

**COUNTY OF VOLUSIA VOLUNTEER FIREFIGHTERS'  
PENSION SYSTEM**

ACTUARIAL VALUATION REPORT  
AS OF OCTOBER 1, 2015

**OUTLINE OF CONTENTS**  
**REPORT OF THE OCTOBER 1, 2015 ACTUARIAL VALUATION**

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<b>Pages</b>	<b>Items</b>
--	Cover Letter
	<b><i>Valuation Results, Commentary and Certification</i></b>
A-1 – A-2	Actuarial valuation process
A-2 – A-3	Actuarial assumptions, benefit provisions, and observed experience
	<b><i>Detailed Valuation Results</i></b>
B-1	Funding objective
B-2	Contribution requirement
B-3	Unfunded actuarial accrued liability
B-4	Actuarial balance sheet
	<b><i>Summary of Benefit Provisions and Valuation Data</i></b>
C-1 – C-2	Plan provisions
C-3	Financial data
C-4	Development of Credit Balance, and Schedule of Employer Contributions
C-5 – C-9	Member data
	<b><i>Actuarial Valuation Process, Actuarial Assumptions and Definition of Technical Terms</i></b>
D-1 – D-3	Actuarial valuation process
D-4 – D-8	Assumptions
D-9	Miscellaneous and technical assumptions
D-10 – D-11	Definition of technical terms
E-1 – E-10	<b><i>Disclosures Required by GASB Statements No. 67 and No. 68</i></b>
F-1 – F-3	<b><i>Summary of Valuation Results in State Format</i></b>

January 21, 2016

County of Volusia Volunteer Firefighters'  
Pension System  
DeLand, Florida

The results of the October 1, 2015 Annual Actuarial Valuation of the County of Volusia Volunteer Firefighters' Pension System are presented in this report.

This report was prepared at the request of the County and is intended for use by the Pension System and those designated or approved by the County. This report may be provided to parties other than the System only in its entirety and only with the permission of the County. GRS is not responsible for unauthorized use of this report.

The purpose of the valuation is to measure the System's funding progress, to determine the employer contribution rate for the fiscal year ending September 30, 2016 and September 30, 2017, and to determine the actuarial information for Governmental Accounting Standards Board (GASB) Statement No. 67 and No. 68. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The findings in this report are based on data or other information through September 30, 2015. 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. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

This valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

The valuation was based upon information furnished by the County concerning Pension System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by the County.

In addition, this report was prepared using assumptions approved by the County as described in the section of this report entitled Actuarial Assumptions and Methods.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Retirement Plan as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board, and with applicable statutes.

Jeffrey Amrose and Trisha Amrose are members of the American Academy of Actuaries. These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein.

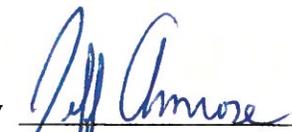
The signing actuaries are independent of the plan sponsor.

This actuarial valuation and/or cost determination was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of our knowledge, the results are complete and accurate. In our opinion, the techniques and assumptions used are reasonable, meet the requirements and intent of Part VII, Chapter 112, Florida Statutes, and are based on generally accepted actuarial principles and practices. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

Gabriel, Roeder, Smith & Company will be pleased to review this valuation report with the Board of Trustees and to answer any questions pertaining to the valuation.

Respectfully submitted,

GABRIEL, ROEDER, SMITH & COMPANY

By   
Jeffrey Amrose, MAAA  
Enrolled Actuary No. 14-6599

By   
Trisha Amrose, MAAA  
Enrolled Actuary No. 14-8010

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## **SECTION A**

### VALUATION RESULTS, COMMENTARY AND CERTIFICATION

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## **ACTUARIAL VALUATION PROCESS**

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An actuarial valuation is the process by which a balance between revenues (County contributions) and obligations (benefits and expenses) is determined and funded condition is measured.

The flow of activity constituting the valuation may be summarized as follows:

A. Covered person information about:

- each person receiving pension payments
- each former member with a vested pension not yet payable
- each former member who is not vested
- each active member

B. Financial Information (assets, revenues, and expenditures)

C. Benefit Provisions (Retirement Ordinance)

D. Experience Assumptions about the volume and incidence of future activities

E. Actuarial Cost Method (frozen entry-age) for allocating benefit costs to time periods

F. Mathematical linking of the person information, financial information, benefit provisions, experience estimates and actuarial cost method

G. Determination of:

- contribution rate for the plan year
- current funded condition

Items A, B and C are furnished by the Pension System and constitute the current “knowns” about the System. Since the majority of activities will occur in the future, estimates must be made about these future activities (Item D).

Under the Frozen Entry-Age Actuarial Cost Method, each year's differences between projected and actual System activities (experience gains/losses) reduce/increase the Actuarial Present Value of Normal Costs. This treatment of experience gains/losses smoothes the annual Normal Cost by amortizing year-to-year experience fluctuations over the future expected working lifetime of the active members and is intended to satisfy the level percent of payroll Funding Objective set out on page B-1.

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## **ACTUARIAL ASSUMPTIONS**

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The actuarial assumptions used for the valuation are summarized in Section D. Since the last actuarial valuation, the mortality table was updated from the RP 2000 Generational Mortality Table for males and females with mortality improvement projected to all future years after 2000 using Scale AA to the same mortality assumption used by the Florida Retirement System. This change is required for all public plans in Florida beginning with the valuation dates in 2016. The mortality assumption used by the Florida Retirement System for Special Risk members is the RP 2000 Generational Mortality Table with 100% Annuity White Collar rates for females and 10% Annuity White Collar/90% Annuitant Blue Collar rates for males with mortality improvement projected to all future years after 2000 using Scale BB.

Additionally, the assumed rate of investment return was lowered from 5.50% per year to 4.25% per year to reflect the fund's expected return over the long term.

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## **BENEFIT PROVISIONS**

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The benefit provisions used for the valuation are summarized in Section C. There were no changes in benefit provisions since the last actuarial valuation.

## **OBSERVED EXPERIENCE**

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Year-to-year differences between assumed experience and observed experience are inevitable in the operation of the System. Examples of favorable experience are: higher than anticipated member termination rates; higher than projected investment returns; a low incidence of disability and delayed retirement. Examples of unfavorable experience are: earlier than anticipated retirement; increases in longevity after retirement and decreases in the number of active members. Each annual actuarial valuation takes observed experience differences into account. If on net balance, the differences are favorable, the actuarial present value of normal costs is less than projected (an experience gain) otherwise it is more than projected (an experience loss). Specific activity information is located in Sections C and D.

The annual employer contribution requirement remains at \$0 as it was also reported in the last actuarial valuation. This means that there is no current contribution requirement. This does not mean that there will never again be a contribution requirement, but County contributions could be zero this year and next without affecting the long term sustainability of the Pension System. The primary factors observed that account for the sustained \$0 contribution requirement were the well-funded position of the System and actuarial gains due to more terminations than expected and fewer members earning credited service between valuation dates for the period October 1, 2014 through September 30, 2015. Additional contribution rate detail is provided on page B-3.

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## **SECTION B**

### **DETAILED VALUATION RESULTS**

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## **FUNDING OBJECTIVE**

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The funding objective for the Pension System is to establish and receive contributions, expressed as dollars per active member, which are inherently level from year-to-year when funding assumptions are realized and benefits are unchanged. This objective meets the requirements of Part VII, Chapter 112, Florida Statutes.

## **CONTRIBUTION RATES**

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The Pension System is supported by County contributions and investment income on Pension System assets.

Contributions which satisfy the funding objective are determined by the annual actuarial valuation and are sufficient to:

- (1) finance over a period of future years the actuarial cost not covered by present assets and anticipated future normal cost (frozen unfunded actuarial accrued liability); and
- (2) cover the costs allocated to the current year (normal cost) by the actuarial cost methods described in Section D.

***Contribution requirements*** for the County's fiscal year beginning October 1, 2015 are shown on page B-3.

# CONTRIBUTIONS TO FINANCE BENEFITS OF THE PENSION SYSTEM

## Development of Normal Cost

	As of October 1		
	2015		2014
	<i>After Changes</i>	<i>Before Changes</i>	
<b>Actuarial Present Value of Projected Benefits:</b>			
The present value as of the beginning of the plan year of all benefits expected to be paid in the future to current participants.			
Active participants			
Age & Service	\$ 459,176	\$ 343,143	\$ 328,735
Vesting	16,055	10,017	4,645
Death	15,682	5,513	5,169
Disability	10,955	10,222	8,576
Total Active	\$ 501,868	\$ 368,895	\$ 347,125
Terminated vested participants	261,662	216,900	243,907
Retired participants and beneficiaries	1,252,429	1,076,916	1,038,778
<b>Total</b>	\$ 2,015,959	\$ 1,662,711	\$ 1,629,810
<b>Fund Balance:</b> The actuarial value of fund assets as of the beginning of the plan year.	\$ 4,187,181	\$ 4,187,181	\$ 4,330,849
<b>Unfunded Actuarial Accrued Liability:</b> The excess of the Actuarial Accrued Liability over the Fund Balance.	\$ (210,721)	\$ (210,721)	\$ (234,882)
<b>The Actuarial Present Value of Normal Costs:</b>			
The excess of the Actuarial Present Value of Projected Benefits over the sum of the Fund Balance and the Unfunded Actuarial Accrued Liability.	\$ (1,960,501)	\$ (2,313,749)	\$ (2,466,157)
<b>Actuarial Present Value of Future Service:</b>			
The present value as of the beginning of the plan year of all service expected to be rendered in the future by current participants.	\$ 228	\$ 213	\$ 152
<b>Normal Cost Rate:</b> The ratio of the Actuarial Present Value of Future Normal Costs to the Actuarial Present Value of Future Service.	\$ (8,598.69)	\$ (10,862.67)	\$ (16,224.72)
<b>Number of Active Participants</b>	34	34	26
<b>Normal Cost:</b> The annual cost as of the beginning of the plan year to fund the present value of years of service of the current participants.	\$ (292,355)	\$ (369,331)	\$ (421,843)

*NOTE: Please see total contribution requirement at bottom of next page.*

**CONTRIBUTIONS TO FINANCE BENEFITS OF THE PENSION SYSTEM  
FOR THE FUND YEAR BEGINNING OCTOBER 1, 2015  
TO BE CONTRIBUTED DURING THE FUND FISCAL YEAR  
BEGINNING OCTOBER 1, 2015**

**SOURCES AND FINANCING OF UNFUNDED  
ACTUARIAL ACCRUED LIABILITY**

Source of Unfunded Act. Accrued Liab.	Unfunded Act. Accrued Liability		Remaining Financing Period 10/1/2015	Annual Amortization Amount <i>After Changes</i>	Annual Amortization Amount <i>Before Changes</i>
	Initial Amount	Current Fin. Per. Amount			
Unf'd. actuarial accrued liability at 12/31/93.					
10/1/1993	\$ (480,902)	29 yrs. \$ (210,721)	7 yrs.	\$ (33,989)	\$ (35,146)
<b>Totals</b>		<b>\$ (210,721)</b>		<b>\$ (33,989)</b>	<b>\$ (35,146)</b>

**TOTAL CONTRIBUTION REQUIREMENT**

	Fiscal Year Ending		
	2016		2015
	<i>After Changes</i>	<i>Before Changes</i>	
Normal Cost	\$ (292,355)	\$ (369,331)	\$ (421,843)
Amortization of Unfunded Expenses	0 *	0 *	(35,146)
Expenses	12,374	12,374	4,372
Credit Balance	(472,881)	(472,881)	(448,228)
Interest	(31,996)	(45,641)	(49,546)
<b>Total Contribution Requirement</b>	<b>\$ (784,858) **</b>	<b>\$ (875,479) **</b>	<b>\$ (950,391) **</b>
Contribution Requirement Not Counting the Credit Balance	\$ (291,880) **	\$ (376,590) **	\$ (477,510) **

\* The amortization of unfunded payment amount is not less than \$0 under Florida Statutes.

\*\* There is no current contribution requirement.

## ACTUARIAL BALANCE SHEET

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### *Present Resources and Expected Future Resources*

	As of October 1		
	2015	2015	2014
	<i>After Changes</i>	<i>Before Changes</i>	
A. Net assets available for benefits			
1. Market value	\$ 4,187,181	\$ 4,187,181	\$ 4,330,849
B. Actuarial present value of expected future County contributions			
1. For normal costs	(1,960,501)	(2,313,749)	(2,466,157)
2. For unfunded actuarial accrued liability	(210,721)	(210,721)	(234,882)
3. Total	(2,171,222)	(2,524,470)	(2,701,039)
C. Actuarial present value of expected future Member contributions	0	0	0
D. Total Present and Expected Future Resources	\$ 2,015,959	\$ 1,662,711	\$ 1,629,810

### *Actuarial Present Value of Expected Future Benefit Payments and Reserves*

	As of October 1		
	2015	2015	2014
	<i>After Changes</i>	<i>Before Changes</i>	
A. To retired members and beneficiaries	\$ 1,252,429	\$ 1,076,916	\$ 1,038,778
B. To vested terminated members	261,662	216,900	243,907
C. To present active members			
1. Allocated to service rendered prior to valuation date	108,018	89,663	125,123
2. Allocated to service likely to be rendered after valuation date	393,850	279,232	222,002
3. Total	501,868	368,895	347,125
D. Total Actuarial Present Value of Expected Future Benefit Payments	\$ 2,015,959	\$ 1,662,711	\$ 1,629,810

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## **SECTION C**

### **SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA**

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# COUNTY OF VOLUSIA VOLUNTEER FIREFIGHTERS' PENSION SYSTEM

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## *Plan Provisions*

This summary is intended as an outline of plan provisions and does not alter the intent or meaning of the provisions contained in the contract and/or plan document.

**1. Effective Date**

October 1, 1989

**2. Eligibility**

Each volunteer firefighter enters the plan on his or her date of hire.

**3. Years of Service**

Each participant earns years of credited service on a point system based on training, drills, position held, stays, responses, meetings and military service.

**4. Retirement Age**

Age 55 and 10 years of creditable service or any age with 35 years of creditable service.

**5. Retirement Benefits**

\$20.00 per month multiplied by years of credited service not in excess of 35 years.

**6. Disability Benefit**

A participant will receive a benefit equal to his or her accrued benefit payable at the time he or she becomes disabled.

**7. Death Benefit**

Upon the death of a participant, his or her beneficiary will receive a benefit equal to the actuarial equivalent of the participant's accrued benefit.

**COUNTY OF VOLUSIA VOLUNTEER  
FIREFIGHTERS' PENSION SYSTEM**

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*Plan Provisions  
(Continued)*

**8. Termination Benefit**

A participant's vested interest in his or her accrued benefit will be determined by the following table.

<u>Years of Membership Service</u>	<u>Vested Percentage</u>
Less than 10	0%
10 or more	100%

A participant is 100% vested once he or she attains age 55 provided he or she has completed at least 10 years of service.

**9. Early Retirement Benefit**

If a member is vested in the plan and under age 55, he or she may apply for a retirement benefit; however, the benefit will be reduced by 5% for each year the member is under 55.

**10. Normal Form of Benefit**

The normal form of benefit is a life annuity. Other optional forms are also available.

# ACCOUNTING INFORMATION SUBMITTED FOR VALUATION

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## Revenues and Expenditures

	Year Ended 10/1/2015	Year Ended 10/1/2014	Year Ended 10/1/2013
<b>REVENUES:</b>			
a. County contributions	\$ -	\$ -	\$ -
b. Investment earnings			
Realized gain/(loss)	(22,102)	41,209	257,172
Unrealized gain/(loss)	<u>27,814</u>	<u>7,334</u>	<u>(31,738)</u>
Total investment earnings	<u>5,712</u>	<u>48,543</u>	<u>225,434</u>
c. Total revenues	5,712	48,543	225,434
<b>EXPENDITURES:</b>			
d. Benefits paid	137,006	172,409	79,861
e. Administrative expenses	<u>12,374</u>	<u>4,372</u>	<u>9,922</u>
f. Total expenditures	149,380	176,781	89,783
<b>NET INCOME:</b>			
Total revenues minus total expenditures	\$ (143,668)	\$ (128,238)	\$ 135,651
<b>ASSETS BEGINNING YEAR</b>	\$4,330,849	\$4,459,087	\$4,323,436
<b>ASSETS END YEAR</b>	<b>\$4,187,181</b>	<b>\$4,330,849</b>	<b>\$4,459,087</b>
<b>RATE OF RETURN</b>	<b>0.1%</b>	<b>1.1%</b>	<b>5.3%</b>

## Summary of Market Value of Assets

	October 1, 2015	October 1, 2014	October 1, 2013
Cash	\$ 2,878,695	\$ 2,959,567	\$ 3,089,104
Receivables	0	0	0
Common Stock	1,308,486	1,371,282	1,369,983
Stock Mutual Funds	0	0	0
Miscellaneous	<u>0</u>	<u>0</u>	<u>0</u>
Total Assets	<u>\$ 4,187,181</u>	<u>\$ 4,330,849</u>	<u>\$ 4,459,087</u>

## DEVELOPMENT OF CREDIT BALANCE

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(1) Credit Balance as of October 1, 2014	448,228
(2) Interest	24,653
(3) Required Contribution 2014-2015	0
(4) Actual Contribution 2014-2015	0
(5) Credit Balance as of October 1, 2015	\$ 472,881

## SCHEDULE OF EMPLOYER CONTRIBUTIONS

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Year Ended Sept. 30	Annual Required Contribution	Percentage Contributed
1994	N/A	N/A
1995	N/A	N/A
1996	\$103,289	118 %
1997	103,289	100
1998	144,115	72
1999	144,115	72
2000	99,978	100
2001	99,978	100
2002	77,318	132
2003	77,318	132
2004	58,758	174
2005	58,758	174
2006	0	100
2007	0	100
2008	0	100
2009	0	100
2010	0	100
2011	0	100
2012	0	100
2013	0	100
2014	0	100
<b>2015</b>	<b>0</b>	<b>100</b>

**RETIRED MEMBER AND BENEFICIARY DATA  
HISTORICAL SCHEDULE**

Year Ended	Added		Removed		Net Increase		End of Year		Expected Removals	
	No.	Annual Pensions	No.	Annual Pensions	No.	Annual Pensions	No.	Annual Pensions	No.	Annual Pensions
10/1/1997							10	\$22,310		
10/1/1998							10	22,310		
10/1/1999	5	\$17,691			5	\$17,691	15	40,001		
10/1/2000							15	40,001		
10/1/2001	2	4,320			2	4,320	17	44,321	0	\$ 540
10/1/2002							17	44,321		
10/1/2003	3	7,484	4	\$15,882	(1)	(8,398)	16	35,923	0	780
10/1/2004							16	35,923		
10/1/2005	6	16,660			6	16,660	22	52,583	0	948
10/1/2006							22	52,583		
10/1/2007	3	9,708			3	9,708	25	62,291	1	1,416
10/1/2008							25	62,291		
10/1/2009	4	12,602	2	4,969	2	7,633	27	69,924	0.8	1,896
10/1/2010			2	5,059	(2)	(5,059)	25	64,865	0.6	1,531
10/1/2011							25	64,865		
10/1/2012	4	9,299			4	9,299	29	74,164	0.7	1,598
10/1/2013							29	74,164		
10/1/2014	5	18,317	1	1,824	4	16,493	33	90,657	0.8	2,118
<b>10/1/2015</b>	<b>1</b>	<b>4,712</b>			<b>1</b>	<b>4,712</b>	<b>34</b>	<b>95,369</b>	<b>0.8</b>	<b>2,500</b>
Expected for 10/1/2016									0.9	\$2,901

**RETIRED MEMBERS AND BENEFICIARIES AS OF OCTOBER 1, 2015**  
**TABULATED BY ATTAINED AGE**

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Attained Ages	Fire Members	
	No.	Annual Allowances
52	1	\$ 3,069
53	1	1,864
58	4	10,413
60	1	2,400
62	2	5,280
64	1	2,930
65	2	4,308
66	1	3,360
67	1	2,460
68	2	7,552
69	3	6,327
71	1	2,640
72	2	6,876
75	3	7,514
76	2	4,626
77	1	2,400
78	3	10,600
84	1	4,603
87	1	3,631
88	1	2,516
<b>Totals</b>	<b>34</b>	<b>\$95,369</b>

**VESTED TERMINATED MEMBERS AS OF OCTOBER 1, 2015**  
**TABULATED BY ATTAINED AGE**

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<b>Attained Ages</b>	<b>No.</b>	<b>Estimated Annual Pensions</b>
43	1	\$ 3,840
44	2	5,760
47	1	3,360
49	1	2,880
50	1	3,600
54	1	2,880
<b>Totals</b>	<b>7</b>	<b>\$22,320</b>

## ACTIVE MEMBERS INCLUDED IN VALUATION

Valuation Date	Active Members	Average Age	Average Participation Service
10/1/1997	379	36.2 yrs.	4.6 yrs.
10/1/1999	327	37.4	5.4
10/1/2001	343	38.1	5.8
10/1/2003	304	39.5	7.6
10/1/2005	263	38.8	6.8
10/1/2007	226	37.7	6.6
10/1/2009	117	36.5	1.6
10/1/2010	63	42.2	2.8
10/1/2012	36	45.2	3.0
10/1/2014	26	44.3	2.3
<b>10/1/2015</b>	<b>34</b>	<b>38.3</b>	<b>1.2</b>

## NUMBER ADDED TO AND REMOVED FROM ACTIVE PARTICIPATION

Period Ended	Number Added		Terminations During Period										Active Partic. End of Period
	During Period		Norm/Early Retirement		Disability Retirement		Died-in Service		Terminations				
	A	E	A	E	A	E	A	E	Vested	Other	Total		
10/1/1999	82	134	0	15.3	0	0.4	0	0.3	1	133	134	75.4	327
10/1/2001	89	73	2	20	0	1.2	0	0.8	0	71	71	116	343
10/1/2003	23	62	1	12	0	0.6	5	0.4	2	54	56	76	304
10/1/2005	111	152	5	10	0	0.6	3	0.4	4	140	144	68	263
10/1/2007	52	89	2	8	0	0.4	1	0.2	2	84	86	62	226
10/1/2009	69	178	3	8	0	0.4	0	0.2	3	172	175	53	117
10/1/2010	0	54	0	2	0	0.1	0	0.1	1	53	54	14	63
10/1/2012	6	33	2	4	0	0.2	0	0.2	3	28	31	12	36
10/1/2014	19	29	4	4	0	0	0	0	0	25	25	7	26
<b>10/1/2015</b>	<b>18</b>	<b>10</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>8</b>	<b>3</b>	<b>34</b>
Expected for 10-1-2016				1		0		0					4.3

A represents actual number.  
E represents expected number.

**ACTIVE MEMBERS AS OF OCTOBER 1, 2015**  
**TABULATED BY ATTAINED AGE AND YEARS OF PARTICIPATION SERVICE**

Attained Age	Years of Service to Valuation Date							Totals
	0-4	5-9	10-14	15-19	20-24	25-29	30 +	No.
15-19								
20-24	7							7
25-29	7							7
30-34	2							2
35-39	4	1						5
40-44	2	1						3
45-49	2							2
50-54	2							2
55-59	1							1
60								
61								
62								
63								
64	2							2
65								
66								
67								
68			1					1
69								
70	1							1
71								
72		1						1
73								
74								
75								
76								
77								
78								
79								
<b>Totals</b>	<b>30</b>	<b>3</b>	<b>1</b>					<b>34</b>

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 38.3 years

Service: 1.2 years

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## **SECTION D**

**ACTUARIAL VALUATION PROCESS, SUMMARY OF  
ACTUARIAL ASSUMPTIONS AND DEFINITION OF  
TECHNICAL TERMS**

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## ACTUARIAL VALUATION PROCESS

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An actuarial valuation is the mathematical process by which a pension system contribution requirement is determined and its actuarial condition is measured.

The flow of activity constituting the valuation may be summarized as follows:

- A. ***Covered Person Data***, furnished by the fund administrator including:
  - Retired members and beneficiaries now receiving benefits
  - Former members with vested benefits not yet payable
  - Active members
- B. + ***Asset Data*** (cash & investments), furnished by the fund administrator
- C. + ***Fund Description Data***, furnished by the fund administrator
- D. + ***Assumptions about various future activities of the fund*** (risk elements)
- E. + ***The Actuarial Cost Method*** for allocating costs to time periods and determining the long-term planned pattern for employer contributions
- F. + ***Mathematically combining the Data, the Estimates of Future Activities, and the Cost Method***
- G. = Determination of:
  - Employer Contribution Requirement and Actuarial Condition

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Items A, B and C constitute the current "knowns" about the System. A good deal of fund activity which will result in benefit payments has yet to occur. Accordingly, certain assumptions must be made about future System activity. These assumptions (Item D) may be classified as demographic or fiscal. Demographic assumptions include future mortality rates, disability rates, rates of pre-retirement withdrawal from employment, and retirement ages. Fiscal assumptions consist of future salary increases and rates of investment return.

Demographic assumptions are generally selected on the basis of the system's historical activity, modified for expected future differences. Past activity of systems which are similar in nature to the system being valued may be utilized if system data or activities are insufficient to be reliable.

Fiscal assumptions, on the other hand, do not lend themselves to prediction on the basis of historical activity -- the reason being that both salary increases and investment return are impacted by inflation. Inflation defies reliable prediction. Fiscal assumptions are generally selected on the basis of what would be expected to occur in an inflation-free environment and then both are increased by some provision for long-term inflation.

This is a case where two wrongs may make a right. If inflation is higher than expected it will probably result in actual rates of salary increase and investment return which exceed the assumed rates. Salaries increasing faster than expected result in unexpected costs. Investment return exceeding the assumed rate result in unanticipated assets. To a large degree the additional assets will offset the additional cost over the long-term.

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Once items A, B, C and D are available, the actuarial valuation process begins. The first step is to determine the plan's *total actuarial present value* for individuals in each of the 3 covered person categories.

*Retired members* now receiving monthly payments;

*Vested terminated members* not yet at retirement age;

*Active members.*

The actuarial present value is the value today after taking into account the probabilities of payment and the effect of time, of fund promises to pay benefits in the future on the basis of both service already completed and projected future service.

The total actuarial present value is allocated between projected future service and completed service by the actuarial cost method (Item E) – the *frozen entry-age* method is being utilized for this valuation. Under this method the excess of the actuarial present value of projected benefits over the sum of the actuarial value of assets plus the Unfunded Frozen Actuarial Accrued Liability is funded on a level basis over the future service of active employees. The portion of this excess allocated to the current year is called the Normal Cost. This Frozen Actuarial Accrued Liability is determined using the Entry-Age Actuarial Cost Method. This Frozen Actuarial Accrued Liability is adjusted from time-to-time to reflect changes in the Plan or in the actuarial assumptions. The Unfunded Frozen Actuarial Accrued Liability is separately amortized over a fixed number of years.

At this stage determination has been made of:

1. The total actuarial present value;
2. The actuarial present value of future normal costs; and
3. The updates to the unfunded actuarial accrued liability bases.

In the typical system, increases in the actuarial accrued liability will not be covered by the system's accrued assets -- leaving an *unfunded actuarial accrued liability*, which is amortized separately.

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The next step in the valuation process is a determination of the contribution rate (Item G) required to support System benefits in accordance with the funding objective (page B-1).

The contribution rate is determined in two basic components:

1. The normal cost component; and
2. The component which will finance (pay off) the unfunded actuarial accrued liability over the periods indicated on page B-3.

## SUMMARY OF ASSUMPTIONS USED OCTOBER 1, 2015

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The actuarial assumptions regarding INVESTMENT RETURN rate in combination with the other estimates, to (i) determine the present value of amounts expected to be paid in the future and (ii) establish rates of contribution which are expected to remain relatively level.

**TOTAL RATE OF INVESTMENT RETURN.** 4.25% per annum, compounded annually (previously 5.5%). Real rates of return can be estimated to be produced by investing a pool of assets in an inflation-free environment. Recent real rates of investment return on the funding value of assets have been:

	Period Ended					Average	
	10/1/2015	10/1/2014	10/1/2013	10/1/2012	10/1/2011	3 Year	5 Year
Total Rate	<b>0.1%</b>	1.1%	5.3%	9.7%	(1.1)%	2.1%	2.9%
less Inflation Rate	<u><b>0.0%</b></u>	<u>1.7%</u>	<u>1.2%</u>	<u>2.0%</u>	<u>3.9%</u>	<u>1.0%</u>	<u>1.8%</u>
Actual Real Rate	<b>0.1%</b>	(0.6)%	4.1%	7.7%	(5.0)%	1.1%	1.1%

*The total investment return rate was computed on the funding value of assets using the approximate formula  $i = I$  divided by  $1/2 (A + B - I)$ , where  $I$  is actual investment income,  $A$  is the beginning of year asset funding value, and  $B$  is the end of year asset funding value.*

*The preceding investment return rates reflect the particular characteristics of this Pension System and the method of determining the funding value of assets. They should not be used to measure an investment advisor's performance or for comparison with other pension systems. Such use will usually mislead.*

**MORTALITY TABLE.** The current healthy mortality assumption for the Florida Retirement System is the RP 2000 Generational Mortality Table with 100% Annuitant White Collar rates for females and 10% Annuitant White Collar / 90% Annuitant Blue Collar rates for males. The provision for future healthy mortality improvements is being made by using Scale BB after 2000. (Previously the RP 2000 Generational Mortality Table for males and females with future mortality improvements using Scale AA after 2000.)

Sample Attained Ages (in 2015)	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.54 %	0.23 %	33.67	38.11
55	0.67	0.32	29.02	33.09
60	0.91	0.48	24.45	28.20
65	1.34	0.76	20.05	23.46
70	2.07	1.27	15.95	19.02
75	3.36	2.15	12.25	14.96
80	5.53	3.59	9.08	11.36

The mortality table is used to measure the probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement.

The current disabled mortality assumption for the Florida Retirement System is a blend of 60% RP 2000 Disabled Female set forward two years and 40% RP 2000 Annuitant White Collar with no setback for females, and 60% RP 2000 Disabled Male setback four years and 40% RP 2000 Annuitant White Collar with no setback for males.

**RATES OF SEPARATION FROM ACTIVE MEMBERSHIP.** The rates do not apply to members eligible to retire and do not include separation on account of death or disability. Separation rates are used to measure the probabilities of members remaining in employment.

<b>Sample Ages</b>	<b>Years of Service</b>	<b>Percent Separating Within Next Year</b>
ALL	0	15.0 %
	1	10.0
	2	8.5
	3	8.0
	4	7.5
20	5 & Over	7.5
25		7.5
30		5.0
35		5.0
40		2.5
45		2.5
50		0.0

**RATES OF DISABILITY.** Disability rates measure the probabilities of active members becoming disabled.

<b>Sample Ages</b>	<b>Percent Becoming Disabled Within Next Year</b>
20	0.120 %
25	0.149
30	0.190
35	0.264
40	0.396
45	0.616
50	1.440
55	1.818
60	2.724

**RATES OF RETIREMENT.** Rates of retirement are used to measure the probabilities of an eligible member retiring during the next year. Members were assumed to retire immediately upon normal retirement eligibility at the earlier of age 55 and 10 years of plan participation or any age with 35 years of plan participation. The rate of retirement is 5% for each year of eligibility for early retirement starting at age 40.

**ADMINISTRATIVE EXPENSES.** Annual administrative expenses are assumed to be equal to the prior year's expenses.

## Pensions in an Inflationary Environment

Value of \$240/month Retirement Benefit

### To an Individual Who Retires at Age 55 In an Environment of 2.5% Price Inflation

<u>Age</u>	<u>Value</u>
55	\$ 240
56	234
57	228
58	222
59	217
60	212
65	187
70	166
75	146
80	130
85	115

The life expectancy of a 55 year old male retiree is age 84. Half of the people will outlive their life expectancy. The effects of even moderate amounts of inflation can be significant for those who live to an advanced age.

**SUMMARY OF ASSUMPTIONS USED**  
**OCTOBER 1, 2015**  
**MISCELLANEOUS AND TECHNICAL ASSUMPTIONS**

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<b>Marriage Assumption:</b>	90% of males and 90% of females are assumed to be married for purposes of death-in-service benefits.
<b>Pay Increase Timing:</b>	Not applicable.
<b>Decrement Timing:</b>	Decrements of all types are assumed to occur mid-year.
<b>Eligibility Testing:</b>	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
<b>Benefit Service:</b>	Exact fractional service is used to determine the amount of benefit payable. Actual credited service as of the valuation date is used in the valuation. It is also assumed that each member will earn a year of credited service each year in the future.
<b>Decrement Relativity:</b>	Decrement rates are used without adjustment for multiple decrement table effects.
<b>Decrement Operation:</b>	Disability and mortality decrements do not operate during the first 5 years of service. Disability and withdrawal do not operate during retirement eligibility.
<b>Normal Form of Benefit:</b>	The assumed normal form of benefit is a single life annuity.
<b>Loads:</b>	None.
<b>Incidence of Contributions:</b>	Contributions are assumed to be received continuously throughout the year based upon the recommended contribution shown in this report.

## DEFINITION OF TECHNICAL TERMS

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**Accrued Service.** Service credited under the fund which was rendered before the date of the actuarial valuation.

**Actuarial Accrued Liability.** The difference between the actuarial present value of future benefit payments and the actuarial present value of future normal costs. Also referred to as "accrued liability" or "past service liability."

**Actuarial Assumptions.** Estimates of expected future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement estimates (rates of mortality, disability, turn-over and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic estimates (salary increases and investment income) consist of the underlying rates in an inflation-free environment plus a provision for a long-term average rate of inflation.

**Actuarial Cost Method.** A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future benefit payments" between future normal costs and actuarial accrued liability. Sometimes referred to as the "actuarial valuation cost method."

**Actuarial Equivalent.** A single amount or series of amounts of equal actuarial present value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.

**Actuarial Present Value.** The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payment. Also referred to as "present value."

**Amortization.** Paying off an interest-discounted amount with periodic payments of interest and principal -- as opposed to paying it off with a lump sum payment.

**Experience Gain (Loss).** The difference between actual actuarial costs and assumed actuarial costs -- during the period between two valuation dates.

**Funding Value of Assets.** Market Value as of the valuation date including receivables.

**Normal Cost.** The actuarial cost allocated to the current year by the actuarial cost method. Sometimes referred to as "current service cost."

**Pension Benefit Obligation.** A standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date. The PBO is independent of the actuarial funding method used to determine contributions.

**Unfunded Actuarial Accrued Liability.** The difference between actuarial accrued liability and the actuarial value of fund assets. Sometimes referred to as "unfunded past service liability," "unfunded accrued liability" or "unfunded supplemental present value."

Most pension systems have unfunded actuarial accrued liability. It arises each time new benefits are added and each time an experience loss is realized.

The existence of unfunded actuarial accrued liability is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial accrued liability does not represent a debt that is payable today. What is important is the ability to control the amount of unfunded actuarial accrued liability and the trend in its amount (after due allowance for devaluation of the dollar).

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## **SECTION E**

**DISCLOSURES REQUIRED BY STATEMENTS NO. 67  
AND NO. 68 OF THE GOVERNMENTAL ACCOUNTING  
STANDARDS BOARD**

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**COUNTY OF VOLUSIA, FLORIDA**  
**VOLUNTEER FIREFIGHTERS' PENSION SYSTEM**

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**EXECUTIVE SUMMARY**  
**GASB Statement No. 67 and 68**

Actuarial Valuation Date	September 30, 2015
Measurement Date of the Net Pension Liability	September 30, 2015
Employer's Fiscal Year Ending Date (Reporting Date)	September 30, 2015

**Membership**

Number of	
- Retirees and Beneficiaries	34
- Inactive, Nonretired Members	7
- Active Members	34
- Total	75
Total Payroll	N/A

**Net Pension Liability**

Total Pension Liability	\$ 1,622,109
Plan Fiduciary Net Position	4,187,181
Net Pension Liability	\$ (2,565,072)
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	258.13 %
Net Pension Liability as a Percentage of Covered Payroll	N/A

**Development of the Single Discount Rate**

Single Discount Rate	4.25 %
Long-Term Expected Rate of Investment Return	4.25 %
Long-Term Municipal Bond Rate*	3.71 %
Last year ending September 30 in the 2015 to 2114 projection period for which projected benefit payments are fully funded	2115

**Total Pension Expense** \$ 19,411

**Deferred Outflows and Deferred Inflows of Resources by Source to be recognized in Future Pension Expenses**

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	\$ 24,315	\$ -
Changes in assumptions	164,058	-
Net difference between projected and actual earnings on pension plan investments	182,702	-
Total	\$ 371,075	\$ -

*\*Source: "State & local bonds" rate from Federal Reserve statistical release (H.15) as of September 24, 2015. The statistical release describes this rate as "Bond Buyer Index, general obligation, 20 years to maturity, mixed quality." In describing this index, the Bond Buyer notes that the bonds' average credit quality is roughly equivalent to Moody's Investors Service's Aa2 rating and Standard & Poor's Corp.'s AA.*

**COUNTY OF VOLUSIA, FLORIDA**  
**VOLUNTEER FIREFIGHTERS' PENSION SYSTEM**

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**SCHEDULE OF CHANGES IN THE EMPLOYER'S  
NET PENSION LIABILITY AND RELATED RATIOS**  
**GASB Statement No. 67 and 68**

Fiscal year ending September 30,	<u>2015</u>	<u>2014</u>
<b>Total pension liability</b>		
Service Cost	\$ 35,975	\$ 39,007
Interest on the Total Pension Liability	73,852	76,192
Benefit Changes	-	-
Difference between expected and actual experience □	35,367	-
Assumption Changes	238,630	-
Benefit Payments	(137,006)	(172,409)
Refunds	-	-
<b>Net Change in Total Pension Liability</b>	<u>246,818</u>	<u>(57,210)</u>
<b>Total Pension Liability - Beginning</b>	<u>1,375,291</u>	<u>1,432,501</u>
<b>Total Pension Liability - Ending (a)</b>	<u>\$ 1,622,109</u>	<u>\$ 1,375,291</u>
<b>Plan Fiduciary Net Position</b>		
Contributions - Employer	\$ -	\$ -
Contributions - Member	-	-
Net Investment Income	5,712	48,543
Benefit Payments	(137,006)	(172,409)
Refunds	-	-
Administrative Expense	(12,374)	(4,372)
Other	-	-
<b>Net Change in Plan Fiduciary Net Position</b>	<u>(143,668)</u>	<u>(128,238)</u>
<b>Plan Fiduciary Net Position - Beginning</b>	<u>4,330,849</u>	<u>4,459,087</u>
<b>Plan Fiduciary Net Position - Ending (b)</b>	<u>\$ 4,187,181</u>	<u>\$ 4,330,849</u>
<b>Net Pension Liability - Ending (a) - (b)</b>	<u>(2,565,072)</u>	<u>(2,955,558)</u>
<b>Plan Fiduciary Net Position as a Percentage</b>		
<b>of Total Pension Liability</b>	258.13 %	314.90 %
<b>Covered Employee Payroll</b>	N/A	N/A
<b>Net Pension Liability as a Percentage</b>		
<b>of Covered Employee Payroll</b>	N/A	N/A

**COUNTY OF VOLUSIA, FLORIDA**  
**VOLUNTEER FIREFIGHTERS' PENSION SYSTEM**

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**SCHEDULE OF THE EMPLOYER'S NET PENSION LIABILITY**  
**GASB Statement No. 67 and 68**

<u>FY Ending</u> <u>September 30,</u>	<u>Total</u> <u>Pension</u> <u>Liability</u>	<u>Plan Net</u> <u>Position</u>	<u>Net Pension</u> <u>Liability</u>	<u>Plan Net Position</u> <u>as a % of Total</u> <u>Pension Liability</u>	<u>Covered</u> <u>Payroll</u>	<u>Net Pension Liability</u> <u>as a % of</u> <u>Covered Payroll</u>
2014	\$ 1,375,291	\$ 4,330,849	\$(2,955,558)	314.90%	N/A	N/A
2015	1,622,109	4,187,181	(2,565,072)	258.13%	N/A	N/A

**COUNTY OF VOLUSIA, FLORIDA**  
**VOLUNTEER FIREFIGHTERS' PENSION SYSTEM**

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**SCHEDULE OF CONTRIBUTIONS**  
**GASB Statement No. 67 and 68**

<u>FY Ending</u> <u>September 30,</u>	<u>Actuarially</u> <u>Determined</u> <u>Contribution</u>	<u>Actual</u> <u>Contribution</u>	<u>Contribution</u> <u>Deficiency</u> <u>(Excess)</u>	<u>Covered</u> <u>Payroll</u>	<u>Actual Contribution</u> <u>as a % of</u> <u>Covered Payroll</u>
2014	\$ 0	\$ 0	\$ 0	N/A	N/A
2015	0	0	0	N/A	N/A

**COUNTY OF VOLUSIA, FLORIDA**  
**VOLUNTEER FIREFIGHTERS' PENSION SYSTEM**

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**NOTES TO SCHEDULE OF CONTRIBUTIONS**  
**GASB Statement No. 67 and 68**

**Valuation Date:** October 1, 2014  
**Notes:** Actuarial valuations are performed biennially; actuarially determined contributions are calculated as of October 1, which is one year and two years prior to the end of the fiscal year in which contributions are reported

**Methods and Assumptions Used to Determine Contribution Rates:**

Actuarial Cost Method	Frozen Entry Age is used for funding purposes (Entry Age Normal is used for GASB No. 67 purposes)
Amortization Method	Level Dollar, Closed
Remaining Amortization Period	8 years
Asset Valuation Method	Market Value
Inflation	3.0%
Salary Increases	N/A
Investment Rate of Return	5.5%
Retirement Age	Members are assumed to retire immediately upon normal retirement eligibility
Mortality	RP-2000 Generational Mortality Table for males and females with mortality improvement projected to all future years after 2000 using Scale AA

**Other Information:**

**Notes:** See Discussion of Valuation Results in Section A of the October 1, 2014 Actuarial Valuation Report

**COUNTY OF VOLUSIA, FLORIDA**  
**VOLUNTEER FIREFIGHTERS' PENSION SYSTEM**

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**SINGLE DISCOUNT RATE**  
**GASB Statement No. 67 and 68**

A single discount rate of 4.25% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 4.25%. The projection of cash flows used to determine this single discount rate assumed that employer contributions will be made at rates equal to the total actuarially determined contribution rates. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments (4.25%) was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 4.25%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher:

**Sensitivity of the Net Pension Liability to the Single Discount Rate Assumption**

<b>1% Decrease</b>	<b>Discount Rate Assumption</b>	<b>1% Increase</b>
<b>3.25%</b>	<b>4.25%</b>	<b>5.25%</b>
(\$2,355,377)	(\$2,565,072)	(\$2,736,341)

**COUNTY OF VOLUSIA, FLORIDA**  
**VOLUNTEER FIREFIGHTERS' PENSION SYSTEM**

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**NOTES TO NET PENSION LIABILITY**  
**GASB Statement No. 67 and 68**

Valuation Date: September 30, 2015  
Measurement Date: September 30, 2015

**Methods and Assumptions Used to Determine Net Pension Liability:**

Actuarial Cost Method	Entry Age Normal
Inflation	2.5%
Salary Increases	N/A
Investment Rate of Return	4.25%
Retirement Age	Members are assumed to retire immediately upon normal retirement eligibility
Mortality	RP-2000 Generational Mortality Table with 100% Annuitant White Collar rates for females and 10 % Annuitant White Collar/90% Annuitant Blue Collar rates for males with mortality improvement projected to all future years after 2000 using Scale BB

**Other Information:**

Notes See Discussion of Valuation Results in Section A of the October 1, 2015 Actuarial Valuation Report

**COUNTY OF VOLUSIA, FLORIDA**  
**VOLUNTEER FIREFIGHTERS' PENSION SYSTEM**

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**PENSION EXPENSE**  
**FISCAL YEAR ENDED SEPTEMBER 30, 2015**  
**(BASED ON MEASUREMENT PERIOD ENDING SEPTEMBER 30, 2015)**  
**GASB Statement No. 68**

**A. Expense**

1. Service Cost	\$	35,975
2. Interest on the Total Pension Liability		73,852
3. Current-Period Benefit Changes		-
4. Employee Contributions (made negative for addition here)		-
5. Projected Earnings on Plan Investments (made negative for addition here)		(234,089)
6. Pension Plan Administrative Expense		12,374
7. Other Changes in Plan Fiduciary Net Position		-
8. Other Changes in Total Pension Liability (Change in State Contribution Reserve)		-
9. Recognition of Outflow (Inflow) of Resources due to Liabilities		85,624
10. Recognition of Outflow (Inflow) of Resources due to Assets		<u>45,675</u>
<b>11. Total Pension Expense</b>	<b>\$</b>	<b>19,411</b>

**COUNTY OF VOLUSIA, FLORIDA**  
**VOLUNTEER FIREFIGHTERS' PENSION SYSTEM**

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**STATEMENT OF OUTFLOWS AND INFLOWS**  
**ARISING FROM CURRENT REPORTING PERIOD**  
**EMPLOYER FISCAL YEAR ENDED SEPTEMBER 30, 2015**  
**(BASED ON MEASUREMENT PERIOD ENDING SEPTEMBER 30, 2015)**  
**GASB Statement No. 68**

**A. Outflows (Inflows) of Resources due to Liabilities**

1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	\$ 35,367
2. Assumption Changes (gains) or losses	\$ 238,630
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}	3.2
4. Outflow (Inflow) of Resources to be recognized in the current pension expense for the difference between expected and actual experience of the Total Pension Liability	\$ 11,052
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for assumption changes	<u>\$ 74,572</u>
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	\$ 85,624
7. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for the difference between expected and actual experience of the Total Pension Liability	\$ 24,315
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for assumption changes	<u>\$ 164,058</u>
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	\$ 188,373

**B. Outflows (Inflows) of Resources due to Assets**

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$ 228,377
2. Recognition period for Assets {in years}	5.0
3. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Assets	\$ 45,675
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	\$ 182,702

**COUNTY OF VOLUSIA, FLORIDA**  
**VOLUNTEER FIREFIGHTERS' PENSION SYSTEM**

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**STATEMENT OF OUTFLOWS AND INFLOWS**  
**ARISING FROM CURRENT AND PRIOR REPORTING PERIOD**  
**EMPLOYER FISCAL YEAR ENDED SEPTEMBER 30, 2015**  
**(BASED ON MEASUREMENT PERIOD ENDING SEPTEMBER 30, 2015)**  
**GASB Statement No. 68**

**A. Outflows and Inflows of Resources due to Liabilities and Assets to be Recognized in Current Pension Expense**

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Due to Liabilities	\$ 85,624	\$ -	\$ 85,624
2. Due to Assets	45,675	-	45,675
<b>3. Total</b>	<b>\$ 131,299</b>	<b>\$ -</b>	<b>\$ 131,299</b>

**B. Outflows and Inflows of Resources by Source to be Recognized in Current Pension Expense**

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Differences between expected and actual experience	\$ 11,052	\$ -	\$ 11,052
2. Assumption Changes	74,572	-	74,572
3. Net Difference between projected and actual earnings on pension plan investments	45,675	-	45,675
<b>4. Total</b>	<b>\$ 131,299</b>	<b>\$ -</b>	<b>\$ 131,299</b>

**C. Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future Pension Expenses**

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Deferred Outflows of Resources
1. Differences between expected and actual experience	\$ 24,315	\$ -	\$ 24,315
2. Assumption Changes	164,058	-	164,058
3. Net Difference between projected and actual earnings on pension plan investments	182,702	-	182,702
<b>4. Total</b>	<b>\$ 371,075</b>	<b>\$ -</b>	<b>\$ 371,075</b>

**D. Deferred Outflows and Deferred Inflows of Resources by Year to be Recognized in Future Pension Expenses**

Year Ending September 30	Net Deferred Outflows of Resources
2015	\$ 131,299
2016	131,299
2017	62,798
2018	45,679
2019	-
Thereafter	-
<b>Total</b>	<b>\$ 371,075</b>

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## **SECTION F**

### **SUMMARY OF VALUATION RESULTS IN STATE FORMAT**

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**SUMMARY OF VALUATION RESULTS IN STATE FORMAT**  
**(\$ AMOUNTS IN THOUSANDS)**

	<u>October 1, 2015</u>		<u>October 1, 2014</u>
	<u>After Changes</u>	<u>Before Changes</u>	
(a) Member Data			
(i) Active members - number	34	34	26
(ii) Retired members & beneficiaries (excluding disability)			
- number	34	34	33
- annualized benefit payroll	95	95	91
(iii) Terminated vested members			
- number	7	7	8
- annualized deferred benefit payroll	22	22	23
(b) Assets			
(i) Market value	4,187	4,187	4,331
(c) Plan costs for fiscal year beginning October 1, 2014 and October 1, 2015			
(i) Actuarial Present Value of Projected Benefits:			
Active participants			
Age & Service	459	343	329
Vesting	16	10	5
Death	16	6	5
Disability	11	10	8
Total Active	<u>502</u>	<u>369</u>	<u>347</u>
Terminated vested participants	262	217	244
Retired participants and beneficiaries	<u>1,252</u>	<u>1,077</u>	<u>1,039</u>
Total	2,016	1,663	1,630
(ii) Fund	4,187	4,187	4,331
(iii) Unfunded Actuarial Accrued Liability (under Frozen Entry Age Funding Method)	(211)	(211)	(235)
(iv) The Actuarial Present Value of Normal Costs	(1,961)	(2,314)	(2,466)
(v) Actuarial Present Value of Future Service (thousands)	0.2	0.2	0.2
(vi) Normal Cost Rate	(8.6)	(10.9)	(16.2)
(vii) Number of Active Participants	34	34	26
(viii) Normal Cost	(292)	(369)	(422)

**SUMMARY OF VALUATION RESULTS IN STATE FORMAT (CONTINUED)**  
**(\$ AMOUNTS IN THOUSANDS)**

	<u>October 1, 2015</u>		<u>October 1, 2014</u>
	<u>After Changes</u>	<u>Before Changes</u>	
(d) Actuarial Present Value of Accrued Benefits (calculated in accordance with <b>FASB Statement No. 35</b> )			
(i) Vested accrued benefits			
Retired members and beneficiaries			
-pensions	\$ 1,252	\$ 1,077	\$ 1,039
Terminated members	262	217	244
Active members	33	28	62
Total	<u>1,547</u>	<u>1,322</u>	<u>1,345</u>
(ii) Non-vested accrued benefits	<u>54</u>	<u>43</u>	<u>35</u>
(iii) Total actuarial p.v. of accrued benefits	1,601	1,365	1,380
(iv) Actuarial p.v. of accrued benefits at begin. of year	1,380	1,380	1,477
(v) Changes attributable to:			
Amendments	0	0	0
Assumption change	236	0	0
Operation of decrements	122	122	155
Benefit payments	<u>(137)</u>	<u>(137)</u>	<u>(252)</u>
(vi) Net change	221	(15)	(97)
(vii) Actuarial p.v. of accr. benefits at end of year	1,601	1,365	1,380
(e) Plan costs for fiscal year beginning October 1, 2014 and October 1, 2015			
(i) Normal costs			
Service pensions (incl. post-ret. surv. pensions)	(268)	(344)	(400)
Disability pensions (incl. post-ret. surv. pensions)	(6)	(10)	(10)
Survivor pensions (pre-retirement)	(9)	(6)	(6)
Deferred service pensions	<u>(9)</u>	<u>(10)</u>	<u>(6)</u>
Total normal cost	(292)	(369)	(422)
(ii) Payment to amortize unf'd. act. accr. liab.	0	0	(35)
(iii) Administrative and investment expenses	12	12	4
(iv) FS112.64(5) Requirement	(473)	(473)	(448)
(v) Interest	(32)	(46)	(50)
(vi) Amount to be paid by participants	0	0	0
(vii) Expected plan sponsor contribution dollars	\$ (785)	\$ (875)	\$ (951)
(f) Past Contributions (fiscal year ending 9/30/2014 & 2015)			
(i) Required minimum: System sponsor	0	0	0
(ii) Actual: County	0	0	0

## RECONCILIATION OF MEMBERSHIP

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	Active Members	Vested Terminated Members	Pension Recipients	
			Retired	Beneficiaries
Number at October 1, 2014	26	8	28	5
Increase (Decrease) From				
Service Retirement	(1)	(1)	1	
Disability Retirement				
Deaths	(1)			
Vested Terminations	(1)	1		
Non-Vested Terminations	(7)			
New Entrants/Rehires	18			
Lump Sum Payout		(1)		
<b>Number at October 1, 2015</b>	<b>34</b>	<b>7</b>	<b>29</b>	<b>5</b>