

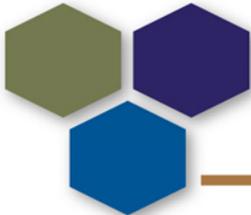
General Assembly Retirement System of Illinois

Valuation Results as of June 30, 2015

October 30, 2015



Gabriel Roeder Smith & Company
Consultants & Actuaries
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Agenda

◆ Valuation Results

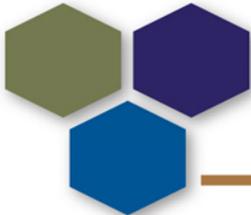
- ▶ Changes since last year
- ▶ Funded status
- ▶ Change in funded ratio
- ▶ Cash flow comparison
- ▶ Contribution requirement
- ▶ Contribution shortfall

◆ Summary

◆ GASB Nos. 67 and 68 Results

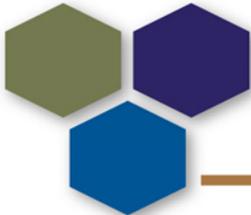
◆ Appendix A: Projection Results: Phase-in of investment losses in the Actuarial Value of Assets (AVA)

◆ Appendix B: Membership Data



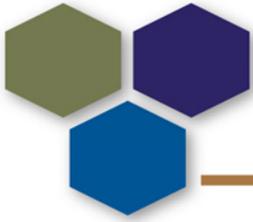
Valuation Results: Changes Since Last Year

- ◆ Public Act 98-0599 (Effective June 1, 2014)
 - ▶ Ruled unconstitutional and void in its entirety by the Circuit Court
- ◆ Public Act 99-0232 (Effective August 3, 2015)
 - ▶ Mandates the five state systems to conduct actuarial experience studies every 3 years as opposed to 5 years
 - Next GARS experience study would occur after the June 30, 2015, valuation
- ◆ Board adopted policy for calculating the Actuarially Determined Contribution (ADC) for accounting purposes only
 - ▶ Under policy, ADC is equal to the normal cost plus a 20-year level percent of capped payroll closed-period amortization of the unfunded actuarial liability as of June 30, 2015
- ◆ Population projection assumption for future new entrants electing to participate in the plan was reduced from 100 percent to 50 percent.
 - ▶ The reduction in future entrants and future payroll increased the State's contributions through 2045.



Valuation Results: Funded Status (\$ in millions)

	<u>June 30, 2014</u>	<u>June 30, 2015</u>
Actuarial Accrued Liability	\$323.4	\$328.2
Market Value of Assets (MVA)	\$56.8	\$54.6
Unfunded Actuarial Accrued Liability - MVA Basis	\$266.6	\$273.6
Funded Ratio - MVA Basis	17.56%	16.63%
Actuarial Value of Assets (AVA)	\$51.6	\$52.6
Unfunded Actuarial Accrued Liability - AVA Basis	\$271.8	\$275.7
Funded Ratio - AVA Basis	15.96%	16.01%

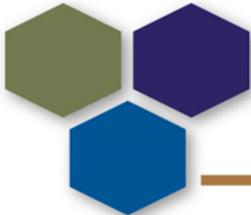


Valuation Results: Change in Funded Ratio

Change in Funded Ratio

Funded Ratio 6/30/2014	15.96%
Expected ¹	1.09%
Contribution Shortfall	-1.62%
Liability Experience	-0.03%
Asset Experience (11.08% Return on AVA)	<u>0.61%</u>
Funded Ratio 6/30/2015	16.01%

¹ *Assumes total contributions equal to normal cost plus interest*

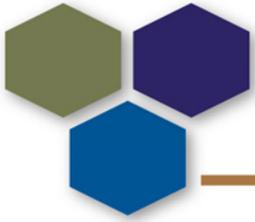


Valuation Results: Cash Flow Comparison (\$ in millions)

Cash Flow Comparison

	FYE 2015	Projected FYE 2016	Projected FYE 2017	Projected FYE 2018	Projected FYE 2019
Employer Contribution	\$15.9	\$16.1	\$21.7	\$21.8	\$21.8
Employee Contribution	\$1.5	\$1.5	\$1.3	\$1.3	\$1.3
Benefits	(\$21.5)	(\$22.9)	(\$23.3)	(\$24.0)	(\$24.6)
Expenses	(\$0.4)	(\$0.4)	(\$0.4)	(\$0.4)	(\$0.4)
Net Cash Flow	(\$4.5)	(\$5.7)	(\$0.7)	(\$1.3)	(\$1.9)

- ◆ Benefits exceed State and employee contributions.
- ◆ In 2016, 100 percent of investment income is needed to pay ongoing benefits. From 2017 to 2029, the percentage of investment income needed to pay ongoing benefits increases from approximately 19 percent to 100 percent.
- ◆ This implies that a lower level of investment income is projected to be available for potential asset growth.



Valuation Results: Contribution Requirements (\$ in millions)

FY 2017 State contribution

Basic Funding

Amount

\$ 21.7

Rate

194.949%

Compares to FY 2016 contribution

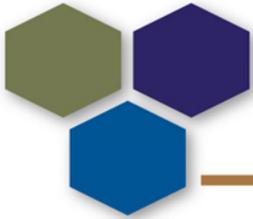
Basic Funding

Amount

\$ 16.1

Rate

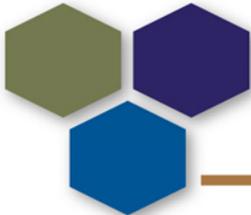
126.700%



Valuation Results: Contribution Shortfalls (\$ in millions)

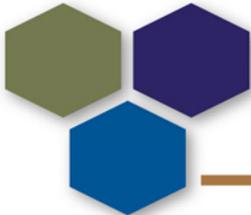
<u>FY 2017</u>	<u>Amount</u>	<u>Rate</u>
Annual Required Contribution	\$ 27.0	242.188%
Basic funding	<u>21.7</u>	<u>194.949%</u>
Shortfall	\$ 5.3	47.239%
<u>FY 2016</u>	<u>Amount</u>	<u>Rate</u>
Annual Required Contribution	\$ 17.1	135.117%
Basic funding	<u>16.1</u>	<u>126.700%</u>
Shortfall	\$ 1.0	8.417%

- ◆ The Annual Required Contribution (ARC) for FY 2016, is based on an open 30-year level percent of payroll amortization policy.
- ◆ The term ARC is no longer in the GASB Statements, thus the Board adopted a policy for developing an Actuarially Determined Contribution (ADC) beginning with the June 30, 2015, valuation which determines the FY 2017 ADC
 - ▶ Under this policy, the ADC is equal to the normal cost plus a 20-year level percent of capped payroll closed-period amortization of the unfunded actuarial liability.



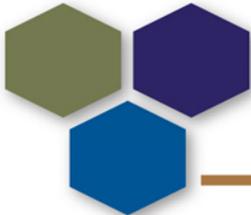
Summary

- ◆ 4.20% investment returns and contribution shortfall decreased the funded ratio on a MVA Basis.
- ◆ Change in the population projection assumption for future new entrants reduces future population and future payroll resulting in an increase in the State's contributions.
- ◆ Funded ratio is projected to increase slowly from 16.0% in 2015 to 22.3% in 2032, and then increase rapidly to 90% by 2045.



GASB Nos. 67 and 68 Results

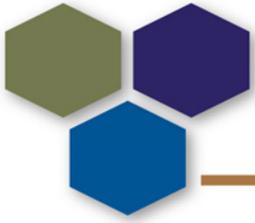
- ◆ GASB Statements Nos. 67 and 68 de-link financial reporting from funding
- ◆ GASB Statement No. 67 replaced GASB Statement No. 25 for pension plan financial reporting, effective with fiscal year ending June 30, 2014
- ◆ GASB Statement No. 68 replaced GASB Statement No. 27 for employer financial reporting, effective with fiscal year ending June 30, 2015
 - ▶ Required information under GASB Statements Nos. 67 and 68 is provided in a separate report
 - ▶ Total Pension Liability (TPL) is calculated using the Entry Age Normal actuarial cost method and a Single Discount Rate of 6.91 percent
 - ▶ Change in the Single Discount Rate from 5.11 percent to 6.91 percent was due to the change in the population projection assumption, which increased employer contributions and extended the crossover year from 2030 to 2066



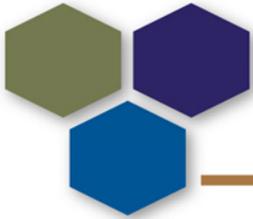
GASB Nos. 67 and 68 Results

<u>Statutory Requirements</u>		<u>GASB 67/68 Requirements</u>	
Actuarial Cost Method	Projected Unit Credit	Actuarial Cost Method	Entry Age Normal
Discount Rate	7.00%	Single Discount Rate	6.91%
Valuation Date	June 30, 2015	Measurement Date	June 30, 2015
Actuarial Accrued Liability	\$328.2	Total Pension Liability	\$333.3
Actuarial Value of Assets	\$52.6	Plan Fiduciary Net Position	\$54.6
Unfunded Actuarial Accrued Liability	\$275.7	Net Pension Liability	\$278.8
Funded Ratio	16.01%	Plan Fiduciary Net Position as a Percentage of Total Pension Liability	16.37%
Covered Payroll	\$11.6	Covered Payroll	\$11.6
Unfunded Actuarial Accrued Liability as a Percentage of Covered Employee Payroll	2374.62%	Net Pension Liability as a Percentage of Covered Employee Payroll	2401.18%
Total FY 2015 Employer Contribution	\$15.9	Total FY 2015 Pension Expense	(\$5.6)

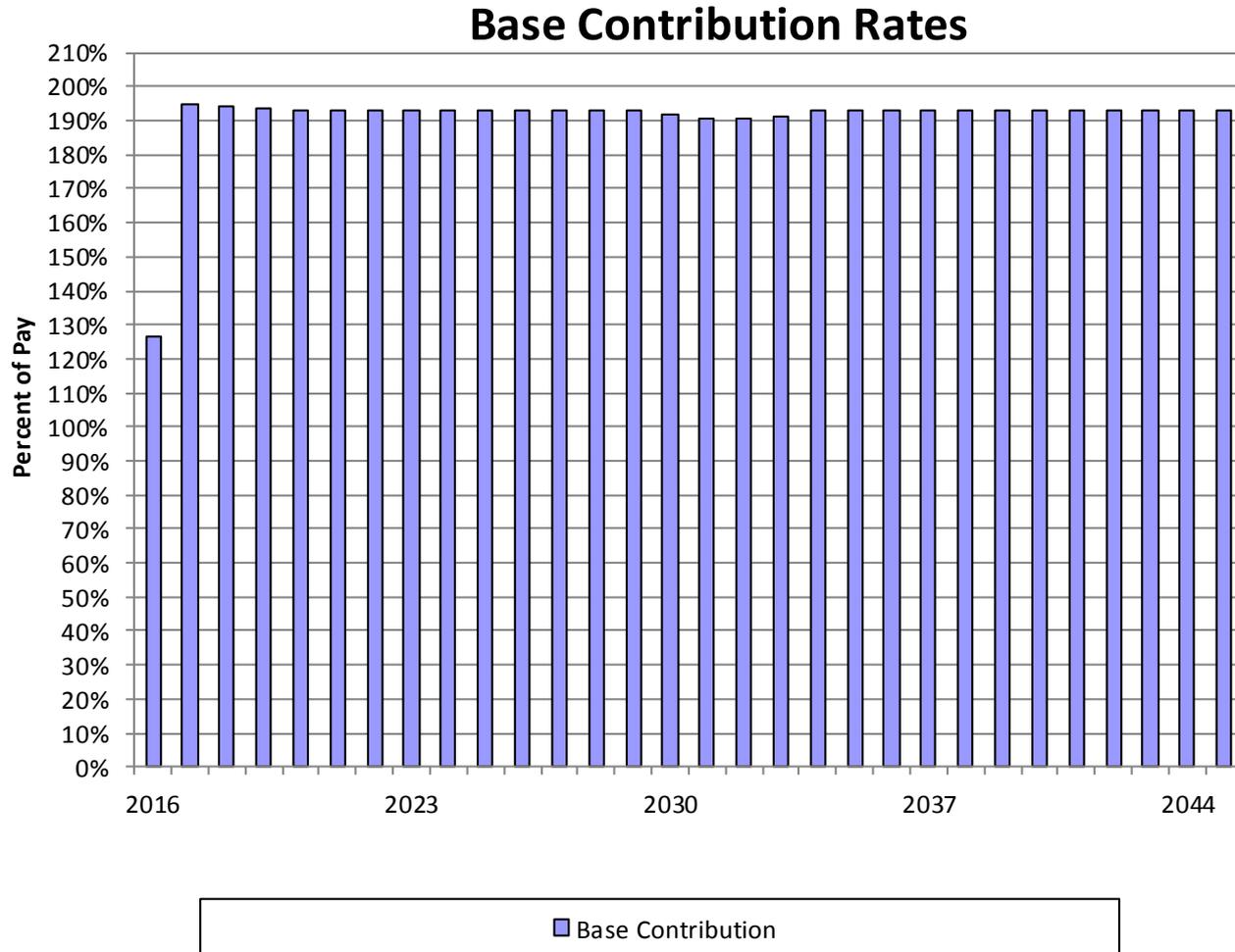
Dollars in millions

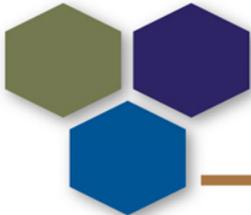


Appendix A: Projection Results: Phase-in of Investment Losses in the AVA

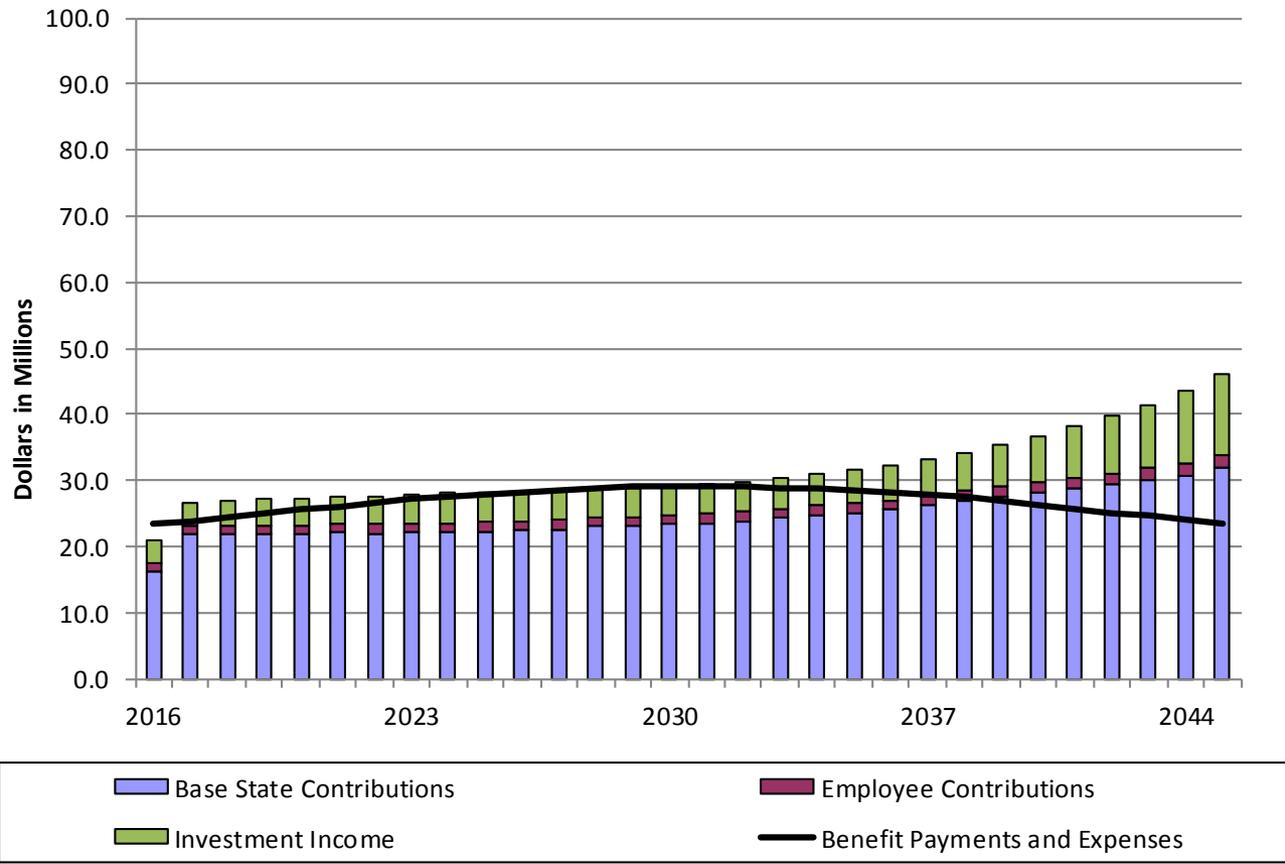


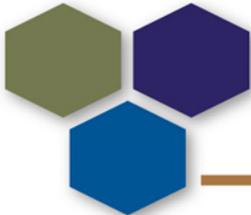
Projection Results: Phase-in of Investment Losses in the AVA: Contributions - Rate



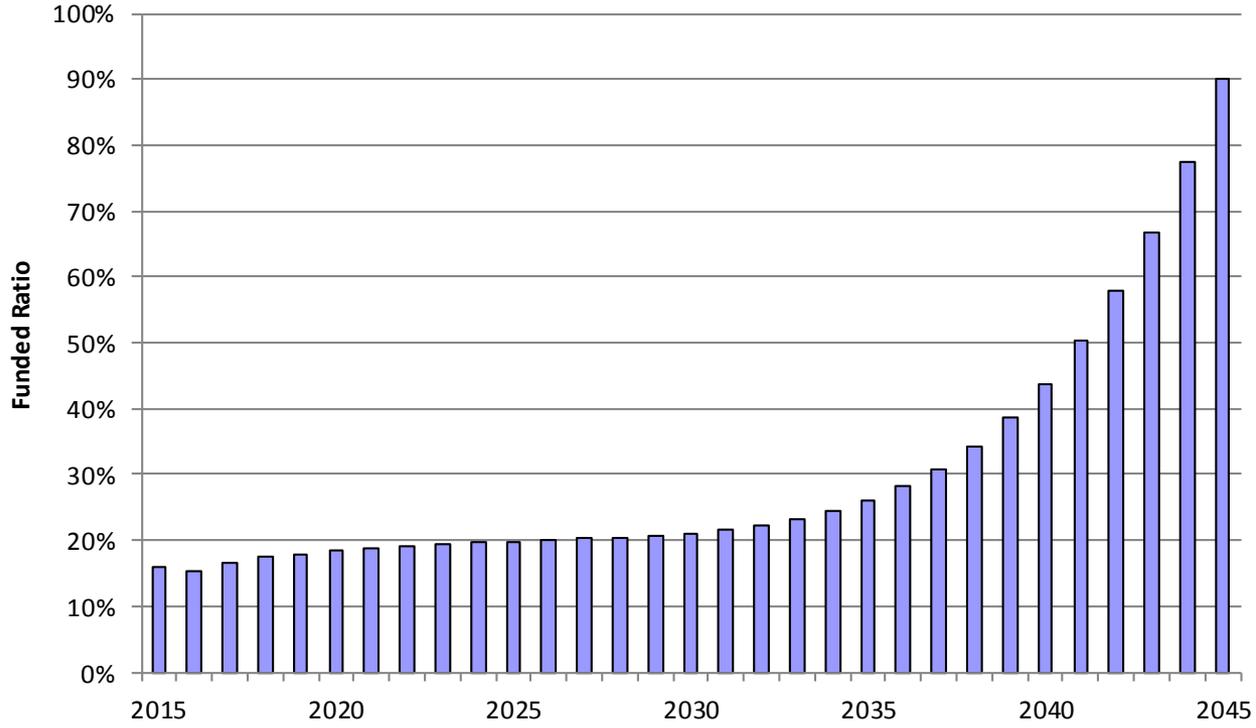


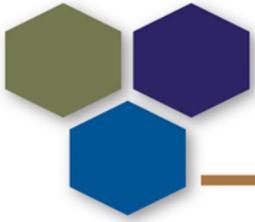
Projection Results: Phase-in of Investment Losses in the AVA: Cash Flow Comparison



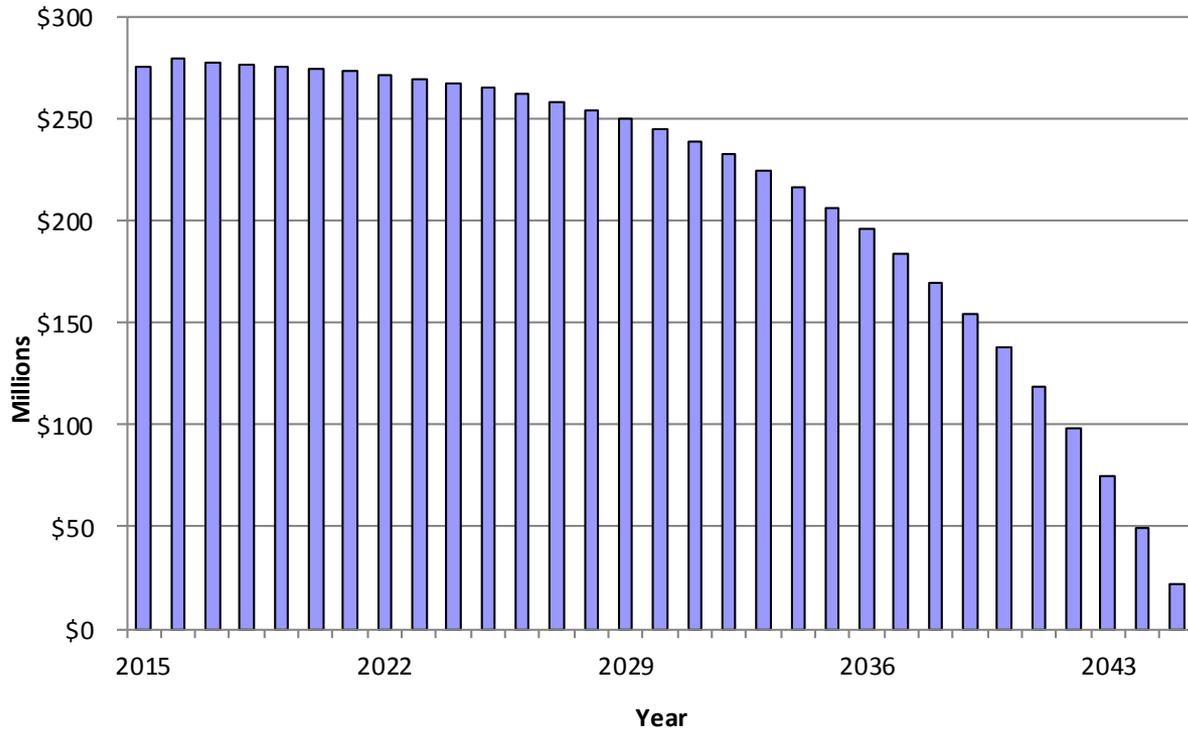


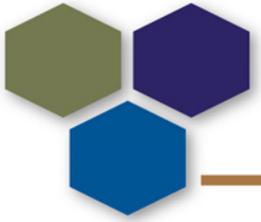
Projection Results: Phase-in of Investment Losses in the AVA: Funded Ratio



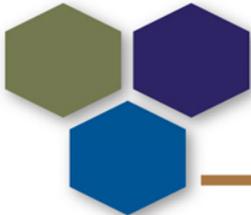


Projection Results: Phase-in of Investment Losses in the AVA: Unfunded Actuarial Accrued Liability



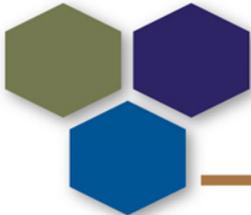


Appendix B: Membership Data



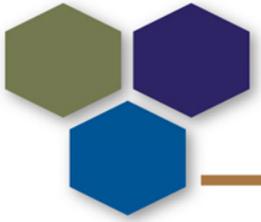
Active Members

	<u>June 30, 2014</u>	<u>June 30, 2015</u>
Number as of Valuation Date	158	145
Covered Payroll for Fiscal Year	\$12.778 Million	\$11.609 Million
Average Annual Earnings	\$80,872	\$80,065

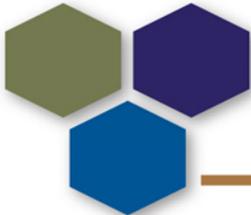


Current Benefit Recipients

	<u>June 30, 2014</u>	<u>June 30, 2015</u>
Retirees	303	309
Survivors	117	114
Reversionary	<u>1</u>	<u>1</u>
Total	421	424
Total Benefits	\$20.684M	\$21.548M
Average Benefits	\$49,131	\$50,821

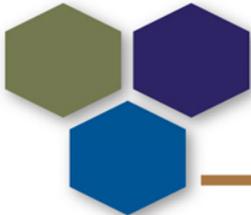


Questions



Disclosures

- ◆ Circular 230 Notice: Pursuant to regulations issued by the IRS, to the extent this presentation concerns tax matters, it is not intended or written to be used, and cannot be used, for the purpose of (i) avoiding tax-related penalties under the Internal Revenue Code or (ii) marketing or recommending to another party any tax-related matter addressed within. Each taxpayer should seek advice based on the individual's circumstances from an independent tax advisor.
- ◆ This presentation shall not be construed to provide tax advice, legal advice or investment advice.
- ◆ The actuary submitting this presentation (Alex Rivera, FSA, EA, MAAA) is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.
- ◆ The primary purpose of the actuarial valuation is to measure the financial position of GARS.



Disclosures

- ◆ The valuation results summarized in this report involve actuarial calculations that require assumptions about future events. The major actuarial assumptions used in this analysis were provided by and are the responsibility of GARS. We are unable to judge the reasonableness of some of these assumptions without performing a substantial amount of additional work beyond the scope of the assignment.
- ◆ 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; and changes in plan provisions or applicable law.
- ◆ This is one of multiple documents comprising the actuarial report for the GARS actuarial valuation. Additional information regarding actuarial assumptions and methods, and important additional disclosures are provided in the full actuarial valuation report as of June 30, 2015.
- ◆ If you need additional information to make an informed decision about the contents of this presentation, or if anything appears to be missing or incomplete, please contact us before relying on this presentation.