



The elements of success



hooker & holcombe

The Firefighters' Pension Trust Fund of the City of Stamford

July 1, 2014 Valuation Review

Evan W. (Bill) Woollacott, FCA, EA, MAAA
Vice President & Consulting Actuary

Yelena Pelletier, ASA, MAAA

March 12, 2015



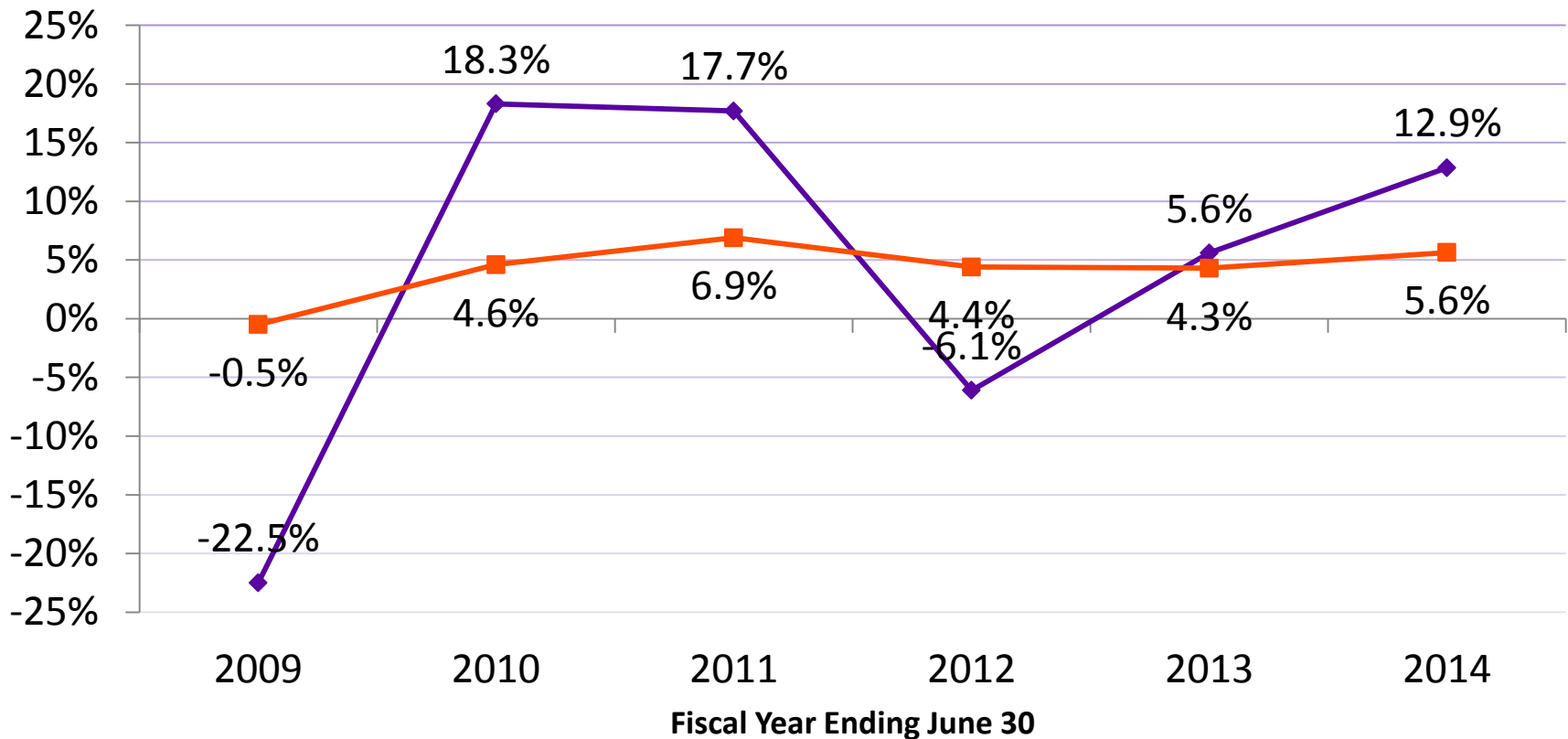
Purpose of the Valuation

The ultimate cost of a pension plan is based primarily on the level of benefits promised by the plan. The pension fund's investment earnings serve to reduce the cost of plan benefits and expenses. Thus,

<i>City's Ultimate Cost</i>	=	<i>Benefits Paid</i>	+	<i>Expenses Incurred</i>	-	<i>Investment Return</i>	-	<i>Employee Contributions</i>
-------------------------------------	---	--------------------------	---	------------------------------	---	------------------------------	---	-----------------------------------

- Actuarial Valuation utilizes an actuarial cost method to assign a portion of this “ultimate cost” to the budget year. The valuation does not determine the cost of the plan but is a tool used to determine the appropriate level of City contributions.
- Annual Determined Contribution (ADC) developed from the valuation is comprised of two components: amortization of unfunded liability & normal cost (assignment of benefits “earned” for the budget year).

Rates of Return

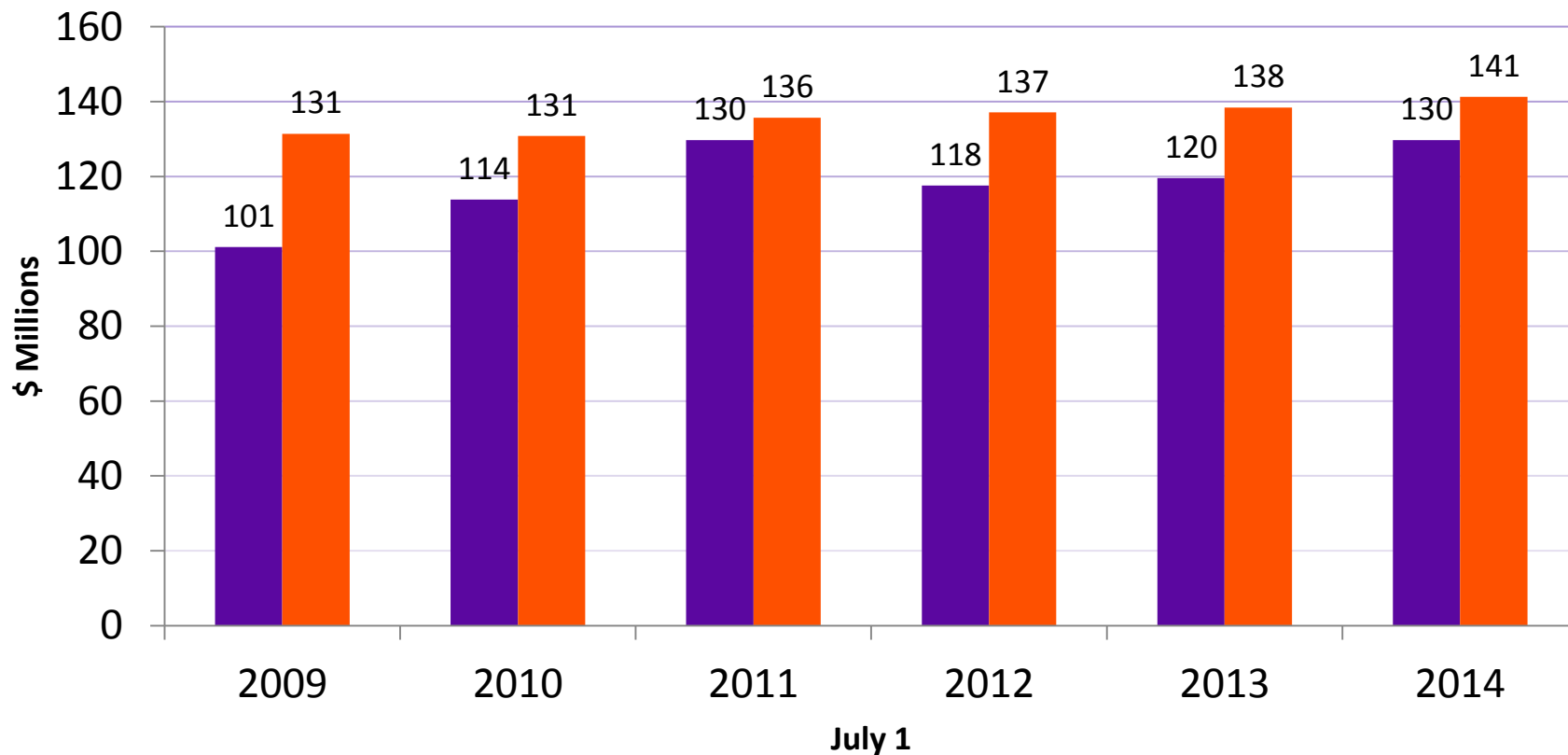


◆ Market Value Return ■ Actuarial Value Return

Market and Actuarial Value of Assets



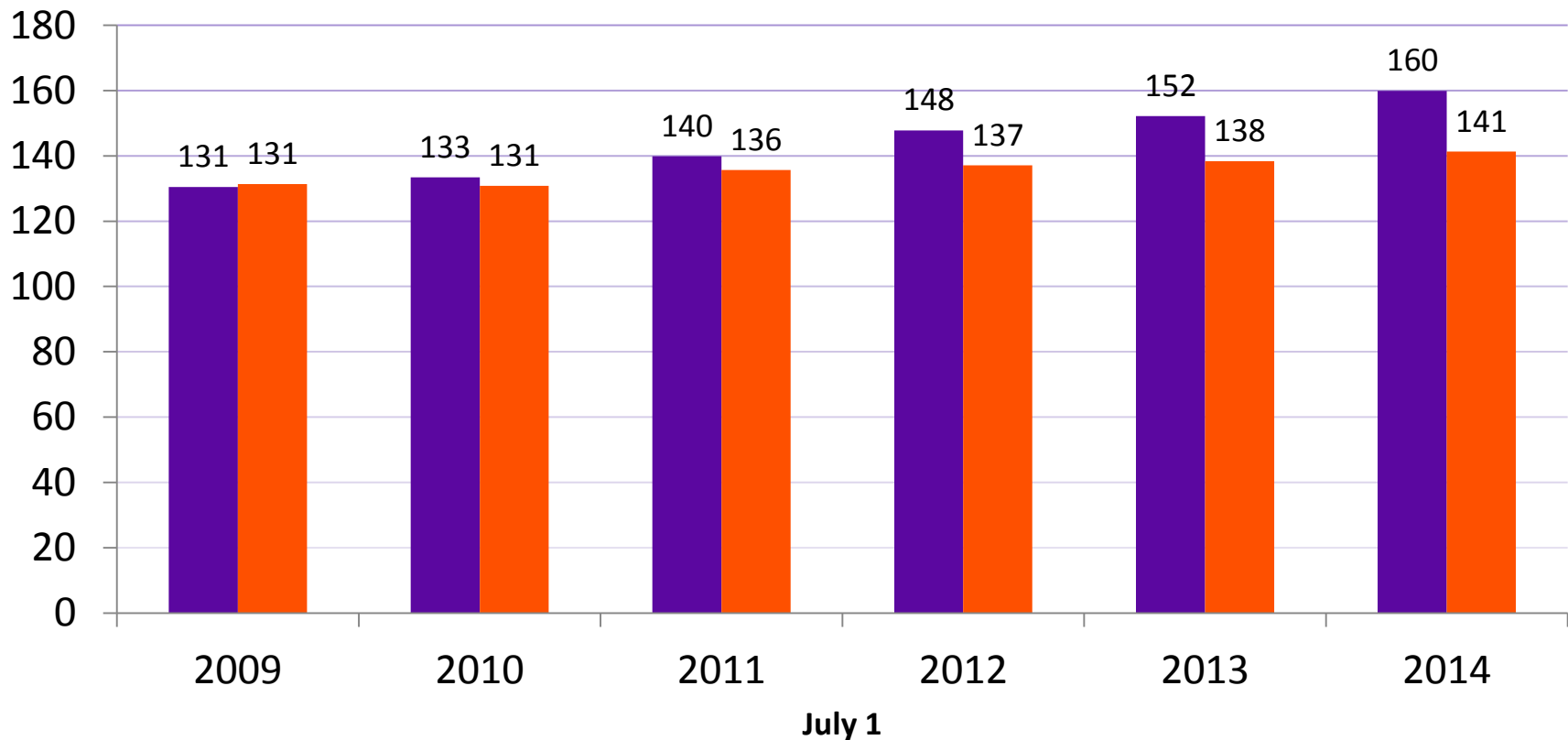
hooker & holcombe



■ Market Value ■ Actuarial Value



Actuarial Accrued Liability and AVA

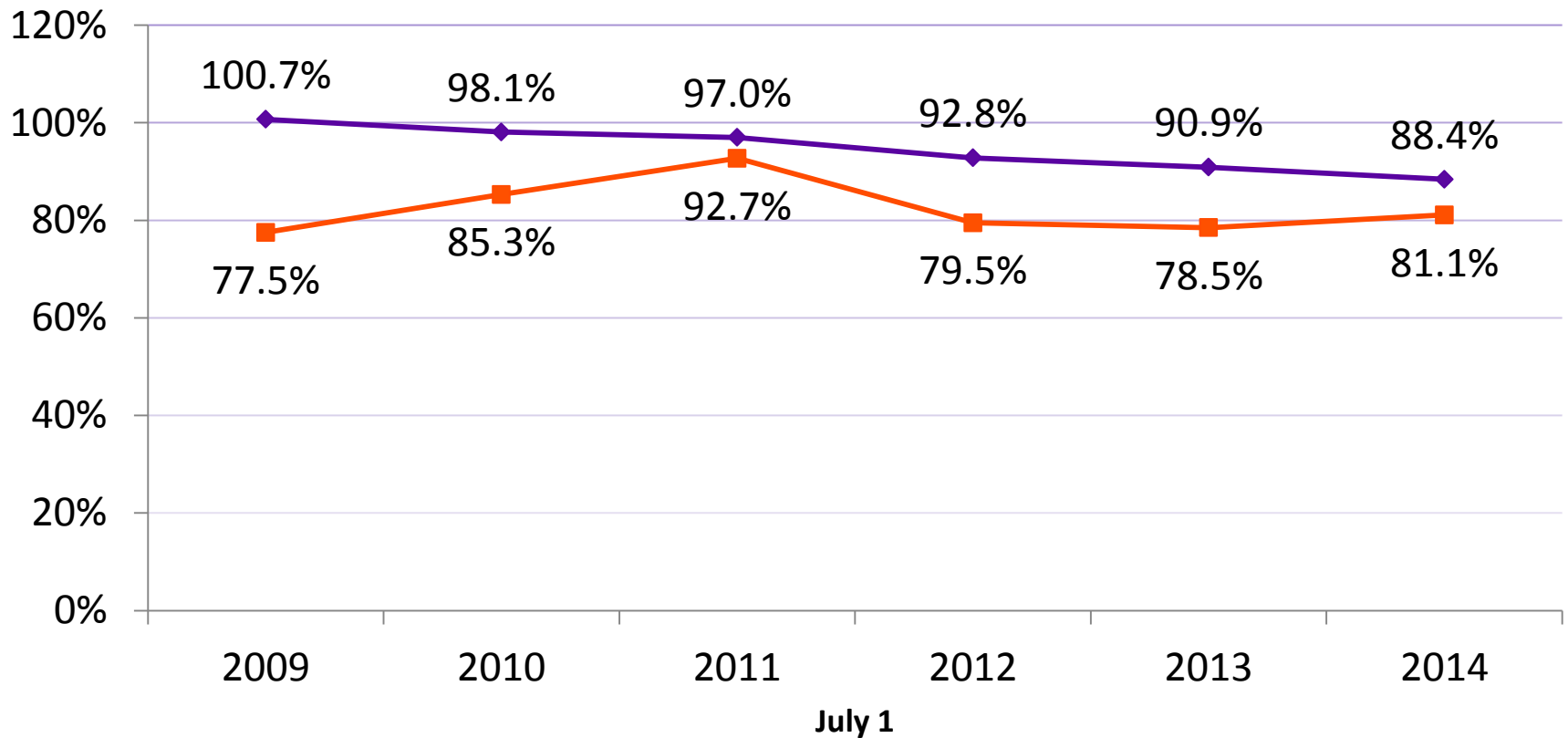


■ Actuarial Accrued Liability

■ Actuarial Value of Assets



Funded Ratio



◆ Actuarial Value ■ Market Value

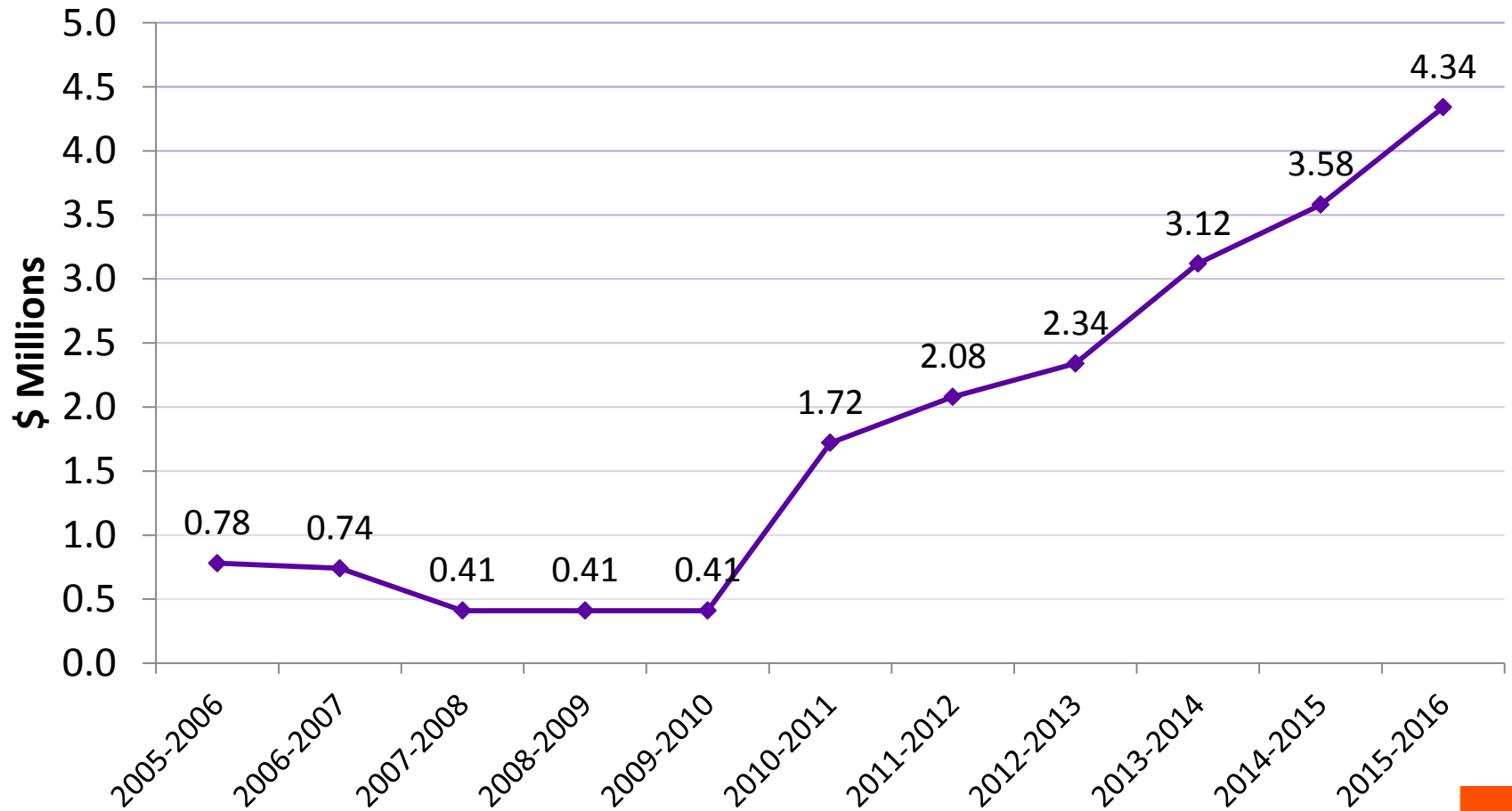
Actuarially Determined Contribution



hooker & holcombe

	July 1, 2014 for Fiscal Year Ending June 30, 2016	July 1, 2013 for Fiscal Year Ending June 30, 2015	July 1, 2012 for Fiscal Year Ending June 30, 2014
1. Ongoing Annual Cost	\$3,547,000	\$3,245,000	\$3,076,000
2. Estimated Employee Contributions	1,136,000	1,144,000	1,100,000
3. City's Ongoing Annual Cost: (1) - (2)	2,411,000	2,101,000	1,976,000
4. Amortization of Unfunded Accrued Liability (15 years)	1,931,000	1,474,000	1,143,000
5. City's Annual Contribution: (3) + (4)	4,342,000	3,575,000	3,119,000

Recommended City Contribution



Change in Contribution



hooker & holcombe

1. July 1, 2013 valuation contribution	3,575,000
2. Increase due to assets	310,000
3. Decrease due to liabilities	(145,000)
4. Expected increase	63,000
5. Increase due to assumption changes	550,000
6. Decrease due to plan changes	0
7. Contribution timing	49,000
8. Miscellaneous decrease*	(60,000)
9. July 1, 2014 valuation contribution	4,342,000

* Includes more employee contributions than expected and 15 year open amortization.

Rate of Return Assumption



hooker & holcombe

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return*</u>	<u>Weighting</u>
Large Cap Equities	35.00%	4.75%	1.66%
International Equities	20.00%	5.25%	1.05%
Small Cap Equities	15.00%	5.50%	0.83%
High Quality Bonds	14.00%	2.00%	0.28%
International Income	2.00%	2.00%	0.04%
High Yield	2.00%	3.25%	0.07%
Emerging Markets	2.00%	3.50%	0.07%
Alternative Investments	10.00%	5.25%	0.53%
	100.00%		4.53%
Long-Term Inflation Expectation			3.00%
Long-Term Expected Nominal Return			7.53%

**Long-Term Returns are provided by HHIA. The returns are geometric means.*

Note: 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 are developed. Best estimates of the real rates of return for each major asset class are included in the pension plan's target asset allocation. The information above is based on geometric means and does not reflect additional returns through investment selection, asset allocation and rebalancing.

Actuarial Assumptions

Mortality:	RP-2000 Mortality Table with separate male and female rates, with blue collar adjustment, combined table for non-annuitants and annuitants, projected to the valuation date with Scale AA.
Mortality Improvement:	Projected to date of decrement using Scale AA (generational mortality).
Investment Return:	7.25% per year (was 7.75%).

Actuarial Assumptions (continued)

Salary Scale:

Current:		Prior:	
Current:		Yearly Rates of Increases	
<u>Service</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
0	15.0%	20	6.50%
1-2	10.0%	25	6.50%
3	9.0%	30	5.85%
4	8.0%	35	5.20%
5	7.0%	40	4.55%
6	7.0%	45	3.90%
7	7.0%	50	3.25%
8	5.0%	55+	3.00%
9	4.0%		
10+	3.5%		

Payroll Growth Assumption: 3% annually to project normal cost only.

Medicare Part B Reimbursements: 3% increase assumption each year.

Actuarial Assumptions (continued)

Retirement Age:

Current:

Prior:

Ret Rates by Years of Service

<u>Years</u>	<u>Rate</u>
25	4%
26	0%
27-31	4%
32	18%
33	11%
34	38%
35	10%
36	22%
37	0%
38	29%
39	20%
40	100%

<u>Age</u>	<u>Retirement Rate</u>
55	50%
56	50%
57	50%
58	50%
59	50%

All participants are assumed to retire no later than age 65.

An additional 40% is added upon attainment of age 48 and 20 years of service if hired after January 1, 1981 and 20 years of service if hired before January 1, 1981 and 100% of members remaining beyond the earlier of age 60 with 30 years of service or age 65 are assumed to retire.

Actuarial Assumptions (continued)

Turnover:

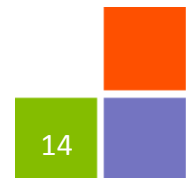
The following annual rates of turnover are assumed:

Age	Probability
20	5.44%
25	4.89%
30	3.70%
35	2.35%
40	0.00%
45	0.00%
50	0.00%
55	0.00%
60	0.00%

Disability:

The following annual rates of disability are assumed:

Age	Probability
20	0.05%
25	0.05%
30	0.05%
35	0.06%
40	0.09%
45	0.18%
50	0.40%
55	0.85%
60	1.74%



Actuarial Assumptions (continued)

Survivorship:	80% of employees assumed to be married, with wives 4 years younger than husbands.
Expenses:	The return is assumed to be net of both administrative expenses and investment expenses. Therefore, a direct expense assumption has not been made.
Vacation Bank:	60% of retirees are assumed to elect additional pension credit as an annuity from the fund (was 50%).

Questions & Answers

???

