

# The Town of Smithfield

Retirement Plan for Former  
Employees of the Police Department  
of the Town of Smithfield  
Actuarial Valuation Report

Plan Year July 1, 2017 – June 30, 2018

September 2017

September 25, 2017

Mr. Randy R. Rossi  
Town Manager  
Town of Smithfield  
64 Farnum Pike  
Smithfield, RI 02917

Dear Randy:

Conduent HR Consulting (Conduent) was retained to complete this actuarial valuation of the Retirement Plan for Former Employees of the Police Department of the Town of Smithfield. This report presents the results of the valuation for the plan year and the fiscal year ending June 30, 2018, including the recommended contribution.

### **Purpose of this Report**

The plan sponsor can use this report for determining plan contributions. The report may also be used to prepare the plan's and the plan sponsor's audited financial statements.

Use of this report for any other purpose may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. Because of the risk of misinterpretation of actuarial results, Conduent recommends an advance review of any statement, document, or filing based on information contained in this report. Conduent will accept no liability for any such statement made without prior review by Conduent.

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

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. Conduent performed no analysis of the potential range of such future differences, other than the required presentation of the sensitivity of the net pension liability under GASB accounting standards to possible changes in the discount rate, as an analysis of the potential range of such future differences is beyond the scope of this valuation

### Data Used

Conduent performed the valuation using participant and financial data supplied by the Town and John Hancock Life Insurance Company. Conduent did not audit the data, although they were reviewed for reasonableness and consistency with the prior year data. The accuracy of the results of the valuation is dependent on the accuracy of the data.

### Actuarial Certification

The actuarial assumptions used to value the plan for funding purposes were selected on the basis of an experience study dated May 1, 2015, except for the mortality assumption, which was selected on the basis of an experience study for a plan covering municipal workers throughout Rhode Island. These assumptions are, individually and in the aggregate, reasonable and in combination represent our best estimate of anticipated experience under the plan.

The plan sponsor selected the assumptions used for the accounting results in the report with our advice. We believe that these assumptions are reasonable and comply with the requirements of GASB Statements Nos. 67 and 68. We prepared this report's accounting exhibits in accordance with the requirements of these standards.

Based on the individually reasonable assumptions used in the preparation of this report, and on the data furnished us, we certify that projection of the costs under this plan has been made in accordance with generally accepted actuarial practice, and that our recommended contributions make adequate provision for the funding of future benefits.

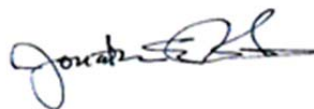
We are members of the Society of Actuaries and of the American Academy of Actuaries. We meet the Qualification Standards of the Academy to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions about it.

The Table of Contents, which immediately follows, outlines the material contained in the report.

Respectfully submitted,



David L. Driscoll, FSA, EA, MAAA  
Principal, Consulting Actuary



Jonathan E. Dobbs, ASA, EA, MAAA  
Director, Retirement Actuary

DD/JED/jac

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## Section 1 – Summary

This report presents the results of the actuarial valuation of the Retirement Plan for Former Employees of the Police Department of the Town of Smithfield for the plan year beginning July 1, 2017. In summary, the following is a comparison of the recommended contributions, expenses, assets, liabilities, and participant data for the plan year beginning July 1, 2017 and the prior plan year.

	2016 Plan Year	2017 Plan Year
Recommended Employer Contributions		
Recommended Employer Contribution	\$ 2,128,824	\$ 2,086,749
Minimum Recommended Employer Contribution	\$ 1,385,252	\$ 1,301,495
Actuarial Value of Assets	\$ 7,619,797	\$ 9,329,942
Unfunded Actuarial Accrued Liability	\$ 18,359,275	\$ 17,237,437
Present Value of Future Benefits	\$ 25,979,072	\$ 26,567,379

	June 30, 2016	June 30, 2017
GASB 67 and 68 Information		
Discount rate	7.75%	7.75%
Total pension liability	\$ 25,979,072	\$ 26,567,379
Fiduciary net position	\$ 7,785,651	\$ 9,350,945
Net pension liability	\$ 18,193,421	\$ 17,216,434
Pension expense	\$ 1,572,195	\$ 1,720,599

# Section 1 – Summary (continued)

## Recommended Contribution

The recommended contribution decreased from \$2,128,824 for the 2016 plan year to \$2,086,749 for the 2017 plan year.

Details regarding the recommended contribution are shown in Section 2.

## Plan Assets

John Hancock Life Insurance Company furnished the financial data. The market value of plan assets increased from \$7,785,651 as of June 30, 2016 to \$9,350,945 as of June 30, 2017. The actuarial value of plan assets increased from \$7,619,797 as of June 30, 2016 to \$9,329,942 as of June 30, 2017.

Details regarding plan assets are shown in Section 3, Statement of Fiduciary Net Position.

## Plan Participants

The plan sponsor and John Hancock provided the data concerning plan participants as of the valuation date.

Valuation Date	July 1, 2016	July 1, 2017
Number of Participants		
Active	0	0
Terminated Vested	0	0
Disabled	5	5
Retirees and Beneficiaries <sup>1</sup>	<u>41</u>	<u>41</u>
Total	46	46

A reconciliation of the plan participants and a summary of participant characteristics are included in Section 5 of this report.

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<sup>1</sup> Includes 4 alternate payees in 2016 and 4 alternate payees in 2017.

# Section 1 – Summary (continued)

## Actuarial Assumptions and Methods

The economic and demographic assumptions used in this actuarial valuation are based upon a review of the existing portfolio and current economic conditions as well as the experience study that was performed in 2015 and published in May, 2015. These actuarial assumptions and methods are the same as those that were used in the prior actuarial valuation.

Section 6 contains a summary of the actuarial assumptions and methods used in this actuarial valuation.

## Plan Provisions

The actuarial valuation results contained in this report are based on the plan provisions in effect on July 1, 2017. These plan provisions are the same as those used in the prior actuarial valuation.

A summary of the plan provisions is in Section 7.

## Plan Experience

Plan experience in the 2016-2017 plan year was more favorable than that anticipated under the funding assumptions used in the valuation, which led to the development of an overall experience gain for the year.

The primary source of the gain was favorable investment experience. These gains were offset somewhat by losses from mortality experience because fewer participants than expected died during the year.

Source (positive numbers indicate a gain, negative numbers a loss)	Effect on Employer Liability
Demographic	
• Inactive mortality	\$ (49,715)
• Active mortality	0
• Retirement	0
• Termination	0
• Disability	0
• Other (e.g., data changes)	(478,287)
• Total	\$ (528,002)
Salary growth	0
Investment growth	779,510
Total experience gain/(loss)	\$ 251,508

## Section 2 – Recommended Contribution

Funded Status	July 1, 2016	July 1, 2017
1. Actuarial Accrued Liability		
a. Retired participants and beneficiaries	\$ 20,820,947	\$ 21,171,295
b. Non-contributing and terminated participants entitled to deferred vested pensions	0	0
c. Disabled participants	5,158,125	5,396,084
d. Contributing active participants	<u>0</u>	<u>0</u>
e. Total actuarial accrued liability	\$ 25,979,072	\$ 26,567,379
2. Actuarial value of assets	\$ 7,619,797	\$ 9,329,942
3. Unfunded Actuarial Liability at valuation date: (1) – (2)	\$ 18,359,275	\$ 17,237,437
4. Funded status: (2) ÷ (1)	29.3%	35.1%



## Section 2 – Recommended Contribution (continued)

Recommended Employer Contribution	July 1, 2016	July 1, 2017
1. Normal cost	\$ 0	\$ 0
2. Expected expenses	\$ 14,000	\$ 14,000
3. Amortization of unfunded actuarial liability (14-year period for 2016; 13-year period for 2017)	\$ 2,036,837	\$ 1,996,303
4. Recommended employer contribution (1.) + (2.) + (3.)	\$ 2,050,837	\$ 2,010,303
5. Adjustment for interest to mid-year	\$ 77,987	\$ 76,446
6. Total recommended employer contribution: (4.) + (5.)	\$ 2,128,824	\$ 2,086,749

Minimum Recommended Employer Contribution	July 1, 2016	July 1, 2017
1. Normal cost	\$ 0	\$ 0
2. Expected expenses	\$ 14,000	\$ 14,000
3. Interest on unfunded actuarial liability, discounted to beginning of year	\$ 1,320,505	\$ 1,239,816
4. Minimum recommended employer contribution (1.) + (2.) + (3.)	\$ 1,334,505	\$ 1,253,816
5. Adjustment for interest to mid-year	\$ 50,747	\$ 47,679
6. Total recommended employer contribution (4.) + (5.)	\$ 1,385,252	\$ 1,301,495

## Section 3 – Statement of Fiduciary Net Position

### Reconciliation of Actuarial Value of Assets

	IPG Contract	S&P 500 Stock Index Fund 1A	Diversified Stock Fund 1K	Total
1. Assets as of July 1, 2016				
a. Fund assets as of July 1, 2016	\$ 1,740,336	\$ 2,898,228	\$ 2,777,462	\$ 7,416,026
b. Receivables (employer)	0	101,886	101,885	203,771
c. Receivables (employee)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
d. Actuarial Value of assets	\$ 1,740,336	\$ 3,000,114	\$ 2,879,347	\$ 7,619,797
2. Income				
a. Employer Contributions	\$ 725,881	\$ 674,882	\$ 674,883	\$ 2,075,646
b. Employee Contributions	0	0	0	0
c. Investment Return	70,676	596,409	794,397	1,461,482
d. Transfers	<u>1,200,000</u>	<u>(600,000)</u>	<u>(600,000)</u>	<u>0</u>
e. Total	\$ 1,996,557	\$ 671,291	\$ 869,280	\$ 3,537,128
3. Expenses				
a. Benefit Payments	\$ 1,881,524	\$ 0	\$ 0	\$ 1,881,524
b. Administrative Expense	13,001	0	0	13,001
c. Investment Expense	<u>0</u>	<u>10,343</u>	<u>24,112</u>	<u>34,455</u>
d. Total	\$ 1,894,525	\$ 10,343	\$ 24,112	\$ 1,928,980
4. Assets as of June 30, 2017				
a. Fund assets (1d. + 2e. - 3d.)	\$ 1,842,368	\$ 3,661,062	\$ 3,724,515	\$ 9,227,945
b. Receivables (employer)	0	50,998	50,999	101,997
c. Receivables (employee)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
d. Actuarial Value of assets	\$ 1,842,368	\$ 3,712,060	\$ 3,775,514	\$ 9,329,942

### Determination of Market Value of Assets

	IPG contract Book Value	Market Value Adjustment for IPG	IPG Contract Market Value	Separate Stock Funds	Total Market Value
	(a)	(b)	(c) = (a) x [1 + (b)]	(d)	(c) + (d)
1. Assets as of July 1, 2016	\$ 1,740,336	9.53%	\$ 1,906,190	\$ 5,879,461	\$ 7,785,651
2. Assets as of July 1, 2017	\$ 1,842,368	1.14%	\$ 1,863,371	\$ 7,487,574	\$ 9,350,945

## Section 3 – Statement of Fiduciary Net Position (continued)

Statement of Changes in Fiduciary Net Position		2017
<b>Additions</b>		
Contributions		
Employer		\$ 2,177,643
Member		<u>0</u>
Total contributions		\$ 2,177,643
Net investment income		1,282,176
Other		<u>0</u>
Total additions		\$ 1,282,176
<b>Deductions</b>		
Benefit payments		\$ 1,881,524
Administrative expense		13,001
Other		<u>0</u>
Total deductions		\$ 1,894,525
<b>Net increase in net position</b>		\$ 1,565,294
<b>Net position restricted for pensions</b>		
Beginning of the year		\$ 7,785,651
End of the year		\$ 9,350,945

## Section 4 – GASB 67 and 68 Information

### Summary of Significant Accounting Policies

#### Method used to value investments.

Investments are reported at fair value.

#### Plan Description

##### Plan administration

The Town of Smithfield, Rhode Island administers the Retirement Plan for Former Employees of the Police Department of the Town of Smithfield (Plan), a single-employer defined benefit pension plan that provides pensions for former members of the Police Department. Only former employees specifically listed in Schedule A of the plan document participate in this plan.

##### Plan membership

At June 30, 2017, pension plan membership consisted of the following:

Membership Status	Count
Inactive plan members or beneficiaries currently receiving	46
Inactive plan members entitled to but not yet receiving	0
Active plan members	0
Total	46

##### Benefits provided

Please see Section 7 of the report for a summary of plan provisions.

##### Contributions

The Town establishes contributions based on an actuarially determined contribution recommended by an independent actuary. The actuarially determined contribution is developed using the Unit Credit Actuarial Cost Method. For the year ended June 30, 2017, the Town contributed \$2,177,643 to the plan.

##### Investments

##### Rate of return

For the year ended June 30, 2017, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 15.10%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

##### Receivables

Plan assets as of June 30, 2017 include a receivable contribution in the amount of \$101,997.

## Section 4 – GASB 67 and 68 Information (continued)

### Net Pension Liability

The components of the net pension liability at June 30, 2017, were as follows:

Components of Net Pension Liability	
Total pension liability	\$ 26,567,379
Plan fiduciary net position	(9,350,945)
Authority's net pension liability	\$ 17,216,434
Plan fiduciary net position as a percentage of the total pension liability	35.20%

### Pension Expense as of June 30, 2017

Pension Expense	Fiscal Year Ending June 30, 2017
Service Cost	\$ 0
Interest Cost on Total Pension Liability	1,941,829
Differences between Expected and Actual Experience	528,002
Changes of Assumptions	0
Contributions-Member	0
Projected Earnings on Plan Investments	(666,691)
Differences between Projected and Actual Earnings	(95,542)
Administrative Expenses	13,001
Other	0
Total Pension Expense	\$ 1,720,599

The difference between projected and actual investment earnings is recognized over five years, in accordance with the provisions of GASB 68.

### Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of June 30, 2017, using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial Assumptions	
Inflation	3.00%
Salary Increases	Not applicable.
Investment rate of return	7.75%, net of pension plan investment expenses. This is based on an average inflation rate of 3.00% and a real rate of return of 4.75%.

The mortality assumption is as follows: for male participants, 115% of RP-2000 Combined Healthy for Males with White Collar adjustments, projected generationally with Scale AA from 2000, and for female participants, 95% of RP-2000 Combined Healthy for Females with White Collar adjustments, projected generationally with Scale AA from 2000.

## Section 4 – GASB 67 and 68 Information (continued)

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2017 are summarized in the following table (note that the rates shown below include the inflation component):

Asset Class	Long-Term Expected Rate of Return
Domestic equity	12.2%
International equity	10.5%
Fixed income	5.7%
Real estate	9.9%
Cash	4.1%

### Discount rate

The discount rate used to measure the total pension liability was 7.75%. The projection of cash flows used to determine the discount rate assumed that the Town will contribute at least 100% of the actuarially determined contribution in accordance with a funding improvement plan adopted in 2013. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Had the fiduciary net position been projected to be depleted, a municipal bond rate of 3.13% would have been used in the development of the blended GASB discount rate after that point. The 3.13% rate is based on the S&P Municipal Bond 20 Year High Grade Rate Index.

### Sensitivity of the net pension liability to changes in the discount rate

The following presents the net pension liability, calculated using the discount rate of 7.75%, as well as what the Town's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.75%) or 1-percentage-point higher (8.75%) than the current rate:

	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
Net Pension Liability	\$ 20,156,369	\$ 17,216,434	\$ 14,756,382

## Section 4 – GASB 67 and 68 Information (continued)

### Schedules of Required Supplementary Information

#### Schedule of Changes in Town's Net Pension Liability and Related Ratios

	2017
<b>Total pension liability</b>	
Service cost	\$ 0
Interest	1,941,829
Changes of benefit terms	0
Differences between expected and actual experience	528,002
Changes of assumptions	0
Benefit payments	<u>(1,881,524)</u>
Net change in total pension liability	\$ 588,307
Total pension liability-beginning	\$ 25,979,072
Total pension liability-ending (a)	\$ 26,567,379
<b>Plan fiduciary net pension</b>	
Contributions-employer	\$ 2,177,643
Contributions-employee	0
Net investment income	1,282,176
Benefit payments, including refunds of employee contributions	(1,881,524)
Administrative expense	(13,001)
Other	<u>0</u>
Net change in plan fiduciary net position	\$ 1,565,294
Plan fiduciary net position-beginning	\$ 7,785,651
Plan fiduciary net position-ending (b)	\$ 9,350,945
Authority's net pension liability-ending (a) - (b)	\$ 17,216,434
Plan fiduciary net position as a percentage of the total pension liability	35.20%

#### Notes to Schedule:

##### Benefit changes

None.

##### Changes of assumptions

None.

## Section 4 – GASB 67 and 68 Information (continued)

### Schedules of Required Supplementary Information (continued)

#### Schedule of Town Contributions

	2017
Actuarially determined contribution	\$ 2,128,824
Contributions related to the actuarially determined contribution	(2,177,643)
Contribution deficiency (excess)	\$ (48,819)

#### Notes to Schedule:

##### Valuation date

Actuarially determined contribution rates are calculated as of July 1, in the fiscal year in which contributions are reported. That is, the contribution calculated as of July 1, 2017 will be made during the fiscal year ended June 30, 2018.

##### Methods and assumptions used to determine contribution rates:

Actuarial cost method

Unit Credit

Amortization method

Level dollar

Amortization period

20 years beginning in 2010

Asset valuation method

The book value of the IPG assets and the market value of all other assets.

Inflation

N/A

Salary increases

N/A

Investment rate of return

7.75%, net of pension plan investment expenses. This is based on an average inflation rate of 3.00% and a real rate of return of 4.75%.

Retirement age

Not applicable as all participants are currently in receipt of benefits.

Mortality

For male participants, 115% of RP-2000 Combined Healthy for Males with White Collar adjustments, projected generationally with Scale AA from 2000, and for female participants, 95% of RP-2000 Combined Healthy for Females with White Collar adjustments, projected generationally with Scale AA from 2000.

Other information

Please see Section 7 of the report.

#### Schedule of Investment Returns

	2016	2017
Annual money-weighted rate of return, net of investment expenses	6.17%	15.10%



## Section 4 – GASB 67 and 68 Information (continued)

Table 1 – Projection of Fiduciary Net Position (000's omitted)

Fiscal Year Ending 6/30	Beginning Fiduciary Net Position	Member Contributions	Employer Contributions	Benefit Payments	Administrative Expenses	Investment Earnings	Ending Fiduciary Net Position
2018	\$ 9,351	\$ 0	\$ 2,087	\$ 1,941	\$ 14	\$ 728	\$ 10,211
2019	10,211	0	2,086	1,978	14	792	11,097
2020	11,097	0	2,086	2,014	15	858	12,011
2021	12,011	0	2,084	2,049	15	927	12,958
2022	12,958	0	2,084	2,083	16	999	13,942
2023	13,942	0	2,082	2,115	16	1,074	14,967
2024	14,967	0	2,082	2,146	17	1,154	16,040
2025	16,040	0	2,080	2,175	17	1,237	17,164
2026	17,164	0	2,078	2,202	18	1,324	18,346
2027	18,346	0	2,076	2,226	18	1,415	19,592
2028	19,592	0	2,073	2,248	19	1,511	20,909
2029	20,909	0	2,067	2,266	19	1,612	22,302
2030	22,302	0	2,057	2,282	20	1,719	23,777
2031	23,777	0	10	2,293	20	1,755	23,229
2032	23,229	0	11	2,301	21	1,712	22,631
2033	22,631	0	11	2,304	22	1,666	21,982
2034	21,982	0	11	2,302	22	1,616	21,285
2035	21,285	0	12	2,295	23	1,562	20,541
2036	20,541	0	13	2,282	24	1,505	19,752
2037	19,752	0	13	2,263	24	1,444	18,922
2038	18,922	0	14	2,236	25	1,381	18,056
2039	18,056	0	15	2,201	26	1,315	17,160
2040	17,160	0	15	2,158	26	1,247	16,238
2041	16,238	0	16	2,107	27	1,178	15,299

## Section 4 – GASB 67 and 68 Information (continued)

Table 1 – Projection of Fiduciary Net Position (000's omitted)

Fiscal Year Ending 6/30	Beginning Fiduciary Net Position	Member Contributions	Employer Contributions	Benefit Payments	Administrative Expenses	Investment Earnings	Ending Fiduciary Net Position
2042	15,299	0	17	2,047	28	1,107	14,348
2043	14,348	0	18	1,979	29	1,036	13,394
2044	13,394	0	19	1,904	30	965	12,445
2045	12,445	0	20	1,821	31	895	11,508
2046	11,508	0	21	1,731	31	826	10,593
2047	10,593	0	22	1,635	32	758	9,707
2048	9,707	0	23	1,534	33	694	8,856
2049	8,856	0	25	1,431	34	632	8,048
2050	8,048	0	26	1,327	35	573	7,284
2051	7,284	0	28	1,225	36	518	6,568
2052	6,568	0	29	1,126	37	466	5,900
2053	5,900	0	32	1,031	39	418	5,280
2054	5,280	0	33	940	40	373	4,707
2055	4,707	0	35	853	41	332	4,179
2056	4,179	0	36	772	42	294	3,696
2057	3,696	0	31	695	37	260	3,256
2058	3,256	0	27	623	33	228	2,856
2059	2,856	0	24	555	29	200	2,496
2060	2,496	0	21	493	25	175	2,174
2061	2,174	0	18	436	22	152	1,886
2062	1,886	0	15	384	19	131	1,629
2063	1,629	0	13	337	16	113	1,402
2064	1,402	0	11	295	14	97	1,202
2065	1,202	0	10	257	12	83	1,026

## Section 4 – GASB 67 and 68 Information (continued)

Table 1 – Projection of Fiduciary Net Position (000's omitted)

Fiscal Year Ending 6/30	Beginning Fiduciary Net Position	Member Contributions	Employer Contributions	Benefit Payments	Administrative Expenses	Investment Earnings	Ending Fiduciary Net Position
2066	1,026	0	8	223	10	71	872
2067	872	0	7	193	9	60	738
2068	738	0	6	166	7	51	621
2069	621	0	5	143	6	43	519
2070	519	0	4	123	5	36	431
2071	431	0	3	105	4	29	354
2072	354	0	3	89	4	24	289
2073	289	0	2	74	3	20	233
2074	233	0	2	62	2	16	186
2075	186	0	1	51	2	12	147

## Section 4 – GASB 67 and 68 Information (continued)

Table 2 – Actuarial Present Values of Projected Benefit Payments (000's omitted)

Fiscal Year Ending 6/30	Beginning Fiduciary Net Position	Benefit Payments	Benefit Payments		Present Value of Benefit Payments		
			Funded Portion	Unfunded Portion	Funded Portion at 7.75%	Unfunded Portion at 3.13%	Using a Single Discount Rate of 7.75%
2018	\$ 9,351	\$ 1,941	\$ 1,941	\$ 0	\$ 1,870	\$ 0	\$ 1,870
2019	10,211	1,978	1,978	0	1,768	0	1,768
2020	11,097	2,014	2,014	0	1,671	0	1,671
2021	12,011	2,049	2,049	0	1,578	0	1,578
2022	12,958	2,083	2,083	0	1,489	0	1,489
2023	13,942	2,115	2,115	0	1,403	0	1,403
2024	14,967	2,146	2,146	0	1,321	0	1,321
2025	16,040	2,175	2,175	0	1,243	0	1,243
2026	17,164	2,202	2,202	0	1,168	0	1,168
2027	18,346	2,226	2,226	0	1,096	0	1,096
2028	19,592	2,248	2,248	0	1,027	0	1,027
2029	20,909	2,266	2,266	0	961	0	961
2030	22,302	2,282	2,282	0	897	0	897
2031	23,777	2,293	2,293	0	837	0	837
2032	23,229	2,301	2,301	0	779	0	779
2033	22,631	2,304	2,304	0	724	0	724
2034	21,982	2,302	2,302	0	672	0	672
2035	21,285	2,295	2,295	0	622	0	622
2036	20,541	2,282	2,282	0	574	0	574
2037	19,752	2,263	2,263	0	528	0	528
2038	18,922	2,236	2,236	0	484	0	484
2039	18,056	2,201	2,201	0	442	0	442
2040	17,160	2,158	2,158	0	402	0	402

## Section 4 – GASB 67 and 68 Information (continued)

Table 2 – Actuarial Present Values of Projected Benefit Payments (000's omitted)

Fiscal Year Ending 6/30	Beginning Fiduciary Net Position	Benefit Payments	Benefit Payments		Present Value of Benefit Payments		
			Funded Portion	Unfunded Portion	Funded Portion at 7.75%	Unfunded Portion at 3.13%	Using a Single Discount Rate of 7.75%
2041	16,238	2,107	2,107	0	365	0	365
2042	15,299	2,047	2,047	0	329	0	329
2043	14,348	1,979	1,979	0	295	0	295
2044	13,394	1,904	1,904	0	263	0	263
2045	12,445	1,821	1,821	0	234	0	234
2046	11,508	1,731	1,731	0	206	0	206
2047	10,593	1,635	1,635	0	181	0	181
2048	9,707	1,534	1,534	0	157	0	157
2049	8,856	1,431	1,431	0	136	0	136
2050	8,048	1,327	1,327	0	117	0	117
2051	7,284	1,225	1,225	0	101	0	101
2052	6,568	1,126	1,126	0	86	0	86
2053	5,900	1,031	1,031	0	73	0	73
2054	5,280	940	940	0	62	0	62
2055	4,707	853	853	0	52	0	52
2056	4,179	772	772	0	44	0	44
2057	3,696	695	695	0	36	0	36
2058	3,256	623	623	0	30	0	30
2059	2,856	555	555	0	25	0	25
2060	2,496	493	493	0	21	0	21
2061	2,174	436	436	0	17	0	17
2062	1,886	384	384	0	14	0	14
2063	1,629	337	337	0	11	0	11

## Section 4 – GASB 67 and 68 Information (continued)

Table 2 – Actuarial Present Values of Projected Benefit Payments (000's omitted)

Fiscal Year Ending 6/30	Beginning Fiduciary Net Position	Benefit Payments	Benefit Payments		Present Value of Benefit Payments		
			Funded Portion	Unfunded Portion	Funded Portion at 7.75%	Unfunded Portion at 3.13%	Using a Single Discount Rate of 7.75%
2064	1,402	295	295	0	9	0	9
2065	1,202	257	257	0	7	0	7
2066	1,026	223	223	0	6	0	6
2067	872	193	193	0	5	0	5
2068	738	166	166	0	4	0	4
2069	621	143	143	0	3	0	3
2070	519	123	123	0	2	0	2
2071	431	105	105	0	2	0	2
2072	354	89	89	0	2	0	2
2073	289	74	74	0	1	0	1
2074	233	62	62	0	1	0	1
2075	186	51	51	0	1	0	1

## Section 5 – Plan Participant Data

### Reconciliation of Participant Data

	Actives	Terminated Vesteds	Retirees and Beneficiaries	Disabled Participants	Total
Participants as of July 1, 2016	0	0	41	5	46
New entrants	0	0	0	0	0
Rehires	0	0	0	0	0
Vested terminations	0	0	0	0	0
Non-vested terminations	0	0	0	0	0
Lump sum distributions	0	0	0	0	0
Retirements	0	0	0	0	0
Deaths	0	0	0	0	0
New beneficiaries	0	0	0	0	0
New alternate payees per QDRO	0	0	0	0	0
Benefits expired	0	0	0	0	0
Data corrections	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Participants as of July 1, 2017	0	0	41	5	46

### Inactive Participant Statistics – Average Annual Benefits

	July 1, 2016	July 1, 2017
Terminated Vested Participants	N/A	N/A
Retirees	\$ 43,206	\$ 44,997
Beneficiaries	\$ 20,631	\$ 21,422
Disabled Participants	\$ 63,176	\$ 67,023

## Section 6 – Actuarial Assumptions and Methods

### Actuarial Assumptions

#### Interest rate for funding

7.75% per annum.

#### Interest rate for accounting

7.75% per year, compounded annually. Projected benefit payments that are expected to be paid from available plan assets are discounted at the valuation interest rate of 7.75%. After the point where plan assets are not available to pay benefits, projected benefit payments are discounted at the municipal bond rate. The valuation rate for accounting purposes is the effective rate resulting from this process.

#### Municipal bond rate

3.13%. This rate is based on the S&P Municipal Bond 20 Year High Grade Rate Index.

#### Mortality

For male participants, 115% of RP-2000 Combined Healthy for Males with White Collar adjustments, projected generationally with Scale AA from 2000, and for female participants, 95% of RP-2000 Combined Healthy for Females with White Collar adjustments, projected generationally with Scale AA from 2000.

#### Loading for expenses

Prior year's administrative expenses increased by 4%, rounded to the nearest thousand.

#### Asset valuation method

For purposes of determining the recommended contribution level, the actuarial value of assets consists of the book value of the IPG assets and the market value of all other assets.

For accounting purposes, the fair value of assets is used.

#### Married participants

No assumption is necessary, as actual marital information is used.

#### Actuarial Cost Method

For purposes of determining the recommended contribution level, the Unit Credit Actuarial cost method is used. The unfunded accrued liability is amortized as a level dollar amount over a 20-year period starting July 1, 2010.

For GASB accounting purposes, the Entry Age Normal Actuarial cost method is used.

#### Changes from prior valuation

None.



## Section 7 – Summary of Plan Provisions

### Eligibility

Only former employees specifically listed in Schedule A of the plan document participate in this plan.

### Non-Disabled Retirees

Benefit: Non-guaranteed portion of the benefit amounts listed in Schedule B of the plan document.

### Deferred Vested Members in Receipt of Benefits

Benefit: Non-guaranteed portion of the benefit amounts listed in Schedule C of the plan document. These benefits are not eligible for cost-of-living adjustments.

### Disabled Retirees

Benefit: Non-guaranteed portion of the benefit amounts listed in Schedule E of the plan document.

### Lump Sum Death Benefit

Disabled retirees

greater of

- (a) accumulated contributions, or
- (b) \$400 times years of service (minimum \$2,000, maximum \$8,000)

Non-disabled retirees

greater of

- (a) excess of accumulated contributions over benefits received, or
- (b) \$400 times years of service (minimum \$2,000, maximum \$8,000), reduced 25% per year retired, but not less than \$2,000.

Terminated vested employees (pre- and post-retirement)

Non-guaranteed portion of the accumulated contributions in excess of benefits received

### Cost-of Living Adjustments

Employees retiring or becoming disabled on or after July 1, 1992 shall receive an increase of 3% in their benefit on each anniversary date of retirement.

## Section 8 – Deferred Outflows/Inflows

Schedule of Differences Between Projected and Actual Earnings	Outflows	Inflows	Total
<b>Amount Recognized</b>			
2015	\$ 4,487	\$ 0	\$ 4,487
2016	27,555	0	27,555
2017	27,555	(123,097)	(95,542)
2018	27,555	(123,097)	(95,542)
2019	27,554	(123,097)	(95,543)
2020	23,070	(123,097)	(100,027)
2021	0	(123,097)	(123,097)
2022	0	0	0
2023	0	0	0
2024	0	0	0
2025	0	0	0
2026	0	0	0
2027	0	0	0
<b>Deferred Balance</b>			
2015	\$ 17,947	\$ 0	\$ 17,947
2016	105,734	0	105,734
2017	78,179	(492,388)	(414,208)
2018	50,624	(369,291)	(318,667)
2019	23,070	(246,194)	(223,124)
2020	0	(123,097)	(123,097)
2021	0	0	0
2022	0	0	0
2023	0	0	0
2024	0	0	0
2025	0	0	0
2026	0	0	0
2027	0	0	0