

Public Employees' Retirement System of the State of Nevada

Actuarial Valuation and Review as of
June 30, 2015



This report has been prepared at the request of the Retirement Board to assist in administering the Plan. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Retirement Board and may only be provided to other parties in its entirety. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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November 5, 2015

*Public Employees' Retirement Board
693 West Nye Lane
Carson City, Nevada 89703*

Dear Retirement Board Members:

We are pleased to submit this Actuarial Valuation and Review as of June 30, 2015 for the Public Employees' Retirement System of Nevada (PERS). It summarizes the actuarial data used in the valuation, establishes the actuarially determined contribution requirements for the 2015-2016 plan year and analyzes the preceding year's experience.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Plan. The census and financial information on which our calculations were based was provided by the Retirement Office. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. 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); and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Mark Hamwee, FSA, MAAA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.

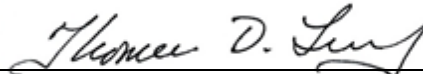
We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

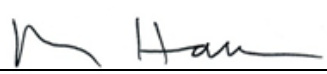
Segal Consulting, a Member of The Segal Group, Inc.

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SECTION 1: Valuation Summary for the Public Employees' Retirement System of Nevada

Purpose

This report has been prepared by Segal Consulting to present a valuation of the Public Employees' Retirement System of the State of Nevada as of June 30, 2015. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of the Public Employees' Retirement Act,
- The characteristics of covered active members, inactive vested members, retired members, disabled members, beneficiaries and survivors as of June 30, 2015,
- The assets of the Plan as of June 30, 2015, provided by the Retirement Office,
- Economic assumptions regarding future salary increases and investment earnings, and
- Other actuarial assumptions, regarding member terminations, retirement, death, etc.

Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

Reference: Pg. vi

- The ratios of the actuarial value of assets to actuarial accrued liabilities have increased from 70.8% to 72.4% for Regular members and increased from 74.3% to 76.3% for Police/Fire members.

Reference: Pg. 14

- There were actuarial experience gains due to a lower than expected change in the Consumer Price Index (-0.2% vs 3.5% expected), which resulted in lower than expected post-retirement benefit increases (PRBIs) for continuing retirees, beneficiaries and survivors during 2014/15, and a decrease in projected PRBIs for benefits paid over the next several years. These gains amounted to \$402 million for Regular members and \$105 million for Police/Fire members, as shown in Chart 18.

There were also actuarial experience gains due to individual salary increases less than expected for continuing active members; these gains amounted to \$309 million for Regular members and \$75 million for Police/Fire members, as shown in Chart 18. The average actual increase for continuing active members during 2014/15 was 3.4% for Regular members and 4.3% for Police/Fire members.

Reference: Pg. 16

- Actuarially determined contributions may increase or decrease from year to year even if all assumptions are exactly met. For both Regular and Police/Fire members, the actuarially determined contribution rates for 2015 decreased from the previous year. Both groups saw an increase due to the smaller than expected payroll growth used to amortize the UAAL; however, this increase was more than offset by the gains from lower than expected post-retirement benefit increases and individual salary increases.

SECTION 1: Valuation Summary for the Public Employees’ Retirement System of Nevada

Reference: Pg. 15

- The Public Employees’ Retirement Act requires an adjustment in the statutory contribution rates on July 1 of each odd-numbered year based on the actuarially determined rates indicated in the actuarial valuation report for the immediately preceding year. Since this valuation is for an odd-numbered year, no adjustment in the statutory contribution rate is required as a result of this valuation.

Summary of Contribution Rates

	Regular	Police/Fire
Employer-Pay*:		
Statutory Rate for Fiscal Years July 1, 2015 through June 30, 2017 (as determined from the June 30, 2014 valuation)	28.00%	40.50%
Actuarially Determined Contribution Rate per June 30, 2015 Actuarial Valuation	27.80%	39.50%
Employee/Employer**:		
Statutory Rate for Fiscal Years July 1, 2015 through June 30, 2017 (as determined from the June 30, 2014 valuation)	29.00%	41.50%
Actuarially Determined Contribution Rate per June 30, 2015 Actuarial Valuation	28.90%	40.67%

* See cost-sharing mechanism in NRS 286.421

** See cost-sharing mechanism in NRS 286.410

Reference: Pg. 12

- The rate of investment return on the market value of assets for 2014-2015 for the PERS Fund was 4.2%, and was 17.6% for the preceding year.

Reference: Pg. 11

- The returns on the actuarial value of assets for 2014-2015 for the PERS Fund were 8.3% for Regular and 8.5% for Police/Fire, which were more than the investment return assumption of 8.00%. As a result, the PERS Fund experienced investment gains on an actuarial value basis of approximately \$78 million for Regular and \$34 million for Police/Fire.

Reference: Pg. 8

- As indicated in Section 2, Subsection B (see Chart 12) of this report, the total unrecognized investment gains as of June 30, 2015 were approximately \$698 million for Regular, and \$195 million for Police/Fire compared to \$1,639 million and \$471 million in the previous valuation, respectively. These unrecognized gains will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years. This means that, if the System earns the assumed rate of investment return of 8.00% per year (net of investment expenses) on an actuarial value basis, then the deferred gains would be recognized over the next four years as shown in the footnote on Chart 12.
- The June 30, 2015 unrecognized investment gains of \$893 million represent about 2.6% of the PERS Fund market value of assets. Unless offset by future investment losses or other unfavorable experience, the recognition of the \$893 million market gains is expected to have an impact on the System’s future funded ratio and actuarial contribution requirement. This potential impact may be illustrated as follows:

SECTION 1: Valuation Summary for the Public Employees’ Retirement System of Nevada

- If the deferred gains were recognized immediately in the actuarial value of assets, the funded ratios would increase from 72.4% to 74.3% for Regular members and from 76.3% to 78.3% for Police/Fire members.
- If the deferred gains were recognized immediately in the actuarial value of assets, the actuarial determined contribution rates would decrease as follows:

	2015/2016 Actuarially Determined Contribution Rate	2015/2016 Rate Reflecting Deferred Gains
Regular:		
Employer-Pay	27.80%	27.00%
Employee/Employer Pay	28.90%	28.10%
Police/Fire:		
Employer-Pay	39.50%	38.42%
Employee/Employer Pay	40.67%	39.59%

- The payroll growth assumptions are set by the Board and affect the timing of payments toward the unfunded liabilities. Considerations for setting these assumptions include future financial conditions that are difficult for Segal to evaluate. In recent years, payroll growth has been less than assumed. This has the effect of delaying contributions toward the unfunded liabilities and could result in increases to required contributions in future years. We recommend that the Board closely monitor actual payroll growth to verify that the assumptions remain valid.
- The actuarial valuation report as of June 30, 2015 is based on financial data as of that date. Changes in the value of assets subsequent to that date, to the extent that they exist, are not reflected.
- There were no changes in actuarial assumptions or plan provisions since the preceding valuation.
- In 2009, the Critical Labor Shortage (CLS) program was extended through June 30, 2015 but restrictions on eligible positions were added. This program allows PERS retirees to return to work without facing the usual suspension of retirement benefits. As of the valuation date, there were a total of 64 retired PERS members currently active and reenrolled in PERS under this provision. This program has a minimal effect on System costs.
- The Governmental Accounting Standards Board (GASB) approved two new Statements affecting the reporting of pension liabilities for accounting purposes. Statement 67 replaces Statement 25 and is for plan reporting. Statement 68 replaces Statement 27 and is for employer reporting. Statement 67 was effective with the fiscal year ending June 30, 2014 for Plan reporting. Statement 68 was effective with the fiscal year ending June 30, 2015 for employer reporting. The information needed to comply with Statements 67 and 68 will be provided in separate reports.

SECTION 1: Valuation Summary for the Public Employees' Retirement System of Nevada

- Recent legislation made changes to a number of plan provisions, including a reduction in the benefit accrual rate for Regular members, a change in retirement eligibility criteria for Regular members, a reduction in post-retirement benefit increases, a limitation on compensation taken into account in determining plan benefits, and several other changes. These changes are applicable only to members whose effective date of membership is on or after July 1, 2015, and therefore are not reflected in this year's valuation.

SECTION 1: Valuation Summary for the Public Employees' Retirement System of Nevada

Summary of Key Valuation Results

	Total (Regular and Police/Fire Combined)	
	2015	2014
Actuarially determined contribution rates for plan year beginning July 1⁽¹⁾	29.85%	30.02%
Funding elements for plan year beginning July 1:		
Normal cost, including administrative expenses	18.50%	18.64%
Total rate payroll ⁽²⁾	\$5,921,618,314	\$5,753,148,095
Market value of assets	\$34,610,720,184	\$33,575,081,157
Actuarial value of assets	\$33,717,929,776	\$31,465,556,937
Actuarial accrued liability	\$46,070,157,029	\$43,997,060,180
Unfunded actuarial accrued liability	\$12,352,227,253	\$12,531,503,243
Funded ratio on actuarial value basis (AVA / AAL)	73.2%	71.5%
Funded ratio on market value basis (MVA / AAL)	75.1%	76.3%
Demographic data for plan year beginning July 1:		
Number of retired members and beneficiaries	58,159	55,208
Number of vested former members	15,032	14,633
Number of active members	103,108	100,522
Total salary ⁽³⁾	\$5,227,238,983	\$5,113,517,273
Average salary	\$50,697	\$50,870

⁽¹⁾ Average rate for the combined Regular and Police/Fire Employer-pay and Employee/Employer pay plans.

⁽²⁾ Based on actual pay for prior year, annualized for new hires and part-time employees, and projected one year using individual salary increase assumption.

⁽³⁾ Based on actual pay for prior year, without adjustment.

SECTION 1: Valuation Summary for the Public Employees' Retirement System of Nevada

Summary of Key Valuation Results (continued)

	Regular		Police/Fire	
	2015	2014	2015	2014
Actuarially determined contribution rates for plan year beginning July 1:				
Employer-Pay ⁽¹⁾	27.80%	27.99%	39.50%	39.65%
Employee/Employer Pay ⁽²⁾	28.90%	28.95%	40.67%	40.80%
Funding elements for plan year beginning July 1:				
Normal cost, including administrative expenses				
Employer-Pay ⁽¹⁾	16.71%	16.87%	26.80%	26.91%
Employee/Employer Pay ⁽²⁾	17.81%	17.83%	27.97%	28.06%
Total rate payroll ⁽³⁾	\$4,973,695,559	\$4,827,560,245	\$947,922,755	\$925,587,850
Market value of assets	\$26,975,378,141	\$26,253,267,928	\$7,635,342,043	\$7,321,813,229
Actuarial value of assets	\$26,277,157,892	\$24,614,307,816	\$7,440,771,884	\$6,851,249,121
Actuarial accrued liability	\$36,318,260,954	\$34,774,341,511	\$9,751,896,075	\$9,222,718,669
Unfunded actuarial accrued liability	\$10,041,103,062	\$10,160,033,695	\$2,311,124,191	\$2,371,469,548
Funded ratio on actuarial value basis (AVA / AAL)	72.4%	70.8%	76.3%	74.3%
Funded ratio on market value basis (MVA / AAL)	74.3%	75.5%	78.3%	79.4%
Demographic data for plan year beginning July 1:				
Number of retired members and beneficiaries	50,877	48,283	7,282	6,925
Number of vested former members	14,206	13,851	826	782
Number of active members	91,124	88,709	11,984	11,813
Total salary ⁽⁴⁾	\$4,359,394,156	\$4,263,102,612	\$867,844,827	\$850,414,661
Average salary	\$47,840	\$48,057	\$72,417	\$71,990

⁽¹⁾ See cost-sharing mechanism in NRS 286.421

⁽²⁾ See cost-sharing mechanism in NRS 286.410

⁽³⁾ Based on actual pay for prior year, annualized for new hires and part-time employees, and projected one year using individual salary increase assumption.

⁽⁴⁾ Based on actual pay for prior year, without adjustment.

SECTION 1: Valuation Summary for the Public Employees' Retirement System of Nevada

Important Information About Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal Consulting (“Segal”) relies on a number of input items. These include:

- **Plan of benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by the System. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets** The valuation is based on the market value of assets as of the valuation date, as provided by the System. The Plan uses an “actuarial value of assets” that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan’s assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

SECTION 1: Valuation Summary for the Public Employees' Retirement System of Nevada

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared at the request of the System. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- If the System is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The System should look to their other advisors for expertise in these areas.

As Segal Consulting has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

SECTION 2: Valuation Results for the Public Employees' Retirement System of Nevada

A. MEMBER DATA

i. Regular Members

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, vested terminated members, retired members and beneficiaries.

This section presents a summary of significant statistical data on the Regular member group.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, and C.

A historical perspective of how the member population has changed over the past ten valuations can be seen in this chart.

CHART 1
Regular Member Population: 2006 – 2015

Year Ended June 30	Active Members	Vested Terminated Members	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
2006	87,020	9,730	28,933	0.44
2007	91,757	10,394	31,104	0.45
2008	93,816	10,965	33,248	0.47
2009	92,784	10,954	36,705	0.51
2010	90,219	11,167	38,400	0.55
2011	87,975	11,931	40,675	0.60
2012	86,719	12,253	43,258	0.64
2013	87,193	13,009	45,796	0.67
2014	88,709	13,851	48,283	0.70
2015	91,124	14,206	50,877	0.71

SECTION 2: Valuation Results for the Public Employees' Retirement System of Nevada

i. Regular Members (continued)

Active Members

Plan costs are affected by the age, years of service and salaries of active members. In this year's valuation, there were 91,124 active members with an average age of 46.2, average years of service of 10.0 years and average salary of \$47,840. The 88,709 active members in the prior valuation had an average age of 46.4, average service of 10.1 years and average salary of \$48,057.

Inactive Members

In this year's valuation, there were 14,206 members with a vested right to a deferred or immediate vested benefit versus 13,851 members in the prior valuation.

The average age and service of these members is 49.2 and 8.8 years, as compared to 49.0 and 8.8 as of last year's valuation date.

These graphs show a distribution of active members by age and by years of service.

CHART 2
Distribution of Active & Inactive Regular Members by Age as of June 30, 2015

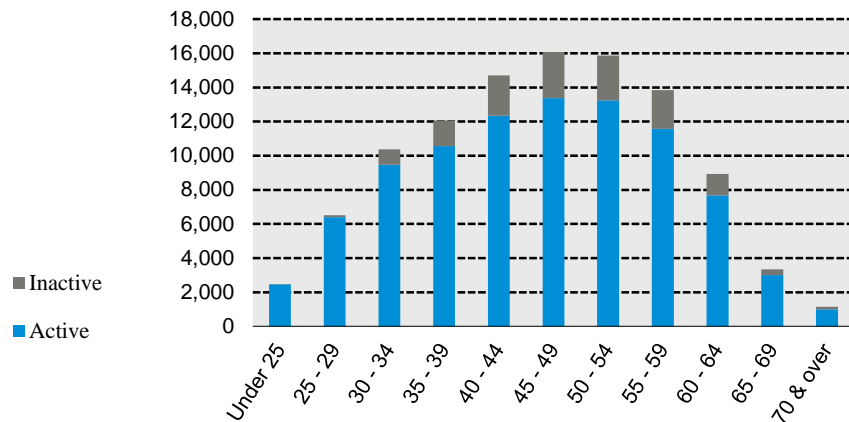
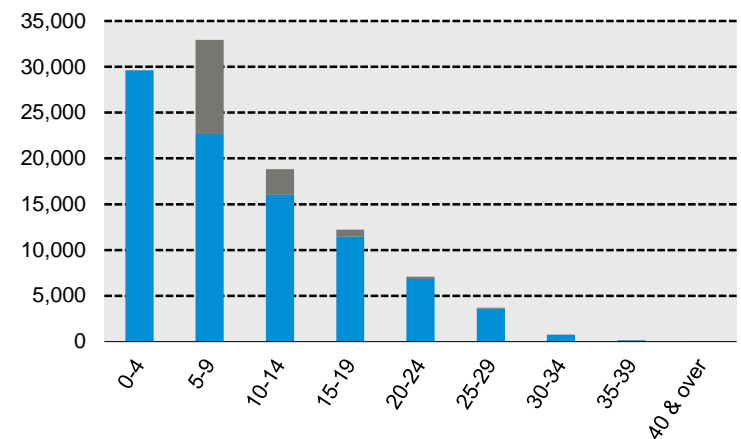


CHART 3
Distribution of Active & Inactive Regular Members by Years of Service as of June 30, 2015



SECTION 2: Valuation Results for the Public Employees' Retirement System of Nevada

i. Regular Members (continued)

Retired Members and Beneficiaries

As of June 30, 2015, 45,508 retired members and 5,369 beneficiaries and survivors were receiving total monthly benefits of \$134,968,762. Of these, 628 retired members and 11 beneficiaries and survivors were receiving annual benefits of at least \$100,000, which represents 1.3% of all retirees, beneficiaries and survivors. For comparison, in the previous valuation there were 43,136 retired members and 5,147 beneficiaries and survivors receiving monthly benefits of \$125,242,045, with 1.1% of those receiving annual benefits of at least \$100,000.

These graphs show a distribution of the current retired members and beneficiaries based on their monthly amount and age, by type of pension.

CHART 4
Distribution of Retired Regular Members and Beneficiaries by Type and by Monthly Amount as of June 30, 2015

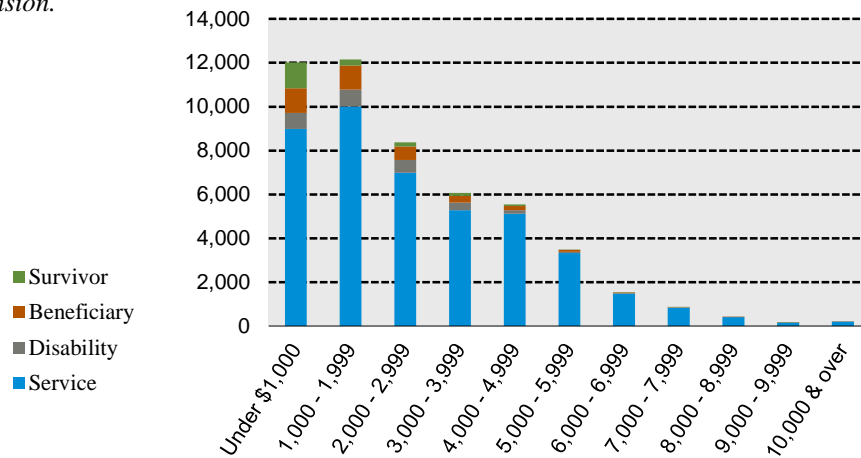
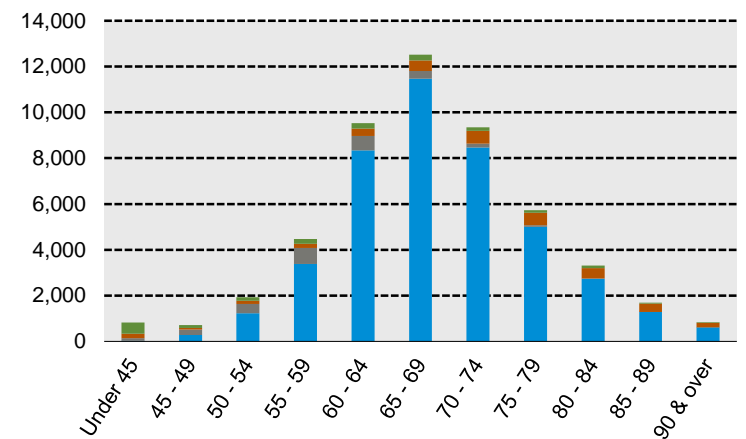


CHART 5
Distribution of Retired Regular Members and Beneficiaries by Type and by Age as of June 30, 2015



SECTION 2: Valuation Results for the Public Employees' Retirement System of Nevada

ii. Police/Fire Members

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, vested terminated members, retired members and beneficiaries.

This section presents a summary of significant statistical data on the Police/Fire member group.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, and C.

A historical perspective of how the member population has changed over the past ten valuations can be seen in this chart.

CHART 6
Police/Fire Member Population: 2006 – 2015

Year Ended June 30	Active Members	Vested Terminated Members	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
2006	11,167	579	4,329	0.44
2007	11,936	596	4,583	0.43
2008	12,307	628	4,882	0.45
2009	12,633	620	5,200	0.46
2010	12,375	640	5,519	0.50
2011	11,936	701	5,903	0.55
2012	11,793	709	6,288	0.59
2013	11,845	730	6,634	0.62
2014	11,813	782	6,925	0.65
2015	11,984	826	7,282	0.68

SECTION 2: Valuation Results for the Public Employees' Retirement System of Nevada

ii. Police/Fire Members (continued)

Active Members

Plan costs are affected by the age, years of service and salaries of active members. In this year's valuation, there were 11,984 active members with an average age of 40.8, average years of service of 11.6 years and average salary of \$72,417. The 11,813 active members in the prior valuation had an average age of 40.8, average service of 11.5 years and average salary of \$71,990.

Inactive Members

In this year's valuation, there were 826 members with a vested right to a deferred or immediate vested benefit versus 782 members in the prior valuation.

The average age and service of these members is 45.5 and 8.4 years, as compared to 45.2 and 8.4 as of last year's valuation date.

These graphs show a distribution of active members by age and by years of service.

CHART 7
Distribution of Active & Inactive Police/Fire Members by Age as of June 30, 2015

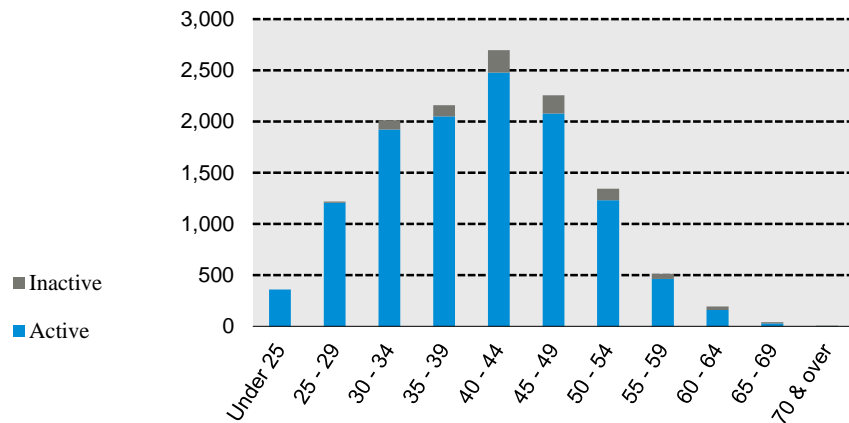
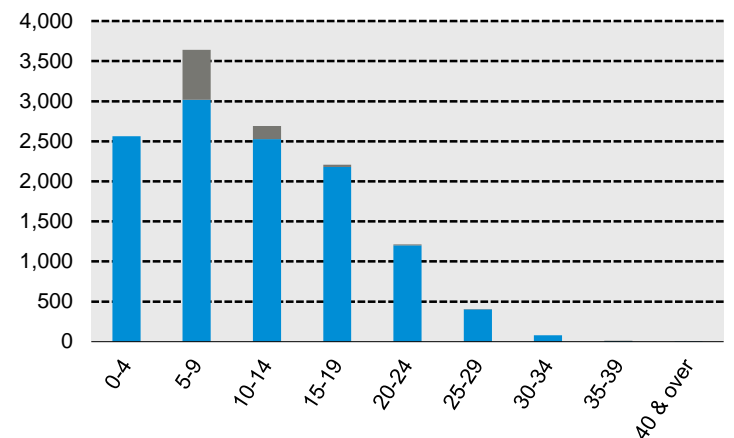


CHART 8
Distribution of Active & Inactive Police/Fire Members by Years of Service as of June 30, 2015



SECTION 2: Valuation Results for the Public Employees' Retirement System of Nevada

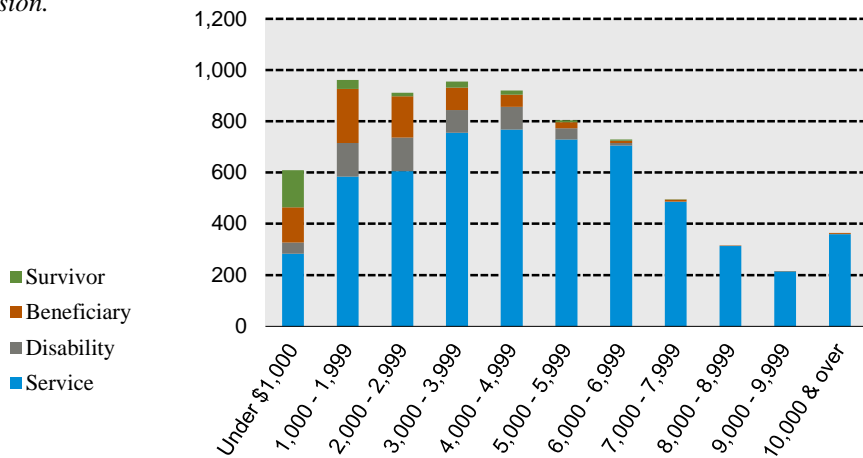
ii. Police/Fire Members (continued)

Retired Members and Beneficiaries

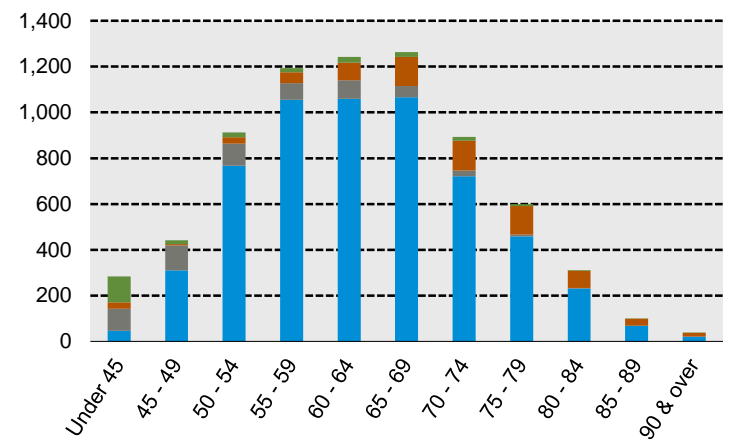
As of June 30, 2015, 6,345 retired members and 937 beneficiaries and survivors were receiving total monthly benefits of \$33,487,135. Of these, 762 retired members and 5 beneficiaries and survivors were receiving annual benefits of at least \$100,000, which represents 10.5% of all retirees, beneficiaries and survivors. For comparison, in the previous valuation there were 6,034 retired members and 891 beneficiaries and survivors receiving monthly benefits of \$30,747,354, with 9.5% of those receiving annual benefits of at least \$100,000.

These graphs show a distribution of the current retired members and beneficiaries based on their monthly amount and age, by type of pension.

**CHART 9
Distribution of Retired Police/Fire Members and Beneficiaries by Type and by Monthly Amount as of June 30, 2015**



**CHART 10
Distribution of Retired Police/Fire Members and Beneficiaries by Type and by Age as of June 30, 2015**



SECTION 2: Valuation Results for the Public Employees' Retirement System of Nevada

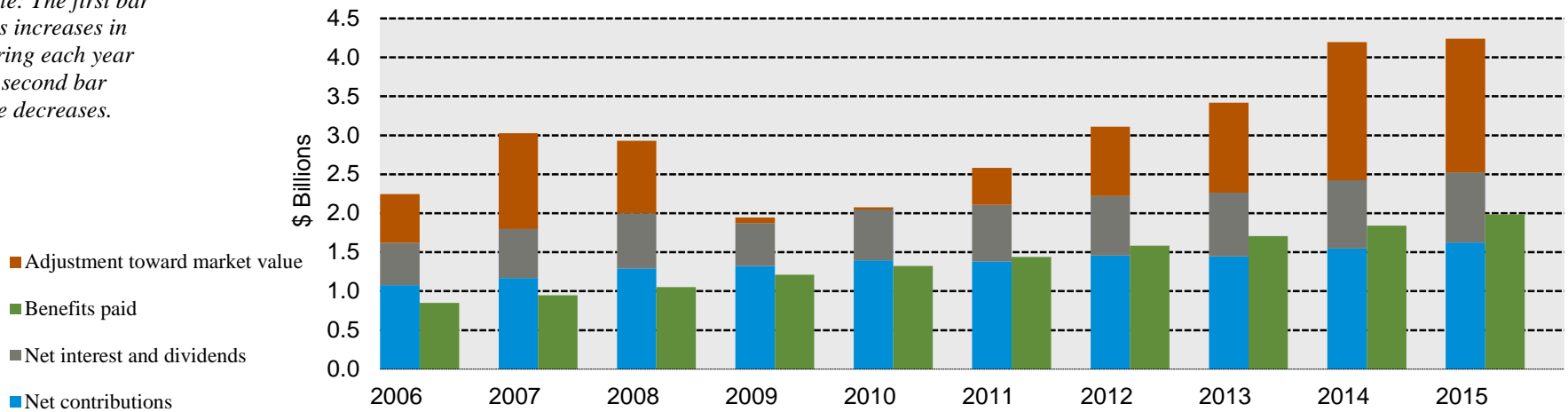
B. FINANCIAL INFORMATION

Retirement plan funding anticipates that, over the long term, both net contributions (less administrative expenses) and net investment earnings (less investment fees) will be needed to cover benefit payments.

Retirement plan assets change as a result of the net impact of these income and expense components. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits D, E and F.

The chart depicts the components of changes in the actuarial value of assets over the last ten years. Note: The first bar represents increases in assets during each year while the second bar details the decreases.

CHART 11
Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2006 – 2015



SECTION 2: Valuation Results for the Public Employees' Retirement System of Nevada

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

The chart shows the determination of the actuarial value of assets as of the valuation date.

CHART 12
Determination of Actuarial Value of Assets for Year Ended June 30, 2015

	Regular		Police/Fire	
1. Market value of assets		\$26,975,378,141		\$7,635,342,043
		Unrecognized		Unrecognized
2. Calculation of unrecognized return	<u>Original Amount</u> ⁽¹⁾	<u>Return</u>	<u>Original Amount</u> ⁽¹⁾	<u>Return</u>
(a) Year ended June 30, 2015 ⁽²⁾	-\$862,766,254	-\$690,213,003	-\$241,902,572	-\$193,522,058
(b) Year ended June 30, 2014 ⁽²⁾	2,125,431,988	1,275,259,193	590,979,307	354,587,584
(c) Year ended June 30, 2013 ⁽²⁾	795,397,787	318,159,115	219,573,607	87,829,443
(d) Year ended June 30, 2012 ⁽²⁾	-1,024,925,274	-204,985,056	-271,624,048	-54,324,810
(e) Combined net deferred loss ⁽³⁾	<u>-514,616,159</u>	<u>0</u>	<u>-101,255,532</u>	<u>0</u>
(f) Total unrecognized return ⁽⁴⁾	\$518,522,088	\$698,220,249	\$195,770,762	\$194,570,159
3. Preliminary actuarial value of assets: (1) - (2f)		\$26,277,157,892		\$7,440,771,884
4. Additional write up/(down) due to 70%/130% corridor:		\$0		\$0
5. Actuarial value of assets: (3) + (4)		<u>\$26,277,157,892</u>		<u>\$7,440,771,884</u>
6. Actuarial value as a percentage of market value: (5) ÷ (1) ⁽⁵⁾		97.41%		97.45%

⁽¹⁾ Market value minus prior year's actuarial value, adjusted for cash flows and expected return, minus prior year's unrecognized return

⁽²⁾ Recognition at 20% per year over 5 years

⁽³⁾ Net deferred loss as of June 30, 2011 was combined and is recognized at 25% per year over 4 years.

⁽⁴⁾ Deferred return as of June 30, 2015 recognized in each of the next four years:

	Regular	Police/Fire	Total
(a) Amount recognized during 2015/2016	\$206,627,649	\$59,405,259	\$266,032,908
(b) Amount recognized during 2016/2017	411,612,704	113,730,068	525,342,772
(c) Amount recognized during 2017/2018	252,533,147	69,815,347	322,348,494
(d) Amount recognized during 2018/2019	<u>-172,553,251</u>	<u>-48,380,515</u>	<u>-220,933,766</u>
	\$698,220,249	\$194,570,159	\$892,790,408

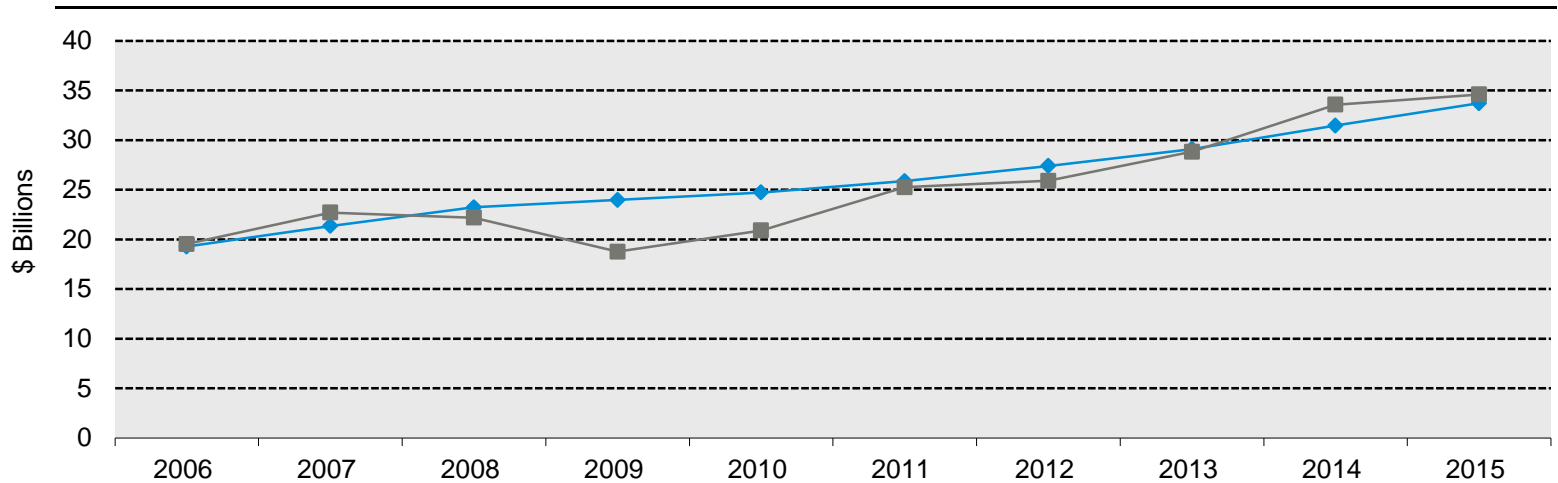
⁽⁵⁾ Total actuarial value as a percentage of total market value is 97.42% for Regular and Police/Fire.

SECTION 2: Valuation Results for the Public Employees' Retirement System of Nevada

Both the actuarial value and market value of assets are representations of PERS's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because PERS's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

This chart shows the change in the actuarial value of assets versus the market value over the past ten years.

CHART 13
Actuarial Value of Assets vs. Market Value of Assets as of June 30, 2006 – 2015



SECTION 2: Valuation Results for the Public Employees' Retirement System of Nevada

C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term

development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The components of the total gain of \$641.6 million are shown below. The net experience gain from sources other than investments was 1.15% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

This chart provides a summary of the actuarial experience during the past year.

CHART 14
Actuarial Experience for Year Ended June 30, 2015

	Regular	Police/Fire	Total
1. Net gain/(loss) from investments ⁽¹⁾	\$77,973,609	\$34,091,375	\$112,064,984
2. Net gain/(loss) from post-retirement benefit increases other than expected ⁽²⁾	402,263,640	104,940,877	507,204,517
3. Net gain/(loss) from individual salary increases other than expected ⁽²⁾	308,733,025	75,352,243	384,085,268
4. Net gain/(loss) from other experience ⁽²⁾	<u>-252,185,966</u>	<u>-109,554,751</u>	<u>-361,740,717</u>
5. Net experience gain/(loss): (1) + (2) + (3) + (4)	\$536,784,308	\$104,829,744	\$641,614,052

⁽¹⁾ Details in Chart 15.

⁽²⁾ Details in Chart 18. Does not include the effects of Plan or assumption changes, if any.

SECTION 2: Valuation Results for the Public Employees' Retirement System of Nevada

Investment Rate of Return

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the PERS investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets is 8.00%. The actual rates of return on an actuarial basis for the 2014-2015 plan year were 8.32% for Regular and 8.50% for Police/Fire.

Since the actual return for the year was more than the assumed return, PERS experienced an actuarial gain during the year ended June 30, 2015 with regard to its investments.

This chart shows the gain/(loss) due to investment experience.

CHART 15
Actuarial Value Investment Experience for Year Ended June 30, 2015

	Regular	Police/Fire	Total
1. Actual return	\$2,032,338,690	\$582,473,284	\$2,614,811,974
2. Average value of assets	24,429,563,509	6,854,773,861	31,284,337,370
3. Actual rate of return: (1) ÷ (2)	8.32%	8.50%	8.36%
4. Assumed rate of return	8.00%	8.00%	8.00%
5. Expected return: (2) x (4)	<u>1,954,365,081</u>	<u>548,381,909</u>	<u>2,502,746,990</u>
6. Actuarial gain/(loss): (1) – (5)	<u>\$77,973,609</u>	<u>\$34,091,375</u>	<u>\$112,064,984</u>

SECTION 2: Valuation Results for the Public Employees' Retirement System of Nevada

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial basis compared to the market value investment return for the last ten years, including five-year and ten-year averages.

CHART 16
Investment Return – Actuarial Value vs. Market Value: 2006 – 2015

Year Ended	Regular				Police/Fire				Total			
	Market Value Investment Return		Actuarial Value Investment Return		Market Value Investment Return		Actuarial Value Investment Return		Market Value Investment Return		Actuarial Value Investment Return	
June 30	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
2006	1,269,981,705	8.83%	943,516,255	6.51%	300,369,858	8.83%	227,032,573	6.63%	1,570,351,563	8.83%	1,170,548,828	6.54%
2007	2,370,161,064	15.03%	1,497,823,745	9.63%	570,204,492	15.03%	361,064,116	9.64%	2,940,365,556	15.03%	1,858,887,861	9.63%
2008	(596,088,431)	(3.26%)	1,320,009,898	7.68%	(144,603,728)	(3.24%)	321,274,088	7.64%	(740,692,159)	(3.26%)	1,641,283,986	7.68%
2009	(2,834,457,823)	(15.98%)	497,747,740	2.68%	(706,537,749)	(16.00%)	123,352,371	2.67%	(3,540,995,572)	(15.99%)	621,100,111	2.68%
2010	1,641,734,286	11.03%	537,022,624	2.82%	419,574,635	11.03%	141,729,146	2.93%	2,061,308,921	11.03%	678,751,770	2.84%
2011	3,489,069,530	21.10%	942,690,794	4.81%	915,513,116	21.09%	258,581,939	5.07%	4,404,582,646	21.10%	1,201,272,733	4.86%
2012	605,897,096	3.05%	1,297,183,274	6.36%	162,299,827	3.05%	354,285,182	6.53%	768,196,923	3.05%	1,651,468,456	6.40%
2013	2,511,331,333	12.41%	1,541,374,010	7.19%	685,094,279	12.40%	429,796,701	7.39%	3,196,425,612	12.40%	1,971,170,711	7.23%
2014	3,941,218,147	17.55%	2,066,313,021	9.10%	1,092,158,512	17.54%	583,651,095	9.32%	5,033,376,659	17.55%	2,649,964,116	9.15%
2015	<u>1,091,598,827</u>	4.19%	<u>2,032,338,690</u>	8.32%	<u>306,479,335</u>	4.18%	<u>582,473,284</u>	8.50%	<u>1,398,078,162</u>	4.19%	<u>2,614,811,974</u>	8.36%
Total	13,490,445,734		12,676,020,051		3,600,552,577		3,383,240,495		17,090,998,311		16,059,260,546	
Five-year average return		11.07%		7.26%		11.00%		7.50%		11.05%		7.31%
Ten-year average return		7.24%		6.55%		7.40%		6.73%		7.28%		6.59%

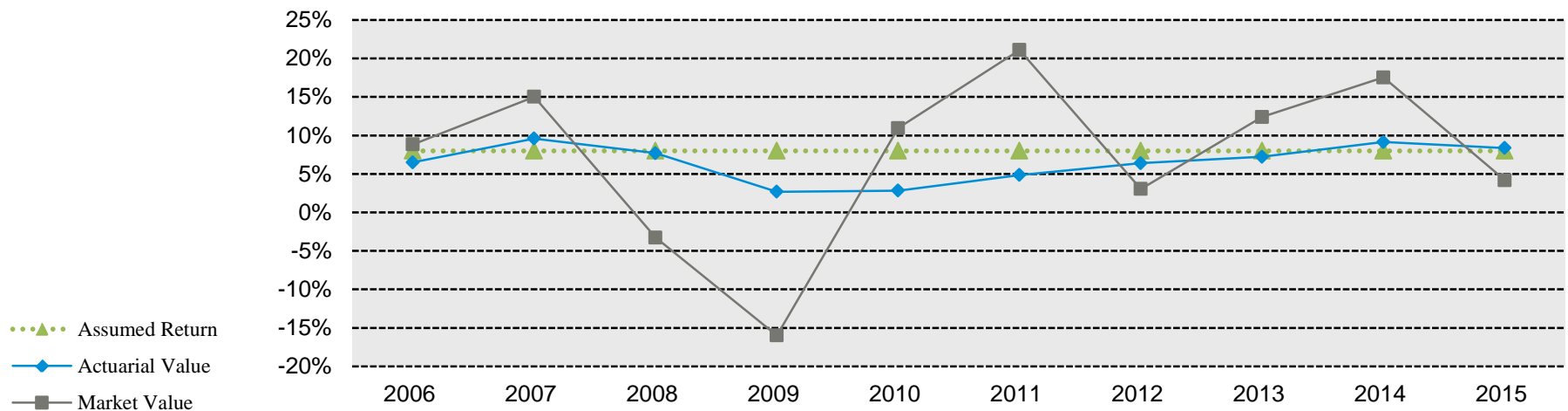
Note: Each year's yield is weighted by the average asset value in that year.

SECTION 2: Valuation Results for the Public Employees' Retirement System of Nevada

In the preceding subsection B we described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this method is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs. This effect is clear in the chart below, where the year-to-year returns on actuarial value are less volatile than the returns on market value.

This chart illustrates how this leveling effect has actually worked over the years 2006 - 2015.

CHART 17
Market and Actuarial Rates of Return for Years Ended June 30, 2006 - 2015



SECTION 2: Valuation Results for the Public Employees' Retirement System of Nevada

Other Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),
- the number of disability retirements, and

- salary increases different than assumed.

The net gains from this other experience for the year ended June 30, 2015 amounted to \$458.8 million for Regular and \$70.7 million for Police/Fire, which are 1.26% and 0.73% of the actuarial accrued liability, respectively.

A brief summary of the demographic gain/(loss) experience of the PERS for the year ended June 30, 2015 is shown in the chart below.

CHART 18
Experience Due to Changes in Demographics for Year Ended June 30, 2015

	Regular	% of AAL	Police/Fire	% of AAL	Total	% of AAL
Age and Service Retirements	-\$160,830,049	-0.44%	-\$29,669,752	-0.30%	-\$190,499,801	-0.41%
Disability Retirements	-13,983,145	-0.04%	-2,912,631	-0.03%	-16,895,776	-0.04%
Pre and Post-Retirement Mortality	14,124,328	0.04%	-21,369,616*	-0.22%	-7,245,288	-0.02%
Post-Retirement Benefit Increases (PRBI's)	402,263,640	1.11%	104,940,877	1.08%	507,204,517	1.10%
Withdrawal From Employment	-10,405,915	-0.03%	-5,645,130	-0.06%	-16,051,045	-0.03%
Individual Pay Increases	308,733,025	0.85%	75,352,243	0.77%	384,085,268	0.83%
Active New Entrants	-53,584,393	-0.15%	-4,678,287	-0.05%	-58,262,680	-0.13%
Active Rehires	-29,222,901	-0.09%	-2,583,591	-0.03%	-31,806,492	-0.07%
Retiree Return to Active	34,801,960	0.10%	1,218,314	0.01%	36,020,274	0.08%
Inactive and Retiree Showups	-48,637,237	-0.13%	-3,114,319	-0.03%	-51,751,556	-0.11%
Data adjustments	0	0.00%	-27,692,996	-0.28%	-27,692,996	-0.06%
Other (Unanalyzed)	<u>15,551,386</u>	<u>0.04%</u>	<u>-13,106,743</u>	<u>-0.13%</u>	<u>2,444,643</u>	<u>0.01%</u>
Total Liability Experience Gain/(Loss) During Year	458,810,699	1.26%	70,738,369	0.73%	529,549,068	1.15%

* Reflects Police/Fire mortality experience and also the assumption that existing "employer-pay" Police/Fire retirees with an unmodified option who retired after June 30, 1981 and before July 1, 2011 have been valued assuming no surviving spouse.

The chart shows elements of the experience gain/(loss) for the most recent year.

SECTION 2: Valuation Results for the Public Employees' Retirement System of Nevada

D. CALCULATED CONTRIBUTION RATES

The amount of annual contribution required to fund the Plan is comprised of a normal cost payment and a payment on the unfunded actuarial accrued liability. This total amount is then divided by the projected payroll for active members to determine the actuarially determined contribution rate.

The statutory contribution rates are adjusted at the beginning of each odd-numbered fiscal year, based on the actuarially determined rates indicated in the actuarial valuation report for the immediately preceding year. See Exhibit III in Section 4 for details about this adjustment.

The chart compares this valuation's calculated contribution rates with the prior valuation.

**CHART 19
Calculated Contribution Rates**

	Year Beginning July 1			
	2015		2014	
	Regular	Police/Fire	Regular	Police/Fire
Employer-Pay, current statutory rate⁽¹⁾	28.00%	40.50%	25.75%	40.50%
Normal cost	16.56%	26.65%	16.72%	26.76%
Amortization percentage	11.09%	12.70%	11.12%	12.74%
Administrative expenses	<u>0.15%</u>	<u>0.15%</u>	<u>0.15%</u>	<u>0.15%</u>
Employer-Pay, total rate⁽¹⁾	27.80%	39.50%	27.99%	39.65%
New statutory rounded rate	<u>N/A</u>	<u>N/A</u>	<u>28.00%</u>	<u>40.50%</u>
Employee/Employer Pay, current statutory rate⁽²⁾	29.00%	41.50%	26.50%	41.50%
Normal cost	17.66%	27.82%	17.68%	27.91%
Amortization percentage	11.09%	12.70%	11.12%	12.74%
Administrative expenses	<u>0.15%</u>	<u>0.15%</u>	<u>0.15%</u>	<u>0.15%</u>
Employee/Employer Pay, total rate⁽²⁾	28.90%	40.67%	28.95%	40.80%
New statutory rounded rate	<u>N/A</u>	<u>N/A</u>	<u>29.00%</u>	<u>41.50%</u>

⁽¹⁾ See cost-sharing mechanism in NRS 286.421

⁽²⁾ See cost-sharing mechanism in NRS 286.410

SECTION 2: Valuation Results for the Public Employees' Retirement System of Nevada

The actuarially determined contribution rates as of June 30, 2015 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

Reconciliation of Actuarially Determined Contribution Rate

The chart below details the changes in the actuarially determined contribution rate from the prior valuation to the current year's valuation.

The chart reconciles the actuarially determined contribution rates from the prior valuation to the amount determined in this valuation.

CHART 20

Reconciliation of Actuarially Determined Contribution Rate⁽¹⁾ from June 30, 2014 to June 30, 2015

	Regular	Estimated Annual Dollar Cost ⁽²⁾	Police/Fire	Estimated Annual Dollar Cost ⁽²⁾
Actuarially Determined Contribution Rate as of June 30, 2014	28.16%	\$1,359,440,965	39.75%	\$367,921,170
Effect of investment (gain)/loss	-0.09%	-4,438,238	-0.19%	-1,780,756
Effect of gains on individual salary experience	-0.35%	-17,573,006	-0.42%	-3,936,008
Effect on existing amortization of payroll growth less than expected	0.37%	34,893,825 ⁽³⁾	0.64%	8,843,911 ⁽³⁾
Effect of changes in normal cost	-0.14%	18,003,953 ⁽⁴⁾	-0.11%	4,967,142 ⁽⁴⁾
Effect of contributions less than expected	0.21%	10,450,692	-0.10%	-907,525
Effect of gain on post-retirement benefit increases	-0.46%	-22,896,745	-0.58%	-5,481,564
Effect of other (gains)/losses ⁽⁵⁾	<u>0.29%</u>	<u>14,255,941</u>	<u>0.61%</u>	<u>5,751,041</u>
Total change	<u>-0.17%</u>	<u>32,696,422</u>	<u>-0.15%</u>	<u>7,456,241</u>
Actuarially Determined Contribution Rate as of June 30, 2015	27.99%	\$1,392,137,387	39.60%	\$375,377,411

⁽¹⁾ Average rate for the Employer-pay and Employee/Employer pay plans.

⁽²⁾ Based on rate payroll for each valuation date shown.

⁽³⁾ Actual dollar increase in existing amortization bases.

⁽⁴⁾ Actual dollar increase/(decrease) in normal cost, prior to plan changes.

⁽⁵⁾ Estimated annual dollar cost also reflects change in payroll from prior valuation.

SECTION 2: Valuation Results for the Public Employees' Retirement System of Nevada

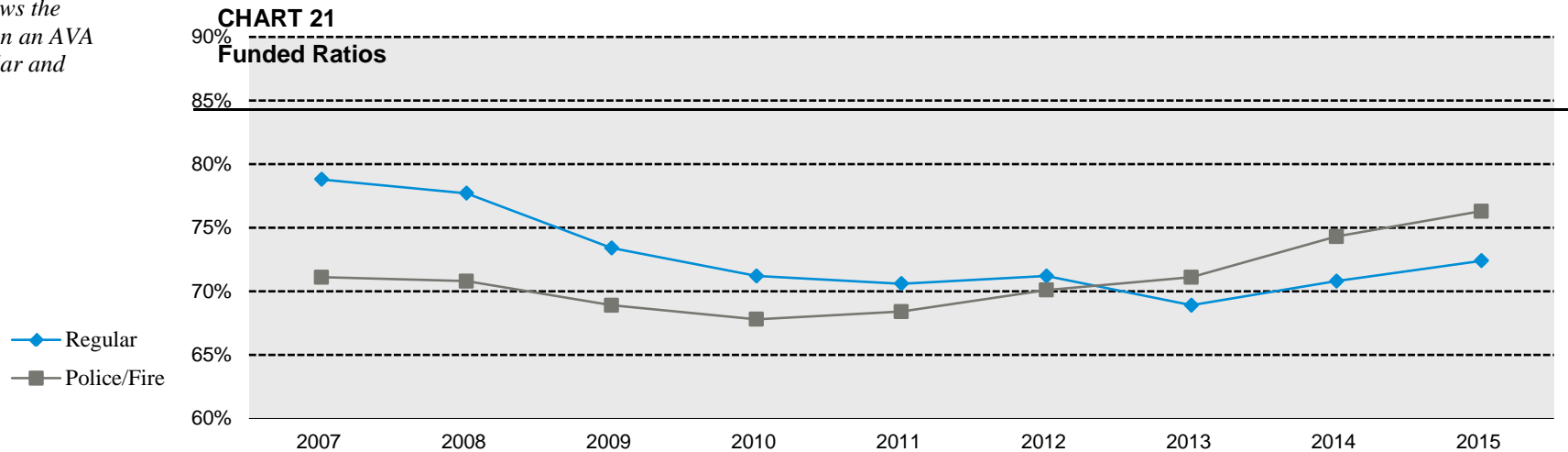
E. FUNDED RATIO

One critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the actuarial value of assets to the actuarial accrued liabilities of the plan.

The funded status measures shown in this valuation are appropriate for assessing the need for or amount of future contributions. However, they are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations.

High ratios indicate a well-funded plan with assets sufficient to cover the plan's liabilities. Lower ratios may indicate funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors.

This graph shows the funded ratios on an AVA basis for Regular and Police/Fire.



SECTION 3: Supplemental Information for the Public Employees' Retirement System of Nevada

EXHIBIT A

Table of Plan Coverage

i. Regular

Category	Year Ended June 30		Change From Prior Year
	2015	2014	
Active members in valuation:			
Number	91,124	88,709	2.72%
Employer-Pay	72,577	71,179	1.96%
Employee/Employer	18,547	17,530	5.80%
Average age	46.2	46.4	N/A
Average service	10.0	10.1	N/A
Total annual salary	\$4,359,394,155	\$4,263,102,612	2.26%
Average annual salary	\$47,840	\$48,057	-0.45%
Account balances	\$699,385,257	\$658,607,280	6.19%
Total active vested members	66,062	67,408	-2.00%
Vested terminated members	14,206	13,851	2.56%
Retired members:			
Number in pay status	42,825	40,471	5.82%
Average age	69.2	69.0	N/A
Average monthly benefit	\$2,810	\$2,753	2.07%
Disabled members:			
Number in pay status	2,683	2,665	0.68%
Average age	59.5	59.5	N/A
Average monthly benefit	\$2,045	\$1,994	2.56%
Beneficiaries:			
Number in pay status	3,483	3,303	5.45%
Average age	71.4	71.2	N/A
Average monthly benefit	\$1,909	\$1,853	3.02%
Survivors:			
Number in pay status	1,886	1,844	2.28%
Average age	55.7	55.6	N/A
Average monthly benefit	\$1,327	\$1,288	3.03%

SECTION 3: Supplemental Information for the Public Employees' Retirement System of Nevada

EXHIBIT A

Table of Plan Coverage

ii. Police/Fire

Category	Year Ended June 30		Change From Prior Year
	2015	2014	
Active members in valuation:			
Number	11,984	11,813	1.45%
Employer-Pay	10,417	10,247	1.66%
Employee/Employer	1,567	1,566	0.06%
Average age	40.8	40.8	N/A
Average service	11.6	11.5	N/A
Total annual salary	\$867,844,828	\$850,414,661	2.05%
Average annual salary	\$72,417	\$71,990	0.59%
Account balances	\$123,356,145	\$116,756,982	5.65%
Total active vested members	9,657	9,866	-2.12%
Vested terminated members	826	782	5.63%
Retired members:			
Number in pay status	5,803	5,515	5.22%
Average age	63.9	63.7	N/A
Average monthly benefit	\$5,146	\$4,965	3.65%
Disabled members:			
Number in pay status	542	519	4.43%
Average age	54.6	54.8	N/A
Average monthly benefit	\$2,978	\$2,902	2.62%
Beneficiaries:			
Number in pay status	690	652	5.83%
Average age	69.8	69.3	N/A
Average monthly benefit	\$2,330	\$2,291	1.70%
Survivors:			
Number in pay status	247	239	3.35%
Average age	45.8	45.5	N/A
Average monthly benefit	\$1,625	\$1,526	6.49%

SECTION 3: Supplemental Information for the Public Employees' Retirement System of Nevada

EXHIBIT A

Table of Plan Coverage

iii. Total

Category	Year Ended June 30		Change From Prior Year
	2015	2014	
Active members in valuation:			
Number	103,108	100,522	2.57%
Employer-Pay	82,994	81,426	1.93%
Employee/Employer	20,114	19,096	5.33%
Average age	45.6	45.7	N/A
Average service	10.1	10.2	N/A
Total annual salary	\$5,227,238,983	\$5,113,517,273	2.22%
Average annual salary	\$50,697	\$50,870	-0.34%
Account balances	\$822,741,402	\$775,364,262	6.11%
Total active vested members	75,719	77,274	-2.01%
Vested terminated members	15,032	14,633	2.73%
Retired members:			
Number in pay status	48,628	45,986	5.75%
Average age	68.6	68.3	N/A
Average monthly benefit	\$3,089	\$3,019	2.32%
Disabled members:			
Number in pay status	3,225	3,184	1.29%
Average age	58.7	58.8	N/A
Average monthly benefit	\$2,202	\$2,142	2.80%
Beneficiaries:			
Number in pay status	4,173	3,955	5.51%
Average age	71.1	70.9	N/A
Average monthly benefit	\$1,979	\$1,925	2.81%
Survivors:			
Number in pay status	2,133	2,083	2.40%
Average age	54.5	54.4	N/A
Average monthly benefit	\$1,361	\$1,315	3.50%

SECTION 3: Supplemental Information for the Public Employees' Retirement System of Nevada

EXHIBIT B

Members in Active Service as of June 30, 2015 By Age, Years of Service, and Average Annual Salary

i. Regular

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	2,464	2,451	13	--	--	--	--	--	--	--
	\$21,285	\$21,241	\$29,687	--	--	--	--	--	--	--
25 - 29	6,407	5,337	1,038	32	--	--	--	--	--	--
	31,222	29,905	37,617	\$43,374	--	--	--	--	--	--
30 - 34	9,478	4,763	3,838	845	32	--	--	--	--	--
	39,711	32,977	45,609	50,094	\$59,894	--	--	--	--	--
35 - 39	10,571	3,836	3,478	2,526	688	43	--	--	--	--
	45,296	32,482	47,700	56,479	62,168	\$67,286	--	--	--	--
40 - 44	12,348	3,427	3,247	2,721	2,303	580	70	--	--	--
	50,196	32,467	47,994	57,284	65,760	69,197	\$74,139	--	--	--
45 - 49	13,383	3,013	3,002	2,661	2,297	1,784	607	19	--	--
	53,042	32,524	45,997	55,946	66,109	71,378	73,029	\$75,904	--	--
50 - 54	13,239	2,629	2,897	2,621	2,159	1,566	1,196	167	4	--
	53,012	31,798	45,016	54,277	62,940	69,919	73,308	73,517	*	--
55 - 59	11,567	2,104	2,487	2,283	2,023	1,469	897	259	43	2
	53,145	32,751	44,926	53,916	62,579	66,784	71,181	73,410	\$75,655	*
60 - 64	7,676	1,306	1,708	1,568	1,321	978	568	176	47	4
	53,020	33,712	45,826	53,422	60,545	66,006	68,881	76,030	75,237	*
65 - 69	2,998	542	741	582	506	327	197	75	18	10
	51,489	31,742	45,428	53,707	59,532	65,746	64,059	75,703	72,878	\$100,915
70 & over	993	228	237	201	142	90	56	20	10	9
	44,434	28,289	37,525	48,183	54,826	58,642	62,547	55,862	67,953	81,437
Total	91,124	29,636	22,686	16,040	11,471	6,837	3,591	716	122	25
	\$47,840	\$31,137	\$45,723	\$54,937	\$63,496	\$68,641	\$71,370	\$73,940	\$73,801	\$90,670

* Not shown for groups with fewer than five members.

SECTION 3: Supplemental Information for the Public Employees' Retirement System of Nevada

EXHIBIT B

Members in Active Service as of June 30, 2015 By Age, Years of Service, and Average Annual Salary

ii. Police/Fire

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	358	350	8	--	--	--	--	--	--	--
	\$35,171	\$34,545	\$56,467	--	--	--	--	--	--	--
25 - 29	1,208	918	284	6	--	--	--	--	--	--
	47,148	42,016	63,222	\$77,588	--	--	--	--	--	--
30 - 34	1,924	589	1,079	245	11	--	--	--	--	--
	62,124	44,236	68,609	75,519	\$85,504	--	--	--	--	--
35 - 39	2,050	313	731	734	251	21	--	--	--	--
	71,792	42,734	68,493	80,920	89,027	\$94,736	--	--	--	--
40 - 44	2,478	194	450	753	831	238	12	--	--	--
	79,762	37,488	64,844	80,710	90,653	100,320	\$101,175	--	--	--
45 - 49	2,078	100	275	426	645	502	130	--	--	--
	84,689	39,828	62,482	76,952	89,931	99,817	107,096	--	--	--
50 - 54	1,231	55	127	233	292	313	170	41	--	--
	86,723	42,036	59,812	74,497	87,194	101,002	105,325	\$109,995	--	--
55 - 59	462	32	43	83	98	103	74	26	3	--
	81,044	48,921	56,849	68,483	79,567	91,583	98,994	110,920	*	--
60 - 64	160	11	17	37	46	18	14	11	5	1
	71,738	29,808	55,949	65,395	74,122	75,772	91,456	101,564	\$98,690	*
65 - 69	30	1	5	9	6	6	2	--	--	1
	67,408	*	50,950	63,200	69,981	77,670	*	--	--	*
70 & over	5	--	1	2	--	2	--	--	--	--
	55,674	--	*	*	--	*	--	--	--	--
Total	11,984	2,563	3,020	2,528	2,180	1,203	402	78	8	2
	\$72,417	\$41,201	\$66,287	\$78,351	\$88,859	\$98,865	\$103,941	\$109,115	\$100,191	*

* Not shown for groups with fewer than five members.

SECTION 3: Supplemental Information for the Public Employees' Retirement System of Nevada

EXHIBIT B

Members in Active Service as of June 30, 2015 By Age, Years of Service, and Average Annual Salary

iii. Total

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	2,822	2,801	21	--	--	--	--	--	--	--
	\$23,051	\$22,903	\$39,889	--	--	--	--	--	--	--
25 - 29	7,615	6,255	1,322	38	--	--	--	--	--	--
	33,747	31,683	43,117	\$48,776	--	--	--	--	--	--
30 - 34	11,402	5,352	4,917	1,090	43	--	--	--	--	--
	43,493	34,216	50,656	55,809	\$66,445	--	--	--	--	--
35 - 39	12,621	4,149	4,209	3,260	939	64	--	--	--	--
	49,600	33,255	51,311	61,982	69,348	\$76,293	--	--	--	--
40 - 44	14,826	3,621	3,697	3,474	3,134	818	82	--	--	--
	55,137	32,736	50,045	62,362	72,361	78,252	\$78,095	--	--	--
45 - 49	15,461	3,113	3,277	3,087	2,942	2,286	737	19	--	--
	57,296	32,759	47,381	58,845	71,331	77,624	79,038	\$75,904	--	--
50 - 54	14,470	2,684	3,024	2,854	2,451	1,879	1,366	208	4	--
	55,880	32,008	45,637	55,927	65,830	75,097	77,292	80,707	*	--
55 - 59	12,029	2,136	2,530	2,366	2,121	1,572	971	285	46	2
	54,217	32,993	45,129	54,427	63,364	68,409	73,301	76,832	\$77,418	*
60 - 64	7,836	1,317	1,725	1,605	1,367	996	582	187	52	5
	53,402	33,679	45,926	53,698	61,002	66,182	69,424	77,532	77,492	\$91,620
65 - 69	3,028	543	746	591	512	333	199	75	18	11
	51,647	31,766	45,465	53,851	59,654	65,961	64,101	75,703	72,878	103,732
70 & over	998	228	238	203	142	92	56	20	10	9
	44,491	28,289	37,675	48,303	54,826	58,284	62,547	55,862	67,953	81,437
Total	103,108	32,199	25,706	18,568	13,651	8,040	3,993	794	130	27
	\$50,697	\$31,938	\$48,139	\$58,124	\$67,546	\$73,163	\$74,649	\$77,395	\$75,425	\$93,092

* Not shown for groups with fewer than five members.

SECTION 3: Supplemental Information for the Public Employees' Retirement System of Nevada

EXHIBIT C

Reconciliation of Member Data

	Active Members	Inactive Members	Retired Members	Disabled Members	Beneficiaries and Survivors	Total
Number as of June 30, 2014	100,522	14,633	45,986	3,184	6,038	170,363
New members	9,859	35	89	2	539	10,524
Terminations – with vested rights	-1,839	1,839	0	0	0	0
Terminations – without vested rights	-2,994	-81	N/A	N/A	N/A	-3,075
Retirements	-2,621	-871	3,626	-134	N/A	0
New disabilities	-257	-20	0	277	N/A	0
Return to work	528	-466	-56	-6	N/A	0
Died with or without beneficiary	-90	-38	-1003	-96	-214	-1,441
Certain period expired	N/A	N/A	0	0	-57	-57
Data adjustments	<u>0</u>	<u>1</u>	<u>-14</u>	<u>-2</u>	<u>0</u>	<u>-15</u>
Number as of June 30, 2015	103,108	15,032	48,628	3,225	6,306	176,299

SECTION 3: Supplemental Information for the Public Employees' Retirement System of Nevada

EXHIBIT D

Summary Statement of Income and Expenses on an Actuarial Value Basis (based on unaudited financial statements)

	Year Ended June 30, 2015			Year Ended June 30, 2014
	Regular	Police/Fire	Total	Total
Net assets at actuarial value at the beginning of the year	\$24,614,307,816	\$6,851,249,121	\$31,465,556,937	\$29,108,541,364
Contribution income:				
Employer contributions ⁽¹⁾	\$1,087,094,534	\$349,558,281	\$1,436,652,815	\$1,405,006,553
Member contributions	99,026,837	15,275,708	114,302,545	109,656,492
Repayment and purchase of service	<u>48,565,482</u>	<u>33,920,206</u>	<u>82,485,688</u>	<u>42,752,491</u>
Contribution income	\$1,234,686,853	\$398,754,195	\$1,633,441,048	\$1,557,415,536
Investment income:				
Interest	\$261,392,850	\$0	\$261,392,850	\$279,130,969
Dividends	523,536,563	-	523,536,563	522,621,573
Net appreciation	499,020,444	-	499,020,444	4,157,043,026
Other	124,491,007	-	124,491,007	91,594,469
Transfer of annual investment income	-306,127,085	306,127,085	-	-
Securities lending income	4,694,725	-	4,694,725	9,231,477
Net change in FV of securities lending	-	-	-	-1,155,897
Other income	2,433,816	352,250	2,786,066	1,941,816
Change in unrecognized return	940,739,863	275,993,949	1,216,733,812	-2,383,412,543
Less investment fees	<u>-17,843,493</u>	<u>-</u>	<u>-17,843,493</u>	<u>-27,030,774</u>
Net investment income	<u>\$2,032,338,690</u>	<u>\$582,473,284</u>	<u>\$2,614,811,974</u>	<u>\$2,649,964,116</u>
Total income available for benefits	\$3,267,025,543	\$981,227,479	\$4,248,253,022	\$4,207,379,652
Less operating expenses:				
Retirement and survivor benefits	-\$1,491,174,608	-\$364,151,618	-\$1,855,326,226	-\$1,721,740,266
Disability benefits	-81,318,112	-21,579,472	-102,897,584	-94,978,675
Post-retirement increases	-12,331	-963	-13,294	-14,704
Refunds to members	-19,047,109	-6,590,644	-25,637,753	-23,047,743
Administrative expenses	-8,694,230	-954,396	-9,648,626	-9,592,570
Transfer to JRS	<u>-2,356,700</u>	<u>-</u>	<u>-2,356,700</u>	<u>-990,121</u>
Net operating expenses	<u>-\$1,602,603,090</u>	<u>-\$393,277,093</u>	<u>-\$1,995,880,183</u>	<u>-\$1,850,364,079</u>
Interfund transfer	-\$1,572,377	\$1,572,377	\$0	\$0
Change in reserve for future benefits	\$1,662,850,076	\$589,522,763	\$2,252,372,839	\$2,357,015,573
Net assets at actuarial value at the end of the year	\$26,277,157,892	\$7,440,771,884	\$33,717,929,776	\$31,465,556,937

⁽¹⁾ See cost-sharing mechanisms in NRS 286.410 and NRS 286.421

SECTION 3: Supplemental Information for the Public Employees' Retirement System of Nevada

EXHIBIT E

Summary Statements of Assets (based on unaudited financial statements)

	Year Ended June 30, 2015	Year Ended June 30, 2014
Cash equivalents	\$264,196,276	\$1,022,818,228
Accounts receivable:		
Contributions receivable	\$121,288,992	\$118,903,642
Pending trades receivable	129,448,044	136,040,433
Accrued investment income	<u>91,334,239</u>	<u>100,132,219</u>
Total accounts receivable	342,071,275	355,076,294
Investments:		
Fixed income securities	\$9,449,725,984	\$8,765,972,447
Marketable equity securities	14,600,247,164	14,289,468,027
International securities	7,324,919,557	7,678,599,448
Real estate	1,454,303,113	1,337,751,979
Private equity	<u>1,319,000,149</u>	<u>1,111,639,569</u>
Total investments at market value	34,148,195,967	33,183,431,470
Collateral on loaned securities	373,833,323	1,605,428,527
Property and equipment	3,950,191	3,891,904
Other assets	<u>3,633,781</u>	<u>2,240,330</u>
Total assets	\$35,135,880,813	\$36,172,886,753
Liabilities:		
Accounts payable	-\$10,447,899	-\$12,822,827
Pending trades payable	-140,879,407	-979,554,242
Obligations under securities lending activities	<u>-373,833,323</u>	<u>-1,605,428,527</u>
Total liabilities	-\$525,160,629	-\$2,597,805,596
Net assets at market value	<u>\$34,610,720,184</u>	<u>\$33,575,081,157</u>
Net assets at actuarial value	<u>\$33,717,929,776</u>	<u>\$31,465,556,937</u>

SECTION 3: Supplemental Information for the Public Employees' Retirement System of Nevada

EXHIBIT F

Development of the Fund Through June 30, 2015

Year Ended June 30	Employer Contributions	Member Contributions	Other Contributions	Net Investment Return*	Administrative Expenses	Benefit Payments**	Actuarial Value of Assets at End of Year
2005							\$17,886,538,573
2006	\$966,130,036	\$75,970,321	\$42,214,033	\$1,170,548,830	\$8,212,797	\$851,160,762	19,282,028,234
2007	1,046,628,769	83,219,638	45,632,332	1,858,887,861	8,588,057	948,781,892	21,359,026,885
2008	1,167,392,913	88,013,888	43,287,531	1,641,283,986	8,723,601	1,052,629,998	23,237,651,604
2009	1,213,067,534	93,648,004	28,116,522	621,100,111	9,714,463	1,211,993,461	23,971,875,851
2010	1,281,714,847	99,683,851	26,890,242	678,751,770	11,118,633	1,322,333,219	24,725,464,709
2011	1,264,759,603	97,033,823	31,547,354	1,201,272,733	10,579,998	1,438,358,514	25,871,139,710
2012	1,332,320,660	98,183,663	37,993,705	1,651,468,456	10,002,855	1,582,118,483	27,398,984,856
2013	1,310,082,859	99,230,935	46,467,628	1,971,170,711	9,560,240	1,707,835,385	29,108,541,364
2014	1,405,006,553	109,656,492	42,752,491	2,649,964,116	9,592,570	1,840,771,509	31,465,556,937
2015	1,436,652,815	114,302,545	82,485,688	2,614,811,974	9,648,626	1,986,231,557	33,717,929,776

* Net of investment fees

** Includes transfers in/out of the System (e.g. to the Judicial Retirement System) that correspond to transfers of liability.

SECTION 3: Supplemental Information for the Public Employees' Retirement System of Nevada

EXHIBIT G

Development of Unfunded Actuarial Accrued Liability for Year Ended June 30, 2015

	Regular	Police/Fire	Total
1. Unfunded actuarial accrued liability at beginning of year	\$10,160,033,695	\$2,371,469,548	\$12,531,503,243
2. Normal cost at beginning of year	814,891,951	248,591,310	1,063,483,261
3. Actual total contributions	-1,234,686,853	-398,754,195	-1,633,441,048
4. Actual administrative expenses	8,694,230	954,396	9,648,626
5. Interest			
(a) For whole year on (1) + (2)	\$877,994,052	\$209,604,868	\$1,087,598,920
(b) For a half year on (3) + (4)	<u>-49,039,705</u>	<u>-15,911,992</u>	<u>-64,951,697</u>
(c) Total interest	<u>828,954,347</u>	<u>193,692,876</u>	<u>1,022,647,223</u>
6. Expected unfunded actuarial accrued liability	\$10,577,887,370	\$2,415,953,935	\$12,993,841,305
7. Changes due to ⁽¹⁾			
(a) Investment gain	-\$77,973,609	-\$34,091,375	-\$112,064,984
(b) Post-retirement benefit increases lower than expected	-402,263,640	-104,940,877	-507,204,517
(c) Individual Salary increases lower than expected	-308,733,025	-75,352,243	-384,085,268
(d) Other experience	252,185,966	109,554,751	361,740,717
(e) Total changes	<u>-\$536,784,308</u>	<u>-\$104,829,744</u>	<u>-\$641,614,052</u>
8. Unfunded actuarial accrued liability at end of year	<u>\$10,041,103,062</u>	<u>\$2,311,124,191</u>	<u>\$12,352,227,253</u>

⁽¹⁾ For Regular, does not include separate item showing effect of contribution loss of \$183,603,978, which resulted from actual contributions for the year falling short of those expected. This in turn was due to the combined effect of a) lower than expected payroll growth, and b) statutory contribution rates less than the actuarially determined contribution rates.

For Police/Fire, does not include separate item showing effect of contribution gain of \$17,373,966, which resulted from actual contributions for the year exceeding those expected. This in turn was due to the combined effect of a) lower than expected payroll growth, and b) statutory contribution rates higher than the actuarially determined contribution rates.

SECTION 3: Supplemental Information for the Public Employees' Retirement System of Nevada

EXHIBIT H

Table of Amortization Bases

Date Established	Initial Years	Initial Amount	Current Annual Payment⁽¹⁾	Years Remaining	Outstanding Balance
Regular					
06/30/2004	30	\$3,306,492,730	\$267,910,387	19	\$4,501,418,483
06/30/2005	30	825,676,847	62,817,765	20	1,103,619,886
06/30/2006	30	376,199,046	26,874,504	21	492,464,183
06/30/2007	30	-325,346,914	-21,823,271	22	-416,171,501
06/30/2008	30	597,061,087	37,604,716	23	744,769,552
06/30/2009	30	1,396,781,607	82,604,261	24	1,695,877,384
06/30/2010	30	804,325,423	44,663,847	25	948,883,582
06/30/2011	30	322,201,646	16,799,737	26	368,753,113
06/30/2012	23	-31,427,931	-1,916,836	20	-33,676,122
06/30/2013	22	1,365,091,459	81,191,109	20	1,426,413,743
06/30/2014	21	-430,228,451	-25,004,291	20	-439,290,263
06/30/2015	20	-351,958,978	<u>-20,033,416</u>	<u>20</u>	<u>-351,958,978</u>
Subtotal			\$551,688,512	20.8 ⁽²⁾	\$10,041,103,062

⁽¹⁾ Level percentage of payroll with payroll expected to increase 6.5% per year for Regular and 7.5% per year for Police/Fire. Payments shown as of beginning of year.

⁽²⁾ Effective average amortization period. Combined Regular and Police/Fire average amortization period is 20.7.

SECTION 3: Supplemental Information for the Public Employees' Retirement System of Nevada

EXHIBIT H

Table of Amortization Bases (continued)

Date Established	Initial Years	Initial Amount	Current Annual Payment⁽¹⁾	Years Remaining	Outstanding Balance
Police/Fire					
06/30/2004	30	\$1,248,577,900	\$100,671,513	19	\$1,835,113,121
06/30/2005	30	166,690,723	12,472,960	20	238,786,467
06/30/2006	30	145,811,902	10,125,522	21	203,074,428
06/30/2007	30	-52,497,545	-3,383,210	22	-70,921,731
06/30/2008	30	130,126,655	7,782,535	23	170,171,350
06/30/2009	30	204,577,462	11,354,725	24	258,485,423
06/30/2010	30	144,950,584	7,466,242	25	176,645,141
06/30/2011	30	585,886	28,006	26	687,547
06/30/2012	23	-101,888,427	-5,802,432	20	-111,083,682
06/30/2013	22	-14,571,831	-803,306	20	-15,378,747
06/30/2014	21	-245,329,185	-13,149,822	20	-251,744,536
06/30/2015	20	-122,710,590	<u>-6,409,761</u>	<u>20</u>	<u>-122,710,590</u>
Subtotal			\$120,352,972	20.1 ⁽²⁾	<u>\$2,311,124,191</u>
Grand Total					\$12,352,227,253

⁽¹⁾ Level percentage of payroll with payroll expected to increase 6.5% per year for Regular and 7.5% per year for Police/Fire. Payments shown as of beginning of year.

⁽²⁾ Effective average amortization period. Combined Regular and Police/Fire average amortization period is 20.7.

SECTION 3: Supplemental Information for the Public Employees' Retirement System of Nevada

EXHIBIT I

Definitions of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Assumptions or Actuarial

Assumptions:

The estimates on which the cost of the Plan is calculated including:

- (a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;
- (b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) Retirement rates — the rate or probability of retirement at a given age;
- (d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Normal Cost:

The amount of contributions required to fund the level cost allocated to the current year of service.

Actuarial Accrued Liability

For Actives:

The value of all projected benefit payments for current members less the portion that will be paid by future normal costs.

Actuarial Accrued Liability

For Pensioners:

The single sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

Unfunded Actuarial Accrued

Liability:

The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan.

SECTION 3: Supplemental Information for the Public Employees' Retirement System of Nevada

Amortization of the Unfunded Actuarial Accrued Liability:

Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.

Investment Return:

The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.

SECTION 4: Reporting Information for the Public Employees' Retirement System of Nevada

EXHIBIT I

Summary of Actuarial Valuation Results

The valuation was made with respect to the following data supplied to us:

1. Retired members as of the valuation date (including 6,306 beneficiaries and survivors in pay status)	58,159
2. Members inactive during year ended June 30, 2015 with vested rights	15,032
3. Members active during the year ended June 30, 2015	<u>103,108</u>
4. Total members	176,299

The actuarial factors as of the valuation date are as follows:

1. Normal cost*		
Regular members	\$832,895,904	
Police/Fire members	<u>253,558,452</u>	
Total normal cost		\$1,086,454,356
2. Actuarial accrued liability		
Retired members and beneficiaries	\$25,224,070,813	
Inactive members with vested rights	1,078,562,157	
Active members	<u>19,767,524,059</u>	
Total actuarial accrued liability		46,070,157,029
3. Actuarial value of assets (\$34,610,720,184 at market value as reported by Retirement Office)		<u>33,717,929,776</u>
4. Unfunded actuarial accrued liability (2. – 3.)		\$12,352,227,253
5. Total rate payroll		\$5,921,618,314

* Does not include administrative expenses

SECTION 4: Reporting Information for the Public Employees' Retirement System of Nevada

EXHIBIT II

Actuarial Assumptions and Methods

Actuarial Assumptions

Rationale for Assumptions:

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the Actuarial Experience Study dated September 12, 2013. Current data is reviewed in conjunction with each annual valuation. Based on professional judgment, no assumption changes are warranted at this time.

Mortality Rates:

Healthy:	<i>Regular:</i>	RP-2000 Combined Healthy Mortality Table projected to 2013 with Scale AA, set back one year for females (no age setback for males).
	<i>Police/Fire:</i>	RP-2000 Combined Healthy Mortality Table projected to 2013 with Scale AA, set forward one year.
Disabled:	<i>Regular and Police/Fire:</i>	RP-2000 Disabled Retiree Mortality Table projected to 2013 with Scale AA, set forward three years.

The RP-2000 Combined Healthy Mortality Table, set back one year for females (no age setback for males), reasonably reflects the projected mortality experience of the Plan as of the measurement date. The additional projection of 13 years is a provision made for future mortality improvement.

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Termination Rates before Retirement:

Age	Mortality			
	Regular		Police/Fire	
	Male	Female	Male	Female
20	0.03%	0.02%	0.03%	0.02%
25	0.03	0.02	0.04	0.02
30	0.04	0.02	0.05	0.03
35	0.07	0.04	0.08	0.04
40	0.10	0.05	0.10	0.06
45	0.13	0.08	0.13	0.10
50	0.17	0.12	0.19	0.15
55	0.28	0.21	0.33	0.29
60	0.55	0.42	0.63	0.54

Any mortality that occurs during the first two years of employment is assumed to be non-duty related.

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Termination Rates before Retirement (continued):

Years of Service	Withdrawal Rates	
	Regular	Police/Fire
0 – 1	16.50%	14.00%
1 – 2	12.50	6.50
2 – 3	9.70	5.75
3 – 4	7.30	4.75
4 – 5	6.60	4.25
5 – 6	5.00	3.50
6 – 7	4.00	3.00
7 – 8	3.50	2.25
8 – 9	3.25	1.90
9 – 10	3.00	1.75
10 – 11	2.75	1.50
11 – 12	2.50	1.25
12 – 13	2.25	1.00
13 – 14	2.00	0.90
14 – 15	1.75	0.80
15 & Over	1.50	0.50

No withdrawal is assumed after a member reaches earliest unreduced retirement age.

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Termination Rates before Retirement (continued):

<u>Age</u>	<u>Disability Rates</u>	
	<u>Regular</u>	<u>Police/Fire</u>
20 – 24	0.01%	0.00%
25 – 29	0.02	0.06
30 – 34	0.06	0.10
35 – 39	0.09	0.18
40 – 44	0.21	0.35
45 – 49	0.35	0.56
50 – 54	0.57	0.75
55 – 59	0.75	0.50
60 – 64	0.40	0.50
65 & Over	0.00	0.00

Disability rates are applied only for members with more than 5 years of service and less than 30 years of service for Regular or 25 years for Police/Fire.

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Retirement Rates:

Regular:

Age	Years of Service (%)				
	5-9	10-19	20-24	25-29	30 or More
45-49	0.00	0.00	1.00	7.00	20.00
50-54	1.00	2.00	2.00	10.00	20.00
55-59	2.00	4.00	6.00	13.00	25.00
60-61	8.00	12.00	18.00	25.00	25.00
62-64	10.00	14.00	18.00	25.00	25.00
65-69	20.00	20.00	22.00	25.00	25.00
70-74	40.00	40.00	60.00	60.00	60.00
75 & Over	100.00	100.00	100.00	100.00	100.00

Police/Fire:

Age	Years of Service (%)				
	5-9	10-19	20-24	25-29	30 or More
Less than 40	0.00	0.00	0.00	0.00	0.00
40-44	0.00	0.75	3.00	0.00	0.00
45-49	0.00	1.00	5.00	15.00	15.00
50-54	1.50	5.00	13.00	18.00	27.00
55-59	3.50	11.00	20.00	25.00	35.00
60-64	10.00	18.00	25.00	32.00	35.00
65-69	60.00	60.00	65.00	70.00	70.00
70 & Over	100.00	100.00	100.00	100.00	100.00

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Retirement Age for Inactive Vested Participants:	Earliest unreduced retirement age.
Unknown Data for Participants:	Same as those exhibited by members with similar known characteristics. If not specified, Regular members are assumed to be female, and Police/Fire members are assumed to be male.
Percent Married:	<p>Since pre-retirement death benefits are payable to a surviving beneficiary of an unmarried member, all members are assumed to have a beneficiary upon pre-retirement death.</p> <p>The unmodified option is a straight life annuity except for “employer-pay” Police/Fire retirees, for whom it is a 50% joint and survivor annuity. Existing “employer-pay” Police/Fire retirees with an unmodified option who retired after June 30, 1981 and before July 1, 2011 have been valued assuming no surviving spouse, pending the results of an analysis and verification of spousal information.</p> <p>75% of “employer-pay” Police/Fire male members and 60% of “employer-pay” Police/Fire female members are assumed to be married at retirement.</p>
Age of Spouse:	Females 3 years younger than males. Spouses are assumed to be of the opposite sex of the member.
Dependent Children:	The assumption for dependent children in the actuarial valuation is one dependent child who is 28 years younger than the member.
<hr/> <u>Economic Assumptions</u>	
Net Investment Return:	8.00% (including 3.50% for inflation).
Consumer Price Index:	Increase of 3.50% per year.
Administrative Expenses:	0.15% of payroll added to Normal Cost.

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Salary Increases:

Inflation: 3.50% Plus

Productivity pay increases: 0.75% Plus

Promotional and merit salary increases:

Years of Service	Regular	Police/Fire
Less than 1	5.50%	10.25%
1	4.25	6.55
2	3.50	5.15
3	3.25	4.55
4	3.00	4.25
5	2.75	4.05
6	2.40	3.75
7	2.25	3.25
8	1.85	2.75
9	1.75	2.25
10	1.50	1.75
11	1.00	1.50
12	0.80	1.25
13 or More	0.35	1.00

Assumed payroll growth rates are used to compute the unfunded actuarial accrued liability amortization payments as a level percentage of projected payroll. For this valuation, the payroll for the coming year is based on actual annualized payroll for the actives as of the valuation date and projected by the salary scale. For the purpose of calculating the actuarially determined contribution rate, the total payroll growth assumption for future years is 6.50% per year for Regular and 7.50% for Police/Fire.

The payroll growth assumptions are set by the Board and affect the timing of payments toward the unfunded liabilities. Considerations for setting these assumptions include future financial conditions that are difficult for Segal to evaluate. In recent years, payroll growth has been less than assumed. This has the effect of delaying contributions toward the unfunded liabilities and could result in increases to required contributions in future years. We recommend that the Board closely monitor actual payroll growth to verify that the assumptions remain valid.

SECTION 4: Reporting Information for the Public Employees' Retirement System of Nevada

Post-Retirement Benefit Increases: For current retirees and beneficiaries, future Post-Retirement Benefit Increases reflect actual changes in historical CPI and are assumed to follow the formulas described on page 47 of this report. For future retirees, those hired prior to 2010 are assumed to reach the cap after 24 years of retirement. Those hired in 2010 or later are assumed to reach the cap after 39 years of retirement. Underlying all of these assumptions is that CPI will grow over time at a rate of 3.50% per year.

Actuarial Methods

Actuarial Cost Method:

Entry Age Normal Actuarial Cost Method. Entry Age is the age at the time the participant commenced employment. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of salary, with Normal Cost determined based on the plan provisions and benefit accrual rate applicable to that individual.

Actuarial Value of Assets:

Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the actuarial value, and is recognized over a five-year period, further adjusted, if necessary, to be within 30% of the market value. Deferred gains and losses as of June 30, 2011 have been combined and will be recognized in equal amounts over a period of four years from that date.

Amortization Policy:

The UAAL, (i.e., the difference between the Actuarial Accrued Liability and the Valuation Value of Assets), as of June 30, 2011 shall continue to be amortized over separate 30-year period amortization layers based on the valuations during which each separate layer was previously established.

Any new UAAL as a result of actuarial gains or losses identified in the annual valuation as of June 30 will be amortized over a period equal to the truncated average remaining amortization period of all prior UAAL layers. This would occur until the average remaining amortization period is less than 20 years. At that point, amortization periods of 20 years would be used for actuarial gains and losses.

Any new UAAL as a result of change in actuarial assumptions or methods will be amortized over a period equal to the truncated average remaining amortization period of all prior UAAL layers. This would occur until the average remaining amortization period is less than 20 years. At that point, amortization periods of 20 years would be used for assumption or method changes.

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Unless an alternative amortization period is recommended by the Actuary and accepted by the Board based on the results of an actuarial analysis:

- a. with the exception noted in b., below, the increase in UAAL as a result of any plan amendments will be amortized over a period of 15 years;
- b. the increase in UAAL that would result from a temporary retirement incentive will be pre-funded by the participating employer(s).

UAAL layers shall be amortized over “closed” amortization periods so that the amortization period for each layer decreases by one year with each actuarial valuation.

UAAL layers shall be amortized as a level percentage of payroll so that the amortization amount in each year during the amortization period shall be expected to be a level percentage of covered payroll, taking into consideration the current assumption for general payroll increase.

If an overfunding exists (i.e., the total of all UAAL becomes negative so that there is a surplus), such surplus and any subsequent surpluses will be amortized over an “open” amortization period of 30 years. Any prior UAAL amortization layers will be considered fully amortized, and any subsequent UAAL will be amortized over 20 years as the first of a new series of amortization layers.

These amortization policy components will apply separately to each of the Regular and Police/Fire UAAL cost groups.

Changes in Actuarial Assumptions and Methods:

There have been no changes in actuarial assumptions or methods since the last valuation.

SECTION 4: Reporting Information for the Public Employees' Retirement System of Nevada

EXHIBIT III

Summary of Plan Provisions

This exhibit summarizes the major provisions of the Nevada Public Employees' Retirement Act included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan Year: July 1 through June 30

Service Retirement:

For members with an effective date of membership before January 1, 2010:

Requirement for Regular Members Age 65 with five years of service, or age 60 with ten years of service, or at any age with 30 years of service.

Requirement for Police/Fire Members Age 65 with five years of service, or age 55 with ten years of Police/Fire service, or age 50 with 20 years of Police/Fire service, or at any age with 25 years of Police/Fire service.

Benefit 2.67% of final average compensation (average of 36 highest consecutive months) per year of service earned on or after July 1, 2001 plus 2.50% of final average compensation per year of service before July 1, 2001. Maximum benefits are 90% of average compensation for individuals who became members before July 1, 1985 and 75% of average compensation for individuals who became members after June 30, 1985.

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For members with an effective date of membership on or after January 1, 2010:

<i>Requirement for Regular Members</i>	Age 65 with five years of service, or age 62 with ten years of service, or at any age with 30 years of service.
<i>Requirement for Police/Fire Members</i>	Age 65 with five years of service, or age 60 with ten years of Police/Fire service, or age 50 with 20 years of Police/Fire service, or at any age with 30 years of Police/Fire service.
<i>Benefit</i>	2.50% of final average compensation (average of 36 highest consecutive months) per year of service. Maximum benefits are 75% of average compensation.

Early Retirement:

<i>Requirement</i>	Any age with five years of service.
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For members with an effective date of membership before January 1, 2010:

<i>Benefit</i>	Accrued retirement benefit reduced 4% per year for each year that the member is under the age required for service retirement.
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For members with an effective date of membership on or after January 1, 2010:

<i>Benefit</i>	Accrued retirement benefit reduced 6% per year for each year that the member is under the age required for service retirement.
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Disability:

<i>Requirement</i>	Five years of service and totally unable to perform current job or any comparable job for which the member is qualified by training and experience, because of injury or illness of a permanent nature, provided the member is in the employ of a participating employer at the time of application for disability retirement.
<i>Benefit</i>	Accrued service retirement benefit without reduction for age. (System disability benefit is reduced for other benefits received on account of same disability, if such other benefits are financed by a Nevada public employer, to the extent that total disability benefits would otherwise exceed 100% of final average compensation.)

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Vesting:

Requirement

Any age with five years of service, provided the member has not received a refund of member contributions.

Benefit

Accrued service retirement benefit payable upon attainment of age 65 if member has between five and ten years of service at termination, or upon attainment of the age required for service retirement if member has ten or more years of service at termination.

Spouse's Pre-Retirement Death Benefit:

Requirement

Eligible survivors of an active member who dies receive survivor benefits if: (a) the deceased member had two years of service in the 2½ years immediately preceding death; or (b) the deceased member had ten years of service; or (c) death was caused by occupational disease or a service-connected accident regardless of the deceased member's length of service; or (d) death occurred within 18 months after termination of employment where mental or physical condition required the termination; or (e) death occurred while member was on leave of absence for training and member met requirements of (a) at time such leave began.

Benefit

- a. Unmarried children under age 18, or age 18 to 23 and attending an accredited school on a full-time basis: \$400 per month per child. Payments cease upon attaining age 18 or age 23 if full-time student, unless child is incapacitated; or upon marriage, adoption, or death.
- b. Spouse, or survivor beneficiary of an unmarried member, of deceased member with fewer than ten years of service (and at least two years of service in the last 2½ years): \$450 per month. Payments cease upon death.
- c. Spouse, or survivor beneficiary of an unmarried member, of deceased member with ten but fewer than 15 years of service: greater of \$450 per month or Option 3 benefit that would have been payable if deceased member had retired on date of death without reduction for early payment. Payments cease upon death.

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- d. Spouse, or survivor beneficiary of an unmarried member, of deceased member with 15 or more years of service: greater of \$450 per month or Option 2 benefit that would have been payable if deceased member had retired on date of death without reduction for early payment. Payments cease upon death.
- e. Spouse, or survivor beneficiary of an unmarried member, of deceased member eligible to retire with respect to both age and service: greater of \$450 per month, Option 2 or Option 3 benefit that would have been payable if deceased member had retired on death, without reduction for early payment. Payments cease upon death.
- f. Dependent parents: \$400 per month each, provided there are no other eligible survivors. Payments cease upon death.
- g. Lump sum payment option: a spouse, or survivor beneficiary of an unmarried member, may waive right to monthly survivor benefits and instead receive a lump sum refund of deceased member's contributions plus half the contributions made under the Employer-Pay provisions, provided no other person is eligible for survivor benefits.

Benefit Limitations

Total survivor benefits, including any other survivor benefit received from any other source, shall not exceed final average compensation (a) if the other benefit was provided or purchased by a public employer, except for lump sum payments under a group insurance program; and (b) to the extent that the total of the allowance and the other benefit would otherwise exceed the deceased member's final average compensation.

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Benefit for certain spouses

A member who begins receiving service or disability retirement benefits from the Police/Fire members retirement fund after June 30, 1981, is eligible to receive an unreduced service retirement allowance. Upon the death of such a retired member, a spouse who was the retired member's spouse at the time of retirement is entitled to receive 50% of the unreduced allowance; this benefit is payable to the surviving spouse beginning at age 50. A surviving spouse is not eligible to receive this 50% spouse's benefit if the retired member elects an optional benefit form at the time of retirement. Service performed after July 1, 1981, in positions other than as a Police/Fire member, except military service, is not credited toward this 50% spouse's benefit. Existing "employer-pay" Police/Fire retirees who retired after June 30, 1981 and before July 1, 2011 have been valued assuming no surviving spouse, pending the results of an analysis and verification of spousal information.

Post-Retirement Benefit Increases:

For members with an effective date of membership before January 1, 2010:

Benefit

The lesser of

- (a) 2% per year following the third anniversary of the commencement of benefits, 3% per year following the sixth anniversary, 3 ½% per year following the ninth anniversary, 4% per year following the twelfth anniversary and 5% per year following the fourteenth anniversary, or
- (b) The annual benefit increase is equal to the average percentage increase in the Consumer Price Index (or other Board approved index) for the three preceding years.

In any event, a member's benefit must be increased by the percentages in paragraph (a) if their benefit has not been increased at a rate greater than or equal to the average of the Consumer Price Index (All Items) (or other Board approved index) for the period between retirement and the date of increase.

For members with an effective date of membership on or after January 1, 2010:

Benefit

Same as above, except the increases do not exceed 4% per year.

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Optional Benefit Forms

Regular and disability retirees may elect one of the optional benefit plans:

Option 1 - Single life annuity except for:

Police/Fire members who contribute under the "employer pay" contribution plan, Option 1 is a 50% joint and survivor annuity

Option 2 - 100% joint and survivor

Option 3 - 50% joint and survivor

Option 4 - 100% joint and survivor, with payments to beneficiary commencing at age 60

Option 5 - 50% joint and survivor, with payments to beneficiary commencing at age 60

Option 6 - specific sum option up to 100% of allowance paid to retiree

Option 7 - specific sum option up to 100% of allowance paid to retiree, with payments to beneficiary commencing at age 60.

If the beneficiary predeceases the retired member, the optional allowance reverts to the unmodified allowance.

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Contribution Rates

For the fiscal years July 1, 2015 through June 30, 2017, statutory contribution rates as a percentage of compensation are as follows:

	Regular	Police/Fire
Employer-Pay	28.00%	40.50%
Employee/Employer	14.50%/14.50%	20.75%/20.75%

Total contribution rates are adjusted at the beginning of each odd-numbered fiscal year, based on the actuarially determined rates indicated in the actuarial valuation report for the immediately preceding year. Rates are only adjusted upward if the new rates are more than 0.50% higher than the existing rate for Employer-Pay and more than 0.25% higher for Employee/Employer. Rates are only adjusted downward if the new rates are more than 2.00% lower than the existing rate for Employer-Pay (and adjusted only by the amount in excess of 2.00%) and more than 1.00% lower than the existing rate for Employee/Employer (and adjusted only by the amount in excess of 1.00%). Rates are rounded to the nearest 0.25% of payroll.

Under the Employer-Pay provisions, the contributions made by employers on behalf of members are not credited to member accounts and are not refunded upon termination. For members covered by the Employer-Pay provisions, final average compensation is increased by half the total contribution made by the public employer and may not be less than it would have been if contributions had been made by the member and the employer separately.

Changes in Plan Provisions:

None during July 1, 2014 to June 30, 2015.

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