of payment to the pensioner or his or her beneficiary for a specified number of years certain.

Option 4C. A member may elect any option with the added provision that the member shall receive, so far as possible, the same total amount annually (considering both HSPRS and Social Security benefits) before and after the earliest age at which the member becomes eligible for a Social Security benefit. This option was only available to those who retired prior to July 1, 2004.

Option 9. Upon his or her death, spouse will receive 50% of the benefit member was receiving for life. Each dependent child (under age 19 and never married or under age 23 if a full-time student and never married) will receive 25% of the benefit member was receiving with a maximum of 50% for the support and care of two or more children. Any contribution and interest remaining after member death and after all monthly benefits due to spouse and children have been paid will be refunded to designated beneficiaries. If the member marries after



Schedule B – Summary of Main Benefit and Contribution Provisions

retirement while receiving benefits under this option, they may apply to Pop-Down to Option 2 to provide 100% beneficiary protection to new spouse, or Pop-down to Option 4 or Option 4A for other beneficiary protections for the new spouse. PLSO is available with this option, if eligible.

A member who elects Option 2, Option 4, or Option 4A, at retirement may revert to the normal form of benefit if the designated beneficiary predeceases the retired member or if the retired member divorces the designated beneficiary. A member who elects the normal form of benefit or Option 1 at retirement may select Option 2, Option 4, or Option 4A to provide beneficiary protection to a new spouse if married after retirement.

A member who qualifies for an unreduced retirement allowance may select a partial lump-sum option at retirement. Under this option, the retiree has the option of taking a partial lump-sum distribution equal to either 12, 24, or 36 times the base maximum monthly benefit. With each lump-sum amount, the base maximum monthly benefit will be actuarially reduced. A member selecting this option may also select any of the regular options except Option 1, the prorated single-life annuity, and Option 4-C, the Social Security leveling provision. The benefit is then calculated using the new reduced maximum benefit as a starting point in applying the appropriate option factors for the reduction.

Post-Retirement Adjustments In Allowances

The allowances of retired members are adjusted annually by an amount equal to (a) 3% of the annual retirement allowance for each full fiscal year of retirement prior to the year in which the member reaches age 60*, plus (b) 3% compounded for each year thereafter beginning with the fiscal year in which the member turns age 60*.

A prorated portion of the annual adjustment will be paid to the member, beneficiary, or estate of any member or beneficiary who is receiving the annual adjustment in a lump sum, but whose benefits are terminated between July 1 and December 1.

Those members who retired on or before July 1, 1999 received an ad hoc benefit increase in the amount of \$3.50 per month per each full fiscal year of retirement through June 30, 1999 plus \$1.00 per month for each year of



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credited service. The benefits were increased on July 1, 1999.

*this age will be reduced in five phases to age 55 if the actuary certifies that reducing the age will not result in the amortization period of the unfunded accrued liability exceeding 20 years.

CONTRIBUTIONS

Members contribute 7.25% of compensation and the employer contributes 49.08% of compensation. Funds from SB 2659 and HB 1015 are also provided.



Schedule C – Required Supplementary Information

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY (\$ in Thousands)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total pension liability										
Service cost	\$6,461	\$6,361	\$6,858	\$7,328	\$7,205	\$7,372	\$8,104	\$8,235		
Interest	33,396	34,503	35,869	37,086	37,338	39,532	40,624	41,571		
Changes of benefit terms	0	0	0	0	0	0	0	0		
Difference between expected and actual experience	2,652	1,013	3,536	(5,780)	17,311	0	(7)	7,018		
Changes of assumptions	0	19,176	0	(3,598)	0	2,286	0	1,677		
Benefit payments	(28,220)	(28,909)	(29,913)	(31,001)	(32,315)	(34,671)	(35,455)	(37,433)		
Refund of Contributions	<u>(42)</u>	<u>(163)</u>	<u>(52)</u>	<u>(144)</u>	<u>(103)</u>	<u>(16)</u>	<u>(48)</u>	<u>(67)</u>		
Net change in total pension liability	\$14,247	\$31,981	\$16,298	\$3,891	\$29,436	\$14,503	\$13,218	\$21,001		
Total pension liability – beginning	\$431,575	\$445,822	\$477,803	\$494,101	\$497,992	\$527,428	\$541,931	\$555,149		
Total pension liability – ending (a)	\$445,822	\$477,803	\$494,101	\$497,992	\$527,428	\$541,931	\$555,149	\$576,150		
Plan fiduciary net position										
Contributions – employer	\$13,500	\$13,695	\$14,755	\$14,809	\$15,128	\$19,375	\$20,144	\$19,563		
Contributions – member	1,963	1,938	2,128	2,147	2,271	2,340	2,428	2,378		
Net investment income	51,575	10,812	1,704	44,499	27,719	25,280	11,196	115,761		
Benefit payments	(28,220)	(28,909)	(29,913)	(31,001)	(32,315)	(34,671)	(35,455)	(37,433)		
Administrative expense	(200)	(198)	(217)	(203)	(250)	(312)	(328)	(320)		
Refund of Contributions	(42)	(163)	(52)	(144)	(103)	(16)	(48)	(67)		
Other	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		
Net change in plan fiduciary net position	\$38,576	(\$2,825)	(\$11,595)	\$30,107	\$12,450	\$11,996	(\$2,063)	\$99,882		
Plan fiduciary net position – beginning	\$287,456	\$326,032	\$323,207	\$311,612	\$341,719	\$354,169	\$366,165	\$364,102		
Plan fiduciary net position – ending (b)	\$326,032	\$323,207	\$311,612	\$341,719	\$354,169	\$366,165	\$364,102	\$463,984		
Net pension liability – ending (a) – (b)	\$119,790	\$154,596	\$182,489	\$156,273	\$173,259	\$175,766	\$191,047	\$112,166		



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SCHEDULE OF THE NET PENSION LIABILITY (\$ in Thousands)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total pension liability	\$445,822	\$477,803	\$494,101	\$497,992	\$527,428	\$541,931	\$555,149	\$576,150		
Plan fiduciary net position	<u>326,032</u>	<u>323,207</u>	<u>311,612</u>	<u>341,719</u>	<u>354,169</u>	<u>366,165</u>	<u>364,102</u>	<u>463,984</u>		
Net pension liability	<u>\$119,790</u>	<u>\$154,596</u>	<u>\$182,489</u>	<u>\$156,273</u>	<u>\$173,259</u>	<u>\$175,766</u>	<u>\$191,047</u>	<u>\$112,166</u>		
Plan fiduciary net position as a percentage of the total pension liability	73.13%	67.64%	63.07%	68.62%	67.15%	67.57%	65.59%	80.53%		
Covered payroll	\$25,554	\$25,505	\$27,380	\$28,845	\$29,555	\$31,811	\$32,346	\$29,780		
Net pension liability as a percentage of covered payroll	468.77%	606.14%	666.50%	541.77%	586.23%	552.53%	590.64%	376.65%		



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SCHEDULE OF EMPLOYER CONTRIBUTIONS (\$ in Thousands)

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Contractually Required Employer contribution	\$18,160	\$19,594	\$19,383	\$14,430	\$14,431	\$14,025	\$13,226	\$13,595	\$13,098	\$12,257
Contributions in relation to the actuarially determined contribution	<u>19,563</u>	<u>20,144</u>	<u>19,375</u>	<u>15,128</u>	<u>14,809</u>	<u>14,755</u>	<u>13,695</u>	<u>13,500</u>	<u>13,366</u>	<u>12,044</u>
Annual contribution deficiency (excess)	\$(1,403)	(\$550)	\$8	(\$698)	(\$378)	(\$730)	(\$469)	\$95	(\$268)	\$213
Covered payroll	\$29,780	\$32,346	\$31,811	\$29,555	\$28,845	\$27,380	\$25,505	\$25,554	\$25,816	\$25,670
Actual contributions as a percentage of covered payroll	65.69%	62.28%	60.91%	51.19%	51.34%	53.89%	53.70%	52.83%	51.77%	46.92%