SOUTH DAKOTA RETIREMENT SYSTEM

ACTUARIAL VALUATION
AS OF JUNE 30, 2013

Submitted By:
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SOUTH DAKOTA RETIREMENT SYSTEM
2013 ACTUARIAL VALUATION

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November 5, 2013

Board of Trustees
South Dakota Retirement System
Post Office Box 1098
Pierre, SD 57501-1098

This report summarizes the results of Buck Consultants, LLC's annual Actuarial Valuation of the South Dakota Retirement System (SDRS) as of June 30, 2013. Actuarial valuations of SDRS are performed annually.

This Actuarial Valuation is based on financial and Member data provided by SDRS and summarized in this report. The actuary did not verify the data submitted, but did perform tests for consistency and reasonableness.

All Members of Participating Units of SDRS and all benefits in effect on July 1, 2013 have been considered in this Actuarial Valuation. SDRS benefit provisions considered, Member data, and Trust Fund information are summarized in the Appendices in this report.

The assumptions and methods used to determine the Annual Required Contributions of the Employers to SDRS as outlined in this report and all supporting schedules meet the parameters and requirements for disclosure of Governmental Accounting Standards Board (GASB) Statement No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans. Buck Consultants, LLC is solely responsible for the actuarial data presented in this report.

SDRS is funded by Employer and Member Contribution Rates as established by South Dakota law. The funding objective for SDRS is that these statutory rates continue to be sufficient to fund the System benefits as a level as a percent of Member Compensation. The SDRS Board of Trustees has also established funding policy objectives that the System be fully funded, resulting in no Unfunded Actuarial Accrued Liability and that the statutorily required contributions meet or exceed the amount required to pay the Normal Costs of SDRS, System Expenses, and amortize the Unfunded Actuarial Accrued Liability as a level percent of Member Compensation over a period not to exceed 20 years if the System is not fully funded.

As noted below, the fully funded objectives are currently being met and are projected to continue to be met.

Our calculations and analysis indicate that the System is meeting its funding objectives and is in actuarial balance. The combined statutory Employer/Member Contributions exceed the amount required to pay the current Normal Costs and Expenses of the System. As of June 30, 2013, the Unfunded Actuarial Accrued Liability is $0. The contractual Employer Contribution Rates to SDRS meet the requirements of the Annual Required Contributions of the Employers of GASB Statement No. 25.

The SDRS Board of Trustees measures and compares the funding progress of SDRS on several bases. The Actuarial Value Funded Ratio is 100.0% and the Market Value Funded Ratio is 103.2% as of June 30, 2013.

Based on Member data and asset information provided by SDRS, we have prepared the Schedule of Funding Progress and Schedule of Employer Contributions in accordance with GASB No. 25 parameters that are included in the Financial section of the CAFR.

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The undersigned are Enrolled Actuaries, Associates of the Society of Actuaries and Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all Applicable Standards of Practice. We are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate.

Future actuarial measurements may differ significantly from current measurements presented in this report due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. Due to the limited scope of this report, an analysis of the potential range of such future measurements has not been performed.

SDRS is meeting its actuarial funding policy.

Respectfully submitted,

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EXECUTIVE SUMMARY

Overview

The South Dakota Retirement System (SDRS) provides pension and ancillary benefit payments to the terminated and retired employees of the participating public employers of the State of South Dakota. A Board of Trustees comprised of employer, employee, and appointed representatives is responsible for administering SDRS. The South Dakota Investment Council is responsible for making investment decisions regarding SDRS assets. This report presents the results of the actuarial valuation of SDRS benefits as of the valuation date of June 30, 2013.

Purpose

An actuarial valuation is performed on SDRS annually as of the end of the system's fiscal year. The main purposes of the actuarial valuation as detailed in this report are:

1. To determine if the Board's funding policy for SDRS is being met considering current assets and the current statutory employer and member contribution rates;
2. To disclose the funding assets and liability measures as of the valuation date;
3. To disclose the accounting measures for SDRS required by GASB No. 25 as of the end of the fiscal year;
4. To review the current funded status of SDRS;
5. To compare actual and expected experience under SDRS during the last fiscal year;
6. To report trends in contributions, assets, liabilities, and funded status over the last several years.

The actuarial valuation provides a "snapshot" of the funded position of SDRS based on the statutory plan provisions, membership, assets, and actuarial assumptions as of the valuation date.

This Actuarial Valuation is the twenty-eighth Actuarial Valuation of SDRS since consolidation in 1974. Effective with the Actuarial Valuation as of June 30, 1997, annual, rather than biennial, Actuarial Valuations of SDRS are completed.

SDRS Benefit Changes

There were no benefit improvements or substantive changes made during the 2013 South Dakota Legislative session. As a result, the SDRS benefit provisions remain unchanged from the 2012 Actuarial Valuation.

SDRS Actuarial Assumptions

There were no changes in the actuarial assumptions since the 2012 Actuarial Valuation.

SDRS Actuarial Methods and Funding Objectives

There was one change in actuarial methods since the 2012 Actuarial Valuation. The SDRS Board of Trustees approved a change in the Actuarial Value of Assets. A transfer of $634 million was made as of June 30, 2013 from the Cushion to the Actuarial Value of Assets in order to eliminate the Frozen Unfunded Actuarial Accrued Liability. The SDRS Board of Trustees also revised its Funding Policy objectives. The revised objectives include an Actuarial Value Funded Ratio of 100% and a Market Value Funded Ratio of at least 100%. With the transfer to the Actuarial Value of Assets from the Cushion (and adjustment to the Reserve), SDRS meets these objectives. As a result, statutorily required Employer and Member Contributions meet all actuarially required contributions and will contribute to the Cushion and Reserve in future years.

Key SDRS Actuarial Measures

The key actuarial measures determined by the current and prior Actuarial Valuations are as follows:

	June 30, 2012 Actuarial Valuation	June 30, 2013 Actuarial Valuation
Funding Period	29 years	N/A
Frozen Unfunded Actuarial Accrued Liability	$ 625,238,504	$ 0
Market Value of Assets	$ 7,842,524,241	$ 9,085,706,708
Actuarial Value of Assets	$ 7,827,601,564	$ 8,803,761,326
Actuarial Accrued Liability	$ 8,452,840,068	$ 8,803,761,326
Actuarial Value Funded Ratio	92.6%	100.0%
Market Value Funded Ratio	92.8%	103.2%
Reserve for Funding of Long-Term Benefit Goals	$ (981,549,491)	$ (1,106,063,511)
Cumulative Gains to be Allocated to the Reserve in Future Years	$ 911,578,577	$ 1,303,115,302

Analysis of Experience for Year Ended June 30, 2013

SDRS asset and liability gains and losses are generally allocated to the Reserve for Funding of Long-Term Benefit Goals. As a result, the key actuarial measures (with the exception of the Market Value of Assets and the Reserve for Funding of Long-Term Benefit Goals) reflect the expected experience and remain stable from year to year in the absence of extraordinary losses such as those experienced in 2009. Experience variations are reflected in the Reserve for Funding of Long-Term Benefit Goals, which reflects Actuarial Investment Losses immediately but reflects Actuarial Investment Gains over five years. As a result, the Reserve for Funding of Long-Term Benefit Goals will vary significantly from year to year and may have a substantial negative balance even when the cumulative experience is positive and a Cushion exists. This is largely due to the Investment Gains not yet recognized. This condition currently exists.

Analysis of Experience for Year Ended June 30, 2013 (continued)

For the year ended June 30, 2013, Actuarial Investment Gains of $908 million, of which $182 million is recognized this year, Net Liability losses of $7 million due to System liability experience of which $1 million is recognized this year, and recognition of $330 million of prior gains combined to increase the Reserve for Funding of Long-Term Benefit Goals by $510 million. The change to the Actuarial Value of Assets and Cushion of $634 million to eliminate the Frozen Unfunded Actuarial Accrued Liability further reduced the Reserve, resulting in a balance of ($1,106 million) in the Reserve for Funding Long-Term Benefit Goals. As of June 30, 2013, SDRS has accumulated net gains of $1,303 million that will be allocated to the Reserve over the next four years.

As a result, the Frozen Unfunded Actuarial Accrued Liability is $0 and the Actuarial Value Funded Ratio is 100% in accordance with the Board of Trustees' Funding Objectives.

Section 1

Actuarial Funding Results

2013 Actuarial Funding Results

Summary of Key Actuarial Measures

	2012 Actuarial Valuation Results	System Investment and Liability Experience for Year[1]	Membership Changes and Maturity of System[2]	Actuarial Method Changes Effective July 1, 2013	2013 Actuarial Valuation Results
Normal Cost Rate with Expense Provision	10.279%	--	(0.075)%	--	10.204%
Funding Period	29 Years	--	--	(29) Years	N/A
Frozen Unfunded Actuarial Accrued Liability	$625 million	–	$9 million	$(634 million)	$0
Actuarial Accrued Liability Funded Ratio	92.6%	0.2%	--	7.2%	100.0%

1 SDRS Actuarial Investment Gains and liability gains and losses are smoothed and allocated directly to the Reserve for Funding of Long-Term Benefit Goals over five years. All SDRS Actuarial Investment Losses are allocated immediately to the Reserve.

2 Future SDRS membership changes will cause minor changes in the Normal Cost Rate.

Comparison of Results of Actuarial Valuations for 2012 and 2013

Results of Actuarial Valuation	2012 Actuarial Valuation	2013 Actuarial Valuation	% Change
Normal Cost Rate at Mid-Period:			
Without Expense Provision	10.029%	9.954%	(0.7)
With Expense Provision	10.279%	10.204%	(0.7)
Frozen Unfunded Actuarial Accrued Liability	$ 625,238,504	$ 0	(100.0)
Market Value of Assets	$ 7,842,524,241	$ 9,085,706,708	15.9
Actuarial Value of Assets	$ 7,827,601,564	$ 8,803,761,326	12.5
Actuarial Accrued Liability	$ 8,452,840,068	$ 8,803,761,326	4.2
Funded Ratio:			
Actuarial Value Funded Ratio	92.6%	100.0%	8.0
Market Value Funded Ratio	92.8%	103.2%	11.2
Projected Years to Fund Frozen Unfunded Actuarial Accrued Liability	29	N/A	

SDRS Actuarial Funding Requirements and Fully Funded Status

Funding Requirements and Fully Funded Status

Exhibits 1-4 illustrate the funding requirements of SDRS as of June 30, 2013 and the adequacy of the statutorily required combined Employer and Member Contribution Rate to SDRS to fund the past and future obligations of the System. The summary of SDRS Market Value of Assets, the Development of the Reserve for Funding of Long-Term Benefit Goals, and the Development of the SDRS Actuarial Value of Assets as of June 30, 2013, are illustrated in Section 2 of this report.

The results of the 2013 Actuarial Valuation of SDRS indicate that:

- The System expects to pay future total benefits to all current SDRS active and retired Members with a present value of $10.050 billion (Section 1.5).
- The Frozen Unfunded Actuarial Accrued Liability is $0 (Section 1.6).
- SDRS has accumulated assets to date on an Actuarial Value basis of $8.804 billion (Section 2.3).
- A portion of future Employer and Member Contributions for current active Members will be required to pay future Normal Costs with a present value of $1,246 million (Section 1.7). The balance of future Employer and Member Contributions is available to pay System expenses and increase the Cushion and Reserve for Funding of Long-Term Benefit Goals.

As summarized in Section 1.8, SDRS is funded by statutorily required Employer and Member Contributions that total 12.478% of considered compensation. After paying the Normal Costs and Expenses of the System of 10.204% of considered compensation, a contribution of 2.274% of considered compensation is available to fund the Frozen Unfunded Actuarial Accrued Liability, or, when the Frozen Unfunded Actuarial Accrued Liability is $0, to increase the Cushion and Reserve for Funding of Long-Term Benefit Goals. The 2013 Actuarial Valuation of SDRS confirms that this rate of contribution will pay the Normal Costs and Expenses of the System and provide 2.274% of considered compensation to increase the Cushion and Reserve for Funding of Long-Term Benefit Goals.

SDRS is a well-funded retirement system with no Unfunded Actuarial Accrued Liabilities. The volatility resulting from asset and liability gains and losses has been minimized by the methods adopted for development of the Actuarial Value of Assets.

Funded Ratio

The SDRS Actuarial Value Funded Ratio is determined in accordance with the requirements of the Governmental Accounting Standards Board Statement No. 25 as described in Section 3.1.

The SDRS Actuarial Value Funded Ratio as of June 30, 2013 is equal to 100.0% as determined below.

Actuarial Value of Assets (Section 2.3)	$8,803,761,326
Actuarial Accrued Liability (Actuarial Value of Assets Plus Frozen Unfunded Actuarial Accrued Liability (Section 1.5))	$8,803,761,326
Actuarial Value Funded Ratio ($8,803,761,326 ÷ $8,803,761,326)	100.0%

The Actuarial Value Funded Ratio increased from 92.6% as of the 2012 Actuarial Valuation to 100.0% for the current year. A history of the SDRS Actuarial Value Funded Ratios is shown in Section 1.11.

Actuarial Soundness

The conclusions reached in the determination of the funding requirements of SDRS based on the Actuarial Valuation of the System are the most important indicators of the long-term actuarial soundness of SDRS. The soundness is measured by the relationship of the Normal Cost to the total contributions available, the length of the Funding Period if an Unfunded Liability exists (a shorter period being more favorable), the excess of the Market Value of Assets over the Actuarial Value of Assets (the Cushion), the current balance in the Reserve for Funding of Long-Term Benefit Goals and the net amounts remaining to be allocated in the future. SDRS is actuarially sound when the Funding Policy adopted by the SDRS Board designed to meet all future benefit obligations is met and the current and future contributions are made in accordance with the statutory requirements.

The management of the current SDRS benefit structure and the present and past financing together with System experience have allowed for the elimination of the Frozen Unfunded Actuarial Accrued Liability. The result is a well-funded System with no Unfunded Actuarial Accrued Liabilities that is funding benefits within the resources available and annually accumulating funds to increase the Cushion and Reserve.

Investment performance for the year ended June 30, 2013 created a gain, allowing a transfer from the Cushion to the Actuarial Value of Assets which eliminated the Frozen Unfunded Actuarial Accrued Liability, resulting in a Cushion of $282 million. A balance of negative $1,106 million in the Reserve for Funding of Long-Term Benefit Goals as of June 30, 2013 will be positively impacted by net gains of $1,303 million that will be allocated to the Reserve over the next four years.

Since 1995, the SDRS cumulative experience has resulted in:

- Actuarial Investment Gains/(Losses) of $1,690 million of which $437 million have been allocated to the Reserve and $1,253 million will be allocated over the next four years.
- Liability Gains/(Losses), changes in actuarial assumptions, and changes in System provisions that affect anticipated costs of $(43) million of which $(92) million have been allocated to the Reserve and $49 million will be allocated over the next four years.
- A total allocation to the Reserve to date of $345 million due to investment and liability gains and losses.
- $1,155 million of benefit improvements funded from the Reserve in prior years.
- Corrective Actions of $416 million credited to the Reserve.
- A transfer from the Cushion to the Actuarial Value of Assets of $77 million to reach 29-year funding as of June 30, 2012, which reduced the Reserve.
- A transfer from the Cushion to the Actuarial Value of Assets of $634 million to eliminate the Unfunded Actuarial Accrued Liability as of June 30, 2013, which also reduced the Reserve.
- A Cushion of $282 million as of June 30, 2013.
- A balance in the Reserve as of June 30, 2013 of ($1,106 million).
- $1,303 million remaining to be allocated to the Reserve in the next four years.

Actuarial Soundness

Note that future events such as adverse investment returns, continuing increase in life expectancies or other demographic losses may adversely impact the future funded status of SDRS.

SDRS is a consolidated, multiple employer, cost-sharing retirement system that does not attempt to determine separate or unique funding requirements for entities within SDRS. However, the 2013 Actuarial Valuation confirms that the two major Member groups within SDRS with different funding and benefit provisions (Class A and Class B) are generally self-supporting (i.e. – the Employer and Member Contributions are funding the Normal Cost of the benefits provided under these classifications).

The combination of actuarial assumptions and methods used in the Actuarial Valuation, the actual experience of the System, and the resulting actuarial measures all indicate a continuing sound System.

Actuarial Soundness

Allocations to Reserve for Funding of Long-Term Benefit Goals ($ in millions)

Year Ended June 30 of:	Actuarial Investment Gain/(Loss)	2009	2010	2011	2012	Recognized as of June 30, 2012	Recognized for FYE 2013	Recognized in Future Years	2014	2015	2016	2017
1995 – 2008	1,719					1, 719						
2009	(2,039)	(2,039)	0	0	0	(2,039)	0					
2010	492		98	98	99	295	99	98	98			
2011	1,071			215	214	429	214	428	214	214		
2012	(461)				(461)	(461)	0	0	0	0	0	
2013	908					--	181	727	181	182	182	182
Subtotals						**(57)**	**494**	**1,253**				

Year Ended June 30 of:	Liability Gain/(Loss)	2009	2010	2011	2012	Recognized as of June 30, 2012	Recognized for FYE 2013	Recognized in Future Years	2014	2015	2016	2017
1995 – 2008	(121)					(121)						
2009	(35)	(7)	(7)	(7)	(7)	(28)	(7)					
2010	14		3	3	3	9	3	2	2			
2011	55			11	11	22	11	22	11	11		
2012	51				10	10	10	31	10	10	11	
2013	(7)					--	(1)	(6)	(1)	(1)	(2)	(2)
Subtotals						**(108)**	**16**	**49**				

Grand Total	**(165)**	**510**	**1,303**(1)	

Total Allocations to Reserve (1995 - 2013)	$	345
Less Benefit Improvements Funded by the Reserve		1,155
Plus Adjustment for Corrective Action		416
Less Adjustment to Cushion/AVA		77
Less Adjustment to Eliminate Unfunded Liability		634
Reserve Balance	$	(1,106)(1)
Net Gains to be Allocated to Reserve in Future Years	$	1,303(1)

(1) Sum adjusted by $1 million due to rounding

Development of SDRS Present Value of All Benefits as of June 30, 2013

Present Value of All Benefits		
Active Members	$	4,851,084,738
Retirees, Beneficiaries and Terminated Members		5,199,059,332
Total	$	10,050,144,070

Development of Frozen Unfunded Actuarial Accrued Liability as of June 30, 2013

Frozen Unfunded Actuarial Accrued Liability as of June 30, 2012	$	625,238,504
Normal Cost for the year ending June 30, 2013		162,905,390
Expected Contributions for year ending June 30, 2013		(197,823,095)
Interest to June 30, 2013		44,086,171
Initial Frozen Unfunded Actuarial Accrued Liability as of June 30, 2013	$	634,406,970
Transfer from the Cushion to the Actuarial Value of Assets to eliminate Frozen Unfunded Actuarial Accrued Liability		(634,406,970)
Frozen Unfunded Actuarial Accrued Liability as of June 30, 2013	$	0

Development of Normal Cost Contribution Rate as of June 30, 2013

Present Value of All Benefits	$	10,050,144,070
Present Value of Future Normal Cost Contributions		(1,246,382,744)
Actuarial Accrued Liability	$	8,803,761,326
Actuarial Value of Assets (Section 2.3)		(8,803,761,326)
Frozen Unfunded Actuarial Accrued Liability	$	0
Present Value of 1% of Future Member Compensation	$	129,674,013
Normal Cost Contribution Rate at Start of Period ($1,246,382,744 ÷ $129,674,013)		9.612%
Normal Cost Contribution Rate Adjusted for Mid-Period Payment		9.954%

Development of Actuarial Funding Requirements as a Percentage of Member Compensation as of June 30, 2013

Matching Statutorily Required Employer/Member Contribution Rate		12.478%[1]
Normal Contribution Rate at Mid-Period	9.954%	
Expense Allowance	0.250%	
Total Funding Requirement Before Amortization of Frozen Unfunded Actuarial Accrued Liability		10.204%
Contribution Rate in excess of Normal Cost and Expenses (12.478% - 10.204%)		2.274%[2]

[1] Class A Employers and Members each statutorily contribute 6% of Compensation. Class B Employers and Members each statutorily contribute 8% or 9% of Compensation. Participating Members also contribute for the Optional Spouse Coverage and Class A Employers contribute 6.2% of Members' Compensation in excess of the Social Security maximum taxable Compensation. The total statutory contributions to SDRS as of July 1, 2013 are 12.478% of considered compensation.

[2] The Frozen Unfunded Actuarial Accrued Liability is $0 as of July 1, 2013. The contribution in excess of Normal Cost and Expenses will increase the Cushion and Reserve for Funding of Long-Term Benefit Goals.

Gains and Losses for Year Ended June 30, 2013

Liability Experience for Year

The SDRS liabilities as of June 30, 2013 were $7 million higher than expected, or (0.07)% of the Present Value of All Benefits. The sources of the $7 million total experience liability loss were as follows:

Item	Amount of Liability Gain/(Loss)	% of Present Value of All Benefits
Gain/(Loss) due to Compensation Increases	$ 38 million	0.38%
Gain/(Loss) due to Decrements	(43) million	(0.43)%
Gain/(Loss) due to Rehired and New Members	(24) million	(0.24)%
Gain/(Loss) due to COLA for Continuing Inactives	28 million	0.28%
Miscellaneous Gain/(Loss)	(6) million	(0.06)%
Total Experience Gain/(Loss)	$ (7) million	(0.07)%

The SDRS liability experience for the year ended June 30, 2013 included the following:

- The number of active Members increased by 1.0%, Compensation for all Members increased by 1.1%, and average Compensation increased by 0.1%.
- The average age of the active Members decreased from 45.8 to 45.6 years and the average Credited Service decreased from 11.5 to 11.4 years.
- The number of SDRS Members and Beneficiaries receiving benefits increased by 4.1% and the average benefit paid increased by 2.1%.
- Average Compensation for active Members included in the prior Actuarial Valuation increased by 2.2% compared to an assumed increase of 4.8%.
- Decremental experience was mixed. The experience included:
    - Losses due to fewer vested members terminating than expected
    - Gains from the COLA being less than the assumed 2.7%
    - Losses from more young new retirees than anticipated
    - Unfavorable mortality for retirees
    - Unfavorable disability experience
    - Losses due to new members
    - Losses due to the service credited to rehired Members who have not previously withdrawn their contributions or who redeposit their contributions or who purchase service.

The net liability loss for the year ended June 30, 2013 of $7 million indicates that in total the assumptions are accurately reflecting System experience. The loss is allocated equally to the Reserve for Funding of Long-Term Benefit Goals for the year ended June 30, 2013 and the next four years.

Development of Actuarial Value and Market Value Funded Ratios as of June 30, 2013

The Actuarial Value Funded Ratio is a comparison of the Actuarial Value of Assets to the Actuarial Accrued Liability of the System and is a required disclosure under Governmental Accounting Standards Board Statement No. 25.

The Actuarial Accrued Liability is equal to the Present Value of All Benefits for SDRS active and retired Members less the Present Value of Future Normal Cost Contributions required for future benefits for SDRS Members and paid from future Employer and Member Contributions. The Actuarial Accrued Liability is a measure of accrued System liabilities based on the total past and future benefits expected to be paid to all Members that will not be funded by future Normal Cost contributions. Since future Normal Cost contributions are a function of the actuarial cost method used in determining a system's funding requirements, the Actuarial Accrued Liability is a unique calculation for each system.

Comparing the SDRS Actuarial Value Funded Ratio on a historical basis illustrates the funding progress of SDRS and the ability of the past fixed, statutorily required Employer and Member Contributions and overall SDRS experience to fund the Normal Costs of the System and to amortize the Frozen Unfunded Actuarial Accrued Liability. Typically, the Actuarial Value Funded Ratio will increase over time as the Frozen Unfunded Actuarial Accrued Liability decreases or becomes a smaller percentage of the Actuarial Accrued Liability due to growth in the Actuarial Value of Assets and funding of the Actuarial Accrued Liability.

A ratio of less than 100% would indicate that SDRS has not yet accumulated sufficient assets to fully fund the Actuarial Accrued Liability.

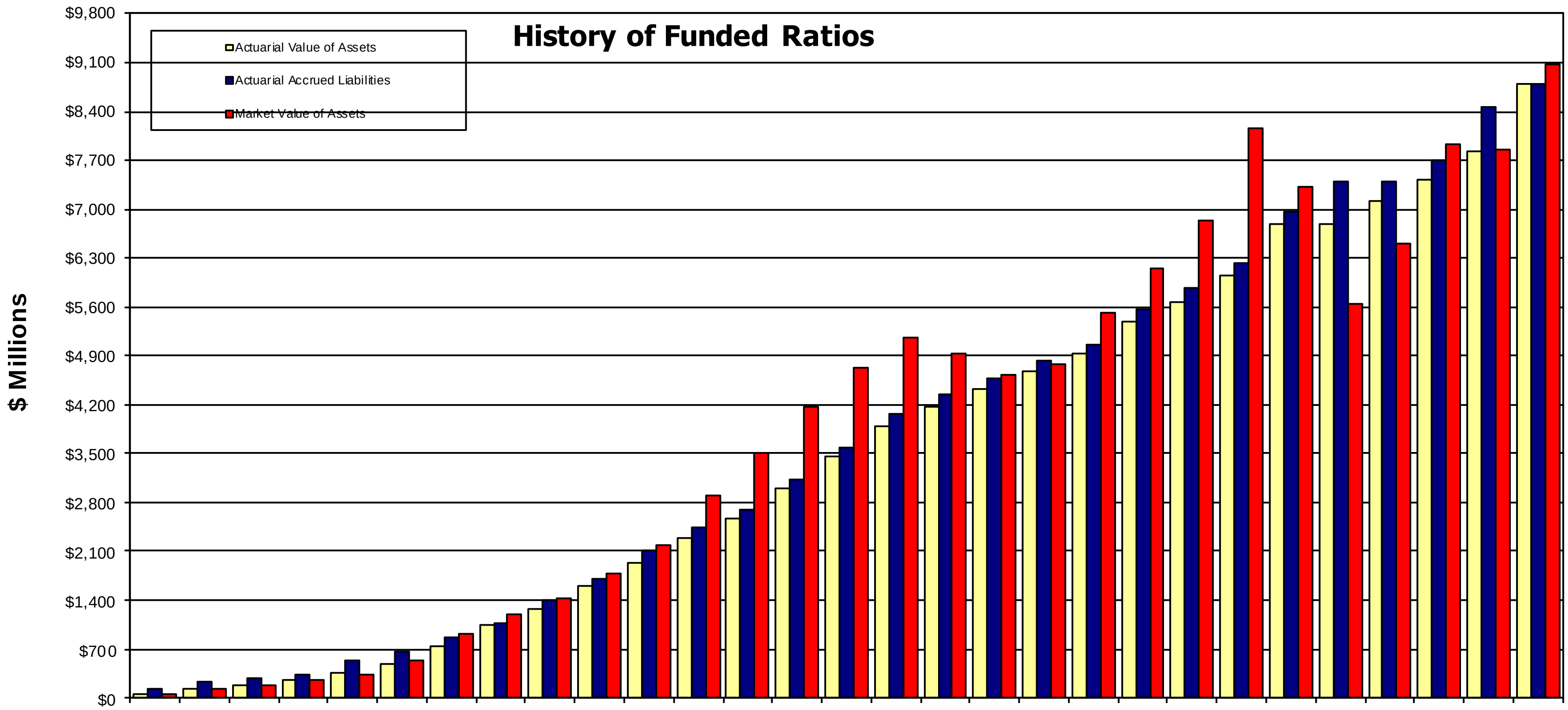
As of June 30, 2013, a transfer was made from the Cushion to the Actuarial Value of Assets to eliminate the Frozen Unfunded Actuarial Accrued Liability and fully fund the Actuarial Accrued Liability. This exhibit illustrates that the Actuarial Value Funded Ratio as of June 30, 2013 equaled 100.0%.

The Market Value Funded Ratio is expected to be a more volatile measure since it is based on the Market Value of Assets and fully reflects the variability of investment returns.

The following exhibit illustrates the history of the Actuarial Value Funded Ratio and Market Value Funded Ratio from 1973 to the present date and shows the improvement from an initial Funded Ratio of 39.8% to the current Actuarial Value Funded Ratio of 100.0% and Market Value Funded Ratio of 103.2%.

Development of Actuarial Value and Market Value Funded Ratios as of June 30, 2013

Present Value of All Benefits	
Present Value of All Benefits for Active Members	$ 4,851,084,738
Present Value of Benefits for Retirees, Beneficiaries and Terminated Members	5,199,059,332
Total Present Value of All Benefits	$10,050,144,070
Present Value of Future Normal Cost Contributions	(1,246,382,744)
Actuarial Accrued Liability	$ 8,803,761,326
Actuarial Value of Assets	$ 8,803,761,326
Actuarial Value Funded Ratio ($8,803,761,326 ÷ $8,803,761,326)	100.0%
Market Value Funded Ratio ($9,085,706,708 ÷ $8,803,761,326)	103.2%



Fiscal Year	1973	1976	1978	1980	1982	1984	1986	1988	1990	1992	1994	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Market Value Funded Ratio (%)	40	57	68	76	63	81	106	111	101	104	103	120	130	133	132	126	114	101	99	109	111	117	131	105	76	88	103	93	103
Actuarial Value Funded Ratio(%)	40	57	68	76	67	75	85	97	91	94	92	94	95	96	97	95	96	97	97	98	97	97	97	97	92	96	96	93	100
Funding Period (years)	41	19	19	9	28	18	37	6	46	16	38	30	23	22	21	20	20	20	20	20	20	20	20	20	N/A	30	30	29	N/A
% Actuarially Required Contribution Made	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	91	100	100	100	100

SECTION 2

PLAN ASSETS

SDRS Market Value of Assets Available for Benefits as of June 30, 2013

Assets		
Investments at current value	$ 9,122,724,043	
Cash and temporary investments	6,347,578	
Contributions receivable	4,817,150	
Benefits receivable	61,924	
Accounts receivable (unsettled investment sales)	27,806,373	
Investment income receivable	18,341,320	
Properties	5,258	
Due from Brokers	1,870,102	
Other assets	21,184	
Total Assets		$ 9,181,994,932
Liabilities		
Accounts payable and accrued expenses	$ 2,232,483	
Accounts payable (unsettled investment purchases)	38,078,420	
Securities sold, but not yet purchased	55,977,321	
Due to Brokers	0	
Total Liabilities		96,288,224
Market Value of Assets Available for Benefits		$ 9,085,706,708

Changes in SDRS Market Value of Assets for Year Ended June 30, 2013

Market Value of Assets Available for Benefits as of June 30, 2012			$	7,842,524,241
Additions				
Contributions	$	202,055,202		
Total Investment Gain Net of Investment Expenses		1,467,497,091		
Total Additions	$	1,669,552,293		
Deductions				
Benefit Payments	$	(397,620,115)		
Accumulated Contribution Refunds		(25,160,994)		
Administrative Expenses		(3,588,717)		
Total Deductions	$	(426,369,826)		
Net Increase				1,243,182,467
Market Value of Assets Available for Benefits as of June 30, 2013			$	9,085,706,708

Development of the SDRS Actuarial Value of Assets as of June 30, 2013

1. Actuarial Value of Assets as of June 30, 2012	$ 7,827,601,564
2. Contributions and Disbursements:	
Contributions	$ 202,055,202
Benefit Payments and Refunds	(422,781,109)
Administrative Expenses	(3,588,717)
Total	$ (224,314,624)
3. Expected Investment Return	$ 559,511,978
4. SDRS Liability Gain/(Loss)	$ (6,555,438)
5. Preliminary Actuarial Value of Assets as of June 30, 2013 (1 + 2 + 3 – 4)	$ 8,169,354,356
6. Adjustment to Actuarial Value of Assets from Cushion to Eliminated Unfunded Actuarial Accrued Liability	634,406,970
7. Preliminary Actuarial Value of Assets as of June 30, 2012 with adjustment from Cushion (5 + 6)	$ 8,803,761,326
8. Market Value of Assets as of June 30, 2013	$ 9,085,706,708
9. Constraining values	
a. 80% of Market Value of Assets	$ 7,268,565,367
b. 120% of Market Value of Assets	$ 10,902,848,050
10. Actuarial Value of Assets as of June 30, 2013 Item 7, but not less than (9a) nor more than (9b)	$ 8,803,761,326

Development of Reserve for Funding of Long-Term Benefit Goals as of June 30, 2013

	For Year Ending June 30, 2013
1. Market Value of Assets at Beginning of Year	$ 7,842,524,241
2. Actuarial Value of Assets at Beginning of Year	7,827,601,564
3. Non-Investment Cash Flow	(224,314,624)[1]
4. Actual Net Investment Return Based on Market Value of Assets	$ 1,467,497,091
5. Expected Investment Return based on Actuarial Value of Assets	559,511,978
6. Actuarial Investment Gain (4 - 5)	$ 907,985,113
7. Allocation of Actuarial Investment Gains Over Five Years and 100% of Actuarial Investment (Losses):	
0% of $(2,038,794,287) for year ended June 30, 2009	$ 0
20% of $492,098,094 for year ended June 30, 2010	98,419,619
20% of $1,071,223,986 for year ended June 30, 2011	214,244,797
0% of $(460,776,578) for year ended June 30, 2012	0
20% of $907,985,113 for year ended June 30, 2013	181,597,023
Total Allocated for the Current Year	$ 494,261,439
8. Cumulative Amount of Actuarial Investment Gains Remaining to be Allocated in Future Years	$ 1,253,297,303
9. Allocation of SDRS Liability Gain or (Loss) Over Five Years:	
20% of $(34,837,606) for year ended June 30, 2009	$ (6,967,522)
20% of $14,415,731 for year ended June 30, 2010	2,883,146
20% of $54,508,603 for year ended June 30, 2011	10,901,721
20% of $50,626,270 for year ended June 30, 2012	10,125,254
20% of $(6,555,438) for year ended June 30, 2013	(1,311,088)
Total Allocated for the Current Year	$ 15,631,511
10. Cumulative Amount of SDRS Liability Gain or (Loss) to be Allocated in Future Years	$ 49,817,999
11. Reserve for Funding of Long-Term Benefit Goals	
a) Balance at end of Prior Year	$ (981,549,491)
b) Total Allocated for the Current Year (7 + 9)	509,892,950
c) Adjustment to Cushion and Actuarial Value of Assets to Eliminate Unfunded Actuarial Accrued Liability as of June 30, 2013	(634,406,970)
d) Balance at end of Current Year	$ (1,106,063,511)
e) Net Gains to be Allocated in Future Years (8 + 10)	$ 1,303,115,302

[1] Contributions of $202,055,202 less benefit payments, refunds, and administrative expenses of $(426,369,826).

Gains and Losses for Year Ended June 30, 2013

Reserve for Funding of Long-Term Benefit Goals

SDRS gains and losses are allocated to the Reserve for Funding of Long-Term Benefit Goals. The amounts currently in the Reserve and remaining to be allocated in the next four years are an important indicator of the System's recent cumulative experience. When available, the Reserve for Funding of Long-Term Benefit Goals is a source of funds to provide future benefit improvements or to protect the System against future unfavorable experience. The current negative balance in the Reserve will shift to a positive balance over the next four years based on recent experience as unrecognized gains and statutory contributions over the System Normal Cost and expenses are allocated, if System experience meets the assumptions. Future unfavorable experience will reduce the Cushion and the Reserve. Future favorable experience will increase the Cushion and the Reserve to provide additional funds for future benefit improvements or protection against unfavorable experience.

The Reserve for Funding of Long-Term Benefit Goals as of June 30, 2013 changed as follows:

Balance as of June 30, 2012	$	(981,549,491)
Fiscal Year 2013 Experience		180,285,935
Amortization of Prior Gains and Losses		329,607,015
Less Adjustment to Cushion and Actuarial Value of Assets to Eliminate Unfunded Actuarial Accrued Liability		(634,406,970)
Balance as of June 30, 2013	$	(1,106,063,511)
Net Gain to be Allocated in Future Years	$	1,303,115,302

Investment Results for Year

For the year ended June 30, 2013, the actual net investment performance of SDRS was more than the expected 7.25% investment return on the Actuarial Value of Assets by $908 million as summarized below.

Actual Net Investment Return for Year Ended June 30, 2013 (Section 2.2)	$1,467 million
Expected Investment Return Based on Actuarial Value of Assets (Section 2.3)	- 560 million
Actuarial Investment Gain (Actual less Expected)	$908 million[1]

The dollar-weighted total net investment return based on the Market Value of Assets of the System for the year ended June 30, 2013 was 18.98% after investment expenses (19.53% on a time-weighted basis before investment expenses). The Actuarial Value of Assets was credited with the assumed investment return of 7.25% (or $560 million) for the year and increased by the net liability loss of $7 million for the year.

[1] Sum adjusted by $1 million due to rounding

SECTION 3

ACCOUNTING INFORMATION

Governmental Accounting Standards Board Statement No. 25

The Governmental Accounting Standards Board (GASB) has issued Statement No. 25, "Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans." This Statement supersedes GASB Statement No. 5 and has been implemented by SDRS effective with the fiscal year ended June 30, 1997.

This Statement requires the measurement and disclosure of the Annual Required Contributions of the Employers (ARC) for SDRS and the determination of the Funded Ratio of SDRS considering the Actuarial Value of Assets and the Actuarial Accrued Liability, both in accordance with the parameters of Statement No. 25.

The South Dakota Retirement System is a cost sharing multiple-employer defined benefit retirement plan as defined in the GASB statement. As such, the GASB Statement requires that the ARC be computed for the Plan, not individually for each Employer, since the costs and risks of SDRS are shared by all participating Employers and are not attributed individually to the Employers. In addition, SDRS is funded by statutorily required fixed Employer and Member Contributions. The Actuarial Valuation of SDRS includes all Members and considers the contractually required contributions of each Employer based on its employees and the mix of employees participating in Class A or Class B benefits.

The actuarial assumptions and methods for the GASB Statement No. 25 calculations are the same as those used for the Actuarial Valuation of SDRS that confirm the funding requirement of the System, and they fully meet the parameters of GASB Statement No. 25. They are summarized in Exhibit 5.

The actuarially determined information required in accordance with the current GASB statements was determined by the Actuarial Valuation of SDRS as of June 30, 2013 as shown on the following page.

GASB has issued Statement No. 67, "Financial Reporting for Pension Plans" that is effective for fiscal years beginning after June 15, 2013 and Statement No. 68, "Accounting and Financial Reporting for Pensions," that is effective for fiscal years beginning after June 15, 2014. These statements are amendments to Statements Nos. 25 and 27.

Statements Nos. 67 and 68 will require that the Net Pension Liability, similar to an Unfunded Actuarial Accrued Liability, be reported by pension plans and allocated to individual employers and included on their balance sheets. Furthermore, year-to-year changes in the Net Pension Liability will be included on the employer's income statements and are expected to vary significantly from one year to the next.

Governmental Accounting Standards Board Statement No. 25

A.	***COMPARISON OF CONTRACTUAL EMPLOYER CONTRIBUTION RATE TO ANNUAL REQUIRED CONTRIBUTIONS OF THE EMPLOYERS AS OF JULY 1, 2013***	***% of Pay***
1.	Total Contractual Member and Employer Contribution Rates	12.478%[1]
2.	Less Contractual Member Contribution Rate	(6.243%)
3.	Total Contractual Employer Contribution Rate [(1) - (2)]	6.235%
4.	Less Employer Normal Cost Rate (Total Normal Cost Rate of 9.954% less Contractual Member Contribution Rate of 6.243%)	(3.711%)
5.	Less Provision for Expenses	(0.250%)
6.	Total Contractual Employer Contribution Rate in Excess of Normal Cost and Expenses [(3) - (4) - (5)]	2.274%[2]

The contractually required Employer contributions to SDRS equal the requirements for the Annual Required Contributions of the Employers since they are sufficient to pay the Employer Normal Cost, System Expenses, and amortize the Frozen Unfunded Actuarial Accrued Liability over a period of 30 years or less. The ARC for each SDRS participating Employer is equal to the contractually required Employer contributions to SDRS.

[1] Class A Employers and Members each contractually contribute 6% of pay. Class B Employers and Members each contractually contribute 8% or 9% of pay. Participating Members also contribute for Optional Spouse Coverage and Class A Employers contribute 6.2% of Members' pay in excess of the Social Security maximum taxable pay. The total contractual contributions to SDRS as of July 1, 2013 are 12.478% of considered compensation.

[2] The Frozen Unfunded Actuarial Accrued Liability is $0 as of July 1, 2013. The contributions in excess of Normal Cost and Expenses will increase the Cushion and Reserve for Funding of Long-Term Benefit Goals and will be available to amortize the Frozen Unfunded Actuarial Accrued Liability when one exists.

B.	***ACTUARIAL VALUE FUNDED RATIO AS OF JUNE 30, 2013***	
1.	Total Actuarial Accrued Liability	$ 8,803,761,326
2.	Actuarial Value of Assets	8,803,761,326
3.	Unfunded Actuarial Accrued Liability [(1) - (2)]	$ 0
4.	Actuarial Value Funded Ratio [(2) / (1)]	100.0%
5.	Member Compensation (Prior Year)	$ 1,519,731,367
6.	Unfunded Actuarial Accrued Liability as a Percentage of Member Prior Year Compensation [(3) / (5)]	0.0%

SECTION 4

MEMBER DATA

Comparison of Member Data in Actuarial Valuations for 2012 and 2013

Member Data	2012 Actuarial Valuation	2013 Actuarial Valuation	% Change
Active Members			
Number	38,207	38,594	1.0
Average Age	45.8	45.6	(0.4)
Average Credited Service	11.5	11.4	(0.9)
Annual Prior Year's Compensation of Members	$ 1,502,652,938	$ 1,519,731,367	1.1
Average Annual Compensation	$ 39,329	$ 39,377	0.1
Benefit Recipients			
Retired Members			
Number*	19,133	20,004	4.6
Average Age	71.6	71.6	0.0
Total Annual Benefits	$ 352,284,553	$ 374,412,494	6.3
Average Annual Benefits	$ 18,412	$ 18,717	1.7
Beneficiaries			
Number*	2,975	3,016	1.4
Total Annual Benefits	$ 30,281,007	$ 32,186,807	6.3
Average Annual Benefits	$ 10,178	$ 10,672	4.9
Disabled Members			
Number	300	307	2.3
Total Annual Benefits	$ 3,912,759	$ 4,079,701	4.3
Average Annual Benefits	$ 13,043	$ 13,289	1.9
Total Benefit Recipients			
Number	22,408	23,327	4.1
Total Annual Benefits	$ 386,478,319	$ 410,679,002	6.3
Average Annual Benefits	$ 17,247	$ 17,605	2.1
Terminated Members			
Number – Vested	8,135	8,363	2.8
Number – Non-Vested (Entitled to Accumulated Contributions only)	6,618	6,819	3.0
Total Terminated Members	14,753	15,182	2.9
Total System Members	75,368	77,103	2.3

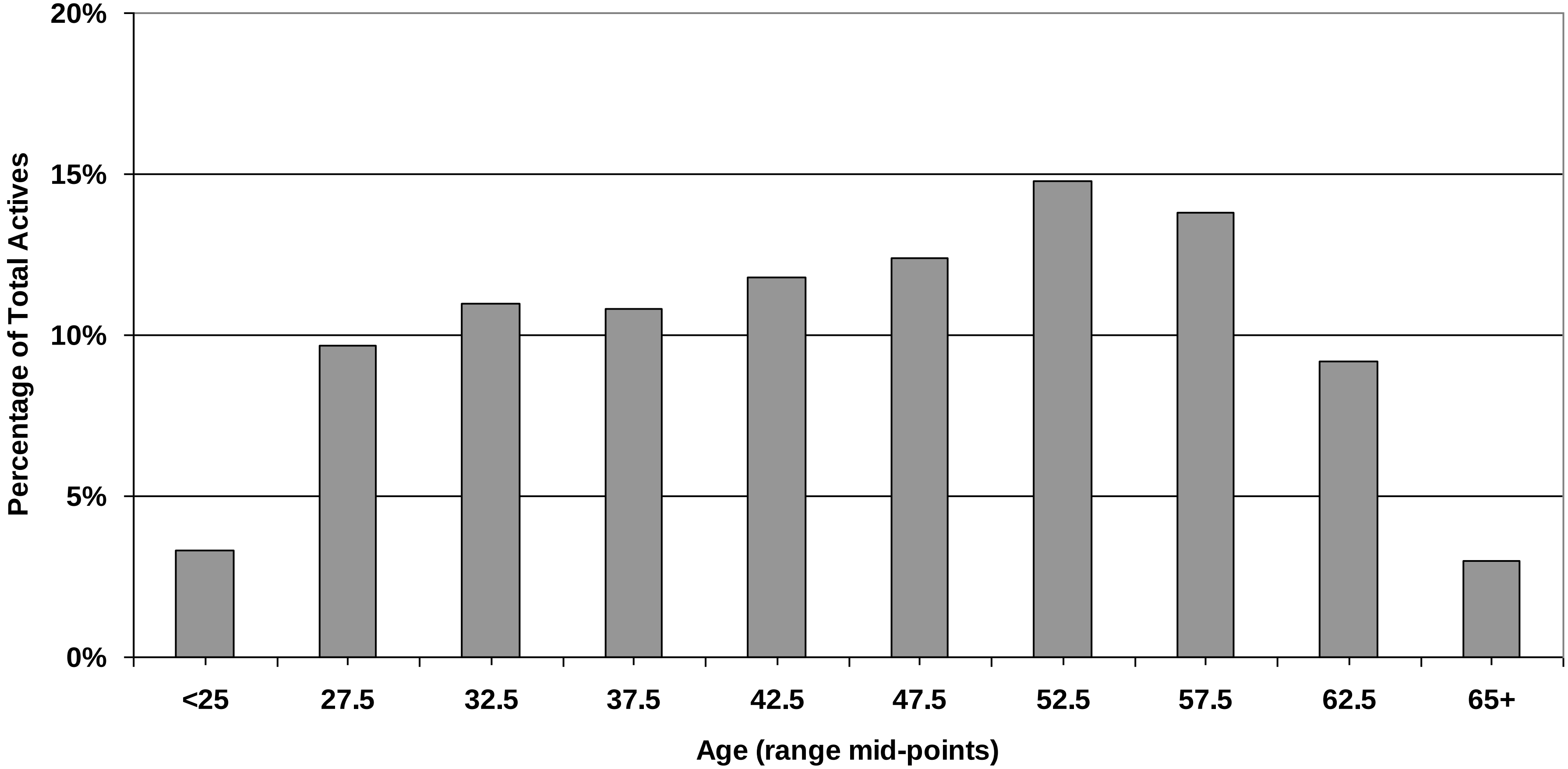
* In addition, there are 43 and 168 Members or Beneficiaries, as of June 30, 2012 and June 30, 2013, respectively, whose benefits are currently suspended, but are entitled to future benefits.

Distribution of Number and Average Compensation of Active Members as of June 30, 2013[1]

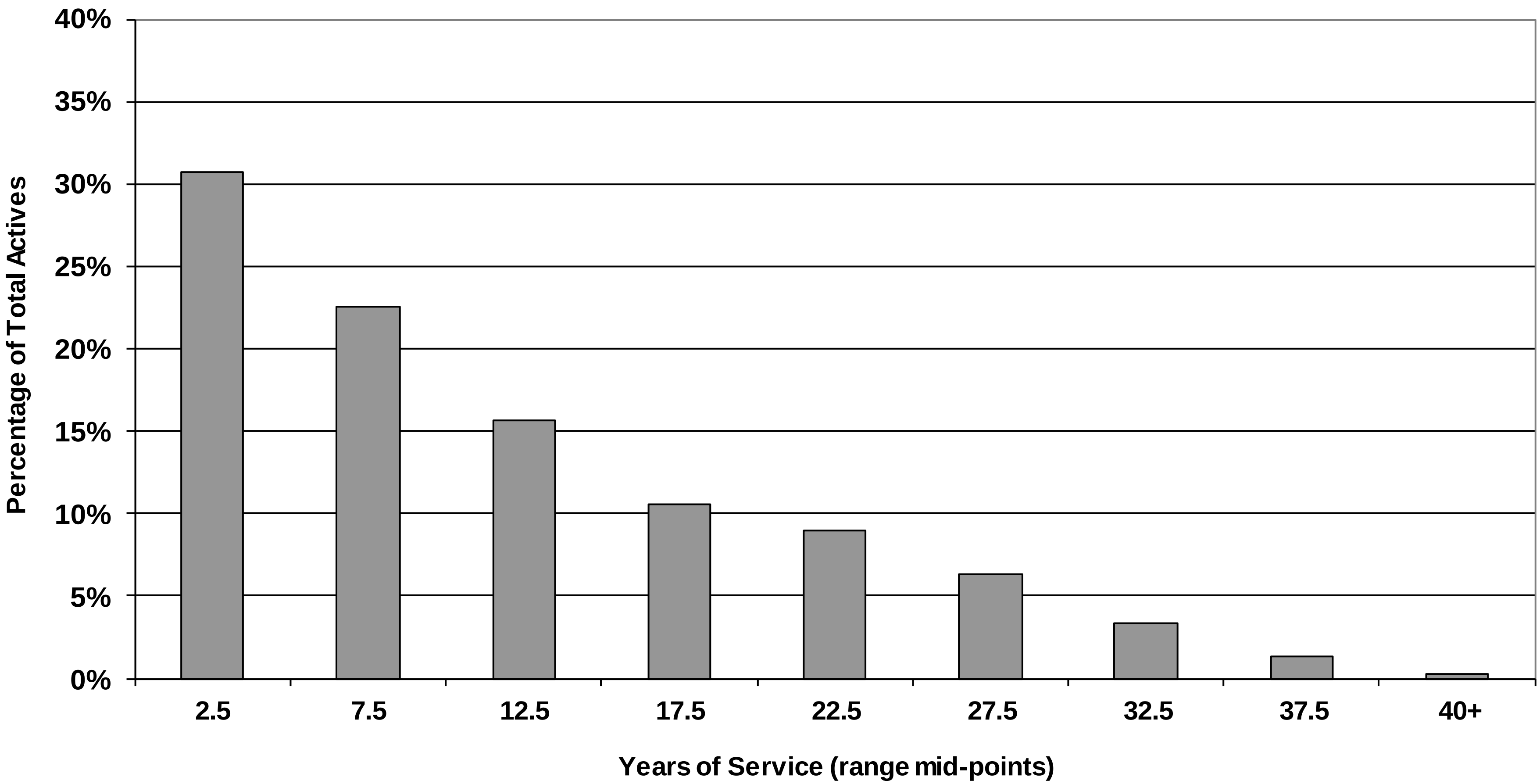
Age	Service	4 and under	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 and over	Total
24 and under	Number	1,280	5								1,285
	Avg Compensation	$ 28,746	$ 29,198								$ 28,748
25-29	Number	2,988	762	5							3,755
	Avg Compensation	$ 33,351	$ 36,680	$ 40,987							$ 34,037
30-34	Number	1,812	1,911	529	5						4,257
	Avg Compensation	$ 35,153	$ 39,544	$ 42,357	$ 34,568						$ 38,019
35-39	Number	1,282	1,169	1,343	387	3	1				4,185
	Avg Compensation	$ 34,844	$ 40,924	$ 44,135	$ 46,026	$ 114,094	$ 52,825				$ 40,619
40-44	Number	1,151	996	940	1,056	393	6				4,542
	Avg Compensation	$ 33,639	$ 38,361	$ 43,706	$ 49,213	$ 49,745	$ 48,576				$ 41,792
45-49	Number	966	978	797	704	962	381	8			4,796
	Avg Compensation	$ 34,599	$ 36,780	$ 44,122	$ 47,854	$ 50,246	$ 50,048	$ 44,902			$ 42,955
50-54	Number	953	979	868	724	788	951	448	16		5,727
	Avg Compensation	$ 33,668	$ 36,287	$ 38,498	$ 44,140	$ 47,683	$ 53,528	$ 51,588	$ 50,211		$ 42,846
55-59	Number	817	827	856	678	737	622	566	234	7	5,344
	Avg Compensation	$ 35,155	$ 35,961	$ 37,677	$ 42,755	$ 45,410	$ 52,320	$ 53,505	$ 49,567	$ 45,582	$ 42,648
60-64	Number	465	764	498	426	473	384	246	221	77	3,554
	Avg Compensation	$ 34,335	$ 36,034	$ 38,081	$ 39,950	$ 44,451	$ 48,958	$ 54,406	$ 55,032	$ 53,588	$ 41,918
65 and over	Number	167	325	223	105	125	85	43	39	37	1,149
	Avg Compensation	$ 32,557	$ 31,587	$ 34,446	$ 40,713	$ 41,943	$ 44,949	$ 49,391	$ 62,009	$ 55,779	$ 37,710
Total	Number	11,881	8,716	6,059	4,085	3,481	2,430	1,311	510	121	38,594
	Avg Compensation	$ 33,597	$ 37,717	$ 41,335	$ 45,504	$ 47,555	$ 51,638	$ 52,832	$ 52,907	$ 53,795	$ 40,369

(1) Compensation is annualized for members with less than four consecutive quarters of compensation.

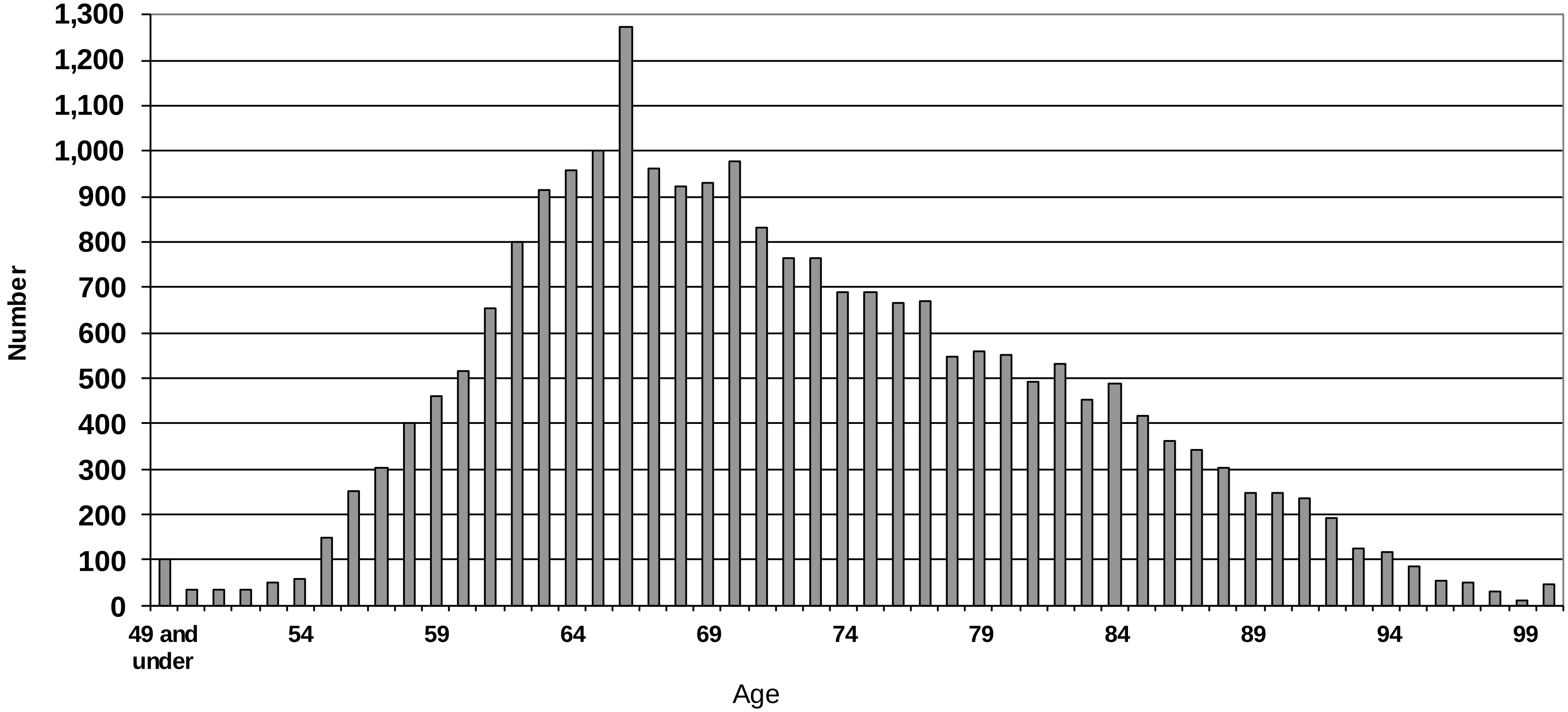
Distribution of Active Members by Age
As of June 30, 2013



Distribution of Active Members by Credited Service
As of June 30, 2013

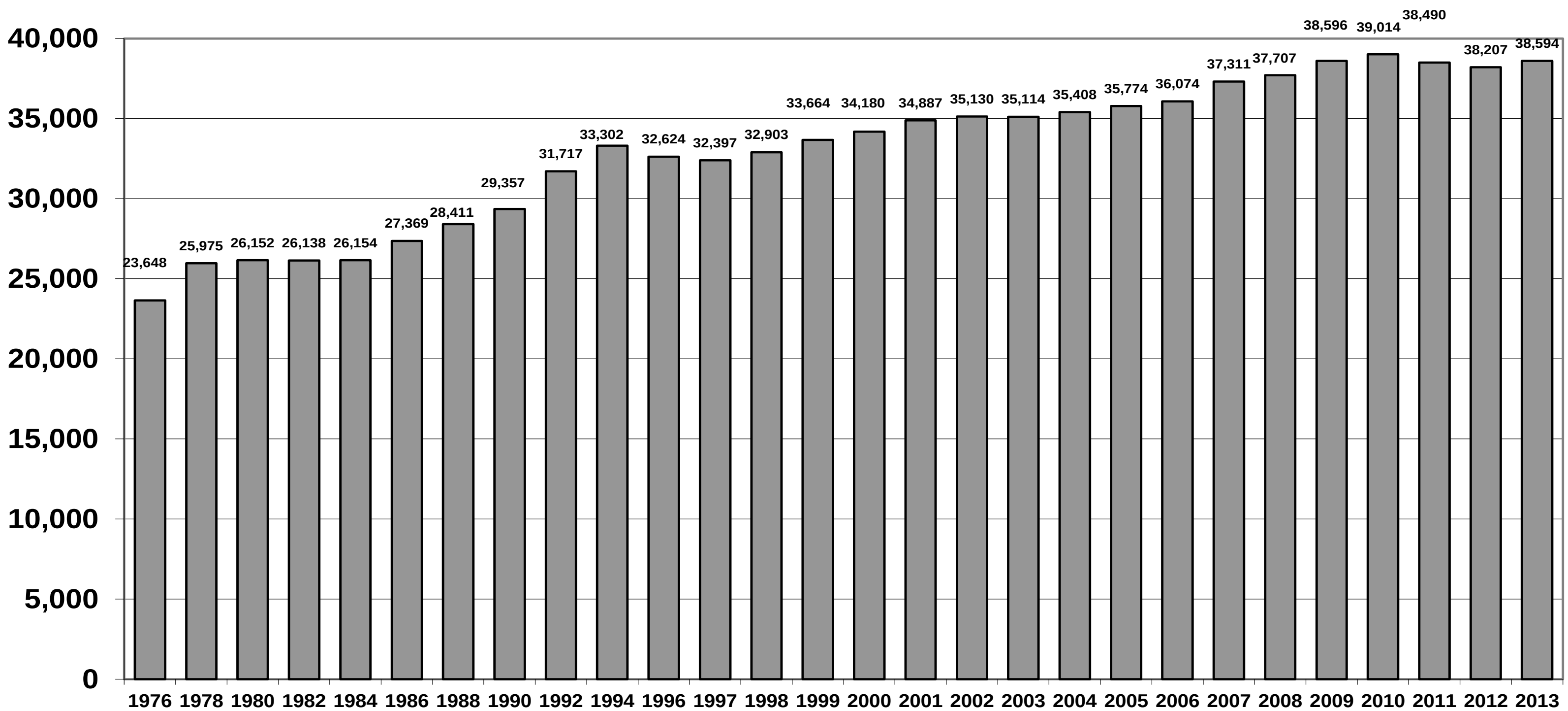


Distribution of Retirees, Beneficiaries and Disabled Members by Age as of June 30, 2013



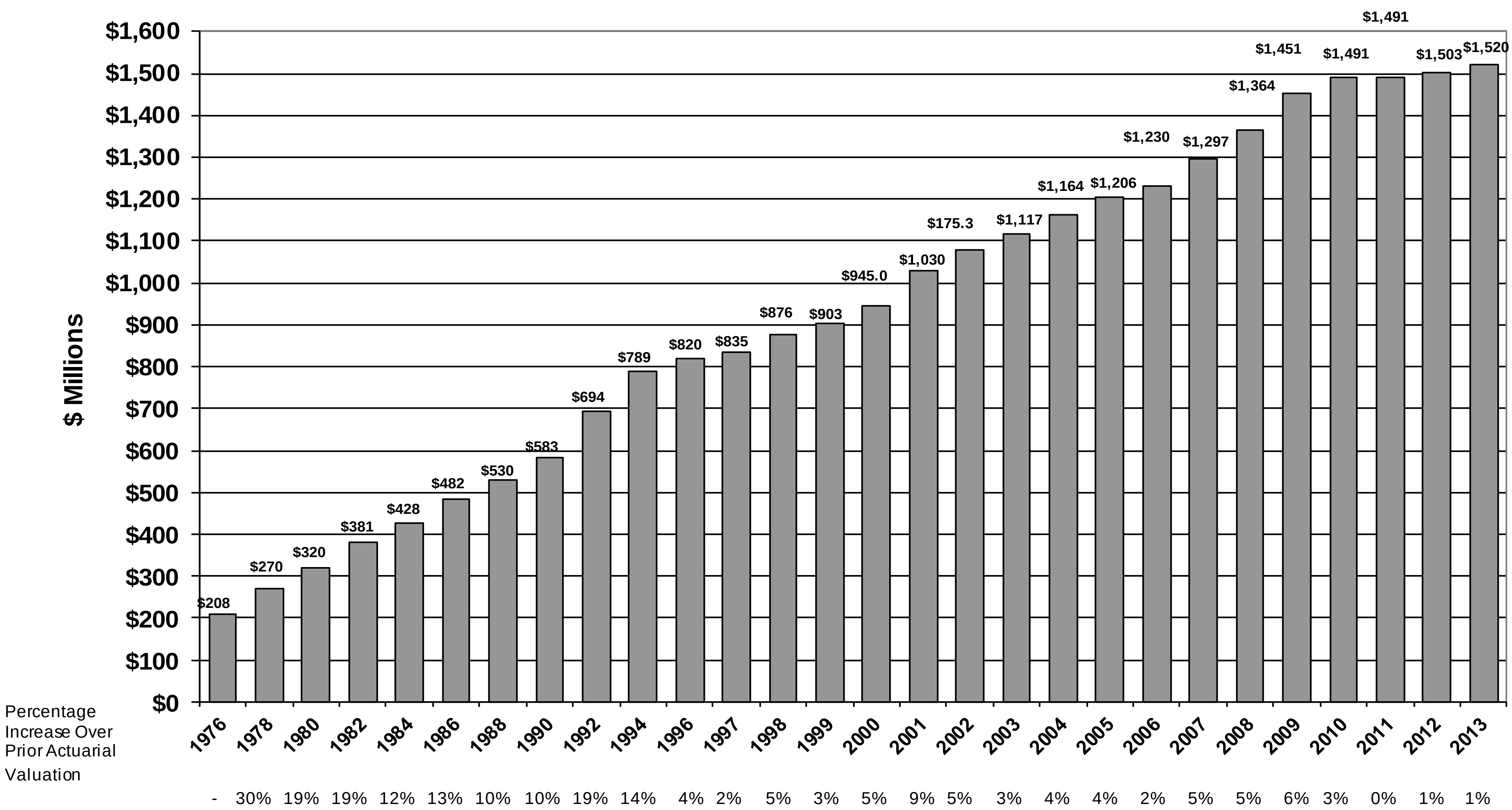
SOUTH DAKOTA RETIREMENT SYSTEM
2013 ACTUARIAL VALUATION

History of Active Membership

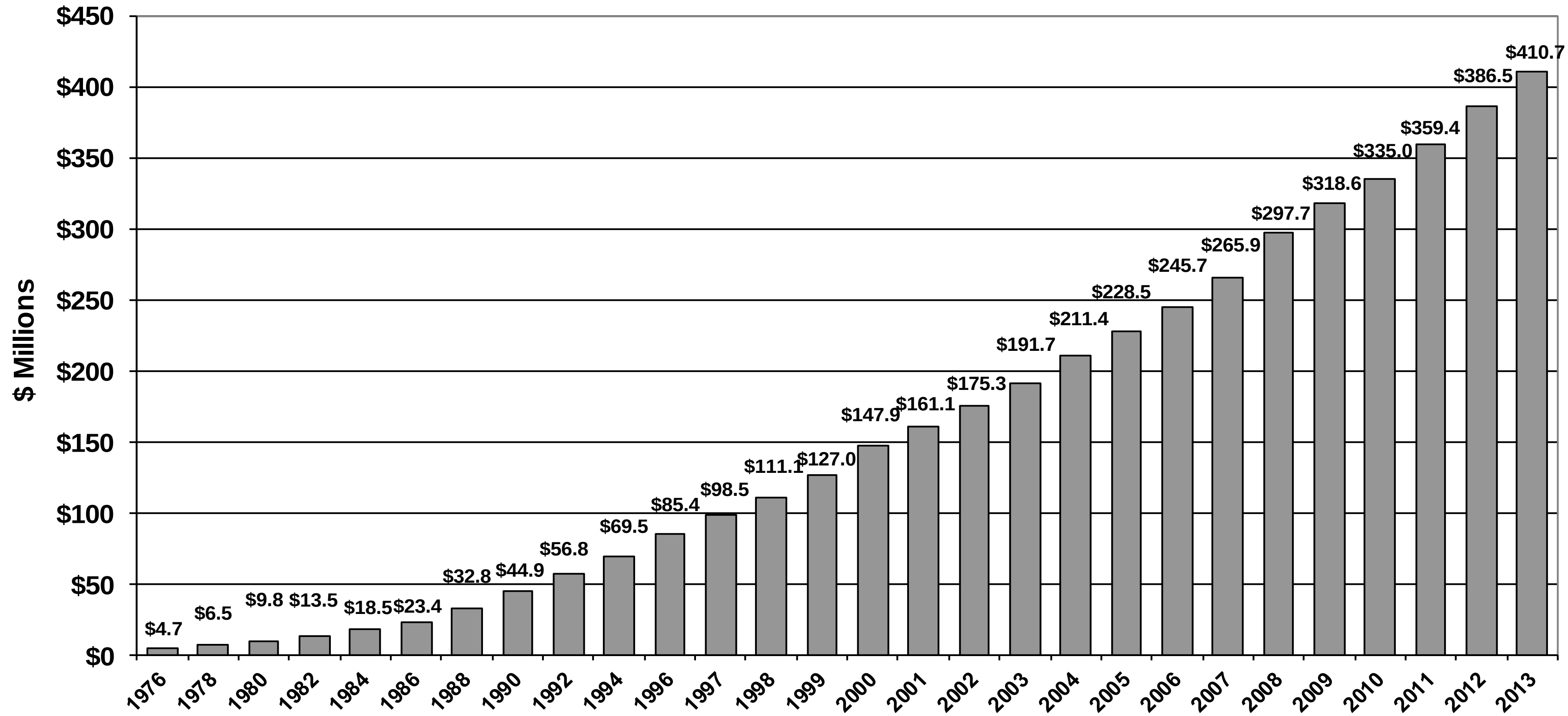


Percentage Increase Over Prior Actuarial Valuation	-	10%	1%	-	-	5%	4%	3%	8%	5%	(2%)	(1%)	2%	2%	2%	2%	1%	0%	1%	1%	1%	3%	1%	2%	1%	(1%)	(1%)	1%

History of Member Compensation



History of Benefits to Retirees, Beneficiaries, and Disabled Members



	1976	1978	1980	1982	1984	1986	1988	1990	1992	1994	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Percentage Increase Over Prior Actuarial Valuation	-	38%	51%	38%	37%	26%	40%	37%	26%	22%	23%	15%	13%	14%	16%	9%	9%	9%	10%	8%	8%	8%	12%	7%	5%	7%	8%	6%

SECTION 5

BASIS OF THE VALUATION

Summary of Principal Benefit Provisions as Amended Through the 2013 Legislative Session

Name of the System
South Dakota Retirement System (SDRS).

Effective Date
SDRS was established effective July 1, 1974. The Supreme and Circuit Court Judicial Retirement System, District County Court and Municipal Court Judges' Retirement Program, South Dakota Teachers' Retirement System, South Dakota Municipal Retirement System, South Dakota Law Enforcement Retirement System, South Dakota Public Employees' Retirement System and South Dakota Board of Regents Retirement System (effective July 1, 1975) were consolidated into SDRS.

Type of System
SDRS is a governmental retirement system created by Act of the State of South Dakota. The Retirement System is administered by the Board of Trustees consisting of two state government Members; two teacher Members; a participating municipality Member; a participating county Member; a currently contributing Class B Member other than a justice, judge or magistrate judge; a justice, judge, or magistrate judge; a participating classified employee Member; one head of a principal department or one head of a bureau under the office of executive management; an individual appointed by the Governor; a county commissioner of a participating county; a school district board member; an elected municipal official of a participating municipality; a faculty or administrative Member employed by the Board of Regents; a retiree; and an investment council representative, ex-officio non-voting.

The Board of Trustees appoints an Administrator as the System's chief executive officer.

Employers Included
Employers include the State of South Dakota and its departments, bureaus, boards, or commissions, and any of its governmental or political subdivisions or any public corporation of the State of South Dakota that elects to become a participating unit.

Members
All of the following permanent full-time employees are included as Members in the System:

- All state employees;
- All teachers;
- All justices, judges, and magistrate judges;
- All law enforcement employees of counties and municipalities that are participating with their Class B employees;
- All general employees of counties and municipalities that are participating with their Class A employees;
- All classified employees of school districts that are participating with their classified employees;
- All employees of the Board of Regents;
- All state law enforcement officers.

Summary of Principal Benefit Provisions as Amended Through the 2013 Legislative Session

Members (continued)
Employees of the Department of Labor hired before July 1, 1980 who elected to remain covered under a former retirement plan, and members of the governing body of any participating county, municipality, or other public subdivision are excluded from SDRS membership.

Membership is immediate upon hire and is subdivided into two classes as follow:

- Class A Member: All Members other than Class B Members.
- Class B Member: Members who are justices, judges and magistrate judges *(Class B Judicial Members)* and state law enforcement officers, municipal police, municipal firefighters, penitentiary correctional staff, county sheriffs, deputy county sheriffs, conservation officers, parole agents, air rescue firefighters, campus security officers, court services officers, certain park rangers and certain jailers *(Class B Public Safety Members)*.

Class A Members constitute 93% of SDRS active membership.

Service Considered
Credited Service is the period of employment for an SDRS Member that is considered in determining the amount of benefits. It includes the following:

- Years and fractional years for which Member Contributions were made (Contributory Service).
- The period of non-contributory service credited prior to July 1, 1974 under the prior retirement systems consolidated under this System.
- For employees of the Board of Regents, the period of service between April 1, 1964 and June 30, 1975 for which purchase was made to Bankers Life and the period of service prior to April 1, 1964, up to a maximum of 20 years, for which purchase was made.
- Periods of non-contributory service credited due to specific legislation since 1974.

Credited Service may be purchased for public employment for which Members are not entitled to retirement benefits, at a cost reflecting an actuarially determined sliding scale based on age, subject to a minimum of 100% of combined Member and Employer Contributions. Credited Service purchased after July 1, 2004, shall not be considered Contributory Service for eligibility purposes. Credited Service is purchased with an after-tax payment unless the Member's Employer elects to permit purchase on a pre-tax basis under Section 414(h) of the Internal Revenue Code.

Compensation
Compensation is W-2 wages, plus any amount used to purchase a Member's individual retirement plan, plus a Member's contribution to SDRS made on a before-tax basis, plus any amount contributed to a Section 125 cafeteria plan, paid during the period of Credited Service. Compensation does not include lump sum termination pay. Compensation for Members hired after June 30, 1996 is limited as prescribed in Section 401(a)(17) of the Internal Revenue Code.

Summary of Principal Benefit Provisions as Amended Through the 2013 Legislative Session

Final Average Compensation

Final Average Compensation is the highest average annual Compensation earned by a Member during 12 consecutive calendar quarters of the last 40 such quarters during periods of Credited Service. The Final Average Compensation is limited by statutory provisions that prevent extraordinary increases in Compensation immediately before retirement.

Employer Contributions

Employer Contributions equal those amounts contributed by Members except for the Additional Contributions noted below.

Member Contributions

Class A Members: 6% of Compensation
Class B Public Safety Members: 8% of Compensation
Class B Judicial Members: 9% of Compensation

Member Contributions are made on a pre-tax basis as permitted under Section 414(h) of the Internal Revenue Code.

Accumulated Contributions

Accumulated Contributions are equal to Member Contributions and 85% of Employer Contributions for Members with three or more years of Contributory Service or 50% of Employer Contributions for Members with less than three years of Contributory Service, credited with interest on a monthly basis at a rate annually established by the Board of Trustees, that is no greater than 90% of the average 91-day U.S. Treasury Bill rate for the immediately preceding calendar year. Such rate shall have no minimum limitation and shall not be greater than the assumed rate of investment return, which is currently 7.25%.

For Members who terminated prior to July 1, 2010 the percentage of Employer Contributions is 100% with three or more years of Contribution Service or 75% with less than three years of Contributory Service.

Additional Contributions

Effective July 1, 2002, employers contribute 6.2% of Class A Member's calendar year Compensation in excess of the maximum taxable amount for Social Security for the calendar year. These additional contributions are not included in Accumulated Contributions.

Other Public Benefits

Eighty percent of the benefits provided as "primary insurance amount ***or*** primary Social Security" under the Federal Social Security Act.

Summary of Principal Benefit Provisions as Amended Through the 2013 Legislative Session

Cost-of-Living Adjustment (COLA)

The annual increase in the amount of the SDRS benefits payable on each July 1st is indexed to CPI and based on SDRS funded status:

- If the SDRS Market Value Funded Ratio is 100% or more – 3.1% COLA
- If the SDRS Market Value Funded Ratio is 80% to 99.9%, index with the CPI
  - 90% to 99.9% funded – 2.1% minimum and 2.8% maximum COLA
  - 80% to 90% funded – 2.1% minimum and 2.4% maximum COLA
- If the SDRS Market Value Funded Ratio is less than 80% - 2.1% COLA

All benefits except those depending on the Member's Accumulated Contributions are annually increased by the Cost-of-Living Adjustment.

Normal Retirement Date

The Normal Retirement Date is age 65 with three years of Contributory Service for Class A and Class B Judicial Members of the System. Normal Retirement Date is age 55 with three years of Contributory Service for Class B Public Safety Members.

Normal Retirement Benefit

Members are entitled to retire with a benefit commencing the first of the month in which they reach Normal Retirement Date and payable for life, with an automatic 60% surviving spouse's benefit paid for the spouse's lifetime.

The Class A benefit is the larger of that provided by the following Standard Formula or Alternate Formula:

Standard Formula

Enhanced Benefit
1.7% times Final Average Compensation times years of Credited Service as a Class A Member before July 1, 2008, **plus**

Base Benefit
1.55% times Final Average Compensation times years of Credited Service as a Class A Member after July 1, 2008.

OR

Alternate Formula

Enhanced Benefit
2.4% times Final Average Compensation times years of Credited Service as a Class A Member before July 1, 2008, **plus**

Base Benefit
2.25% times Final Average Compensation times years of Credited Service as a Class A Member after July 1, 2008 **less**

80% of Primary Social Security benefit.

Summary of Principal Benefit Provisions as Amended Through the 2013 Legislative Session

The Class B benefit for Class B Public Safety Members is:

Enhanced Benefit
2.4% times Final Average Compensation times years of Credited Service as a Class B Public Safety Member before July 1, 2008, **plus**

Base Benefit
2.0% times Final Average Compensation times years of Credited Service as a Class B Public Safety Member after July 1, 2008.

The Class B benefit for Class B Judicial Members is determined by adding the Enhanced and Base Benefit for both the first 15 years of Credited Service and years of Credited Service in excess of 15, as follows:

First 15 years of Credited Service

Enhanced Benefit
3.733% times Final Average Compensation times the first 15 years of Credited Service as a Class B Judicial Member before July 1, 2008, **plus**

Base Benefit
3.333% times Final Average Compensation times all other such years of Credited Service as a Class B Judicial Member after July 1, 2008.

PLUS

Years of Credited Service in Excess of 15

Enhanced Benefit
2.4% times Final Average Compensation times years of Credited Service as a Class B Judicial Member before July 1, 2008, in excess of 15 years, **plus**

Base Benefit
2.0% times Final Average Compensation times all other such years of Credited Service as a Class B Judicial Member after July 1, 2008.

All of the above benefits are paid monthly.

SDRS benefits are limited to the maximum benefit under Section 415 of the Internal Revenue Code, except for the portion of benefits attributable to any after-tax contributions made prior to July 1, 1984.

Summary of Principal Benefit Provisions as Amended Through the 2013 Legislative Session

Delayed Retirement Benefit
The monthly benefit payable upon retirement after Normal Retirement Date is based on Credited Service and Final Average Compensation to date of actual retirement.

Special Early Retirement Date (Rule of 85, Rule of 80 and Rule of 75)
The Special Early Retirement Date for Class A Members is the date at which a Member's age plus Credited Service total 85, but not less than age 55. The Special Early Retirement Date for Class B Judicial Members is the date at which age plus Credited Service total 80, but not less than age 55. The Special Early Retirement Date for Class B Public Safety Members is the date at which age plus Credited Service total 75, but not less than age 45.

Members are entitled to retire at Special Early Retirement Date with a benefit equal to the Normal Retirement Benefit based on Credited Service and Final Average Compensation to date of retirement, with no reduction for early payment.

Early Retirement Benefit
Any Member with at least three years of Contributory Service can retire in the ten years preceding Normal Retirement Date. The Member will be entitled to receive the Normal Retirement Benefit based on Credited Service and Final Average Compensation to date of retirement, reduced by 1/4 of 1% for each full month by which commencement of payments precedes the earlier of the Normal Retirement Date or the Special Early Retirement Date. Benefits commence on the first of the month following retirement (or the date chosen for payment to commence) and 30 days after the application for retirement benefits has been received by SDRS.

Vested Benefit and Portable Retirement Option
A terminated Member with at least three years of Contributory Service will be entitled to receive the Normal or Early Retirement Benefit payable at either Normal or Early Retirement based on the Member's Credited Service at the time of termination of employment and increased by the Cost-of-Living Adjustment from the date of termination to the date benefits commence.

In lieu of any monthly lifetime retirement benefits under the System, a terminating Member may receive a lump sum of his Accumulated Contributions under the Portable Retirement Option. Members who are rehired may redeposit their Accumulated Contributions plus interest within two years of rehire to reinstate their Credited Service.

Summary of Principal Benefit Provisions as Amended Through the 2013 Legislative Session

Disability Benefit

A contributing Member, who becomes disabled with at least three years of Contributory Service, or was disabled by accidental means while performing the usual duties of his job, is entitled to an immediate monthly Disability Benefit.

The Disability Benefit is equal to:

- For the first 36 months, 50% of the Member's Final Average Compensation, increased 10% for each eligible child to a maximum of four children.
- Starting with the 37th month,
  - if the Member is receiving disability benefits from Social Security, the greater of:
    - 50% of the Final Average Compensation plus 10% for each eligible child to a maximum of 90% less the amount of primary Social Security.
    - 20% of Final Average Compensation increased by the COLA
    - The unreduced accrued retirement benefit
  - if the Member is not receiving disability benefits from Social Security, the greater of:
    - 20% of Final Average Compensation increased by the COLA
    - The unreduced accrued retirement benefit

The maximum benefit is 100% of Final Average Compensation (increased by the Cost-of-Living Adjustment) reduced by earned income and Primary Social Security.

The above benefits are payable monthly.

At age 65 (or when there are no eligible children, if later), but not before five years of disability, the benefit payable is converted to the Normal Retirement Benefit based on Compensation increased by the Cost-of-Living Adjustment for the period between the date of disability and Normal Retirement Date (Projected Compensation), and Credited Service as if employment had continued uninterrupted to Normal Retirement Date (Projected Credited Service).

Summary of Principal Benefit Provisions as Amended Through the 2013 Legislative Session

Survivor Benefits

Pre-Normal Retirement Age and Post-Disability Deaths

If an active Member with at least one year of Contributory Service, or a Member receiving a disability benefit commencing after July 1, 1974 dies, the surviving spouse having the care of eligible dependent children will receive an immediate benefit equal to 40% of the Member's Final Average Compensation, increased 10% for each child to a maximum of six children. If the surviving eligible dependent children are under the care of a guardian, the benefit payable will be 20% of the Member's Final Average Compensation for each child (to a maximum of five children).

The above survivor benefits are all payable monthly and reduced by 75% of Primary Social Security Benefit.

If no benefit is payable as defined above or payment has ceased, and the Member's Accumulated Contributions have not been withdrawn, the spouse is entitled to receive at the spouse's age 65 a benefit equal to 60% of the Normal Retirement Benefit that would have been payable to the deceased Member at Normal Retirement Date based on Projected Credited Service and Projected Compensation, and further increased by the Cost-of-Living Adjustment for any time between Normal Retirement Date and payment commencement date.

Post-Normal Retirement Age and Post-Retirement Deaths

Upon the death of a retiree or any Member at or beyond Normal Retirement Age, the surviving spouse is entitled to receive 60% of the monthly retirement benefit the Member was receiving or was eligible to receive.

Terminated Member

If a terminated Member dies prior to benefit commencement, the Accumulated Contributions are refunded to the designated beneficiary, children or estate in a lump sum.

Summary of Principal Benefit Provisions as Amended Through the 2013 Legislative Session

Optional Spouse Coverage (No Longer Offered After June 30, 2010)

Prior to June 30, 2010, a Member could have elected to provide an additional benefit payable to the surviving spouse within 365 days after becoming a Member, within 90 days following attainment of age 35, or within 90 days after the first anniversary of marriage. This optional coverage may continue until the Member's spouse attains age 65, the death or disability of the Member, the death of the Member's spouse, termination of the Member's marriage to his spouse, or the Member's termination of employment.

The elected additional monthly benefit is equal to 40% of the Member's Final Average Compensation multiplied by the Cost-of-Living Adjustment for each full year between the date of death or disability of the Member to payment commencement. Such benefit is paid upon the Member's death from the time there are no eligible dependent children until the spouse dies or attains age 65.

The cost of this protection is paid by the Member through an additional contribution 1.2% of Compensation, which will not be matched by the Employer and is not refundable.

Accumulated Contributions as Minimum Benefits

If the aggregate benefit payments received by a Member and the Member's beneficiary (excluding benefits received under the Optional Spouse Coverage benefit provisions) do not equal the sum of the Accumulated Contributions then the difference will be paid to the Member's designated beneficiary, children or estate in a lump sum.

Optional Forms of Retirement Payments

The monthly retirement benefits may be modified to an optional form of payment which is the actuarial equivalent of the benefit due under the System. A Social Security level income payment option is available for Members who retire before age 62.

Administrative Expenses

Administrative expenses are paid from the System's assets in an amount not to exceed 3% of the annual Member and Employer Contributions received by the System.

Retired Members

Retired Members' and terminated vested Members' benefits have been increased to reflect the benefit formula currently in effect for active Members.

Description of Actuarial Methods and Valuation Procedures

A. Actuarial Cost Method

Liabilities and contributions shown in this report are computed using the **Frozen Entry Age Actuarial Cost Method** of funding.

Sometimes called a "funding method," this is a particular technique used by actuaries for establishing the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily the annual contribution to the plan is comprised of (1) the normal cost and (2) an amortization payment on the unfunded actuarial accrued liability.

Under the **Frozen Entry Age Actuarial Cost Method**, the **Normal Cost** is computed as the percentage of pay which, if paid from the valuation date to each Member's assumed retirement or termination, that along with the current assets and amortization payments would accumulate with interest at the rate assumed in the valuation to a fund sufficient to pay all benefits under the Plan.

The Normal Cost Rate for the Plan is determined by taking the excess of the aggregate Present Value of Future Normal Costs for the membership group and dividing this result by the aggregate Present Value of Total Projected Payroll of Members before assumed retirement age. The Normal Cost Rate is then multiplied by the total payroll for active members before assumed retirement to determine the Normal Cost. This procedure is performed for the group as a whole, not as the sum of individual normal cost calculations.

The **Frozen Unfunded Actuarial Accrued Liability** is initially determined using the Entry Age Actuarial Cost Method, and is adjusted annually with interest at a rate assumed in the valuation and amortization payments made during the year. Effective for the June 30, 2013 valuation, the Frozen Unfunded Actuarial Accrued Liability was eliminated through an adjustment to the Actuarial Value of Assets, Cushion and Reserve for Funding of Long-Term Benefit Goals. The Entry Age Actuarial Cost Method will be used in future years to determine the Normal Cost. The Frozen Unfunded Actuarial Accrued Liability will remain at $0 unless and until it is increased to recognize a change in plan provisions or actuarial assumptions or to recognize a decrease in Actuarial Value of Assets required to remain in the 20% corridor around Market Value of Assets.

Under this method experience gains or losses, i.e., decreases or increases in liabilities attributable to deviations in experience from the actuarial assumptions, related to past service adjust the Actuarial Value of Assets and gains and losses related to future service adjust the Normal Cost.

Description of Actuarial Methods and Valuation Procedures

B. Asset Valuation Method

The prior year's Actuarial Value of Assets is credited each year with the assumed rate of investment return plus non-investment cash flow and SDRS liability gains or losses for the year.

The resulting Actuarial Value of Assets is constrained to a range of 80% to 120% of the Market Value of Assets, and if this corridor applies, it will also result in an adjustment to the Reserve for Funding of Long-Term Benefit Goals. Effective June 30, 2013, the Actuarial Value of Assets was increased and the Cushion and Reserve were decreased by $634 million in order to eliminate the Frozen Unfunded Actuarial Accrued Liability as of June 30, 2013.

The Reserve for Funding of Long-Term Benefit Goals was included in the Actuarial Value of Assets for the years ended June 30, 1995 through June 30, 2003. As of June 30, 2004, the Reserve for Funding of Long-Term Benefit Goals was no longer included in the Actuarial Value of Assets.

C. Valuation Procedures

No actuarial liability is included for members who terminated non-vested prior to the valuation date, except those due a refund of contributions.

The compensation amounts used in the projection of benefits and liabilities were annualized, prior-year compensation amounts projected with assumed salary increases to the valuation year.

In computing accrued benefits, average earnings were determined using actual earnings histories supplied by SDRS staff.

For beneficiaries missing dates of birth, this information was populated assuming our spouse age difference assumption. The incidence of missing information is small, so the impact of this procedure does not have a material impact on the valuation results.

No termination or retirement benefits were projected to be greater than the dollar limitation required by the Internal Revenue Code Section 415 for governmental plans.

Annual increases in salary were limited to the dollar amount defined under Internal Revenue Code Section 401(a)(17) for affected members.

Summary of Actuarial Assumptions for Actuarial Valuation as of June 30, 2013

1. Investment Return/ Discount Rate

7.25% per annum for 5 years beginning July 1, 2012, increasing to 7.50% after 5 years, compounded annually, net of investment expenses. This nominal rate includes price inflation of 3.25% per annum and a real rate of return of 4.00% annually per annum during the 5 year period beginning July 1, 2012, and 4.25% per annum thereafter.

2. Retirement Age

Class A School Members:

	Annual Rate Per 100 Members Eligible to Retire			
	Reduced		Unreduced	
Age	Male	Female	Male	Female
55	7.0	6.5	17.5	13.5
56	7.0	6.5	12.5	12.5
57	7.0	6.5	12.5	12.5
58	7.0	6.5	12.5	12.5
59	7.0	7.5	12.5	17.5
60	9.0	8.5	12.5	17.5
61	12.5	12.0	25.0	22.5
62	12.5	12.5	25.0	25.0
63	12.5	12.5	17.5	22.5
64	17.5	20.0	20.0	22.5
65			30.0	35.0
66			25.0	25.0
67			25.0	25.0
68			25.0	25.0
69			25.0	25.0
70			30.0	30.0
71			30.0	30.0
72			30.0	30.0
73			30.0	30.0
74			30.0	30.0
75			30.0	30.0
76			30.0	30.0
77			30.0	30.0
78			30.0	30.0
79			30.0	30.0
80			100	100

Summary of Actuarial Assumptions for Actuarial Valuation as of June 30, 2013

All Other Class A Members:

	Annual Rate Per 100 Members Eligible to Retire			
	Reduced		Unreduced	
Age	Male	Female	Male	Female
55	5.0	4.0	17.5	12.5
56	5.0	4.0	8.0	8.0
57	5.0	4.0	8.0	8.0
58	5.0	4.0	8.0	8.0
59	5.0	6.0	12.0	11.0
60	6.0	8.0	12.0	11.0
61	10.0	9.5	17.5	11.0
62	13.5	12.0	30.0	22.5
63	13.5	12.0	25.0	17.5
64	17.5	20.0	25.0	17.5
65			40.0	32.5
66			25.0	20.0
67			25.0	20.0
68			25.0	20.0
69			25.0	20.0
70			30.0	30.0
71			30.0	30.0
72			30.0	30.0
73			30.0	30.0
74			30.0	30.0
75			30.0	30.0
76			30.0	30.0
77			30.0	30.0
78			30.0	30.0
79			30.0	30.0
80			100	100

Summary of Actuarial Assumptions for Actuarial Valuation as of June 30, 2013

Class B Judges Members:

	Annual Rate Per 100 Members Eligible to Retire	
Age	Reduced	Unreduced
55	8.0	15.0
56	8.0	5.0
57	2.0	5.0
58	2.0	5.0
59	2.0	5.0
60	2.0	10.0
61	2.0	10.0
62	2.0	15.0
63	2.0	12.7
64	2.0	20.0
65		20.0
66		15.0
67		15.0
68		25.0
69		30.0
70		100

Class B Public Safety Members:

	Annual Rate Per 100 Members Eligible to Retire	
Age	Reduced	Unreduced
45	6.0	5.0
46	6.0	5.0
47	6.0	5.0
48	6.0	10.0
49	6.0	10.0
50	9.0	10.0
51	9.0	10.0
52	9.0	10.0
53	9.0	10.0
54	11.0	15.0
55		15.0
56		7.5
57		7.5
58		11.0
59		12.5
60		12.5
61		25.0
62		25.0
63		25.0
64		25.0
65		100

Summary of Actuarial Assumptions for Actuarial Valuation as of June 30, 2013

3. Compensation Progression Sample Rates

Service	Ratio of Compensation at 31 Years of Service to Compensation at Current Year of Service	Percentage Increase in Year Following Indicated Year of Service
0	4.07	5.83%
5	3.10	5.32
10	2.41	4.89
15	1.91	4.50
20	1.55	4.19
25	1.26	4.03
30	1.04	3.87

4. Mortality

Mortality improvement is anticipated to continue beyond the valuation date, but improvements are expected to be at a slower rate than in prior periods based on SDRS's most recent mortality experience. There is a small margin in the mortality assumption above recent SDRS mortality experience to account for future mortality improvements. The use of the current mortality assumption results in a liability greater than the RP-2000 combined table, projected with Scale AA to 7 years beyond the valuation date for annuitants and 15 years beyond the valuation date for non-annuitants.

Active Members and Non-Disabled Retirees

1995 Buck Mortality Table, male rates set-back 1 year. See table below for sample values.

Disabled Retirees

1983 Railroad Retirement Board Disabled Annuitants Mortality Table. See table below for sample values.

Annual Rate Per 100 Members			
	Mortality		
Age	Male	Female	Disabled Mortality
25	.07	.02	.68
30	.06	.02	1.06
35	.07	.04	1.14
40	.09	.06	1.35
45	.13	.09	2.00
50	.20	.14	3.16
55	.31	.21	3.78
60	.56	.32	4.25
65	1.09	.66	5.12

Summary of Actuarial Assumptions for Actuarial Valuation as of June 30, 2013

5. Disability

Graduated rates. See table below for sample values

Annual Rate Per 100 Members						
Age	Class A School Members		All other Class A Members		Class B Public Safety Members	
	Male	Female	Male	Female	Male	Female
25	.02	.02	.04	.04	.08	.10
30	.02	.02	.05	.04	.08	.11
35	.02	.02	.05	.04	.10	.12
40	.03	.03	.06	.05	.12	.15
45	.04	.04	.09	.08	.16	.22
50	.06	.05	.13	.08	.24	.23
55	.10	.08	.22	.13	.40	.38
60	.21	.16	.46	.28	.84	.80
65	.43	.31	.94	.54	1.71	1.55

No disability is assumed for Class B Judicial members

6. Termination

Annual Rate Per 100 Members					
Select Rates of Termination During First 5 Years of Employment					
Service	Class A School Members		All other Class A Members		Class B Public Safety Members
	Male	Female	Male	Female	
1	22.50	25.00	17.50	21.00	18.00
2	17.50	17.50	14.00	18.00	12.50
3	15.00	15.00	11.00	15.00	11.00
4	12.50	12.50	9.00	12.50	10.00
5	10.00	10.00	7.00	9.50	10.00

Annual Rate Per 100 Members					
After First 5 years of Employment					
Age	Class A School Members		All other Class A Members		Class B Public Safety Members
	Male	Female	Male	Female	
25	16.80	15.80	9.90	10.80	11.00
30	11.20	11.20	8.20	9.10	9.50
35	8.50	8.50	7.10	7.60	7.30
40	6.47	6.60	5.90	6.70	5.30
45	4.75	4.55	5.20	5.90	4.50
50	4.25	4.25	4.70	5.20	4.50
55	4.25	4.25	4.50	5.00	4.50

No termination is assumed for Class B Judicial members

Summary of Actuarial Assumptions for Actuarial Valuation as of June 30, 2013

7. Marital Status

a. Percentage Married	Active Members: 80% Retired and Terminated Members: 75%
b. Age Difference	Males are assumed to be three years older than females.
8. Future Social Security Increases	
a. Cost-of-Living Increases	3.25% per annum.
b. Wage Base Increases	3.75% per annum.
9. Interest on Accumulated Contributions	3.5% per annum.
10. Provision for Administrative Expenses	A separate expense factor equal to 2.0% of Member and Employer Contributions is included.
11. Election of Portable Retirement Option Benefits	Members are assumed to elect to receive the most valuable of the Portable Retirement Option or the Vested Benefit payable at retirement, at termination of employment.
12. Benefit Commencement for Terminated Vested Members	Terminated Vested Members are assumed to elect benefit commencement three years prior to Normal Retirement Date.
13. Disabled Members	70% of those receiving Disability Benefits are also receiving Social Security disability awards.
14. Children Death and Disability Benefit	Members are assumed to have 2 children between the members' ages of 29 and 48.
15. Assumed Cost-of-Living Adjustment (COLA)	Monthly benefit payments are assumed to increase annually at the rate of 2.70% per year.

Glossary of Actuarial Terms

Actuarial Accrued Liability (AAL)
Equal to the Present Value of All Benefits less the Present Value of Future Normal Cost Contributions required for future benefits for SDRS Members and paid from future Employer and Member Contributions. It is the portion of the Present Value of All Benefits assigned to prior periods by the Entry Age Normal Cost Method with Frozen Unfunded Actuarial Accrued Liability. It represents the highest measure of the accrued liabilities of the System.

Actuarial Value Funded Ratio
An actuarial measure of the funding progress and soundness of the System based on the Actuarial Accrued Liability measurement of liabilities and the Actuarial Value of Assets. The ratio is required disclosure under Governmental Accounting Standards Board Statement No. 25 and is equal to the Actuarial Value of Assets divided by the Actuarial Accrued Liability. A ratio in excess of 100% would indicate that the Actuarial Accrued Liability is fully funded. A ratio of less than 100% would indicate an Unfunded Liability exists.

Actuarial Balance
Statutory contributions meeting or exceeding the Actuarial Funding Requirements.

Actuarial Funding Requirements
Under current Board policy and GASB Statement No. 25, the contribution required to fund the Normal Cost if the System is fully funded in accordance with the Board's funding objectives and the contribution required to fund the Normal Cost and amortize the Unfunded Actuarial Accrued Liability over a period not to exceed 20 years if the System is not fully funded.

Actuarial Investment Gain(s)
The amount the actual net investment return on the Market Value of Assets was greater than the expected investment return (7.25% per annum) on the Actuarial Value of Assets.

Actuarial Investment Loss(es)
The amount the actual net investment return on the Market Value of Assets was less than the expected investment return (7.25% per annum) on the Actuarial Value of Assets.

Actuarial Valuation
A projection of the Present Value of All Benefits currently earned and expected to be earned in the future by current Members of the System based on actuarial assumptions and actuarial methods as summarized in Exhibit 5. The results of the Actuarial Valuation provide information on the current and future financial soundness of the System.

Glossary of Actuarial Terms

Actuarial Value of Assets (AVA)
The value of assets considered in the Actuarial Valuation of the System and in determining the Funding Period.

The Actuarial Value of Assets is credited each year with the assumed rate of investment return, debited or credited with the SDRS liability gain or loss for the year and constrained to a range of 80% to 120% of the Market Value of Assets. If the Actuarial Value of Assets is constrained by the 80%/120% corridor, the Reserve for Funding Long-Term Benefit Goals will also be appropriately adjusted.

The revised method of determining the Actuarial Value of Assets was first effective for the year ended June 30, 1995, further revised effective for the year ended June 30, 1998, and most recently revised for the year ended June 30, 2004. As of June 30, 2004, the Reserve for Funding of Long-Term Benefit Goals is no longer included in the Actuarial Value of Assets. Effective June 30, 2012, the Actuarial Value of Assets was increased, and the Cushion and Reserve were decreased by $77.4 million in order to reach a 29-year funding period as of June 30, 2012. Effective June 30, 2013, the Actuarial Value of Assets was increased and the Cushion and Reserve for Funding of Long-Term Benefit Goals were decreased by $634 million to eliminate the Frozen Unfunded Actuarial Accrued Liability.

Annual Required Contributions of the Employers (ARC)
A calculation of the actuarially determined required annual Employer Contributions to SDRS determined in accordance with the parameters of Governmental Accounting Standards Board Statement No. 25. The statement requires that the Employer Contribution be determined in accordance with certain parameters as outlined in the statement and be sufficient to pay the Employer Normal Costs of the System plus amortize the Frozen Unfunded Actuarial Accrued Liability over a period not to exceed 30 years if the System is not fully funded.

Cushion
The excess of Market Value of Assets (MVA) over Actuarial Value of Assets (AVA); if AVA exceeds MVA, the difference is referred to as a Deficit. Since the Cushion or the Deficit is not taken into account in determining the Actuarial Funding Requirements, a Cushion is available to offset future unfavorable experience and a Deficit will require future favorable experience or ultimately higher Actuarial Funding Requirements.

Frozen Entry Age Actuarial Cost Method
SDRS's adopted funding method for determining NC and AAL; the NC and UAAL are initially determined using the Entry Age Actuarial Cost Method. In subsequent years, the UAAL is "frozen" (not adjusted by gains and losses) but only by NC, contributions and interest. Effective for the June 30, 2013 valuation, the Frozen Unfunded Actuarial Accrued Liability was eliminated through an adjustment to the Actuarial Value of Assets, Cushion and Reserve for Funding of Long-Term Benefit Goals. The Entry Age Actuarial Cost Method will be used in future years to determine the Normal Cost. The Frozen Unfunded Actuarial Accrued Liability will remain at $0 unless and until it is increased to recognize a change in plan provisions or actuarial assumptions or to recognize a decrease in Actuarial Value of Assets required to remain in the 20% corridor around Market Value of Assets.

Glossary of Actuarial Terms

Frozen Unfunded Actuarial Accrued Liability (UAAL)
In the initial year of the application of the Entry Age Normal Actuarial Cost Method with Frozen Unfunded Actuarial Accrued Liability, the amount in excess of the current Actuarial Value of Assets that would have been accumulated on the valuation date if the Entry Age Normal level funding method had always been used and the Entry Age Normal Cost Contribution Rate for past years had been made. In subsequent years, the Frozen Unfunded Actuarial Accrued Liability is frozen with respect to experience gains and losses. It is reduced by the excess of Employer and Member Contributions over the Interest Charge on the Frozen Unfunded Actuarial Accrued Liability plus the Normal Cost and Expenses of the System. It is increased or decreased by the change in Actuarial Accrued Liability for benefit changes enacted into Law (unless funded from the Reserve for Funding of Long-Term Benefit Goals) and changes in actuarial assumptions. This Frozen Unfunded Actuarial Accrued Liability is also referred to as the Unfunded Actuarial Accrued Liability.

Funded Ratio
The ratio of System assets to the Actuarial Accrued Liability – two measures are considered and disclosed:
- Actuarial Value Funded Ratio: Actuarial Value of Assets/Actuarial Accrued Liability
- Market Value Funded Ratio: Market Value of Assets/Actuarial Accrued Liability

Funding Period
An actuarial measure of the soundness of the System which measures the length of time in which the Employer and Member Contributions will amortize the Frozen Unfunded Actuarial Accrued Liability as well as pay the Normal Costs, Interest Charge on the Frozen Unfunded Actuarial Accrued Liability, and expenses of the System. The shorter the Funding Period, the more favorable the actuarial balance of the System.

The SDRS Board of Trustees has adopted a funding policy objective maintaining a fully funded system with no Unfunded Actuarial Accrued Liability. However, if unfavorable experience results in not meeting that objective, the Board's funding policy objective is a Funding Period not to exceed 20 years.

Interest Charge on the Frozen Unfunded Actuarial Accrued Liability
The amount of interest that is accrued each year on the Frozen Unfunded Actuarial Accrued Liability.

Market Value of Assets (MVA)
The value of assets as of the date of the Actuarial Valuation at fair market value.

Market Value Funded Ratio
An actuarial measure of the funding progress and soundness of the System based on the Actuarial Accrued Liability measurement of liabilities and the Market Value of Assets. The ratio is equal to the Market Value of Assets divided by the Actuarial Accrued Liability. A ratio in excess of 100% would indicate that the Actuarial Accrued Liability is fully funded. This measure is a factor in determining the annual COLA for retired SDRS members.

Normal Cost (NC)
The cost of benefits earned during the current fiscal year as determined by the funding method.

Glossary of Actuarial Terms

Normal Cost Contribution Rate
The level percentage of Member Compensation which, if paid into the System during the future period of time a Member is accruing Credited Service, will, when combined with the Actuarial Accrued Liability, accumulate with interest at the rate assumed in the Actuarial Valuation to an amount sufficient to pay all benefits under the System. This Normal Cost Contribution Rate is also referred to as the Normal Cost.

Present Value of All Benefits (PVB)
The single sum amount which, if accumulated in a fund in accordance with the actuarial assumptions, would be sufficient to pay all benefits expected to be paid to Retired Members, Beneficiaries and Terminated Members and all benefits expected to be earned by current active Members for past and future Credited Service, as well as future Compensation, as they fall due.

Present Value of Future Normal Cost Contributions (PVFNC)
The Present Value of Future Normal Cost Contributions is the Present Value of Future Normal Costs to be paid by Employer and Member Contributions and is also equal to the excess of the Present Value of All Benefits over the sum of the Actuarial Value of Assets and the Frozen Unfunded Actuarial Accrued Liability.

Re-initialization
Resetting actuarial measurements based on current conditions only; For example, the Normal Cost and Unfunded Actuarial Accrued Liability can be reset without regard to past experience and the Actuarial Value of Assets can be reset to the Market Value of Assets eliminating the current Cushion or Deficit. After re-initialization, the Actuarial Funding Method functions as it did before re-initialization.

Glossary of Actuarial Terms

Reserve for Funding of Long-Term Benefit Goals

SDRS investment and liability gains and losses are allocated to the Reserve for Funding of Long-Term Benefit Goals. The Reserve for Funding of Long-Term Benefit Goals is equal to the cumulative amounts credited or debited annually based on the immediate recognition of Actuarial Investment Losses, the five-year recognition of Actuarial Investment Gains and the five-year recognition of SDRS liability gains or losses, less reductions described below. If benefit improvements are enacted into Law and funded from the Reserve for Funding of Long-Term Benefit Goals, the Reserve for Funding of Long-Term Benefit Goals is reduced by the Present Value of All Benefits for those improvements. Similarly, benefit reductions will increase the Reserve. The Reserve for Funding of Long-Term Benefit Goals may also be reduced to offset unfavorable experience, if required, to meet the funding objectives of SDRS as established by the Board of Trustees. A positive balance in the Reserve for Funding of Long-Term Benefit Goals indicates that cumulative recognized gains and the net costs of benefit provision changes are greater than cumulative recognized losses to the System. A negative balance in the Reserve for Funding of Long-Term Benefit Goals indicates that cumulative recognized losses are greater than cumulative recognized gains to the System and the net costs of benefit provision changes. The balance of the Reserve and the amounts of deferred gains or losses yet to be allocated provide important information about the past experience of the System.

Because of the immediate recognition of Actuarial Investment Losses and the five-year recognition of Actuarial Investment Gains, the Reserve may have a significant current negative balance until all deferred gains are recognized even when the overall experience is positive.

The Reserve for Funding of Long-Term Benefit Goals was initialized for the year ended June 30, 1995 and the methodology was revised for the years ended June 30, 1998 and June 30, 2001. Effective June 30, 2004, the positive balance of this Reserve is no longer included in the Present Value of All Benefits, the Actuarial Accrued Liability, or the Actuarial Value of Assets.

Benefit definitions are summarized in Section 5.1, Summary of Principal Benefit Provisions.