

# 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, 2016 – June 30, 2017

October 2016





**David L. Driscoll**  
*Principal, Consulting Actuary*

Buck Consultants, LLC.  
101 Federal Street, Suite 900  
Boston, MA 02110

david.driscoll@xerox.com  
tel 617.275.8028  
fax 201.633.5168

October 27, 2016

Mr. Randy R. Rossi  
*Finance Director*  
Town of Smithfield  
64 Farnum Pike  
Smithfield, RI 02917

Dear Randy:

Buck Consultants at Xerox 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, 2017, 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, Buck recommends requesting it to perform an advance review of any statement, document, or filing based on information contained in this report. Buck will accept no liability for any such statement made without prior review by Buck

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) for a portion or all of its liabilities. As noted in the presentation of actuarial assumptions, the only difference between actuarial and market value of assets is that for the former the IPG contract is valued 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. An analysis of the potential range of such future differences is beyond the scope of this valuation.

### **Recent Guidance**

This report reflects information required as part of GASB Statements Nos. 67 and 68, which were issued in 2012. These standards came into effect for the prior fiscal year and will continue to be implemented for fiscal years beginning after June 15, 2014.

Mr. Randy Rossi  
Town of Smithfield

October 27, 2016  
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### Data Used

Buck performed the valuation using participant and financial data supplied by the Town and John Hancock Life Insurance Company. Buck 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 by David Driscoll and are, individually and in the aggregate, reasonable and in combination represent his 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 using generally accepted actuarial principles and practices, and that our recommended contributions make adequate provision for the funding of future benefits.

The report was prepared under the supervision of David L. Driscoll. 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.

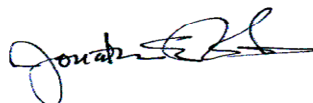
The Table of Contents, which immediately follows, outlines the material contained in the report.

Respectfully submitted,

BUCK CONSULTANTS, LLC



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



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

DD/JED/jac

cc: Mr. Dennis Finlay

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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, 2016. In summary, the following is a comparison of the recommended contributions, expenses, assets, liabilities, and participant data for the plan year beginning July 1, 2016 and the prior plan year.

	2015 Plan Year	2016 Plan Year
<b>Recommended Employer Contributions</b>		
Recommended Employer Contribution	\$ 2,095,635	\$ 2,128,824
Minimum Recommended Employer Contribution	\$ 1,417,055	\$ 1,385,252
Actuarial Value of Assets	\$ 6,972,689	\$ 7,619,797
Unfunded Actuarial Accrued Liability	\$ 18,757,445	\$ 18,359,275
Present Value of Future Benefits	\$ 25,730,134	\$ 25,979,072
	<b>June 30, 2015</b>	<b>June 30, 2016</b>
<b>GASB 67 and 68 Information</b>		
Discount rate	7.75%	7.75%
Total pension liability	\$ 25,730,134	\$ 25,979,072
Fiduciary net position	\$ 6,918,093	\$ 7,785,651
Net pension liability	\$ 18,812,041	\$ 18,193,421
Pension expense	\$ 1,848,957	\$ 1,572,195

## Section 1 – Summary (continued)

### Recommended Contribution

The recommended contribution increased from \$2,095,635 for the 2015 plan year to \$2,128,824 for the 2016 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 \$6,918,093 as of June 30, 2015 to \$7,785,651 as of June 30, 2016. The actuarial value of plan assets increased from \$6,972,689 as of June 30, 2015 to \$7,619,797 as of June 30, 2016.

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, 2015	July 1, 2016
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 2015 and 4 alternate payees in 2016.

## 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, 2016. 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 2015-2016 plan year was less favorable than that anticipated under the funding assumptions used in the valuation, which led to the development of an overall experience loss for the year.

The primary sources of the loss were investment performance and mortality experience. The rate of return on assets was less than anticipated and 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	\$ (135,669)
• Active mortality	0
• Retirement	0
• Termination	0
• Disability	0
• Other (e.g., data changes)	(20,104)
• Total	\$ (155,773)
Salary growth	0
Investment growth	(445,757)
Total experience gain/(loss)	\$ (601,530)

## Section 2 – Recommended Contribution

Funded Status	July 1, 2015	July 1, 2016
1. Actuarial Accrued Liability		
a. Retired participants and beneficiaries	\$ 20,651,457	\$ 20,820,947
b. Non-contributing and terminated participants entitled to deferred vested pensions	0	0
c. Disabled participants	5,078,677	5,158,125
d. Contributing active participants	<u>0</u>	<u>0</u>
e. Total actuarial accrued liability	\$ 25,730,134	\$ 25,979,072
2. Actuarial value of assets	\$ 6,972,689	\$ 7,619,797
3. Unfunded Actuarial Liability at valuation date: (1) – (2)	\$ 18,757,445	\$ 18,359,275
4. Funded status: (2) ÷ (1)	27.1%	29.3%



## Section 2 – Recommended Contribution (continued)

Recommended Employer Contribution	July 1, 2015	July 1, 2016
1. Normal cost	\$ 0	\$ 0
2. Expected expenses	\$ 16,000	\$ 14,000
3. Amortization of unfunded actuarial liability (15-year period for 2015; 14-year period for 2016)	\$ 2,002,864	\$ 2,036,837
4. Recommended employer contribution (1.) + (2.) + (3.)	\$ 2,018,864	\$ 2,050,837
5. Adjustment for interest to mid-year	\$ 76,771	\$ 77,987
6. Total recommended employer contribution: (4.) + (5.)	\$ 2,095,635	\$ 2,128,824

Minimum Recommended Employer Contribution	July 1, 2015	July 1, 2016
1. Normal cost	\$ 0	\$ 0
2. Expected expenses	\$ 16,000	\$ 14,000
3. Interest on unfunded actuarial liability, discounted to beginning of year	\$ 1,349,143	\$ 1,320,505
4. Minimum recommended employer contribution (1.) + (2.) + (3.)	\$ 1,365,143	\$ 1,334,505
5. Adjustment for interest to mid-year	\$ 51,912	\$ 50,747
6. Total recommended employer contribution (4.) + (5.)	\$ 1,417,055	\$ 1,385,252

## 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, 2015				
a. Fund assets as of July 1, 2015	\$ 2,237,514	\$ 2,318,366	\$ 2,315,035	\$ 6,870,915
b. Receivables (employer)	0	50,887	50,887	101,774
c. Receivables (employee)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
d. Actuarial Value of assets	\$ 2,237,514	\$ 2,369,253	\$ 2,365,922	\$ 6,972,689
2				
. Income				
a. Employer Contributions	\$ 0	\$ 1,037,416	\$ 1,037,415	\$ 2,074,831
b. Employee Contributions	0	0	0	0
c. Investment Return	147,105	100,443	(8,207)	239,341
d. Transfers	<u>1,200,000</u>	<u>(600,000)</u>	<u>(600,000)</u>	<u>0</u>
e. Total	\$ 1,347,105	\$ 537,859	\$ 429,208	\$ 2,314,172
3				
. Expenses				
a. Benefit Payments	\$ 1,831,282	\$ 0	\$ 0	\$ 1,831,282
b. Administrative Expense	13,001	0	0	13,001
c. Investment Expense	<u>0</u>	<u>8,884</u>	<u>17,668</u>	<u>26,552</u>
d. Total	\$ 1,844,283	\$ 8,884	\$ 17,668	\$ 1,870,835
4				
. Assets as of June 30, 2016				
a. Fund assets (1d. + 2e. - 3d.)	\$ 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

### 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, 2015	\$ 2,237,514	(2.44%)	\$ 2,182,918	\$ 4,735,175	\$ 6,918,093
2. Assets as of July 1, 2016	\$ 1,740,336	9.53%	\$ 1,906,190	\$ 5,879,461	\$ 7,785,651

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

Statement of Changes in Fiduciary Net Position		2016
<b>Additions</b>		
Contributions		
Employer		\$ 2,278,602
Member		<u>0</u>
Total contributions		\$ 2,278,602
Net investment income		433,239
Other		<u>0</u>
Total additions		\$ 2,711,841
<b>Deductions</b>		
Benefit payments		\$ 1,831,282
Administrative expense		13,001
Other		<u>0</u>
Total deductions		\$ 1,844,283
<b>Net increase in net position</b>		\$ 867,558
<b>Net position restricted for pensions</b>		
Beginning of the year		\$ 6,918,093
End of the year		\$ 7,785,651

## Section 4 – GASB 67 and 68 Information

### A. Summary of Significant Accounting Policies

#### Method used to value investments.

Investments are reported at fair value.

### B. 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, 2016, 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, 2016, the Town contributed \$2,278,602 to the plan.

### C. Investments

#### Rate of return

For the year ended June 30, 2016, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 6.17%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

### D. Receivables

Plan assets as of June 30, 2016 include a receivable contribution in the amount of \$203,771.

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

### E. Net Pension Liability

The components of the net pension liability at June 30, 2016, were as follows:

Components of Net Pension Liability	
Total pension liability	\$ 25,979,072
Plan fiduciary net position	(7,785,651)
Authority's net pension liability	\$ 18,193,421
Plan fiduciary net position as a percentage of the total pension liability	29.97%

### F. Pension Expense as of June 30, 2016

Pension Expense	Fiscal Year Ending June 30, 2016
Service Cost	\$ 0
Interest Cost on Total Pension Liability	1,924,447
Differences between Expected and Actual Experience	155,773
Changes of Assumptions	0
Contributions-Member	0
Projected Earnings on Plan Investments	(548,581)
Differences between Projected and Actual Earnings	27,555
Administrative Expenses	13,001
Other	0
Total Pension Expense	\$ 1,572,195

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

### G. Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of June 30, 2016, 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 annuitants, 115% of RP-2000 Combined Healthy for Males with White Collar adjustments, projected generationally with Scale AA from 2000, and for female annuitants, 95%

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

of RP-2000 Combined Healthy for Females with White Collar adjustments, projected generationally with Scale AA from 2000.

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, 2016 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 2.71% would have been used in the development of the blended GASB discount rate after that point. The 2.71% 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	\$ 21,139,731	\$18,193,421	\$ 15,736,927

## 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

	2016
<b>Total pension liability</b>	
Service cost	\$ 0
Interest	1,924,447
Changes of benefit terms	0
Differences between expected and actual experience	155,773
Changes of assumptions	0
Benefit payments	<u>(1,831,282)</u>
Net change in total pension liability	\$ 248,938
Total pension liability-beginning	\$ 25,730,134
Total pension liability-ending (a)	\$ 25,979,072
<b>Plan fiduciary net pension</b>	
Contributions-employer	\$ 2,278,602
Contributions-employee	0
Net investment income	433,239
Benefit payments, including refunds of employee contributions	(1,831,282)
Administrative expense	(13,001)
Other	<u>0</u>
Net change in plan fiduciary net position	\$ 867,558
Plan fiduciary net position-beginning	\$ 6,918,093
Plan fiduciary net position-ending (b)	\$ 7,785,651
Authority's net pension liability-ending (a)-(b)	\$ 18,193,421
Plan fiduciary net position as a percentage of the total pension liability	29.97%

#### Notes to Schedule:

##### A. Benefit changes

None.

##### B. Changes of assumptions

None.

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

### Schedules of Required Supplementary Information (continued)

#### Schedule of Town Contributions

	2016
Actuarially determined contribution	\$ 2,095,635
Contributions related to the actuarially determined contribution	(2,278,602)
Contribution deficiency (excess)	\$ (182,967)

#### Notes to Schedule:

##### A. 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, 2016 will be made during the fiscal year ended June 30, 2017.

##### B. 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 annuitants, 115% of RP-2000 Combined Healthy for Males with White Collar adjustments, projected generationally with Scale AA from 2000, and for female annuitants, 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
Annual money-weighted rate of return, net of investment expenses	6.17%



## 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
2017	\$ 7,786	\$ 0	\$ 2,129	\$ 1,859	\$ 14	\$ 601	\$ 8,643
2018	8,643	0	2,128	1,896	14	654	9,515
2019	9,515	0	2,128	1,932	15	711	10,407
2020	10,407	0	2,127	1,967	15	773	11,325
2021	11,325	0	2,127	2,002	16	844	12,277
2022	12,277	0	2,125	2,035	16	921	13,273
2023	13,273	0	2,125	2,067	17	1,005	14,319
2024	14,319	0	2,123	2,098	17	1,094	15,420
2025	15,420	0	2,122	2,127	18	1,185	16,582
2026	16,582	0	2,120	2,154	18	1,279	17,809
2027	17,809	0	2,118	2,179	19	1,375	19,104
2028	19,104	0	2,114	2,201	19	1,476	20,474
2029	20,474	0	2,110	2,220	20	1,582	21,925
2030	21,925	0	2,099	2,236	20	1,693	23,461
2031	23,461	0	11	2,249	21	1,732	22,935
2032	22,935	0	12	2,258	22	1,691	22,358
2033	22,358	0	12	2,263	22	1,646	21,731
2034	21,731	0	13	2,263	23	1,598	21,055
2035	21,055	0	13	2,258	24	1,545	20,332
2036	20,332	0	13	2,247	24	1,490	19,563
2037	19,563	0	14	2,230	25	1,431	18,753
2038	18,753	0	15	2,206	26	1,369	17,906
2039	17,906	0	15	2,174	26	1,305	17,025
2040	17,025	0	16	2,134	27	1,238	16,118
2041	16,118	0	17	2,086	28	1,169	15,191

## 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	15,191	0	18	2,029	29	1,100	14,251
2043	14,251	0	19	1,964	30	1,029	13,305
2044	13,305	0	20	1,892	31	959	12,362
2045	12,362	0	20	1,811	31	889	11,429
2046	11,429	0	22	1,722	32	820	10,517
2047	10,517	0	23	1,628	33	753	9,632
2048	9,632	0	24	1,528	34	688	8,783
2049	8,783	0	26	1,426	35	626	7,974
2050	7,974	0	27	1,322	36	567	7,210
2051	7,210	0	29	1,220	37	512	6,494
2052	6,494	0	31	1,120	39	460	5,827
2053	5,827	0	33	1,024	40	412	5,208
2054	5,208	0	34	932	41	368	4,637
2055	4,637	0	36	846	42	327	4,112
2056	4,112	0	35	763	41	289	3,632
2057	3,632	0	31	686	36	255	3,195
2058	3,195	0	27	614	32	224	2,800
2059	2,800	0	23	547	28	196	2,445
2060	2,445	0	20	485	24	171	2,127
2061	2,127	0	17	428	21	148	1,843
2062	1,843	0	15	377	18	128	1,591
2063	1,591	0	13	331	16	111	1,368
2064	1,368	0	11	289	14	95	1,172
2065	1,172	0	9	251	12	81	1,000
2066	1,000	0	8	217	10	69	850

## 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
2067	850	0	7	188	8	59	719
2068	719	0	6	162	7	49	604
2069	604	0	5	139	6	41	505
2070	505	0	4	119	5	35	419
2071	419	0	3	102	4	29	345
2072	345	0	3	86	3	23	281
2073	281	0	2	72	3	19	227
2074	227	0	2	60	2	15	181

## 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 2.71%	Using a Single Discount Rate of 7.75%
2017	\$ 7,786	\$ 1,859	\$ 1,859	\$ 0	\$ 1,791	\$ 0	\$ 1,791
2018	8,643	1,896	1,896	0	1,695	0	1,695
2019	9,515	1,932	1,932	0	1,603	0	1,603
2020	10,407	1,967	1,967	0	1,515	0	1,515
2021	11,325	2,002	2,002	0	1,431	0	1,431
2022	12,277	2,035	2,035	0	1,350	0	1,350
2023	13,273	2,067	2,067	0	1,273	0	1,273
2024	14,319	2,098	2,098	0	1,199	0	1,199
2025	15,420	2,127	2,127	0	1,128	0	1,128
2026	16,582	2,154	2,154	0	1,060	0	1,060
2027	17,809	2,179	2,179	0	995	0	995
2028	19,104	2,201	2,201	0	933	0	933
2029	20,474	2,220	2,220	0	873	0	873
2030	21,925	2,236	2,236	0	816	0	816
2031	23,461	2,249	2,249	0	762	0	762
2032	22,935	2,258	2,258	0	710	0	710
2033	22,358	2,263	2,263	0	660	0	660
2034	21,731	2,263	2,263	0	613	0	613
2035	21,055	2,258	2,258	0	568	0	568
2036	20,332	2,247	2,247	0	524	0	524
2037	19,563	2,230	2,230	0	483	0	483
2038	18,753	2,206	2,206	0	443	0	443
2039	17,906	2,174	2,174	0	405	0	405

## 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 2.71%	Using a Single Discount Rate of 7.75%
2040	17,025	2,134	2,134	0	369	0	369
2041	16,118	2,086	2,086	0	335	0	335
2042	15,191	2,029	2,029	0	302	0	302
2043	14,251	1,964	1,964	0	272	0	272
2044	13,305	1,892	1,892	0	243	0	243
2045	12,362	1,811	1,811	0	216	0	216
2046	11,429	1,722	1,722	0	190	0	190
2047	10,517	1,628	1,628	0	167	0	167
2048	9,632	1,528	1,528	0	146	0	146
2049	8,783	1,426	1,426	0	126	0	126
2050	7,974	1,322	1,322	0	108	0	108
2051	7,210	1,220	1,220	0	93	0	93
2052	6,494	1,120	1,120	0	79	0	79
2053	5,827	1,024	1,024	0	67	0	67
2054	5,208	932	932	0	57	0	57
2055	4,637	846	846	0	48	0	48
2056	4,112	763	763	0	40	0	40
2057	3,632	686	686	0	33	0	33
2058	3,195	614	614	0	28	0	28
2059	2,800	547	547	0	23	0	23
2060	2,445	485	485	0	19	0	19
2061	2,127	428	428	0	15	0	15
2062	1,843	377	377	0	13	0	13

## 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 2.71%	Using a Single Discount Rate of 7.75%
2063	1,591	331	331	0	10	0	10
2064	1,368	289	289	0	8	0	8
2065	1,172	251	251	0	7	0	7
2066	1,000	217	217	0	5	0	5
2067	850	188	188	0	4	0	4
2068	719	162	162	0	3	0	3
2069	604	139	139	0	3	0	3
2070	505	119	119	0	2	0	2
2071	419	102	102	0	2	0	2
2072	345	86	86	0	1	0	1
2073	281	72	72	0	1	0	1
2074	227	60	60	0	1	0	1

## Section 5 – Plan Participant Data

### A. Reconciliation of Participant Data

	Actives	Terminated Vesteds	Retirees and Beneficiaries	Disabled Participants	Total
Participants as of July 1, 2015	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, 2016	0	0	41	5	46

### B. Inactive Participant Statistics – Average Annual Benefits

	July 1, 2015	July 1, 2016
Terminated Vested Participants	N/A	N/A
Retirees	\$ 42,131	\$ 43,206
Beneficiaries	\$ 20,176	\$ 20,631
Disabled Participants	\$ 61,336	\$ 63,176

## 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

2.71%. This rate is based on the S&P Municipal Bond 20 Year High Grade Rate Index.

#### Mortality

For male annuitants, 115% of RP-2000 Combined Healthy for Males with White Collar adjustments, projected generationally with Scale AA from 2000, and for female annuitants, 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 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	0	27,555
2018	27,555	0	27,555
2019	27,554	0	27,554
2020	23,070	0	23,070
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
<b>Deferred Balance</b>			
2015	\$ 17,947	0	\$ 17,947
2016	105,734	0	105,734
2017	78,179	0	78,179
2018	50,624	0	50,624
2019	23,070	0	23,070
2020	0	0	0
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