City Of Parkersburg, West Virginia
Firemen’s Pension and Relief Fund

Actuarial Valuation Report
for the Year Beginning July 1, 2017

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August 29, 2018

Mr. Eric S. Jiles	Chief Jason M. Matthews
City Treasurer/Finance Director	Pension Board Secretary
#1 Government Square	City of Parkersburg Firemen's Pension and Relief Fund
Parkersburg, WV 26101	

Subject: City of Parkersburg Firemen's Pension and Relief Fund
Actuarial Valuation Report for the Year Beginning July 1, 2017

Dear Mr. Jiles and Chief Matthews:

Upon the request of the Municipal Pensions Oversight Board, we have performed an actuarial valuation as of July 1, 2017, for the City of Parkersburg, West Virginia Firemen's Pension and Relief Fund ("Fund" or "Plan"). This actuarial valuation has been performed in accordance with the West Virginia Code Chapter 8, Article 22, Sections 16 through 28, inclusive.

In accordance with West Virginia Code §8-22-20, this actuarial valuation report provides information on:

- The sponsor's funding requirements for the fiscal year ending June 30, 2019
- The Fund's eligibility to receive an allocation of the premium tax for the fiscal year ending June 30, 2019
- The Fund's eligibility to provide supplemental benefits for the plan year beginning July 1, 2019

West Virginia Code §8-22-20(c)(4) requires a review of the actuarial assumptions and methods at least once every five years and that the Actuary shall provide a report to the oversight board with recommendations on any changes to the actuarial process. Consequently, an experience review was performed for the period July 1, 2009, through June 30, 2014. The actuarial assumptions and methods were recommended by the actuary, in the report *2016 Experience Review for the Years July 1, 2009, to July 1, 2014*, approved by the Municipal Pensions Oversight Board, and became effective for the actuarial valuation as of July 1, 2015.

This report is based on the sponsor's election to finance benefit obligations using the Optional funding policy as defined in West Virginia Code §8-22-20 (e)(1).

This actuarial valuation is based upon:

Plan Member Data – Data for active members and persons receiving benefits from the Fund as of June 30, 2017, was provided by the Fund's staff. We have tested this data for reasonableness.

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Asset Values – A reconciliation of market value of assets during the plan year ended June 30, 2017, and assets held as of June 30, 2017, by investment category, was provided by the Fund.

Plan Provisions – A summary of the key plan provisions valued are set forth in Section VI of the report: Summary of Principal Plan Provisions.

Actuarial Methods – Fund liabilities were measured using the Entry-Age Normal Actuarial Cost Method. The actuarial valuation was based on the market value of assets. The actuarial methods used in the actuarial valuation are set forth in Section V of the report: Actuarial Assumptions and Methods.

Actuarial Assumptions – The actuarial assumptions used include a discount rate of 5.00%. The actuarial assumptions used in the actuarial valuation are set forth in Section V of the report: Actuarial Assumptions and Methods.

The actuarial valuation results disclosed in this report are based on the data and actuarial assumptions and methods described above, and upon the provisions of the Plan as of the actuarial valuation date. Based on these items, we certify these results to be true and correct.

To the best of our knowledge, this actuarial statement is complete and accurate, and has been prepared in accordance with generally accepted actuarial principles and practices.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

This report should not be relied on for any purpose other than the purpose stated.

The signing actuaries are independent of the plan sponsor.

Alex Rivera and Lance J. Weiss are members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Sincerely,

Alex Rivera   Lance J. Weiss

Alex Rivera, FSA, EA, MAAA, FCA	Lance Weiss, EA, MAAA, FCA
Senior Consultant	Senior Consultant

GRS

Contents

SECTION I

ACTUARIAL VALUATION RESULTS AS OF JULY 1, 2017

Executive Summary of Valuation Results as of July 1, 2017

Upon the request of the Municipal Pensions Oversight Board, we have performed an actuarial valuation as of July 1, 2017, for the City of Parkersburg, West Virginia Firemen's Pension and Relief Fund ("Fund" or "Plan").

In accordance with West Virginia Code §8-22-20, this actuarial valuation report provides information on:

- The sponsor's funding requirements for the fiscal year ending June 30, 2019
- The Fund's eligibility to receive an allocation of the premium tax for the fiscal year ending June 30, 2019
- The Fund's eligibility to provide supplemental benefits for the plan year beginning July 1, 2019

This report is based on the sponsor's election to finance benefit obligations using the Optional funding policy as defined in West Virginia Code §8-22-20 (e)(1). The sponsor changed the funding policy used to determine contributions from the Alternative funding policy to the Optional funding policy, effective October 24, 2017.

The key features of the Optional funding policy, effective for plan years beginning after January 1, 2010, are summarized below:

- The current local Plan is closed to new employees
- New employees are covered in the multiple employer statewide plan – *Municipal Police Officers and Firefighters Retirement System*
- Benefits and expenses in the closed local Plan are financed by contributions made from the following sources:
  - Employee contributions of 7.0% of pay for members hired before January 1, 2010, increased by up to 2.5% of pay if elected by the Board of Trustees of the Plan. Employees hired on or after January 1, 2010, contribute 9.5% of pay;
  - The premium tax allocation assigned to the Fund for the plan year; and
  - Employer contributions equal to the normal cost, net of employee contributions, plus a 40-year closed period amortization from January 1, 2010, on a level dollar basis, of the unfunded actuarial accrued liability net of premium tax allocation applicable to the plan year.

The sponsor made a contribution of $3,310,177 for the fiscal year end June 30, 2018, based on the Optional funding policy contribution amount provided in the actuarial valuation report as of July 1, 2016, which assumed that the sponsor closed the pension fund as of July 1, 2017. The sponsor's minimum statutory contribution for fiscal year 2018 is based on a proration of the Alternative funding contribution before the pension fund close date and the Optional funding contribution after the pension fund close date. Since the sponsor closed the pension fund on October 24, 2017, and the fiscal year 2018 Alternative contribution is less than the fiscal year 2018 optional contribution, the sponsor made contributions which exceeded the statutory minimum. The additional contributions in excess of the statutory minimum will help improve the funded status of the pension fund and reduce future contributions. The additional excess contributions are reflected in the actuarial projections contained in this report.

Executive Summary of Valuation Results as of July 1, 2017 (Continued)

The following table provides the Plan's funded status:

Funded Status as of:	July 1, 2017
Assets	$14,870,359
Actuarial Accrued Liability	$59,198,392
Unfunded Actuarial Accrued Liability	$44,328,033
Funded Ratio	25.12%

The following table provides the estimated employer contributions for the fiscal year ended June 30, 2018, under the Optional funding policy, based on the July 1, 2016 actuarial valuation produced by GRS:

Employer Contributions for FYE:	June 30, 2018
Estimated Payroll for PYE 06/30/2017	$2,789,195
Employer Normal Cost for PYE 06/30/2017	$1,093,793
Employer Normal Cost Rate for PYE 06/30/2017	39.2%
Amortization of Unfunded Actuarial Liability for PYE 06/30/2017	$2,876,162
State Insurance Premium Tax Allocation for FYE 06/30/2018	$659,778
Employer Contribution for FYE 06/30/2018 [a]	$3,310,177

The following table provides the estimated employer contributions for the fiscal year ended June 30, 2019, under the Optional funding policy, based on the July 1, 2017 actuarial valuation produced by GRS:

Estimated Employer Contributions for FYE:	June 30, 2019
Estimated Payroll for PYE 06/30/2018	$2,414,805
Employer Normal Cost for Active Members for PYE 06/30/2018	$980,642
Employer Normal Cost Rate for PYE 06/30/2018	40.6%
Amortization of Unfunded Actuarial Liability for PYE 06/30/2018	$2,720,082
State Insurance Premium Tax Allocation for FYE 06/30/2019	$663,805
Estimated Employer Contribution for FYE 06/30/2019 [a]	$3,036,919

[a] *The Employer Contribution cannot be less than the Employer Normal Cost.*

Executive Summary of Valuation Results as of July 1, 2017 (Continued)

The actual minimum employer contribution for fiscal year ending June 30, 2019, will be based on the actual payroll for the plan year ended June 30, 2018.

Commentary on Premium Tax Allocation

Under §8-22-19 of the West Virginia Code, the plan sponsor is required to deposit the statutory contribution on a monthly basis at a rate of one-twelfth of the annual requirement, in order to receive the premium tax allocation from the Municipal Pensions Security Fund. Revenues which are specifically collected for the Fund, including employee payroll contributions, must be deposited within five days of receipt.

Based upon discussions with the Municipal Pensions Oversight Board (MPOB), we understand the annual premium tax allocation is determined by September 1st each year. Municipalities can begin invoicing the MPOB for their share of the premium tax allocation after receiving their state provided actuarial study and after the municipality has made employer contributions to the local Plan. Each municipal treasurer shall use the invoice template provided by the MPOB to begin drawing down the state allocation for the municipal pension plan. This July 1, 2017, Actuarial Report from GRS is to be used by municipal pension plans to draw down the September 1, 2018, State Premium Tax Allocation which is allocated in Fiscal Year 2019. *The actuarial valuation and projection results assume the sponsor will make the statutory contributions on a monthly basis in accordance with statutes, and will be eligible to receive the premium tax allocation.*

Commentary on Solvency Projections and Supplemental Benefits

Under § 8-22-26a of the West Virginia Code, all retirees, surviving spouses and disabled pensioners are eligible for Supplemental Benefits that include automatic cost-of-living benefits commencing on the first day of July following two years of retirement. The benefit equals the percentage increase in the Consumer Price Index, limited to 4.0 percent (2.0 percent for certain disabled pensioners), multiplied by the sum of the allowable amount (first $15,000 of initial benefits paid) and the accumulated supplemental pensions paid in prior years.

The Court of Appeals decision requires that Supplemental Benefits be provided on "the allowable amount of the first $15,000 of the total annual pension paid in addition to the accumulated supplemental pension from the previous years." The decision implies that compound cost-of-living increases should be applied to both the allowable amount of $15,000 and the accumulated supplemental pension amounts for prior years. Additional Supplemental Benefits are payable only if the Plan satisfies the minimum standard for actuarial soundness as defined in West Virginia Code § 8-22-20. This minimum standard requires that the fund remain "solvent" over the next 15-year projection period. Based on discussions with the West Virginia Municipal Pensions Oversight Board, and our understanding of the administrative practices of other local police and fire pension funds in West Virginia, the "solvency" requirement generally means that the fund's market value of assets is projected to be greater than zero for all plan years prior to the end of the 15-year projection period. The projection is based on the most recent actuarial valuation and assumes the plan sponsor will make contributions according to the funding policy elected by the sponsor as defined by West Virginia Code, including any additional amounts needed to satisfy the 15-year solvency test on a closed group projection basis. *Although the 15-year solvency test may satisfy the minimum standard for actuarial soundness under the statutes, it is not necessarily consistent with generally accepted actuarial principles.*

The City of Parkersburg has elected to fund benefits using the Optional funding policy as defined in West Virginia Code §8-22-20 (e)(1). Under this funding methodology, the fund's market value of assets is projected to be greater than zero for all plan years prior to the end of the 15-year projection period. Accordingly, this contribution methodology satisfies the minimum standard for actuarial soundness.

The Supplemental benefits for plan year beginning July 1, 2019, will be based on the Consumer Price Index for calendar year 2018, and the projected results of the July 1, 2017, actuarial valuation.

Additional Remarks on the Actuarial Valuation Results

Following are additional remarks on the actuarial valuation results as of July 1, 2017:

- The actuarial assumptions and methods were recommended by the actuary, in the report *2016 Experience Review for the Years July 1, 2009, to July 1, 2014*, and approved by the Municipal Pensions Oversight Board and became effective beginning with the actuarial valuation as of July 1, 2015. The key assumptions are fully disclosed in Section V of the report.
- The interest rate used to discount liabilities remained the same for the July 1, 2016 and July 1, 2017 actuarial valuations.
    - The interest rate assumption was developed by reviewing the Plan's current funded ratio, the 15-year projected funded ratio, the ratio of assets to benefits, the percentage of assets allocated to equities and the funding policy selected. The details of the methodology used to select the discount rate are presented in Section V of the report. As of July 1, 2017, the Plan's funded ratio of 28% (using a testing interest rate of 6.00% for all plans using the Optional funding policy), ratio of assets to benefits of 5.29, equity allocation of 41%, and 15-year projected funded ratio of 58%, resulted in a discount rate assumption of 5.00%.
- The Fund experienced an approximate annualized return of 6.76% on the market value of assets during the plan year ended June 30, 2017, which compares to the expected annualized return of 5.00%. The difference in actual versus expected return produced an asset (gain)/loss of ($237,464).
- An actuarial valuation is based on the expectation of certain events such as salary increases, retirement, disability, mortality, termination and cost of living increases. Demographic or liability experience (gains)/losses are generated when the actual occurrence of such events differs from the expectation. During the plan year ended June 30, 2017, the fund experienced a net liability (gain)/loss of ($2,925,471) due to these events.

Optional Funding

Following are additional remarks on the actuarial valuation projections under the current funding policy:

Based on the closed group projections shown in Table 1, page II-1 and assuming that the sponsor makes the statutory required contributions, if all actuarial assumptions are realized in the future, including an investment return of 5.00%:

- The funded ratio is projected to increase from 25% at June 30, 2017, to 51% at June 30, 2030, to 67% at June 30, 2040, and 100% at June 30, 2050.
- Employer contributions are expected to decrease steadily from $3,036,919 for the fiscal year end June 30, 2019, to $1,111,934 for fiscal year end June 30, 2049.

Please note that a funded ratio of only 25% at June 30, 2017, means that the Plan is underfunded. Although the Plan is projected to be 100% funded by 2050, the funded ratio is only projected to reach 50% in 2030 and 70% in 2042.

This actuarial valuation assumes that the City will be able to make future contributions on a timely basis. The ability of the Plan to become fully funded is heavily dependent on the City contributing the minimum employer contribution calculated under the Optional funding policy for each and every future year. We did not perform an analysis of the ability of the City to make future contributions. Such an analysis is not within the scope of our assignment or within our analytical skill set. Failure to receive City contributions on a timely basis could jeopardize the sustainability of the Plan.

Please understand that the minimum employer contribution calculated under the Optional funding policy as defined in West Virginia Code §8-22-20 (e)(1) is just that – the minimum that needs to be contributed each and every year. Because this is an underfunded Plan, we recommend that the plan sponsor consider making additional contributions (in excess of the minimum requirement) to ensure that there are sufficient assets available in the fund in all years to pay the promised benefits.

If the minimum employer contributions (calculated under the Optional funding policy) are not made or the investment return is less than the assumption of 5.00%, the funded ratio will be lower and the cash flow strain will be higher. If another significant market downtown occurs while the plan's funded ratio is low, the plan may need to liquidate a large amount of assets in order to pay benefits which could have a further adverse effect on the funded status of the Plan.

Under the Optional funding policy, the following experience could cause City contributions to change during the year:

- If the actual return on assets is *less* than the assumed return of 5.00%, then contributions will generally *increase*. Conversely, if the actual return is *greater* than the assumed return, contributions will generally *decrease*.
- If salaries *increase* by more than assumed, contributions could *increase*. If salaries *decrease* by more than assumed, contributions could *decrease.*

- If active members retire *sooner* than expected, contributions will generally *increase.* If active members retire *later* than expected, contributions will generally *decrease*.
- If active members become disabled during the year, contributions could increase.
- If retired members die *later* than expected, contributions will increase. If retired members die *sooner* than expected, contributions will decrease.
- If the general inflation is *greater* than assumed, supplemental benefits will be greater than assumed and contributions will *increase*. Conversely, if general inflation is *lower* than assumed, contributions will *decrease*.

At least once every five years, GRS performs an experience review analysis and updates the actuarial valuation assumptions. For example, if salary increases were consistently lower than assumed during the experience period, then the salary increase rate would likely be lowered. Or if more members retired than assumed, then the retirement rates would likely be increased. Any change in actuarial assumption will also impact the City's funded ratio. The objective of a change in assumptions is to reduce the level of experience gains and losses in future actuarial valuations.

Schedule A: Summary of Key Valuation Results

Valuation Date		**July 1, 2016**		**July 1, 2017**
Valuation Interest Rate		5.00%		5.00%
Cost-of-Living Adjustment		2.75%		2.75%
Wage Inflation		3.75%		3.75%
Expected Payroll		$2,789,195		$2,414,805
Average Pay		$48,933		$43,906
Expected Benefit Payments		$2,717,466		$2,811,680
1. Actuarial Accrued Liability	No.		No.	
(a) Actives	57	$20,051,870	55	$17,268,538
(b) Retirees	63	$33,315,854	65	$34,702,602
(c) Survivors	23	$2,511,083	20	$2,678,512
(d) Disabled Members	12	$4,666,592	11	$4,548,740
(e) Deferred Vested Members	0	$0	0	$0
(f) Total	155	$60,545,399	151	$59,198,392
2. Present Value of Future Normal Costs		$11,947,632		$10,790,848
3. Present Value of Benefits (1(f) + 2)		$72,493,031		$69,989,240
4. Market Value of Assets		$13,098,932		$14,870,359
5. Unfunded Actuarial Accrued Liability (1(f) - 4)		$47,446,467		$44,328,033
6. Funded Ratio (4 / 1(f))		21.63%		25.12%
7. Net Employer Normal Cost				
(a) Normal Cost		$1,289,920		$1,150,067
(b) Administrative Expenses		$12,142		$13,668
(c) Gross Normal Cost (a + b)		$1,302,062		$1,163,735
(d) Employee Contribution Rate [a]		7.47%		7.58%
(e) Expected Employee Contributions		$208,269		$183,093
(f) Net Employer Normal Cost (c - e)		$1,093,793		$980,642
(% of Compensation)		39.22%		40.61%
8. Estimated Minimum Employer Contribution [b]		**FYE 2018**		**FYE 2019**
(a) Expected Payroll		$2,789,195		$2,414,805
(b) Estimated Employer Normal Cost		$1,093,793		$980,642
(c) Employer Normal Cost Rate		39.22%		40.61%
(d) Amortization of Unfunded Actuarial Liability		$2,876,162		$2,720,082
(e) State Insurance Premium Tax Allocation		$659,778		$663,805
(f) Estimated Employer Contribution[c] (b + d - e)		**$3,310,177**		**$3,036,919**

[a] *Blended rate reflecting 7.0% for members hired before January 1, 2010, and 9.5% for members hired after January 1, 2010.*

[b] *Estimated Minimum Employer Contribution is based on Optional funding policy and is assumed to be made in plan year ending June 30, 2019. The actual Minimum Employer Contribution will be based on actual payroll for plan year ended June 30, 2018.*

[c] *The Employer Contribution cannot be less than the Employer Normal Cost.*

Schedule B: (Gain)/Loss Analysis

Experience (Gain)/Loss for Plan Year Ended June 30, 2017

1.	(a) Actuarial Accrued Liability as of 7/1/2016	$60,545,399
	(b) Normal Cost due 7/1/2016	$1,289,920
	(c) Interest on (a) and (b) to 6/30/2017	$3,059,518
	(d) Benefit Payments with interest to 6/30/2017	$2,770,974
	(e) Effect of Assumption Changes	$0
	(f) Expected Liability at 7/1/2017 [(a) + (b) + (c) - (d) + (e)]	$62,123,863
	(g) Actual Liability at 7/1/2017	$59,198,392
	(h) Liability (Gain)/Loss [(g) - (f)]	**($2,925,471)**
2.	(a) Market Value of Assets as of 7/1/2016	$13,098,932
	(b) Interest on (a) to 6/30/2017	$651,933
	(c) Contributions with interest to 6/30/2017	$3,653,004
	(d) Benefit Payments with interest to 6/30/2017	$2,770,974
	(e) Expected Assets at 6/30/2017 [(a) + (b) + (c) - (d)]	$14,632,895
	(f) Actual Assets at 7/1/2017	$14,870,359
	(g) Asset (Gain)/Loss [(e) - (f)]	**($237,464)**
3.	Total (Gain)/Loss [1(h) + 2(g)]	**($3,162,935)**

SECTION II

ACTUARIAL PROJECTIONS

Actuarial Projections, Table 1

Valuation Plan Year End 30-Jun	Number		Total Assets										
	Active	Pay Status	Assets (boy)	Benefit Payments	Expenses	Employer Contributions	Member Contributions	Premium Tax Allocation Contributions	Investment Income	Assets (eoy)	Actuarial Accrued Liability	Unfunded Liability	Funded Ratio
2017	55	96	$13,098,932	$2,703,389	$1,825	$2,697,171	$212,377	$654,545	$912,548	$14,870,359	$59,198,392	$44,328,033	25%
2018	51	97	14,870,359	2,811,680	13,668	3,310,177	183,093	659,778	776,306	16,974,365	60,455,626	43,481,261	28%
2019	48	98	16,974,365	2,885,779	13,839	3,036,919	182,138	663,805	872,999	18,830,608	61,686,622	42,856,014	31%
2020	44	100	18,830,608	2,971,620	14,022	2,978,722	179,143	693,009	962,897	20,658,737	62,864,241	42,205,504	33%
2021	41	102	20,658,737	3,062,955	14,215	2,931,755	175,454	715,023	1,051,336	22,455,135	63,976,750	41,521,615	35%
2022	37	104	22,455,135	3,180,910	14,416	2,883,758	169,302	735,632	1,137,410	24,185,910	64,978,854	40,792,944	37%
2023	34	106	24,185,910	3,316,498	14,624	2,818,465	161,326	761,433	1,219,423	25,815,435	65,834,271	40,018,836	39%
2024	30	107	25,815,435	3,427,307	14,829	2,743,377	154,645	785,450	1,296,732	27,353,502	66,567,626	39,214,124	41%
2025	27	109	27,353,502	3,550,445	15,037	2,671,945	147,001	810,260	1,369,248	28,786,474	67,154,238	38,367,764	43%
2026	23	110	28,786,474	3,691,970	15,237	2,595,234	137,490	835,734	1,435,897	30,083,622	67,557,307	37,473,685	45%
2027	21	111	30,083,622	3,815,040	15,433	2,506,999	128,864	863,701	1,496,009	31,248,722	67,792,337	36,543,615	46%
2028	19	111	31,248,722	3,893,070	15,624	2,425,498	123,989	889,080	1,550,826	32,329,421	67,922,330	35,592,909	48%
2029	16	111	32,329,421	3,979,903	15,804	2,366,925	117,698	912,523	1,601,690	33,332,550	67,923,358	34,590,808	49%
2030	14	111	33,332,550	4,072,726	15,974	2,299,045	110,015	938,830	1,648,334	34,240,073	67,772,605	33,532,532	51%
2031	13	110	34,240,073	4,135,449	16,132	2,223,415	104,385	963,692	1,690,763	35,070,747	67,506,117	32,435,370	52%
2032	11	109	35,070,747	4,182,756	16,278	2,158,085	99,812	987,758	1,729,993	35,847,362	67,141,428	31,294,066	53%
2033	10	108	35,847,362	4,222,928	16,411	2,099,499	94,882	1,012,152	1,766,863	36,581,419	66,682,587	30,101,168	55%
2034	8	107	36,581,419	4,263,185	16,527	2,042,964	87,938	1,036,768	1,801,609	37,270,986	66,116,061	28,845,075	56%
2035	7	106	37,270,986	4,303,070	16,626	1,977,690	80,393	1,063,820	1,833,970	37,907,163	65,435,557	27,528,394	58%
2036	5	105	37,907,163	4,363,122	16,709	1,911,969	68,853	1,089,865	1,863,029	38,461,048	64,595,881	26,134,833	60%
2037	4	104	38,461,048	4,417,286	16,774	1,828,085	55,549	1,119,387	1,887,713	38,917,722	63,585,864	24,668,142	61%
2038	3	102	38,917,722	4,442,678	16,823	1,737,345	45,268	1,146,747	1,908,099	39,295,681	62,442,299	23,146,618	63%
2039	2	100	39,295,681	4,449,171	16,854	1,657,222	36,938	1,174,628	1,925,340	39,623,785	61,188,733	21,564,948	65%
2040	2	98	39,623,785	4,448,455	16,868	1,586,947	28,816	1,202,119	1,940,505	39,916,849	59,828,686	19,911,837	67%
2041	1	96	39,916,849	4,442,543	16,865	1,516,470	20,860	1,231,936	1,954,104	40,180,812	58,365,250	18,184,438	69%
2042	1	93	40,180,812	4,412,986	16,848	1,448,806	15,632	1,261,625	1,966,966	40,444,008	56,832,573	16,388,565	71%
2043	1	91	40,444,008	4,363,340	16,815	1,392,381	12,386	1,291,924	1,980,627	40,741,171	55,257,499	14,516,328	74%
2044	0	88	40,741,171	4,313,887	16,769	1,343,716	9,093	1,323,329	1,996,200	41,082,852	53,639,406	12,556,554	77%
2045	0	86	41,082,852	4,261,396	16,711	1,295,840	5,831	1,356,692	2,014,142	41,477,251	51,979,962	10,502,711	80%
2046	0	83	41,477,251	4,193,256	16,642	1,247,782	4,053	1,390,976	2,035,163	41,945,327	50,299,578	8,354,251	83%
2047	0	81	41,945,327	4,119,636	16,562	1,202,111	2,781	1,427,258	2,060,124	42,501,403	48,605,063	6,103,660	87%
2048	0	78	42,501,403	4,041,732	16,472	1,156,987	1,910	1,465,177	2,089,655	43,156,928	46,901,874	3,744,946	92%
2049	0	75	43,156,928	3,960,724	16,373	1,111,934	1,300	1,504,178	2,124,269	43,921,512	45,193,885	1,272,373	97%
2050	0	73	43,921,512	3,877,504	16,263	20,392	844	1,302,223	2,132,602	43,483,805	43,483,805	0	100%
2051	0	70	43,483,805	3,792,725	16,143	17,474	459	0	2,080,573	41,773,442	41,773,442	0	100%
2052	0	68	41,773,442	3,705,608	16,012	16,743	259	0	1,997,186	40,066,010	40,066,010	0	100%
2053	0	65	40,066,010	3,616,708	15,870	16,363	174	0	1,914,002	38,363,971	38,363,971	0	100%
2054	0	63	38,363,971	3,526,958	15,715	15,913	70	0	1,831,107	36,668,388	36,668,388	0	100%
2055	0	61	36,668,388	3,435,843	15,548	15,548	0	0	1,748,571	34,981,116	34,981,116	0	100%
2056	0	58	34,981,116	3,342,983	15,366	15,366	0	0	1,666,501	33,304,634	33,304,634	0	100%
2057	0	56	33,304,634	3,248,769	15,169	15,169	0	0	1,585,003	31,640,868	31,640,868	0	100%
2058	0	53	31,640,868	3,153,008	14,955	14,955	0	0	1,504,180	29,992,040	29,992,040	0	100%

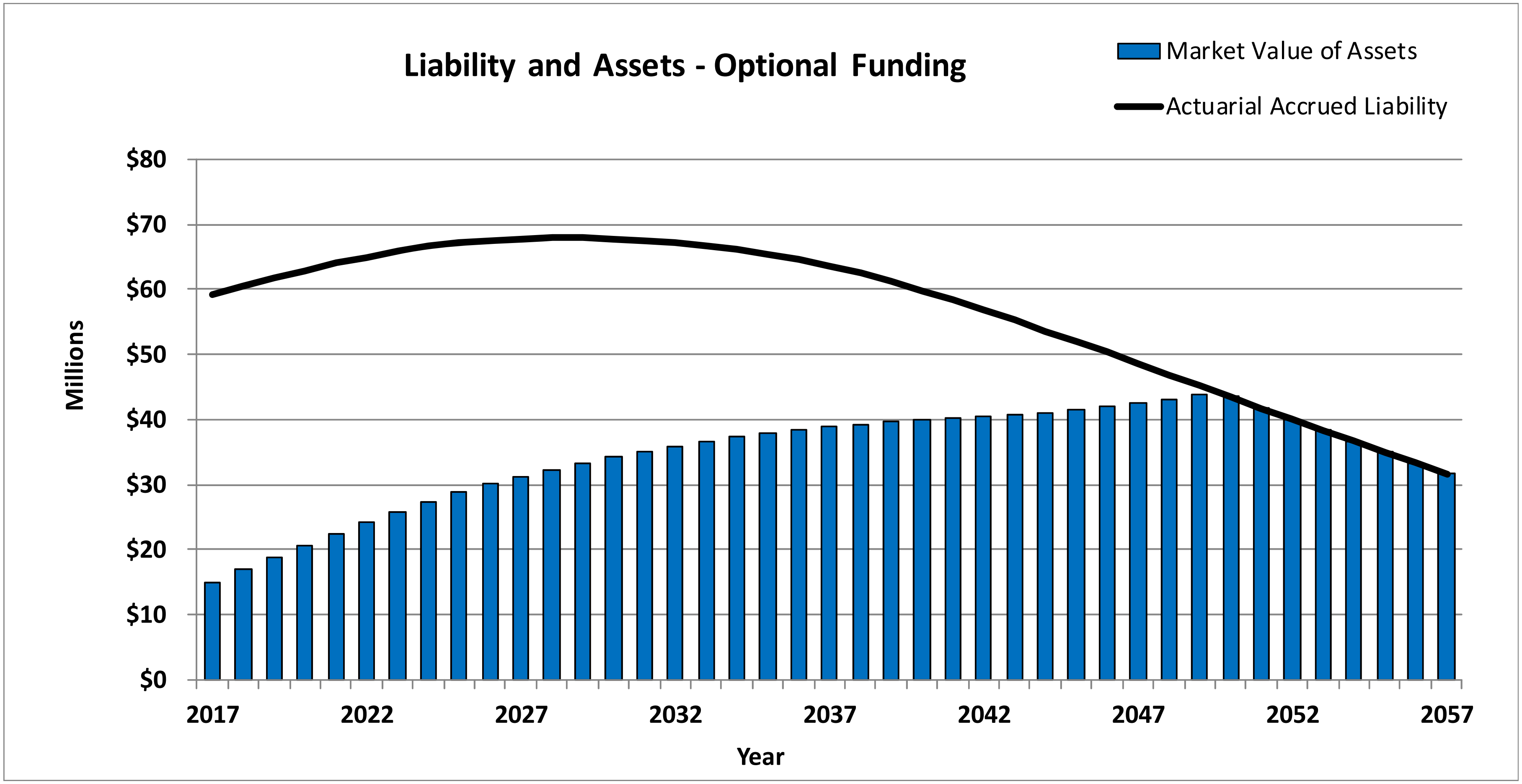
Actuarial Projections, Table 2

				Employer Contributions						
Valuation Plan Year End 30-Jun [a]	Closed Group Payroll	Active Employee Contributions	Gross Normal Cost	Net Employer Normal Cost	Amortization of UAAL	Premium Tax Allocation Contributions	Net Employer Amortization	Expenses	Employer Contribution Closed Plan	
2018	$2,414,805	$183,093	1,150,067	966,974	$2,720,082	$663,805	$2,056,277	$13,668	3,036,919	
2019	2,394,959	182,138	1,137,100	954,962	2,702,930	693,009	2,009,921	13,839	2,978,722	
2020	2,347,773	179,143	1,110,836	931,693	2,701,063	715,023	1,986,040	14,022	2,931,755	
2021	2,290,531	175,454	1,081,199	905,745	2,699,429	735,632	1,963,797	14,215	2,883,758	
2022	2,197,637	169,302	1,037,179	867,877	2,697,605	761,433	1,936,172	14,416	2,818,465	
2023	2,078,232	161,326	980,600	819,274	2,694,928	785,450	1,909,478	14,624	2,743,377	
2024	1,976,909	154,645	930,608	775,963	2,691,412	810,260	1,881,152	14,829	2,671,945	
2025	1,861,548	147,001	874,795	727,794	2,688,137	835,734	1,852,403	15,037	2,595,234	
2026	1,719,177	137,490	808,492	671,002	2,684,460	863,701	1,820,759	15,237	2,506,999	
2027	1,589,045	128,864	747,962	619,098	2,680,047	889,080	1,790,967	15,433	2,425,498	
2028	1,512,181	123,989	711,978	587,989	2,675,835	912,523	1,763,312	15,624	2,366,925	
2029	1,414,810	117,698	666,635	548,937	2,673,133	938,830	1,734,303	15,804	2,299,045	
2030	1,296,844	110,015	611,303	501,288	2,669,845	963,692	1,706,153	15,974	2,223,415	
2031	1,207,314	104,385	568,388	464,003	2,665,708	987,758	1,677,950	16,132	2,158,085	
2032	1,132,237	99,812	532,945	433,133	2,662,240	1,012,152	1,650,088	16,278	2,099,499	
2033	1,060,298	94,882	498,945	404,063	2,659,258	1,036,768	1,622,490	16,411	2,042,964	
2034	973,579	87,938	456,546	368,608	2,656,375	1,063,820	1,592,555	16,527	1,977,690	
2035	880,268	80,393	412,829	332,436	2,652,772	1,089,865	1,562,907	16,626	1,911,969	
2036	746,698	68,853	350,755	281,902	2,648,861	1,119,387	1,529,474	16,709	1,828,085	
2037	599,627	55,549	279,641	224,092	2,643,226	1,146,747	1,496,479	16,774	1,737,345	
2038	486,855	45,268	224,009	178,741	2,636,287	1,174,628	1,461,659	16,823	1,657,222	
2039	395,382	36,938	178,947	142,009	2,630,203	1,202,119	1,428,084	16,854	1,586,947	
2040	307,132	28,816	135,488	106,672	2,624,867	1,231,936	1,392,931	16,868	1,516,470	
2041	221,940	20,860	95,041	74,181	2,619,385	1,261,625	1,357,760	16,865	1,448,806	
2042	165,854	15,632	69,299	53,667	2,613,790	1,291,924	1,321,866	16,848	1,392,381	
2043	131,139	12,386	53,085	40,699	2,609,530	1,323,329	1,286,201	16,815	1,343,716	
2044	96,225	9,093	38,503	29,410	2,606,353	1,356,692	1,249,661	16,769	1,295,840	
2045	61,589	5,831	24,608	18,777	2,603,270	1,390,976	1,212,294	16,711	1,247,782	
2046	42,659	4,053	17,004	12,951	2,599,776	1,427,258	1,172,518	16,642	1,202,111	
2047	29,272	2,781	11,598	8,817	2,596,786	1,465,177	1,131,609	16,562	1,156,987	
2048	20,102	1,910	7,903	5,993	2,593,647	1,504,178	1,089,469	16,472	1,111,934	
2049	13,683	1,300	5,319	4,019	2,589,361	1,302,223	1,044,726	16,373	20,392	[b]
2050	8,884	844	3,401	2,557	0	0	0	16,263	17,474	[b]
2051	4,830	459	1,789	1,330	0	0	0	16,143	16,743	[b]
2052	2,726	259	992	733	0	0	0	16,012	16,363	[b]
2053	1,828	174	666	492	0	0	0	15,870	15,913	[b]
2054	741	70	268	198	0	0	0	15,715	15,548	[b]
2055	0	0	0	0	0	0	0	15,548	15,366	[b]
2056	0	0	0	0	0	0	0	15,366	15,169	[b]
2057	0	0	0	0	0	0	0	15,169	14,955	[b]

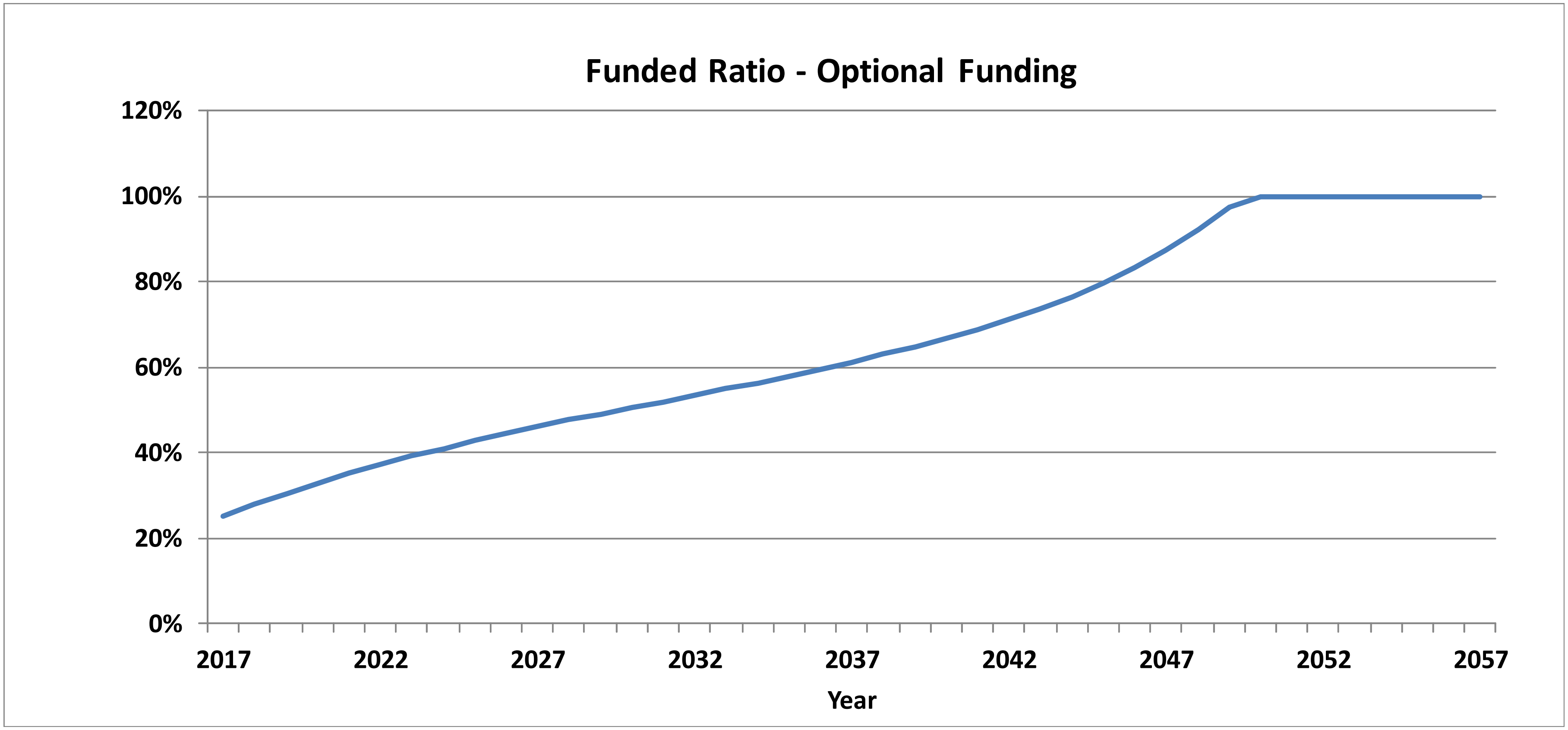
[a] *Assumes employer makes contributions for the applicable valuation plan year in the following fiscal year.*

[b] *Amount required to remain at 100% funded.*

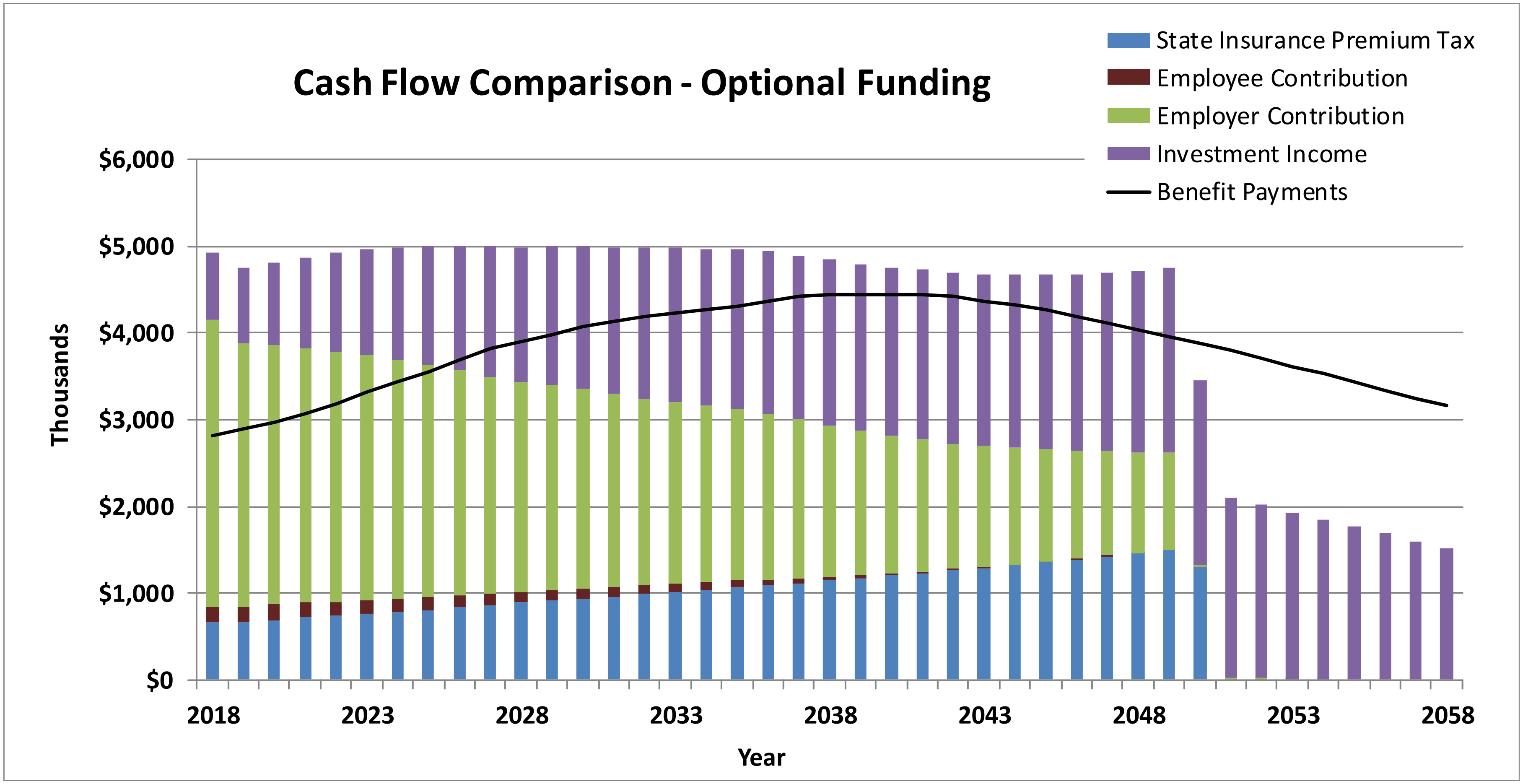
Actuarial Projections, Graph 1



Actuarial Projections, Graph 2



Actuarial Projections, Graph 3



SECTION III

ACTUARIALLY DETERMINED CONTRIBUTION FOR GASB STATEMENT NOS. 67 AND 68 REPORTING

Actuarially Determined Contribution for GASB Statement Nos. 67 and 68 Reporting
Schedule C: Funding Progress and Employer Contributions

Valuation Date	**July 1, 2016**	**July 1, 2017**
Valuation Interest Rate	5.00%	5.00%
Cost-of-Living Adjustment	2.75%	2.75%
Wage Inflation	3.75%	3.75%
Actuarial Value of Assets	Market	Market
Actuarial Cost Method	Entry Age Normal	Entry Age Normal
Remaining Amortization Period [a]	24 Years, Level % of Pay	23 Years, Level % of Pay
Schedule of Funding Progress		
Actuarial Valuation Date	**July 1, 2016**	**July 1, 2017**
1. Market Value of Assets	$13,098,932	$14,870,359
2. Actuarial Accrued Liability	$60,545,399	$59,198,392
3. Unfunded Actuarial Accrued Liability (2 - 1)	$47,446,467	$44,328,033
4. Funded Ratio (1/2)	22%	25%
5. Expected Payroll	$2,789,195	$2,414,805
6. UAAL as Percentage of Covered Payroll (3/5)	1,701%	1,836%
Schedule of Employer Contributions [c]	**FYE 2017**	**FYE 2018**
1. Actuarially Determined Contribution		
(a) Employer Normal Cost	$1,093,793	$980,642
(b) Amortization of Unfunded Actuarial Accrued Liability	$2,261,075	$2,191,766
(c) Actuarially Determined Contribution (ADC) (a + b)	$3,354,868	$3,172,408
2. Employer Contribution [b]	$2,697,171	$3,310,177
3. Premium Tax Allocation	$654,545	$659,778
4. Percentage of ADC Contributed [(2 + 3)/1(c)]	100%	125%

[a] *Suggested amortization policy to comply with GASB Statement Nos. 67 and 68 Standards.*

[b] *Actual employer contribution for fiscal year ended June 30, 2018, as calculated under the Optional funding policy.*

[c] *Satisfies the Actuarially Determined Contribution as defined by GASB Statement Nos. 67 and 68.*

SECTION IV

ACTUARIAL VALUATION DATA
AS OF JULY 1, 2017

Actuarial Valuation Data as of July 1, 2017
Schedule D: Reconciliation of Assets

Plan Year Ending	**June 30, 2016**	**June 30, 2017**
A. Market Value of Assets Beginning of Year	$12,190,212	$13,098,932
Adjustment to Market Value of Assets at Beginning of Year	($1)	$0
Market Value of Assets Beginning of Year	$12,190,211	$13,098,932
1. Revenue During Fiscal Year		
(a) Employee Contribution	$210,015	$203,897
(b) Governmental Contribution		
(i) From Local Government	$2,520,721	$2,697,171
(ii) From State Government	$739,045	$654,545
(iii) Reallocation from State Government	$0	$0
(iv) Total	$3,259,766	$3,351,716
(c) Earnings on Investments		
(i) Net Appreciation/(Depreciation)	$31,506	$700,583
(ii) Bond Interest	$282,867	$121,716
(iii) Dividends	$137,912	$109,874
(iv) Net Realized Gain (Loss) on Sale/Exchange	($317,786)	$7,700
(v) Other	$0	($89)
(vi) Less Investment Expense	($80,946)	($89,296)
(vii) Total	$53,553	$850,488
(d) Other Revenue	$540	$2,612
(e) Net Receivable Investment Income	$52,841	$59,542
(f) Receivable Contribution [a]		
(i) From Employee Contributions	$7,431	$8,480
(ii) From Local Government	$0	$0
(iii) From State Government	$0	$0
(iv) Total	$7,431	$8,480
(g) Total Revenue (sum of (a) through (f))	$3,584,146	$4,476,735
2. Expenditures During Fiscal Year		
(a) Benefits Paid	$2,675,425	$2,684,707
(b) Withdrawals	$0	$18,682
(c) Administrative Expenses	$0	$1,825
(d) Payable Benefits and Withdrawals	$0	$94
(e) Payable Administrative Expenses	$0	$0
(f) Total Expenditures (sum of (a) through (e))	$2,675,425	$2,705,308
B. Market Value of Assets End of Year [A + 1(g) - 2(f)]	$13,098,932	$14,870,359
C. Approximate Return on Assets	0.85%	6.76%

[a] *Receivable contributions for each respective plan year ending.*

Actuarial Valuation Data as of July 1, 2017
Schedule E: Assets Held by Category

Plan Year Ending	June 30, 2016		June 30, 2017	
1. Cash and Short-term Investments	$1,103,694	9%	$1,556,068	10%
2. Government Securities				
(a) US Treasury Bills, Notes and Bonds	$2,610,954		$2,498,985	
(b) US State and Local Governmental Debt Securities	$0		$0	
(c) Foreign Governmental Debt Securities	$0		$0	
(d) Other	$0		$0	
(e) Total Government Securities (sum of (a) through (d))	$2,610,954	20%	$2,498,985	17%
3. Corporate Fixed Income				
(a) US Bonds	$3,169,851		$3,653,951	
(b) US Mortgage or other Asset Backed Securities	$231,894		$158,178	
(c) US Mutual Fund Shares (Bonds)	$0		$0	
(d) US Exchange Traded Funds (Bonds)	$0		$0	
(e) International Bonds	$0		$0	
(f) International Mutual Fund Shares (Bonds)	$0		$0	
(g) International Exchange Traded Funds (Bonds)	$0		$0	
(h) Total Corporate Fixed Income (sum of (a) through (g))	$3,401,745	26%	$3,812,129	26%
4. Corporate Equity				
(a) US Equity	$2,469,910		$2,559,824	
(b) US Mutual Fund Shares (Equity)	$416,956		$165,585	
(c) US Exchange Traded Funds (Equity)	$2,088,182		$1,372,502	
(d) International Equity	$423,594		$853,275	
(e) International Mutual Fund Shares (Equity)	$0		$0	
(f) International Exchange Traded Funds (Equity)	$0		$1,084,298	
(g) Total Corporate Equity (sum of (a) through (f))	$5,398,642	41%	$6,035,484	41%
5. Alternative Investments				
(a) Real Estate Investment Trust	$80,290		$0	
(b) Private Equity Fund	$0		$0	
(c) Hedge Funds	$0		$0	
(d) Other Alternative Investments	$442,795		$899,765	
(e) Total Alternative Investments (sum of (a) through (d))	$523,085	4%	$899,765	6%
6. Other	$540	0%	$0	0%
7. Receivable Contributions	$0			
(a) From Employee Contributions	$7,431		$8,480	
(b) From Local Government	$0		$0	
(c) From State Government	$0		$0	
(d) Total Receivable Contributions (sum of (a) through (c))	$7,431	0%	$8,480	0%
8. Accruals				
(a) Receivable (other than State and Local Contributions)	$52,841		$59,542	
(b) Less Payable	$0		($94)	
(c) Total	$52,841	0%	$59,448	0%
Market Value of Assets End of Year [sum of (1) through (8)]	**$13,098,932**		**$14,870,359**	

Actuarial Valuation Data as of July 1, 2017
Schedule F: Summary of Participant Activity

	Actives	Retirees	Disabled	Deferred Vested	Spouses and Beneficiaries	Totals
Total Participants July 1, 2016:	**57**	**63**	**12**	**0**	**23**	**155**
New Actives:	2					**2**
Returned to Actives Status:						**0**
Data Corrections/Other Changes:						**0**
Vested Terminations:						**0**
Non-Vested Terminations:	(1)					**(1)**
Disabled:						**0**
Retirements:	(3)	3				**0**
Deaths with Beneficiary:		(1)	(1)		2	**0**
Deaths w/o Beneficiary:					(2)	**(2)**
Expired Annuity or Stop Payment:					(3)	**(3)**
Net Changes:	(2)	2	(1)	0	(3)	**(4)**
Total Participants June 30, 2017:	**55**	**65**	**11**	**0**	**20**	**151**

Actuarial Valuation Data as of July 1, 2017
Schedule G: Distribution of Active Employees by Age and Length of Service

Attained Age	Less than 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 35	Totals	Valuation Payroll[a]
	Years of Service to Valuation Date										
Under 20											$ 0
20-24		1								**1**	**$ 45,749**
25-29	1	2								**3**	**$ 116,353**
30-34		2	4	1						**7**	**$ 276,646**
35-39	1	2	2	4	1					**10**	**$ 428,451**
40-44		1	1	2	8	3				**15**	**$ 638,788**
45-49				1	6	8	1			**16**	**$ 752,726**
50-54						2	1			**3**	**$ 162,781**
55-59											**$ 0**
60-64											**$ 0**
65-69											**$ 0**
Over 70											**$ 0**
Totals	**2**	**8**	**7**	**8**	**15**	**13**	**2**	**0**	**0**	**55**	**$ 2,421,494**

Averages

Age:	41.3	years
Service:	13.9	years
Annual Pay:	$44,027	[a]

[a] *Based on payroll at beginning of plan year.*

Actuarial Valuation Data as of July 1, 2017
Schedule H: Participants Summary

Active Participants	July 1, 2016	July 1, 2017
Number of Actives	57	55
Total Annual Pay	$2,803,698	$2,421,494
Average Age	41.0	41.3
Average Service	13.8	13.9

Inactive Participants	July 1, 2016		July 1, 2017	
Type	No.	Annual Benefit	No.	Annual Benefit
Retirees	63	$2,105,921	65	$2,207,239
Survivors	23	$272,356	20	$276,955
Disabled Members	12	$296,338	11	$281,817
Deferred Vested Members	0	$0	0	$0

SECTION V

ACTUARIAL ASSUMPTIONS AND METHODS

Discount Rate

The following table outlines the factors used to determine the discount rate:

Funded Ratio as of Valuation Date [1]	Liquidity Ratio [2]	Equity Exposure [3]	Projected Funded Ratio after 15 Years [1]	Discount Rate
60% or more	10	50% or more	70% or more	6.5%
40% or more	8	40% or more	60% or more	6.0%
30% or more	6	30% or more	50% or more	5.5%
15% or more	4	n/a	40% or more	5.0%
Less than 15%	n/a	n/a	15% or more	4.5%
Less than 15%	n/a	n/a	Less than 15%	4.0%

[1]Funded ratios based on a 6.0% investment return assumption for plans using an actuarially sound policy (standard or optional) and a 5.5% investment return assumption for other plans (alternative or conservation).
[2]Liquidity ratio equals assets as of the actuarial valuation date divided by expected benefit payments for the year.
[3]Based on investment policy.

As of June 30, 2017	
Assets	$14,870,359
Liabilities using a 6.00% Discount Rate	$53,461,808
Funded Ratio	28%
Expected Benefit Payments	$2,811,680
Liquidity Ratio	5.29
Equity Exposure	41%
Projected Funded Ratio after 15 years	58%

Discount Rate	5.00%

Actuarial Assumptions and Methods
Used in the Valuation as of July 1, 2017 (Continued)

The premium tax allocation is projected using the following methodology:

(1) The Base Allocation for all Pension and Relief Funds is a fixed amount equal to $8,709,689 in all future years. This amount is allocated to each individual Pension and Relief Fund in proportion to the number of eligible members, which includes active members covered in either the Pension and Relief Fund or the statewide plan, Municipal Police Officers and Firefighters Retirement System ("MPFRS").

(2) The Excess Allocation is equal to the excess of the current year premium tax assigned to all Pension and Relief Funds over the total Base Allocation. This amount is allocated to each individual Pension and Relief Fund in proportion to the number of eligible active and retired members covered in either the Pension and Relief Fund or the MPFRS.

(3) We have assumed all Pension and Relief Funds will make the minimum statutory contribution requirement and will receive 100% of both the Base Allocation and the Excess Allocation assigned to the individual plan. Consequently, the projections do not include any reallocation of Expired Premium Tax Allocation for plan years beginning on and after July 1, 2019.

(4) The total available premium tax allocation, net of expenses, as of September 1, 2018, includes a Base Allocation of $8,709,689, an Excess Allocation of $9,570,473, and an Expired Premium Tax Allocation of $237,031.

(5) For the plan year ending June 30, 2018, all Pension and Relief Funds reported a total of 1,717 eligible active members and 2,165 eligible retired members. The City of Parkersburg Firemen's Pension and Relief Fund reported 55 eligible active members and 98 eligible retired members, based on the average number of plan participants for the 12-month period ending June 30, 2018. The Fund is eligible to receive a premium tax allocation of $663,805 for the fiscal year ending June 30, 2019.

(6) The total premium tax allocation was assumed to increase by 2.75% in calendar years ending on and after 2019.

General Inflation	2.75%
Expected Salary Increase Service-based Increase:	General Inflation: 2.75% *plus* Wage Inflation Increment: 1.00% *plus* Years of Service — Increase 1 — 20.00% 2 — 6.50% 3 — 3.50% 4 — 2.75% 5-9 — 2.50% 10-29 — 2.00% 30-34 — 1.25% after 34 years of service — 0.00%
Post-retirement COLA	2.75% on first $15,000 of Annual Benefit and on the accumulated supplemental pension amounts for prior years. Assumed to be payable to all members receiving payments.
Increase in State Insurance Premium Tax Allocation	2.75% on and after year 1
Cost Method	Entry-Age-Normal, Level-Percentage-of-Pay
Amortization Policies:	
Alternative Plans and former Alternative Plans that selected the Conservation Policy	For GASB 67/68 Accounting: 30 – Year Closed Level-Percentage-of-Pay Amortization (from July 1, 2010 – 23 years remaining as of July 1, 2017).
Standard Plans and former Standard Plans that selected the Optional Policy	For funding and GASB 67/68 Accounting: 40-Year Closed Level-Dollar Amortization (from July 1, 1991 – 14 years remaining as of July 1, 2017)
Former Alternative Plans that selected the Optional Policy	For funding: 40-Year Closed Level-Dollar Amortization (from January 1, 2010 – 32.5 years remaining as of July 1, 2017). For GASB 67/68 Accounting: 30-Year Closed Level-Percentage-of-Pay Amortization (from July 1, 2010 – 23 years remaining as of July 1, 2017)

Actuarial Assumptions and Methods
Used in the Valuation as of July 1, 2017 (Continued)

Asset Method	Market Value
Turnover	Sample Rates – Age / Rates 25 / 9% 35 / 4% 45 / 2% 50 / 0%
Retirement	Age / Rates[a] 50 / 45% 51-55 / 30% 56-59 / 35% 60 / 100% [a]*Terminated vested participants are assumed to retire at age 50.*
Mortality	Active: RP-2014 Blue Collar Healthy Employee[b] Post-Retirement: RP-2014 Blue Collar Healthy Annuitant Disabled: RP-2014 Blue Collar Healthy Annuitant set forward four years Tables above incorporate generational mortality improvement using MP-2014 2-dimensional mortality improvement scales [b]*Assumes 10% of deaths are duty-related and 90% are non-duty related.*
Disability	Sample Rates – Age / Rates[c] 30 / 0.22% 40 / 0.50% 50 / 0.79% [c] *Assumes 60% duty related and 40% non-duty related. Also assumes 10% of non-duty disabled members receive a 20% reduction in benefits due to gainful employment.*
Percent Married	90%
Spouse Age	Females 3 years younger than males

Actuarial Assumptions and Methods
Used in the Valuation as of July 1, 2017 (Continued)

Administrative Expenses	Plan year 2018 administrative expenses assumed to be equal to 15% of all reported 2017 expenses. Future expenses assumed to increase by the general inflation assumption.
Refunds Paid	Assumes non-vested inactive members as of July 1, 2017, with accumulated member contribution balances will receive a refund of their contributions during plan year end June 30, 2018.
Data Adjustments and Assumptions	None
Child Beneficiaries	Future survivor widow benefits are loaded by 12% to estimate impact of benefits provided to survivor children. The load assumes 90% of members are married with two children at time of death, and benefits for each child are paid for approximately 8 years.
General Projection Methodology	Closed group projections assume: (i) Salaries will increase and members will decrement as specified in the actuarial assumption section. (ii) Assets grow at the assumed rate of return. (iii) The sponsor makes the statutory required contribution on a timely bases. (iv) Non-vested members with accumulated plan balances as of July 1, 2017, will receive a refund during plan year end June 30, 2018.
Decrement Timing	Mid-Year

SECTION VI

SUMMARY OF PRINCIPAL PLAN PROVISIONS

Summary of Principal Plan Provisions
Actuarial Valuation as of July 1, 2017

Employee Eligibility — All compensated employees of the Fire Department hired before October 24, 2017 are eligible to participate in the City of Parkersburg Firemen's Pension and Relief Fund.

Average Annual Compensation — The average of any three twelve-consecutive-month periods of employment which produces the highest average annual compensation.

Each twelve-consecutive-month annual compensation is limited to 120% of the *Average Adjusted Salary* received by the member in the two consecutive twelve-consecutive-month periods immediately preceding the twelve-consecutive-month period used in determining benefits.

The *Average Adjusted Salary* is base salary (exclusive of all overtime and other pay) of the year used in determining benefits multiplied by the ratio of total salary (includes all overtime and other pay) to base salary from the respective preceding twelve-consecutive-month period.

Determining Years of Service Credit (Credited Service**)** — The number of years that the member has contributed to the employees retirement and benefit fund.

Prior Military Service — A city may provide that members who have been honorably discharged from the military shall receive up to two years prior service credit for military service prior to their employment with the city.

Current Military Service — Any current member who has been on qualified military service in the armed forces of the United States with an honorable discharge may, within six months from his or her date of discharge, be given credit for continuous service in the paid police or fire department.

Any member who has served in active duty with the armed forces of the United States, whether prior to or subsequent to becoming a member of a paid police or fire department, shall receive one additional percent for each year so served in active military duty, up to a maximum of four additional percent.

Absence from the service because of sickness or injury for a period of two years or less shall not be construed as time out of service.

Contributions — Participating employees contribute 7.0% of compensation. Participating employees hired on or after January 1, 2010 contribute 9.5% of pay. The municipality has elected to contribute the minimum employer contribution under the Optional funding policy.

Normal Retirement — Members are eligible at the earlier of age 50 with 20 years of credited service or age 65.

Benefit Commencement — Annual retirement pension benefits commence upon retirement or upon the member attaining age fifty, whichever is later, payable in twelve monthly installments.

Summary of Principal Plan Provisions
Actuarial Valuation as of July 1, 2017 (Continued)

Accrued Benefit — The annual retirement benefit equals 60% of average annual compensation, not less than $6,000, plus an additional percentage of average annual compensation for service over 20 years equal to 2% for each year of service between 20 and 25 and 1% for each year of service between 25 and 30 years. Employees serving in the military are eligible for an additional 1% of average annual compensation for each year of military service up to four years. The maximum benefit is limited to 75% of average annual compensation. Benefits continue for life.

Disability Retirement — Members are eligible after earning five years of service. No service requirement if disability is service related.

The monthly disability benefit equals the greater of 60% of monthly salary at disability or $500. Employees serving in the military are eligible for an additional benefit of 1% of monthly salary at disability for each year of military service up to four years. Disability benefits, when aggregated with monthly state workers compensation benefits, shall not exceed 100% of the member's monthly compensation at the time of disability. Benefits continue for life or until recovery.

Death Benefits — Members are eligible after earning five years of service. No service requirement if death is service related. Retirees and terminated vested participants are also eligible.

The benefit is equal to 60% of the participant's benefit, but not less than $300 per month, payable to the spouse until death or remarriage. Other dependents (children, parents, brothers and sisters) are also eligible for death benefits. To each dependent child, twenty percent of the participant's benefit until the child attains 18 or marries; to each dependent orphaned child, 25 percent of the participant's benefit until the child attains 18 or marries; to each dependent parent, 10 percent of the participant's benefit for life, and to each dependent brother or sister, the sum of 50 dollars per month (but a total not to exceed $100 per month) until such individual attains the age of 18 years or marries.

In no case shall the payments to the surviving spouse and children be reduced below 65 percent of the total amount paid to all dependents.

Supplemental Pension Benefits — All retirees, surviving beneficiaries and disability pensioners are eligible for automatic cost-of-living benefits commencing on the first day of July following two years of retirement. The benefits equal the percentage increase in the Consumer Price Index, limited to 4% (2% for some disability retirees), multiplied by the sum of the allowable amount which is the first $15,000 of the total annual benefits paid and the accumulated supplemental pension amounts for prior years.

Termination Benefits — Any member who terminates employment prior to retirement will be entitled to a refund of contributions without interest.

Refunds — Any member who terminates from their department without receiving a retirement pension shall be refunded all deductions made from his salary, without interest.