

Public Employees' Retirement System of the State of Nevada

Actuarial Valuation and Review as of
June 30, 2013



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 7, 2013

*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, 2013 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 2013-2014 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.

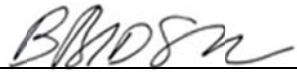
The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic 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.

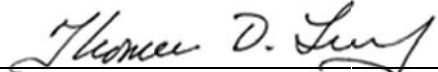
We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

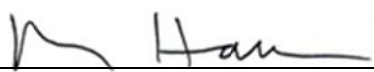
Segal Consulting, a Member of The Segal Group, Inc.

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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, 2013. 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, 2013,
- The assets of the Plan as of June 30, 2013, 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:

- The results of this valuation reflect changes in the actuarial assumptions adopted by the Board for the June 30, 2013 valuation. All of the assumptions recommended by Segal in the June 30, 2012 Experience Study were adopted and have been applied in this valuation. The adopted changes are outlined in Section 4, Exhibit II of this report. The actuarially determined contribution rates increased by 1.45% for Regular and decreased by 2.87% for Police/Fire due to the assumption changes.
- The ratios of the actuarial value of assets to actuarial accrued liabilities have decreased from 71.2% to 68.9% for Regular and increased from 70.1% to 71.1% for Police/Fire.
- There were actuarial experience gains due to individual salary increases less than expected for continuing active members; these gains amounted to \$411 million for Regular and \$150 million for Police/Fire members. This item is shown in Chart 18. Actual increases for continuing active members during 2012/13 were 2.3% for Regular and 3.2% for Police/Fire.
- For Regular, the actuarially determined contribution rates for 2013 increased from the previous year, while for Police/Fire there was a decrease. Both groups saw an increase due to the smaller than expected payroll growth used to amortize the UAAL, increases in the normal cost rate and actuarial investment losses during the year. The actuarially determined contribution rates for Regular increased due to the assumption changes, and were partially offset by the gains from

Reference: Pg. vi

Reference: Pg. 14

Reference: Pg. 16

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

individual salary increases less than expected. This increase was more than offset for Police/Fire primarily by the gains from individual salary increases less than expected and the assumption changes.

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. 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. 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, 2013 through June 30, 2015 (as determined from the June 30, 2012 valuation)	25.75%	40.50%
Actuarially Determined Contribution Rate per June 30, 2013 Actuarial Valuation	27.91%	39.73%
Employee/Employer**:		
Statutory Rate for Fiscal Years July 1, 2013 through June 30, 2015 (as determined from the June 30, 2012 valuation)	26.50%	41.50%
Actuarially Determined Contribution Rate per June 30, 2013 Actuarial Valuation	28.86%	40.85%

* See cost-sharing mechanism in NRS 286.421

** See cost-sharing mechanism in NRS 286.410

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

- The rate of investment return on the market value of assets for 2012-2013 for the PERS Fund was 12.4%, and was 3.1% for the preceding year.
- The returns on the actuarial value of assets for 2012-2013 for the PERS Fund were 7.2% for Regular and 7.4% for Police/Fire, which were less than the investment return assumption of 8.00%. As a result, the PERS Fund experienced investment losses on an actuarial value basis of approximately \$175 million for Regular and \$36 million for Police/Fire.
- As indicated in Section 2, Subsection B (see Chart 12) of this report, the total unrecognized investment losses as of June 30, 2013 were approximately \$236 million for Regular, and \$38 million for Police/Fire compared to \$1,206 million and \$293 million in the previous valuation, respectively. These unrecognized losses will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years and will serve to offset any investment gains that may occur after June 30, 2013. If the System earns the assumed rate of investment return of 8.00% per year (net of expenses) on an actuarial value basis, then the deferred losses would be recognized over the next four years as shown in the footnote on Chart 12.
- The June 30, 2013 unrecognized investment losses of \$274 million represent about 1.0% of the PERS Fund market value of assets. Unless offset by future investment gains or other favorable experience, the recognition of the \$274 million market losses 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:
 - If the deferred losses were recognized immediately in the actuarial value of assets, the funded ratios would decrease from 68.9% to 68.1% for Regular and from 71.1% to 70.7% for Police/Fire.

Reference: Pg. 11

Reference: Pg. 8

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

- If the deferred losses were recognized immediately in the actuarial value of assets, the actuarial determined contribution rates would increase as follows:

	2013/2014 Actuarially Determined Contribution Rate	2013/2014 Rate Reflecting Deferred Losses
Regular:		
Employer-Pay	27.91%	28.17%
Employee/Employer Pay	28.86%	29.12%
Police/Fire:		
Employer-Pay	39.73%	39.92%
Employee/Employer Pay	40.85%	41.04%

- The actuarial valuation report as of June 30, 2013 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 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. Since the program is more restrictive than it has been in the past, and it is still temporary in nature, we believe that the cost to the System has been minimal. As of the valuation date, there were a total of 82 retired PERS members currently active and reenrolled in PERS under this provision. A study will be performed prior to the program being extended or made permanent to determine whether the actuarially determined cost rate is affected, and if so, to estimate its cost.
- The Governmental Accounting Standards Board (GASB) approved two new Statements affecting the reporting of pension liabilities for accounting purposes. These new Statements are not effective until the fiscal year ending June 30, 2014 for Plan reporting and the fiscal year ending June 30, 2015 for employer reporting. Segal will work with the System to analyze how these Statements will affect reporting for PERS and its contributing employers.

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

Summary of Key Valuation Results

	Total (Regular and Police/Fire Combined)	
	2013	2012
Actuarially determined contribution rates for plan year beginning July 1*	29.99%	28.37%
Funding elements for plan year beginning July 1:		
Normal cost, including administrative expenses	18.67%	18.79%
Total rate payroll	\$5,715,259,174	\$5,574,616,761
Market value of assets	\$28,834,653,041	\$25,899,841,632
Actuarial value of assets	\$29,108,541,364	\$27,398,984,856
Actuarial accrued liability	\$41,984,481,544	\$38,604,872,754
Unfunded actuarial accrued liability	\$12,875,940,180	\$11,205,887,898
Funded ratio on actuarial value basis (AVA / AAL)	69.3%	71.0%
Funded ratio on market value basis (MVA / AAL)	68.7%	67.1%
Demographic data for plan year beginning July 1:		
Number of retired members and beneficiaries	52,430	49,546
Number of vested former members	13,739	12,962
Number of active members	99,038	98,512
Total salary	\$5,100,207,634	\$5,087,809,016
Average salary	\$51,497	\$51,647

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

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

Summary of Key Valuation Results

	Regular		Police/Fire	
	2013	2012	2013	2012
Actuarially determined contribution rates for plan year beginning July 1:				
Employer-Pay*	27.91%	25.72%	39.73%	40.54%
Employee/Employer Pay**	28.86%	26.73%	40.85%	41.54%
Funding elements for plan year beginning July 1:				
Normal cost, including administrative expenses				
Employer-Pay*	16.90%	16.51%	26.82%	29.14%
Employee/Employer Pay**	17.85%	17.52%	27.94%	30.14%
Total rate payroll	\$4,777,126,367	\$4,632,433,507	\$938,132,807	\$942,183,254
Market value of assets	\$22,610,714,221	\$20,387,151,134	\$6,223,938,820	\$5,512,690,498
Actuarial value of assets	\$22,846,659,235	\$21,593,053,471	\$6,261,882,129	\$5,805,931,385
Actuarial accrued liability	\$33,178,566,729	\$30,322,446,182	\$8,805,914,815	\$8,282,426,572
Unfunded/(overfunded) actuarial accrued liability	\$10,331,907,494	\$8,729,392,711	\$2,544,032,686	\$2,476,495,187
Funded ratio on actuarial value basis (AVA / AAL)	68.9%	71.2%	71.1%	70.1%
Funded ratio on market value basis (MVA / AAL)	68.1%	67.2%	70.7%	66.6%
Demographic data for plan year beginning July 1:				
Number of retired members and beneficiaries	45,796	43,258	6,634	6,288
Number of vested former members	13,009	12,253	730	709
Number of active members	87,193	86,719	11,845	11,793
Total salary	\$4,239,824,030	\$4,232,547,428	\$860,383,604	\$855,261,588
Average salary	\$48,626	\$48,808	\$72,637	\$72,523

* See cost-sharing mechanism in NRS 286.421

** See cost-sharing mechanism in NRS 286.410

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: 2004 – 2013

Year Ended June 30	Active Members	Vested Terminated Members	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
2004	79,848	7,397	24,987	0.41
2005	83,224	8,676	26,978	0.43
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

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 87,193 active members with an average age of 46.5, average years of service of 10.1 years and average salary of \$48,626. The 86,719 active members in the prior valuation had an average age of 46.4, average service of 10.0 years and average salary of \$48,808.

Inactive Members

In this year's valuation, there were 13,009 members with a vested right to a deferred or immediate vested benefit versus 12,253 members in the prior valuation.

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

CHART 2
Distribution of Active Regular Members by Age as of June 30, 2013

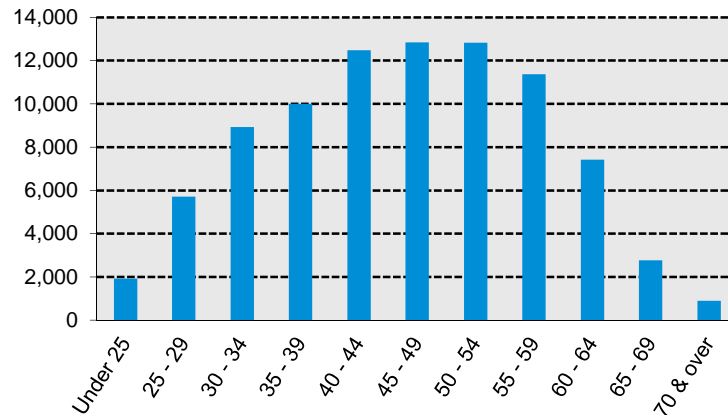
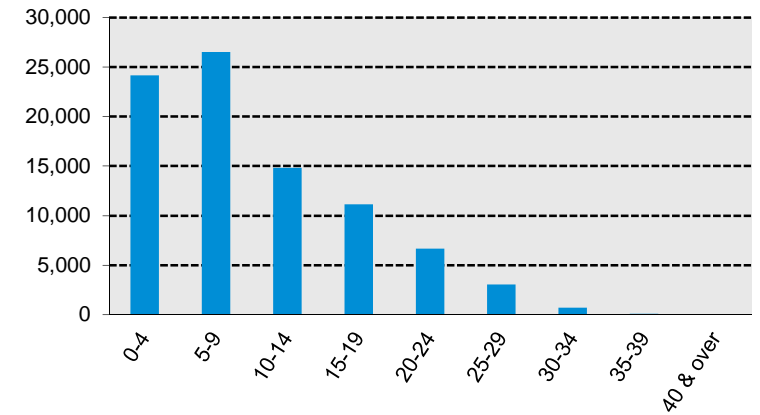


CHART 3
Distribution of Active Regular Members by Years of Service as of June 30, 2013



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

i. Regular Members (continued)

Retired Members and Beneficiaries

As of June 30, 2013, 40,854 retired members and 4,942 beneficiaries and survivors were receiving total monthly benefits of \$116,337,773. Of these, 422 retired members and 6 beneficiaries and survivors were receiving annual benefits of at least \$100,000, which represents 0.9% of all retirees, beneficiaries and survivors. For comparison, in the previous valuation, there were 38,528 retired members and 4,730 beneficiaries and survivors receiving monthly benefits of \$107,578,292.

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, 2013

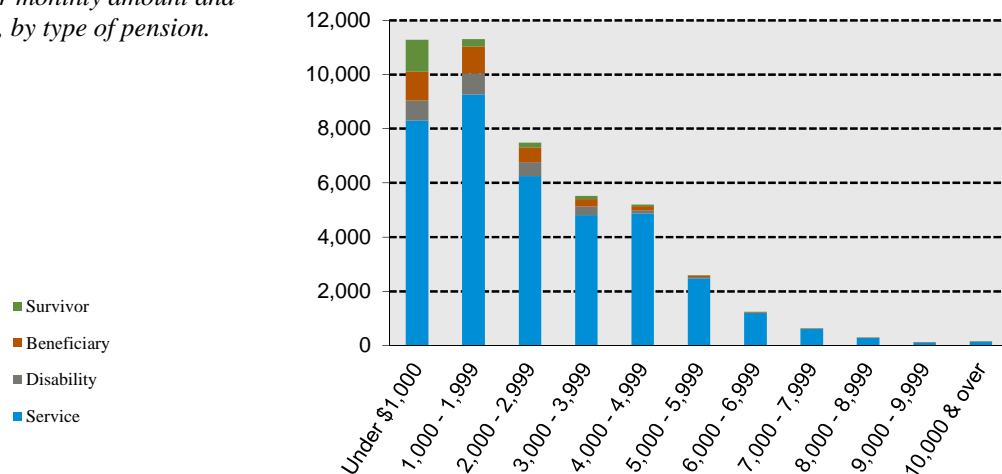
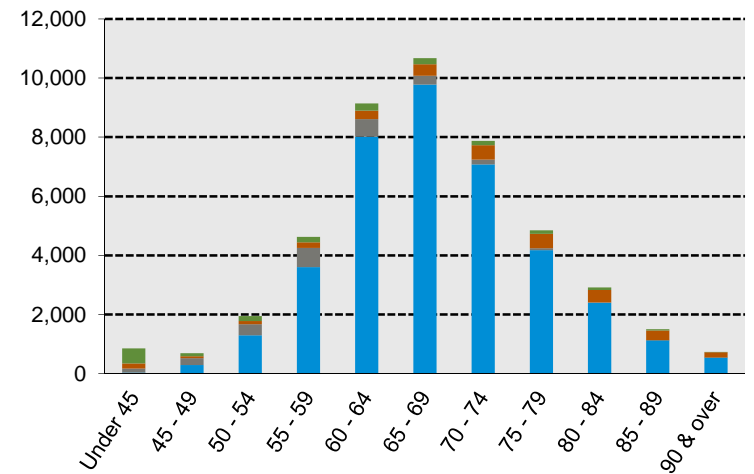


CHART 5
Distribution of Retired Regular Members and Beneficiaries by Type and by Age as of June 30, 2013



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: 2004 – 2013

Year Ended June 30	Active Members	Vested Terminated Members	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
2004	10,394	432	3,781	0.41
2005	10,771	506	4,021	0.42
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

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 11,845 active members with an average age of 40.6, average years of service of 11.3 years and average salary of \$72,637. The 11,793 active members in the prior valuation had an average age of 40.4, average service of 11.1 years and average salary of \$72,523.

Inactive Members

In this year's valuation, there were 730 members with a vested right to a deferred or immediate vested benefit versus 709 members in the prior valuation.

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

CHART 7
Distribution of Active Police/Fire Members by Age as of June 30, 2013

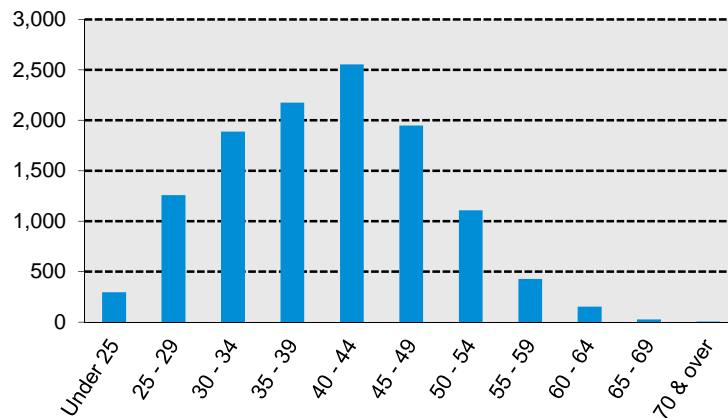
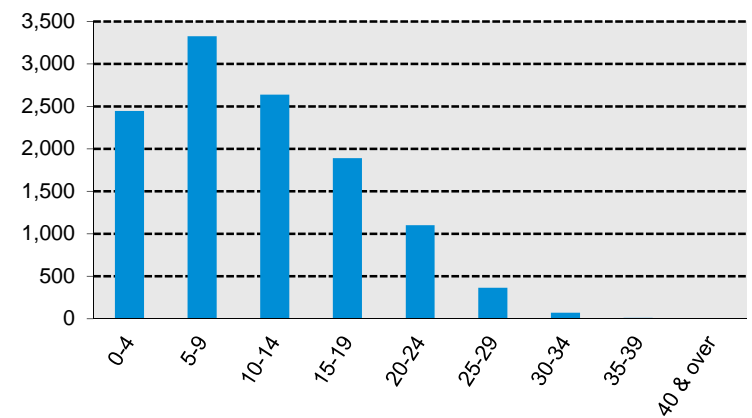


CHART 8
Distribution of Active Police/Fire Members by Years of Service as of June 30, 2013



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, 2013, 5,799 retired members and 835 beneficiaries and survivors were receiving total monthly benefits of \$28,550,994. Of these, 575 retired members and 4 beneficiaries and survivors were receiving annual benefits of at least \$100,000, which represents 8.7% of all retirees, beneficiaries and survivors. For comparison, in the previous valuation, there were 5,484 retired members and 804 beneficiaries and survivors receiving monthly benefits of \$26,149,935.

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, 2013

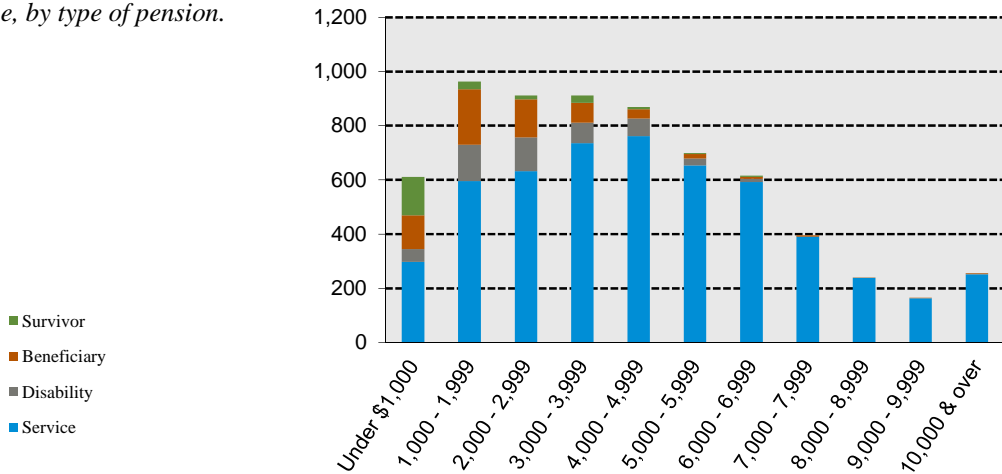
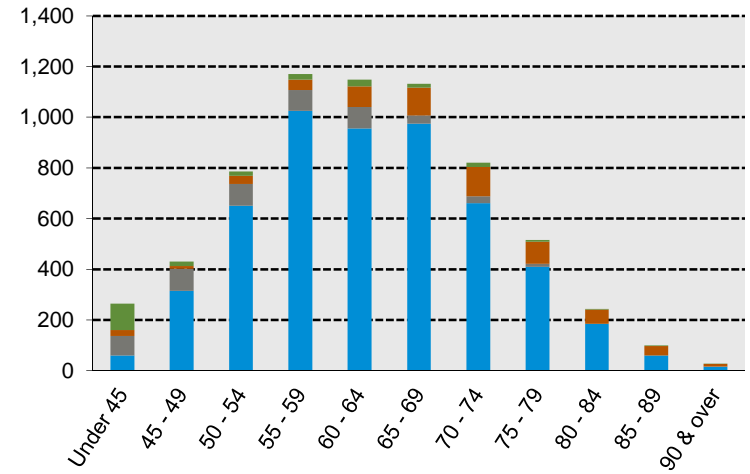


CHART 10

Distribution of Retired Police/Fire Members and Beneficiaries by Type and by Age as of June 30, 2013



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

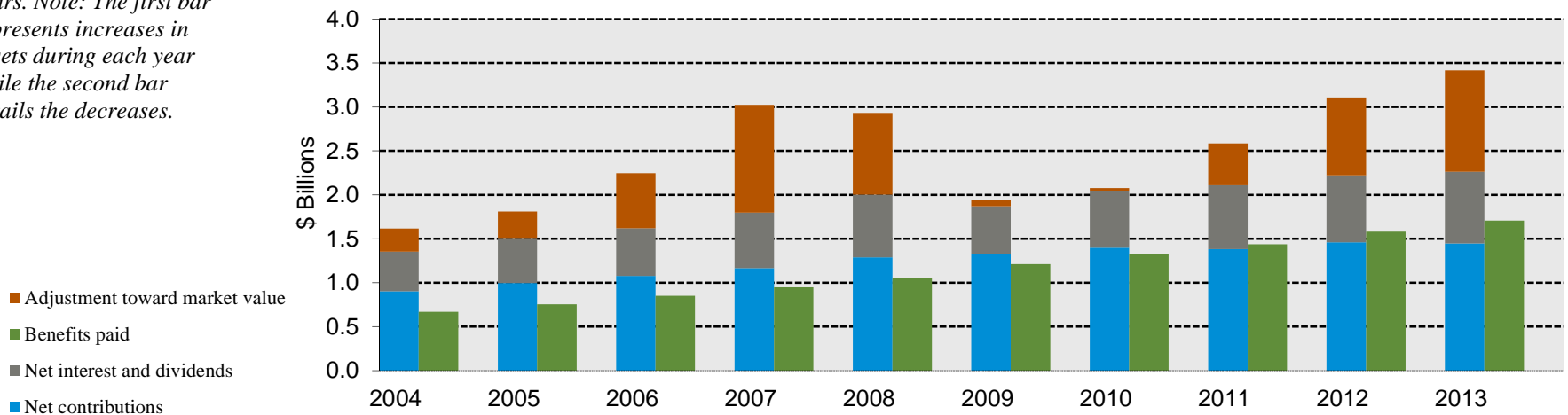
B. FINANCIAL INFORMATION

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, 2004 – 2013



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, 2013

	Regular		Police/Fire	
1. Market value of assets		\$22,610,714,221		\$6,223,938,820
2. Calculation of unrecognized return	<u>Original Amount⁽¹⁾</u>	<u>Unrecognized Return</u>	<u>Original Amount⁽¹⁾</u>	<u>Unrecognized Return</u>
(a) Year ended June 30, 2013 ⁽²⁾	\$795,397,787	\$636,318,230	\$219,573,607	\$175,658,886
(b) Year ended June 30, 2012 ⁽²⁾	(1,024,925,274)	(614,955,164)	(271,624,048)	(162,974,429)
(c) Combined net deferred loss ⁽³⁾	<u>(514,616,159)</u>	<u>(257,308,080)</u>	<u>(101,255,532)</u>	<u>(50,627,766)</u>
(d) Total unrecognized return ⁽⁴⁾	(\$744,143,646)	(\$235,945,014)	(\$153,305,973)	(\$37,943,309)
3. Preliminary actuarial value of assets: (1) - (2d)		\$22,846,659,235		\$6,261,882,129
4. Additional write up/(down) due to 70%/130% corridor:		\$0		\$0
5. Actuarial value of assets: (3) + (4)		<u>\$22,846,659,235</u>		<u>\$6,261,882,129</u>
6. Actuarial value as a percentage of market value: (5) ÷ (1) ⁽⁵⁾		101.04%		100.61%

⁽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, 2013 recognized in each of the next four years:	Regular	Police/Fire	Total
(a) Amount recognized during 2013/2014	(\$174,559,537)	(\$35,723,971)	(\$210,283,508)
(b) Amount recognized during 2014/2015	(174,559,537)	(35,723,971)	(210,283,508)
(c) Amount recognized during 2015/2016	(45,905,497)	(10,410,088)	(56,315,585)
(d) Amount recognized during 2016/2017	<u>159,079,557</u>	<u>43,914,721</u>	<u>202,994,278</u>
	(\$235,945,014)	(\$37,943,309)	(\$273,888,323)

⁽⁵⁾ Total actuarial value as a percentage of total market value is 100.95% for Regular and Police/Fire.

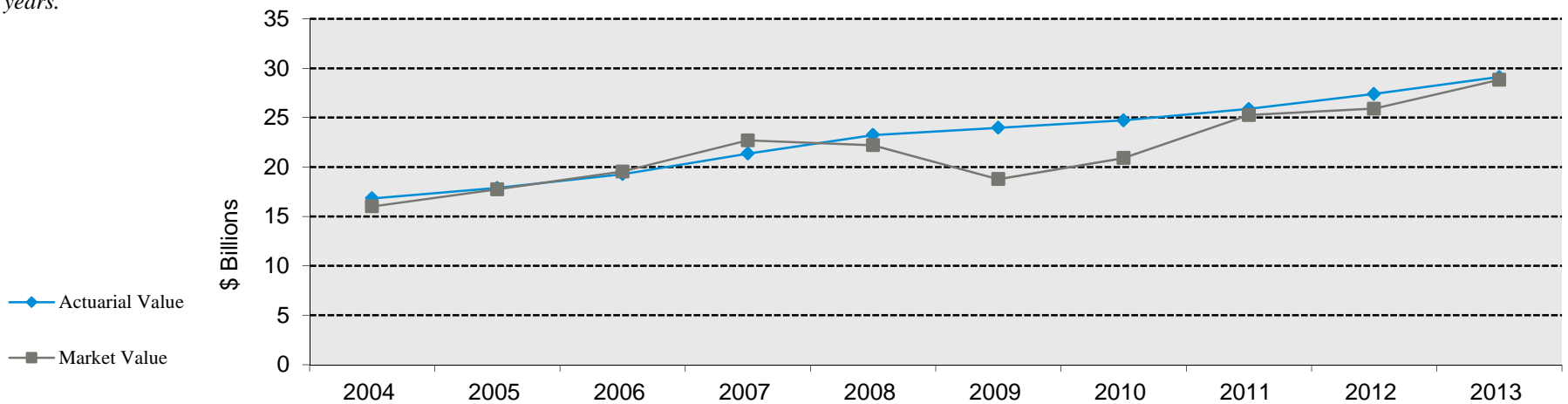
SECTION 2: Valuation Results for the Public Employees' Retirement System of Nevada

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, 2004 – 2013



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 \$294.0 million are shown below. The net experience gain from sources other than investments was 1.2% 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, 2013

	Regular	Police/Fire	Total
1. Net gain/(loss) from investments ⁽¹⁾	(\$174,559,538)	(\$35,723,972)	(\$210,283,510)
2. Net gain/(loss) from individual salary increases other than expected	411,022,880	149,736,077	560,758,957
3. Net gain/(loss) from other experience ⁽²⁾	<u>(24,443,956)</u>	<u>(32,006,809)</u>	<u>(56,450,765)</u>
4. Net experience gain/(loss): (1) + (2) + (3)	\$212,019,386	\$82,005,296	\$294,024,682

⁽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 2013 plan year were 7.19% for Regular and 7.39% for Police/Fire.

Since the actual return for the year was less than the assumed return, PERS experienced an actuarial loss during the year ended June 30, 2013 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, 2013

	Regular	Police/Fire	Total
1. Actual return	\$1,541,374,010	\$429,796,701	\$1,971,170,711
2. Average value of assets	21,449,169,348	5,819,008,407	27,268,177,755
3. Actual rate of return: (1) ÷ (2)	7.19%	7.39%	7.23%
4. Assumed rate of return	8.00%	8.00%	8.00%
5. Expected return: (2) x (4)	<u>1,715,933,548</u>	<u>465,520,673</u>	<u>2,181,454,221</u>
6. Actuarial gain/(loss): (1) – (5)	<u>(\$174,559,538)</u>	<u>(\$35,723,972)</u>	<u>(\$210,283,510)</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 nine years, including five-year and nine-year averages.

CHART 16
Investment Return – Actuarial Value vs. Market Value: 2005 – 2013

Year Ended June 30	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	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
2005	\$1,212,108,045	9.31%	\$655,199,509	4.78%	\$282,442,259	9.30%	\$158,174,277	4.97%	\$1,494,550,304	9.31%	\$813,373,786	4.82%
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	<u>2,511,331,333</u>	12.41%	<u>1,541,374,010</u>	7.19%	<u>685,094,279</u>	12.40%	<u>429,796,701</u>	7.39%	<u>3,196,425,612</u>	12.40%	<u>1,971,170,711</u>	7.23%
Total	\$9,669,736,805		\$9,232,567,849		\$2,484,356,989		\$2,375,290,393		\$12,154,093,794		\$11,607,858,242	
Five-year average return		6.06%		4.86%		6.31%		5.07%		6.11%		4.90%
Nine-year average return		6.42%		5.77%		6.52%		5.89%		6.44%		5.80%

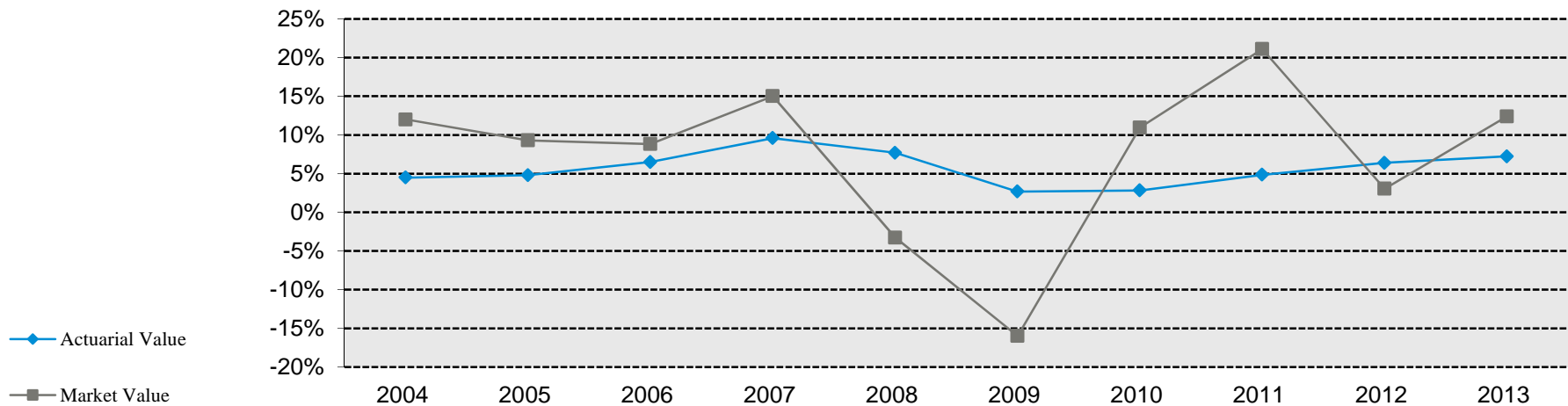
Note: Each year's yield is weighted by the average asset value in that year.

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 2004 - 2013.

CHART 17
Market and Actuarial Rates of Return for Years Ended June 30, 2004 - 2013



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, 2013 amounted to \$386.6 million for Regular and \$117.7 million for Police/Fire which are 1.22% and 1.34% of the actuarial accrued liability, respectively.

A brief summary of the demographic gain/(loss) experience of the PERS for the year ended June 30, 2013 is shown in the chart below.

CHART 18

Experience Due to Changes in Demographics for Year Ended June 30, 2013

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

	Regular	% of AAL	Police/Fire	% of AAL	Total	% of AAL
Age and Service Retirements	(\$120,492,961)	(0.38%)	(\$33,608,401)	(0.38%)	(\$154,101,362)	(0.38%)
Disability Retirements	(18,170,645)	(0.06%)	(2,603,862)	(0.03%)	(20,774,507)	(0.05%)
Pre and Post-Retirement Deaths	(63,759,118)	(0.20%)	(21,951,486)	(0.25%)	(85,710,604)	(0.21%)
Post-Retirement Benefit Increases (PRBIs)	171,714,179	0.54%	43,216,233	0.49%	214,930,412	0.53%
Withdrawal From Employment	42,508,309	0.13%	1,009,247	0.01%	43,517,556	0.11%
Individual Pay Increases	411,022,880	1.29%	149,736,077	1.71%	560,758,957	1.38%
Active New Entrants	(52,064,620)	(0.16%)	(7,857,921)	(0.09%)	(59,922,541)	(0.15%)
Active Rehires	(28,065,531)	(0.09%)	(7,817,765)	(0.09%)	(35,883,296)	(0.09%)
Inactive and Retiree Showups	(14,434,453)	(0.05%)	0	0.00%	(14,434,453)	(0.04%)
Data Adjustments for Options 6 & 7 Retirees	53,020,015	0.17%	6,432,846	0.07%	59,452,861	0.15%
Other	<u>5,300,869</u>	<u>0.03%</u>	<u>(8,825,700)</u>	<u>(0.10%)</u>	<u>(3,524,831)</u>	<u>(0.01%)</u>
Total Liability Experience Gain/(Loss) During Year	\$386,578,924	1.22%	\$117,729,268	1.34%	\$504,308,192	1.24%

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			
	2013		2012	
	Regular	Police/Fire	Regular	Police/Fire
Employer-Pay, current statutory rate*	25.75%	40.50%	23.75%	39.75%
Normal cost	16.75%	26.67%	16.36%	28.99%
Amortization percentage	11.01%	12.91%	9.21%	11.40%
Administrative expenses	<u>0.15%</u>	<u>0.15%</u>	<u>0.15%</u>	<u>0.15%</u>
Employer-Pay, total rate*	27.91%	39.73%	25.72%	40.54%
New statutory rounded rate	<u>N/A</u>	<u>N/A</u>	<u>25.75%</u>	<u>40.50%</u>
Employee/Employer Pay, current statutory rate**	26.50%	41.50%	24.50%	40.50%
Normal cost	17.70%	27.79%	17.37%	29.99%
Amortization percentage	11.01%	12.91%	9.21%	11.40%
Administrative expenses	<u>0.15%</u>	<u>0.15%</u>	<u>0.15%</u>	<u>0.15%</u>
Employee/Employer Pay, total rate**	28.86%	40.85%	26.73%	41.54%
New statutory rounded rate	<u>N/A</u>	<u>N/A</u>	<u>26.50%</u>	<u>41.50%</u>

* See cost-sharing mechanism in NRS 286.421

** 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, 2013 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, 2012 to June 30, 2013

	Regular	Estimated Annual Dollar Cost ⁽²⁾	Police/Fire	Estimated Annual Dollar Cost ⁽²⁾
Actuarially Determined Contribution Rate as of June 30, 2012	25.87%	\$1,198,410,548	40.62%	\$382,714,838
Effect of investment (gain)/loss	0.20%	9,153,582	0.18%	1,623,817
Effect of gains on individual salary experience	(0.47%)	(21,553,287)	(0.74%)	(6,806,185)
Effect on existing amortization of payroll growth less than expected	0.70%	27,741,042 ⁽³⁾	1.28%	8,593,356 ⁽³⁾
Effect of changes in normal cost	0.12%	(2,491,813) ⁽⁴⁾	1.03%	1,710,713
Effect of contributions less than expected	0.17%	7,772,463	0.18%	1,659,895
Effect of gain on Post Retirement Benefit Increases	(0.20%)	(9,004,377)	(0.21%)	(1,964,374)
Effect of other (gains)/losses ⁽⁵⁾	0.23%	10,259,526	0.36%	3,384,621
Effect of assumption changes	<u>1.45%</u>	<u>120,651,687</u>	<u>(2.87%)</u>	<u>(17,258,384)</u>
Total change	<u>2.20%</u>	<u>142,528,823</u>	<u>(0.79%)</u>	<u>(9,056,541)</u>
Actuarially Determined Contribution Rate as of June 30, 2013	28.07%	\$1,340,939,371	39.83%	\$373,658,297

⁽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 decrease in normal cost.

⁽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

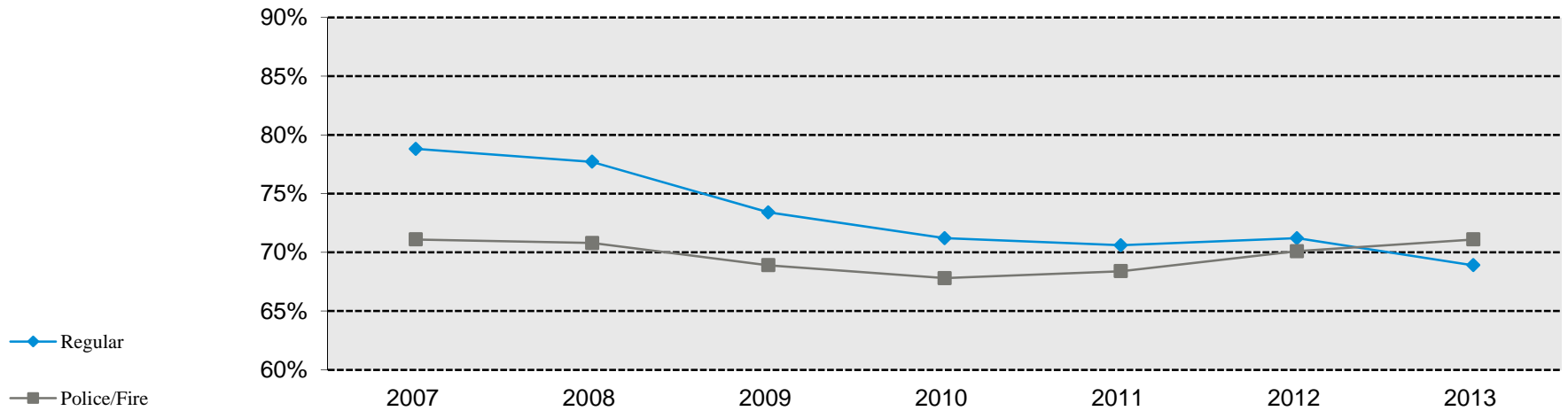
E. FUNDED RATIO

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.

High ratios indicate a well-funded plan with assets sufficient to cover the plan's liabilities. Lower ratios may indicate recent changes to benefit structures, 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.

CHART 21
Funded Ratios



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
	2013	2012	
Active members in valuation:			
Number	87,193	86,719	0.5%
Employer-Pay	70,522	70,971	-0.6%
Employee/Employer	16,671	15,748	5.9%
Average age	46.5	46.4	N/A
Average service	10.1	10.0	N/A
Total annual salary	\$4,239,824,030	\$4,232,547,428	0.2%
Average annual salary	\$48,626	\$48,808	-0.4%
Account balances	\$629,070,263	\$598,512,166	5.1%
Total active vested members	68,036	66,459	2.4%
Vested terminated members	13,009	12,253	6.2%
Retired members:			
Number in pay status	38,313	36,143	6.0%
Average age	68.7	68.5	N/A
Average monthly benefit	\$2,703	\$2,651	2.0%
Disabled members:			
Number in pay status	2,541	2,385	6.5%
Average age	59.2	59.2	N/A
Average monthly benefit	\$1,923	\$1,871	2.8%
Beneficiaries:			
Number in pay status	3,122	2,965	5.3%
Average age	71.2	71.1	N/A
Average monthly benefit	\$1,800	\$1,745	3.2%
Survivors:			
Number in pay status	1,820	1,765	3.1%
Average age	54.8	54.3	N/A
Average monthly benefit	\$1,253	\$1,214	3.2%

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
	2013	2012	
Active members in valuation:			
Number	11,845	11,793	0.4%
Employer-Pay	10,255	10,309	-0.5%
Employee/Employer	1,590	1,484	7.1%
Average age	40.6	40.4	N/A
Average service	11.3	11.1	N/A
Total annual salary	\$860,383,604	\$855,261,588	0.6%
Average annual salary	\$72,637	\$72,523	0.2%
Account balances	\$114,082,218	\$109,954,939	3.8%
Total active vested members	9,686	9,479	2.2%
Vested terminated members	730	709	3.0%
Retired members:			
Number in pay status	5,309	5,044	5.3%
Average age	63.5	63.4	N/A
Average monthly benefit	\$4,810	\$4,648	3.5%
Disabled members:			
Number in pay status	490	440	11.4%
Average age	55.0	55.3	N/A
Average monthly benefit	\$2,767	\$2,637	4.9%
Beneficiaries:			
Number in pay status	607	584	3.9%
Average age	69.0	68.7	N/A
Average monthly benefit	\$2,185	\$2,112	3.5%
Survivors:			
Number in pay status	228	220	3.6%
Average age	45.2	45.1	N/A
Average monthly benefit	\$1,461	\$1,412	3.5%

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
	2013	2012	
Active members in valuation:			
Number	99,038	98,512	0.5%
Employer-Pay	80,777	81,280	-0.6%
Employee/Employer	18,261	17,232	6.0%
Average age	45.8	45.7	N/A
Average service	10.3	10.1	N/A
Total annual salary	\$5,100,207,634	\$5,087,809,016	0.2%
Average annual salary	\$51,497	\$51,647	-0.3%
Account balances	\$743,152,481	\$708,467,055	4.9%
Total active vested members	77,722	75,938	2.3%
Vested terminated members			
	13,739	12,962	6.0%
Retired members:			
Number in pay status	43,622	41,187	5.9%
Average age	68.1	67.8	N/A
Average monthly benefit	\$2,959	\$2,895	2.2%
Disabled members:			
Number in pay status	3,031	2,825	7.3%
Average age	58.5	58.6	N/A
Average monthly benefit	\$2,059	\$1,990	3.5%
Beneficiaries:			
Number in pay status	3,729	3,549	5.1%
Average age	70.8	70.7	N/A
Average monthly benefit	\$1,863	\$1,805	3.2%
Survivors:			
Number in pay status	2,048	1,985	3.2%
Average age	53.7	52.3	N/A
Average monthly benefit	\$1,276	\$1,236	3.2%

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

EXHIBIT B

Members in Active Service as of June 30, 2013 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	1,928	1,879	48	1	--	--	--	--	--	--
	\$20,333	\$20,023	\$31,471	*	--	--	--	--	--	--
25 - 29	5,720	4,223	1,479	18	--	--	--	--	--	--
	32,892	30,572	39,349	\$46,531	--	--	--	--	--	--
30 - 34	8,931	3,726	4,521	660	24	--	--	--	--	--
	40,785	33,048	45,624	50,647	\$59,132	--	--	--	--	--
35 - 39	10,002	3,025	3,886	2,355	705	31	--	--	--	--
	46,567	32,211	48,585	56,782	61,990	\$67,713	--	--	--	--
40 - 44	12,475	2,956	3,852	2,670	2,312	628	57	--	--	--
	50,959	33,095	48,017	57,527	65,843	68,282	\$73,968	--	--	--
45 - 49	12,853	2,571	3,491	2,452	2,120	1,642	562	15	--	--
	52,709	32,639	46,250	56,589	65,013	69,009	73,019	\$77,485	--	--
50 - 54	12,832	2,219	3,349	2,487	2,107	1,503	995	170	2	--
	53,072	32,424	45,395	55,011	63,215	68,215	72,466	71,998	*	--
55 - 59	11,367	1,757	2,832	2,162	2,046	1,474	771	283	41	1
	53,668	32,165	46,616	55,379	62,578	64,556	71,588	72,851	\$65,367	*
60 - 64	7,418	1,132	2,003	1,371	1,264	972	483	142	42	9
	53,382	34,444	47,307	54,818	60,228	65,414	67,579	76,492	76,470	\$73,412
65 - 69	2,767	477	801	484	442	323	151	67	15	7
	50,967	33,261	45,492	53,111	60,667	61,291	63,876	69,945	85,655	112,615
70 & over	900	208	243	170	124	82	36	19	11	7
	45,786	32,674	38,628	51,434	53,991	60,989	59,464	53,928	71,429	90,476
Total	87,193	24,173	26,505	14,830	11,144	6,655	3,055	696	111	24
	\$48,626	\$31,405	\$46,249	\$55,735	\$63,357	\$66,770	\$71,024	\$72,689	\$73,238	\$90,989

* 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, 2013 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	295	285	10	--	--	--	--	--	--	--
	\$32,422	\$31,587	\$56,222	--	--	--	--	--	--	--
25 - 29	1,259	808	446	5	--	--	--	--	--	--
	50,684	43,100	64,199	\$70,717	--	--	--	--	--	--
30 - 34	1,889	567	1,101	207	14	--	--	--	--	--
	62,416	46,182	67,038	80,959	\$82,202	--	--	--	--	--
35 - 39	2,176	344	766	798	256	12	--	--	--	--
	72,408	45,778	66,669	82,838	90,853	\$115,172	--	--	--	--
40 - 44	2,554	218	513	882	730	205	6	--	--	--
	80,053	42,396	65,391	82,774	92,040	101,643	\$105,864	--	--	--
45 - 49	1,948	124	265	401	523	533	102	--	--	--
	85,220	44,772	61,535	79,642	90,804	101,649	103,376	--	--	--
50 - 54	1,108	55	147	223	226	256	169	31	1	--
	84,722	47,141	57,393	76,579	86,654	96,267	106,387	\$111,091	*	--
55 - 59	428	30	50	80	95	72	68	29	4	--
	79,439	36,045	55,888	70,780	83,197	89,405	98,623	103,628	*	--
60 - 64	153	11	23	33	36	16	18	10	5	1
	71,705	38,702	56,959	63,900	73,546	82,473	83,082	93,124	\$122,901	*
65 - 69	29	2	5	7	8	4	2	1	--	--
	65,828	*	53,317	63,908	59,630	*	*	*	--	--
70 & over	6	1	1	1	1	2	--	--	--	--
	54,484	*	*	*	*	*	--	--	--	--
Total	11,845	2,445	3,327	2,637	1,889	1,100	365	71	10	1
	\$72,637	\$42,871	\$65,164	\$80,973	\$89,878	\$99,216	\$103,030	\$105,035	\$113,817	*

* 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, 2013 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	2,223	2,164	58	1	--	--	--	--	--	--
	\$21,937	\$21,546	\$35,739	*	--	--	--	--	--	--
25 - 29	6,979	5,031	1,925	23	--	--	--	--	--	--
	36,101	32,584	45,107	\$51,789	--	--	--	--	--	--
30 - 34	10,820	4,293	5,622	867	38	--	--	--	--	--
	44,561	34,783	49,818	57,884	\$67,631	--	--	--	--	--
35 - 39	12,178	3,369	4,652	3,153	961	43	--	--	--	--
	51,184	33,596	51,563	63,376	69,679	\$80,958	--	--	--	--
40 - 44	15,029	3,174	4,365	3,552	3,042	833	63	--	--	--
	55,903	33,734	50,059	63,796	72,130	76,492	\$77,006	--	--	--
45 - 49	14,801	2,695	3,756	2,853	2,643	2,175	664	15	--	--
	56,988	33,197	47,328	59,829	70,117	77,008	77,683	\$77,485	--	--
50 - 54	13,940	2,274	3,496	2,710	2,333	1,759	1,164	201	3	--
	55,588	32,780	45,899	56,786	65,486	72,298	77,391	78,028	*	--
55 - 59	11,795	1,787	2,882	2,242	2,141	1,546	839	312	45	1
	54,603	32,230	46,777	55,929	63,493	65,713	73,779	75,712	\$68,649	*
60 - 64	7,571	1,143	2,026	1,404	1,300	988	501	152	47	10
	53,752	34,485	47,417	55,032	60,597	65,690	68,136	77,586	81,410	\$77,863
65 - 69	2,796	479	806	491	450	327	153	68	15	7
	51,122	33,362	45,540	53,265	60,649	61,401	64,643	70,051	85,655	112,615
70 & over	906	209	244	171	125	84	36	19	11	7
	45,843	32,766	38,753	51,544	54,183	60,226	59,464	53,928	71,429	90,476
Total	99,038	26,618	29,832	17,467	13,033	7,755	3,420	767	121	25
	\$51,497	\$32,459	\$48,358	\$59,545	\$67,201	\$71,372	\$74,440	\$75,683	\$76,592	\$92,067

* 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, 2012	98,512	12,962	41,187	2,825	5,534	161,020
New members	8,399	13	73	2	470	8,957
Terminations – with vested rights	-1,923	1,923	0	0	0	0
Terminations – without vested rights	-3,404	-70	N/A	N/A	N/A	-3,474
Retirements	-2,596	-626	3,254	-32	N/A	0
New disabilities	-304	-17	0	321	N/A	0
Return to work	438	-422	-9	-7	N/A	0
Died with or without beneficiary	-84	-24	-881	-78	-185	-1,252
Certain period expired	N/A	N/A	0	0	-42	-42
Data adjustments	<u>0</u>	<u>0</u>	<u>-2</u>	<u>0</u>	<u>0</u>	<u>-2</u>
Number as of June 30, 2013	99,038	13,739	43,622	3,031	5,777	165,207

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, 2013			Year Ended June 30, 2012
	Regular	Police/Fire	Total	Total
Net assets at actuarial value at the beginning of the year	\$21,593,053,471	\$5,805,931,385	\$27,398,984,856	\$25,871,139,710
Contribution income:				
Employer contributions*	\$977,662,728	\$332,420,131	\$1,310,082,859	\$1,332,320,660
Member contributions	84,525,905	14,705,030	99,230,935	98,183,663
Repayment and purchase of service	<u>32,728,218</u>	<u>13,739,410</u>	<u>46,467,628</u>	<u>37,993,705</u>
Net contribution income	\$1,094,916,851	\$360,864,571	\$1,455,781,422	\$1,468,498,028
Investment income:				
Interest	\$288,938,451	\$0	\$288,938,451	\$316,833,964
Dividends	437,653,885	0	437,653,885	356,299,207
Net appreciation	2,379,643,463	0	2,379,643,463	6,337,673
Other	93,940,400	0	93,940,400	91,642,326
Transfer of annual investment income	(684,773,386)	684,773,386	0	0
Securities lending income	(20,265,516)	0	(20,265,516)	(3,406,661)
Net change in FV of securities lending	41,426,019	0	41,426,019	27,400,421
Other income	2,199,003	320,893	2,519,896	2,096,330
Change in unrecognized return	(969,957,323)	(255,297,578)	(1,225,254,901)	883,271,533
Less investment fees	<u>(27,430,986)</u>	<u>0</u>	<u>(27,430,986)</u>	<u>(29,006,337)</u>
Net investment income	<u>\$1,541,374,010</u>	<u>\$429,796,701</u>	<u>\$1,971,170,711</u>	<u>\$1,651,468,456</u>
Total income available for benefits	\$2,636,290,861	\$790,661,272	\$3,426,952,133	\$3,119,966,484
Less operating expenses:				
Retirement and survivor benefits	(\$1,283,626,454)	(\$310,494,136)	(\$1,594,120,590)	(\$1,473,899,384)
Disability benefits	(69,348,022)	(17,327,512)	(86,675,534)	(78,760,256)
Post-retirement increases	(17,122)	(963)	(18,085)	(22,919)
Refunds to members	(18,975,604)	(7,150,457)	(26,126,061)	(27,775,442)
Administrative expenses	(8,413,998)	(1,146,242)	(9,560,240)	(10,002,855)
Transfer to JRS	<u>(895,115)</u>	<u>(0)</u>	<u>(895,115)</u>	<u>(1,660,482)</u>
Net operating expenses	(\$1,381,276,315)	(\$336,119,310)	(\$1,717,395,625)	(\$1,592,121,338)
Interfund transfer	(\$1,408,782)	\$1,408,782	\$0	\$0
Change in reserve for future benefits	\$1,253,605,764	\$455,950,744	\$1,709,556,508	\$1,527,845,146
Net assets at actuarial value at the end of the year	\$22,846,659,235	\$6,261,882,129	\$29,108,541,364	\$27,398,984,856

* 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, 2013	Year Ended June 30, 2012
Cash equivalents	\$689,553,439	\$593,183,878
Accounts receivable:		
Contributions receivable	\$107,130,930	\$123,181,413
Pending trades receivable	144,328,901	100,598,488
Accrued investment income	<u>100,462,848</u>	<u>98,588,329</u>
Total accounts receivable	351,922,679	322,368,230
Investments:		
Fixed income securities	\$6,424,979,583	\$7,124,834,495
Marketable equity securities	12,159,852,276	10,150,693,754
International securities	7,550,034,097	5,994,185,142
Real estate	1,265,383,156	1,274,776,786
Private equity	<u>907,783,472</u>	<u>823,381,966</u>
Total investments at market value	28,308,032,584	25,367,872,143
Collateral on loaned securities	4,867,492,944	4,282,354,105
Property and equipment	3,779,204	3,535,572
Other assets	<u>2,060,547</u>	<u>1,943,229</u>
Total assets	\$34,222,841,397	\$30,571,257,157
Liabilities:		
Accounts payable	(\$12,459,146)	(\$12,446,986)
Pending trades payable	(508,795,227)	(334,629,454)
Obligations under securities lending activities	<u>(4,866,933,983)</u>	<u>(4,324,339,085)</u>
Total liabilities	(\$5,388,188,356)	(\$4,671,415,525)
Net assets at market value	<u>\$28,834,653,041</u>	<u>\$25,899,841,632</u>
Net assets at actuarial value	<u>\$29,108,541,364</u>	<u>\$27,398,984,856</u>

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

EXHIBIT F

Development of the Fund Through June 30, 2013

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

* *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, 2013

	Regular	Police/Fire	Total
1. Unfunded actuarial accrued liability at beginning of year	\$8,729,392,711	\$2,476,495,187	\$11,205,887,898
2. Normal cost at beginning of year	764,821,209	273,894,969	1,038,716,178
3. Actual total contributions	(1,094,916,851)	(360,864,571)	(1,455,781,422)
4. Interest			
(a) For whole year on (1) + (2)	\$759,537,114	\$220,031,213	\$979,568,327
(b) For a half year on (3)	<u>(43,796,674)</u>	<u>(14,434,583)</u>	<u>(58,231,257)</u>
(c) Total interest	<u>715,740,440</u>	<u>205,596,630</u>	<u>921,337,070</u>
5. Expected unfunded actuarial accrued liability	\$9,115,037,509	\$2,595,122,215	\$11,710,159,724
6. Changes due to:*			
(a) Investment loss	\$174,559,538	\$35,723,972	\$210,283,510
(b) Individual Salary increases lower than expected	(411,022,880)	(149,736,077)	(560,758,957)
(c) Other experience	24,443,956	32,006,809	56,450,765
(d) Assumption changes	<u>1,428,889,371</u>	<u>30,915,767</u>	<u>1,459,805,138</u>
(e) Total changes	<u>\$1,216,869,985</u>	<u>(\$51,089,529)</u>	<u>\$1,165,780,456</u>
7. Unfunded actuarial accrued liability at end of year	<u>\$10,331,907,494</u>	<u>\$2,544,032,686</u>	<u>\$12,875,940,180</u>

* Does not include contribution losses of \$148,221,474 for Regular and \$36,517,698 for Police/Fire during the year from actual contributions less than expected, due to payroll growth lower than assumed.

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*	Years Remaining	Outstanding Balance
Regular					
06/30/2004	30	\$3,306,492,730	\$236,205,680	21	\$4,328,371,536
06/30/2005	30	825,676,847	55,383,865	22	1,056,174,682
06/30/2006	30	376,199,046	23,694,156	23	469,267,888
06/30/2007	30	(325,346,914)	(19,240,690)	24	(395,014,131)
06/30/2008	30	597,061,087	33,154,547	25	704,368,464
06/30/2009	30	1,396,781,607	72,828,813	26	1,598,587,631
06/30/2010	30	804,325,423	39,378,295	27	891,724,401
06/30/2011	30	322,201,646	14,811,644	28	345,563,930
06/30/2012	23	(31,427,931)	(1,689,996)	22	(32,228,366)
06/30/2013	22	1,365,091,459	<u>71,582,895</u>	22	<u>1,365,091,459</u>
Subtotal			\$526,109,209	22.8**	\$10,331,907,494
Police/Fire					
06/30/2004	30	1,248,577,900	\$87,114,343	21	\$1,747,139,099
06/30/2005	30	166,690,723	10,793,259	22	226,257,457
06/30/2006	30	145,811,902	8,761,944	23	191,586,914
06/30/2007	30	(52,497,545)	(2,927,602)	24	(66,645,604)
06/30/2008	30	130,126,655	6,734,482	25	159,332,290
06/30/2009	30	204,577,462	9,825,614	26	241,215,327
06/30/2010	30	144,950,584	6,460,783	27	164,336,391
06/30/2011	30	585,886	24,235	28	637,818
06/30/2012	23	(101,888,427)	(5,021,034)	22	(105,255,175)
06/30/2013	22	(14,571,831)	<u>(695,127)</u>	22	<u>(14,571,831)</u>
Subtotal			\$121,070,897	22.1**	<u>\$2,544,032,686</u>
Grand Total					\$12,875,940,180

* 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.

** Effective average amortization period. Combined Regular and Police/Fire average amortization period is 22.6.

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 beneficiaries in pay status)	52,430
2. Members inactive during year ended June 30, 2013 with vested rights	13,739
3. Members active during the year ended June 30, 2013	99,038

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

1. Normal cost*	\$1,058,737,857
2. Actuarial accrued liability	41,984,481,544
Retired members and beneficiaries	\$22,248,952,918
Inactive members with vested rights	883,173,307
Active members	<u>18,852,355,319</u>
3. Actuarial value of assets (\$28,834,653,041 at market value as reported by Retirement Office)	<u>29,108,541,364</u>
4. Unfunded actuarial accrued liability (2. – 3.)	\$12,875,940,180
5. Total rate payroll	\$5,715,259,174

* 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

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.

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

Termination Rates before Retirement:

Age	Rate (%) 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.

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

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.

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

Termination Rates before Retirement (continued):

Age	Disability Rates	
	Regular	Police/Fire
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.

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

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

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

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:

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.

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.

75% of "employer-pay" Police/Fire male members and 60% of "employer-pay" Police/Fire female members are assumed to be married at retirement.

Age of Spouse:

Females 3 years younger than males. Spouses are assumed to be of the opposite sex of the member.

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

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.

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.

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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 51 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.

Dependent Children: The assumption for dependent children in the actuarial valuation is one dependent child who is 28 years younger than the member.

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

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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.

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.

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Changes in Actuarial Assumptions: Based on the June 30, 2012 Actuarial Experience Study, the following assumptions were changed. Previously, these assumptions were as follows:

Mortality Rates:

Healthy: *Regular:* RP-2000 Combined Healthy Mortality Table, set forward one year for females (no age set forward for males).
 Police/Fire: RP-2000 Combined Healthy Mortality Table, set forward one year.

Disabled: *Regular:* RP-2000 Disabled Retiree Mortality Table, set back three years for males and set forward eight years for females.
 Police/Fire: For males, RP-2000 Combined Healthy Mortality Table, set forward ten years.
 For females, RP-2000 Disabled Retiree Mortality Table, set forward eight years.

Termination Rates before Retirement:

Age	Rate (%)					
	Regular Mortality		Police/Fire Mortality		Disability	
	Male	Female	Male	Female	Regular	Police/Fire
20	0.03	0.02	0.04	0.02	0.01	0.05
25	0.04	0.02	0.04	0.02	0.01	0.05
30	0.04	0.03	0.05	0.03	0.05	0.05
35	0.08	0.05	0.08	0.05	0.08	0.08
40	0.11	0.08	0.11	0.08	0.14	0.26
45	0.15	0.12	0.16	0.12	0.26	0.47
50	0.21	0.19	0.24	0.19	0.43	0.61
55	0.36	0.31	0.42	0.31	0.61	0.60
60	0.67	0.58	0.77	0.58	0.50	0.60

*Any mortality that occurs during the first two years of employment is assumed to be non-duty related.
 No disability rates are assumed after age 65.*

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Changes in Actuarial Assumptions (continued):

Termination Rates before Retirement (continued):

Withdrawal Rates		
Years of Service	Regular	Police/Fire
0	18.25%	13.00%
1	13.00	6.50
2	9.80	5.50
3	7.75	4.00
4	6.50	3.90
5	6.00	3.75
6	5.00	2.00
7	4.65	2.00
8	3.90	2.00
9	3.70	2.00
10	3.30	2.00
11 or more	2.00	2.00

No withdrawal is assumed after a member is first assumed to retire.

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Changes in Actuarial Assumptions (continued):

Retirement Rates:

Age	<u>Regular</u>			
	Years of Service			
	5 – 19	20 – 24	25 – 29	30 or more
45 – 49	--	1%	8%	--
50 – 54	2	2	10	25%
55 – 59	4	7	15	30
60 – 61	13	20	25	30
62 – 64	15	20	25	30
65 – 69	22	25	30	30
70 & over	100	100	100	100

Age	<u>Police/Fire</u>				
	Years of Service				
	5 – 9	10 – 19	20 – 24	25 – 29	30 or more
40 – 44	--	1%	1%	--	--
45 – 49	--	1	3	15%	15%
50 – 54	1%	5	12	15	25
55 – 59	5	12	20	25	35
60 – 64	10	20	25	25	35
65 & over	100	100	100	100	100

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Changes in Actuarial Assumptions (continued):

Percent Married:

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.

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, 2007 have been valued assuming no surviving spouse, pending the results of an analysis and verification of spousal information. The assumed probability of marriage at retirement for future “employer-pay” Police/Fire retirees are shown below for selected ages:

Age	Male	Female
20	33.0%	37.1%
25	58.9%	65.2%
30	65.3%	61.8%
35	71.3%	63.6%
40	71.4%	63.1%
45	73.3%	61.0%
50	75.7%	64.0%
55	77.0%	57.6%
60	74.0%	49.5%

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Changes in Actuarial Assumptions (continued):

Salary Increases:

Years of Service	Regular	Police/Fire
1	9.75%	14.75%
2	8.25%	10.75%
3	7.75%	10.20%
4	7.50%	9.80%
5	7.25%	9.40%
6	7.00%	9.00%
7	6.75%	8.25%
8	6.25%	7.75%
9	5.75%	7.25%
10	5.50%	6.50%
11	5.10%	6.50%
12	4.90%	6.50%
13 or more	4.50%	6.50%

Assumed payroll growth rates are used to compute the unfunded actuarial accrued liability amortization payments as a level percentage of projected payroll. The payroll for the coming year is based on actual contributions for the prior year with increases of 3.00% for Regular and 5.00% for Police/Fire. For the purpose of calculating the actuarially determined contribution rate, the total payroll growth assumptions for future years are 6.50% per year for Regular and 8.00% per year for Police/Fire.

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**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:

Requirement for Regular Members

Age 65 with five years of service, or age 62 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 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.

Benefit

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:

Requirement

Any age with five years of service.

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

Benefit

Accrued retirement benefit reduced 4% per year for each year that the member is under the age required for service retirement.

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

Benefit

Accrued retirement benefit reduced 6% per year for each year that the member is under the age required for service retirement.

Disability:

Requirement

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.

Benefit

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, 2007 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, 2013 through June 30, 2015, statutory contribution rates as a percentage of compensation are as follows:

	Regular	Police/Fire
Employer-Pay	25.75%	40.50%
Employee/Employer	13.25%/13.25%	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:

There were no changes in the plan provisions since the prior valuation.

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