

**Delaware State Judiciary  
Pension Plan**

**Actuarial Valuation  
as of June 30, 2014**

**Produced by **Cheiron****

**February 2015**

## Table of Contents

Letter of Transmittal .....	i
Foreword.....	ii
Section I – Board Summary .....	1
Section II – Assets .....	10
Section III – Liabilities .....	13
Section IV – Contributions .....	17
Section V – Accounting Statement Information.....	19
Appendix A – Membership Information.....	24
Appendix B – Actuarial Assumptions and Methods.....	30
Appendix C – Summary of Plan Provisions .....	36

February 6, 2015

Board of Pension Trustees  
 State of Delaware  
 McArdle Building  
 860 Silver Lake Boulevard, Suite 1  
 Dover, Delaware 19904

Dear Members of the Board:

At your request, we have conducted our annual actuarial valuation of the Delaware State Judiciary Pension Plan (Plan) as of June 30, 2014. The results of this valuation are contained in this report. The purpose of the valuation is discussed in the Foreword.

This report contains information on plan assets and liabilities, as well as analyses combining asset and liability performance and projections. It also discloses State contribution levels and required disclosures under the Governmental Accounting Standards Board (GASB) Statement No. 67.

In completing the valuation and preparing our report, we relied on information, some oral and some written, supplied by staff of the Office of Pensions. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

The contribution results of this report are only applicable to the State contribution for Fiscal Year (FY) 2016 and rely on future Plan experience conforming to the underlying assumptions. To the extent that actual Plan experience deviates from the underlying assumptions, the results would vary accordingly.

To the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices that are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinions contained in this report. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

This report was prepared for the Delaware State Judiciary Pension Plan for the purpose described herein and for the use by the Plan auditor in completing an audit related to the matters herein. This valuation report is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

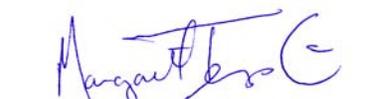
Sincerely,  
 Cheiron



Fiona E. Liston, FSA  
 Principal Consulting Actuary



Elizabeth Wiley, FSA, EA  
 Consulting Actuary



Margaret A. Tempkin, FSA  
 Principal Consulting Actuary



**DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014**

**FOREWORD**

Cheiron has performed the annual actuarial valuation of the Delaware State Judiciary Pension Plan (Plan) as of June 30, 2014. The purpose of this report is to:

- 1) **Measure and disclose**, as of the valuation date, the financial condition of the Plan;
- 2) **Indicate trends** in the financial condition of the Plan;
- 3) **Determine the contribution rate** to be paid by the State for Fiscal Year (FY) 2016; and
- 4) **Provide** accounting statement information.

An actuarial valuation establishes and analyzes plan assets and liabilities on a consistent basis and traces the progress of both from one year to the next. It includes measurement of the plan's investment performance as well as an analysis of liability gains and losses.

**Section I** presents a summary containing our findings and disclosing important trends experienced by the Plan in recent years.

**Section II** contains details on various asset measures, together with pertinent performance measurements.

**Section III** shows similar information on liabilities, measured for actuarial, accounting, and governmental reporting purposes.

**Section IV** presents the FY 2016 actuarially determined State contribution.

**Section V** includes the required disclosures under Governmental Accounting Standards Board (GASB) Statement No. 67 and items recommended by the Government Finance Officers Association (GFOA).

The appendices to this report contain a summary of the Plan's membership at the valuation date, a summary of the major provisions of the Plan, and a summary of the actuarial methods and assumptions used in the valuation.

The actuarial assumptions reflect our understanding of the likely future experience of the Plan, and the assumptions individually and as a whole represent our best estimate for the future experience of the Plan. The results of this report are dependent upon future experience conforming to these assumptions. To the extent that future experience deviates from the actuarial assumptions, the true cost of the Plan would vary from our results.

**DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014**

**SECTION I  
BOARD SUMMARY**

**General Comments**

The actuarially determined contribution (ADC) rate decreased from 26.44% for FY 2015 to 21.51% for FY 2016. This 21.51% ADC for FY 2016 reflects a change in the amortization component of the Plan's funding policy adopted with the 2014 valuation. Had the amortization method not been changed, the ADC for FY 2016 would have only slightly decreased, to 26.22%.

During the year ended June 30, 2014, the Plan's assets earned 17.2% on a market value basis. However, due to the Plan's asset smoothing method, which recognizes only a portion of investment gains and losses, the return on an actuarial value basis was 11.2%. This return was greater than the assumed investment rate of return of 7.5% for last year, resulting in an actuarial gain on investments of \$2.3 million. Note that this comparison will be made against the revised 7.2% assumption next year due to the investment rate of return assumption change.

The Plan experienced an actuarial gain on plan liabilities resulting from salary increases different from those assumed and members retiring, terminating, becoming disabled, and dying at rates different from the actuarial assumptions. This liability gain decreased the actuarial liability by \$1.4 million (1.9% of the total actuarial liability). This type of relatively small gain or loss is normal in the course of plan experience, as we cannot predict exactly how people will behave.

This valuation reflects changes in both liability and asset measurements due to a reduction in the assumed investment rate of return from 7.5% to 7.2%. This assumption change, combined with offsetting adjustments to inflation assumptions, increased the actuarial liability measurement by \$1.7 million. As a partial offset to this liability impact, an additional 30% of the remaining balance of past investment gains was included in the measurement of the actuarial value of assets at the June 30, 2014. This additional amount represents \$1.3 million of the total \$2.3 million investment gain reported above.

This valuation report also contains information to be reported in the June 30, 2014 Comprehensive Annual Financial Report (CAFR) of the Delaware Public Employees' Retirement System (Delaware PERS) under the new GASB Statement No. 67 as well as additional disclosure information recommended by the Government Finance Officers Association (GFOA). The GASB disclosures are based on the use of updated procedures to roll forward the 2013 actuarial valuation liability results. The 2013 liability results, used as the starting point for this roll forward, include the changes in the investment rate of return and inflation assumptions, first included for funding in this 2014 report, and as such are higher than the funding numbers in the 2013 valuation report. The calculation of net pension liability in Section V is shown as disclosed for the plan year ending June 30, 2014, based on the 2013 actuarial valuation liability results. We also present a projection of the June 30, 2015 disclosure in Section V, assuming all actuarial assumptions are met over the coming year, which is based on the 2014 actuarial valuation liability results.

DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014

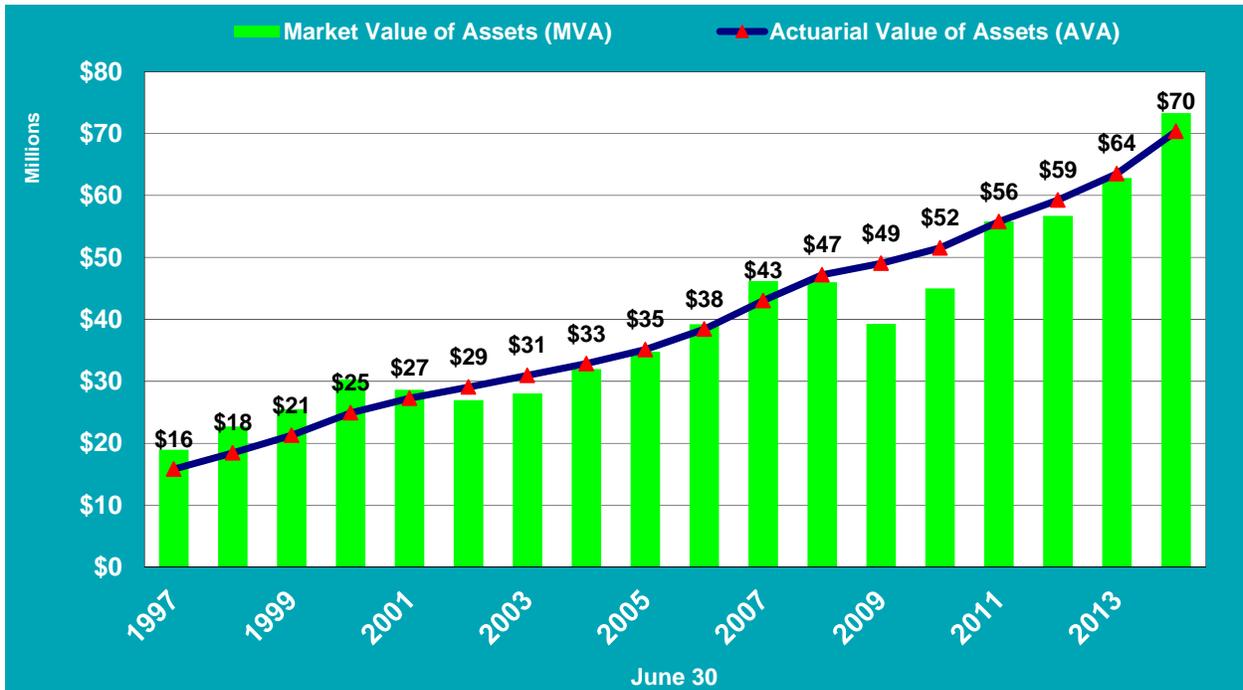
SECTION I  
BOARD SUMMARY

As of the June 30, 2014 actuarial valuation, the Plan's unfunded actuarial liability (UAL) was \$0.3 million. This is a decrease from the \$3.1 million UAL in the funding valuation for the prior year.

**Trends**

Growth in Assets

The graph below shows measurements of the Plan's assets over the last 18 years based on both market values and actuarial values. The green bars represent the market value measurements, while the blue line shows the actuarial value measurements. The black numbers are the actuarial value of assets as of the valuation date for each year, in millions of dollars.



The market value of assets (MVA) returned 17.2% over the last year. The determination of the Plan's actuarial value of assets (AVA) for the current year reflects a portion of the return above the 7.5% assumed for the year, continued recognition of prior years' gains and losses, and an additional 30% of the remaining unrecognized investment gains recognized as a partial offset of the assumption changes.

Over the period of July 1, 1997 to June 30, 2014, the Plan's assets returned approximately 8.7% per year measured at actuarial value basis, compared to the current valuation assumption of 7.2%.

**DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014**

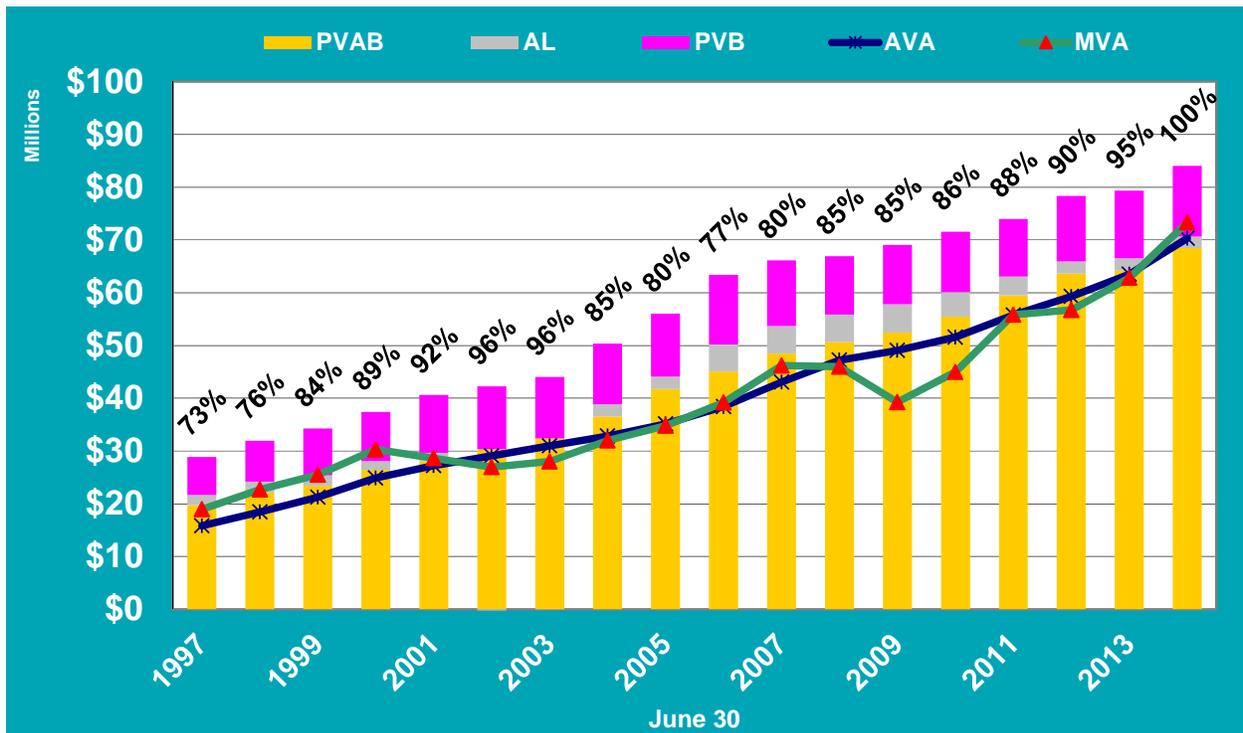
**SECTION I  
BOARD SUMMARY**

Assets and Liabilities

The three colored bars below represent the three different measures of liability discussed in this report. The first measure is given by the yellow bars, the present value of accrued benefits (PVAB). The PVAB values represent the value of all benefits earned by current members through the valuation date. These values do not reflect any future additional service or salary increases for current members.

The second liability measure is the one currently used for the Plan's funding target, the actuarial liability (AL). These target amounts are represented by the top of the gray bars. The funded ratios reported by the Plan are the percentages shown above the bars and are developed by comparing these target measurements of liability to the actuarial value of assets at each valuation date. This measurement is also the basis of the liability measure used in GASB 67.

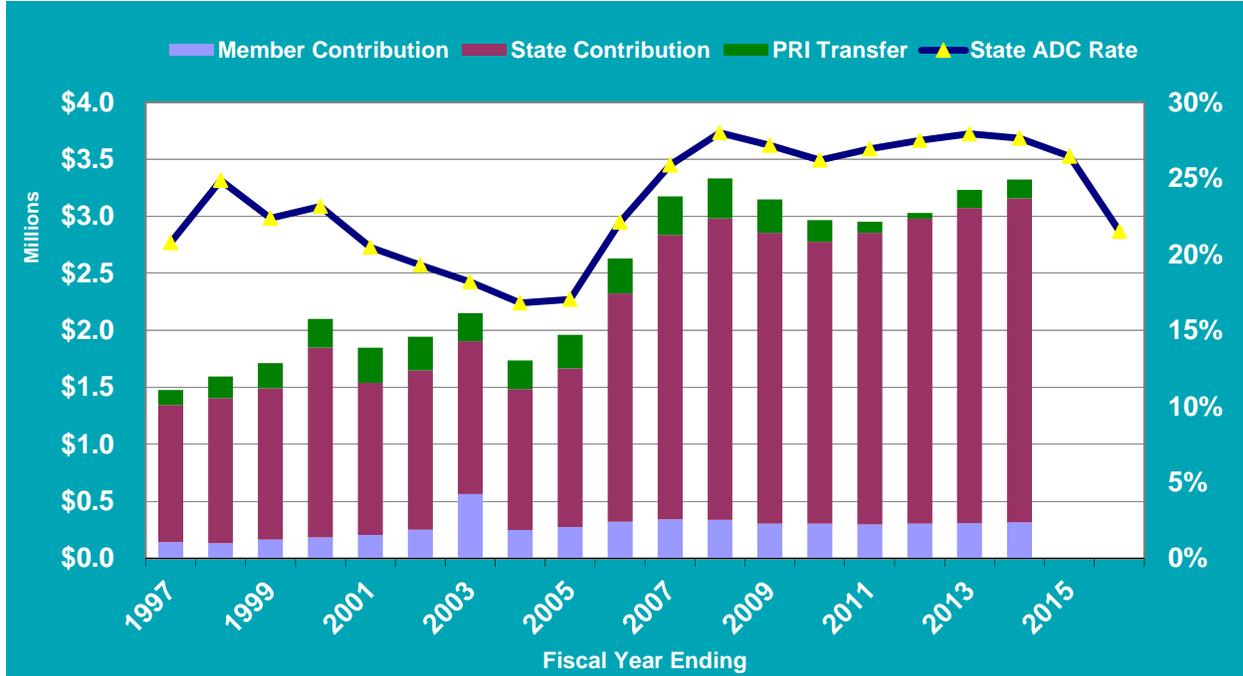
The amount represented by the top of the pink bars, the present value of future benefits (PVB), is the amount needed to provide all benefits for the current members and their beneficiaries, including reflection of assumed future service and pay increases. If the Plan had assets equal to the PVB as of a certain date, no additional contributions would, in theory, be needed for the current members if all assumptions were exactly met from that point forward.



**DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014**

**SECTION I  
BOARD SUMMARY**

Contribution Rates



The stacked bars in the graph above show the contributions made by the State, the Post-Retirement Increase Fund (PRI), and the members for each fiscal year, and are read using the left-hand scale. The blue line shows the State ADC rate as a percentage of payroll (right-hand scale).

The member contribution rate is set by State law, based on the Plan in which the member participates. The State contribution rate is set by the actuarial process, while the PRI transfer amounts depend on the increases granted by the State legislature. Please note that there is a lag in the State contribution rate shown. For example, the value shown for the Fiscal Year 2014 is the rate prepared by the June 30, 2012 valuation and implemented for the period July 1, 2013 to June 30, 2014.

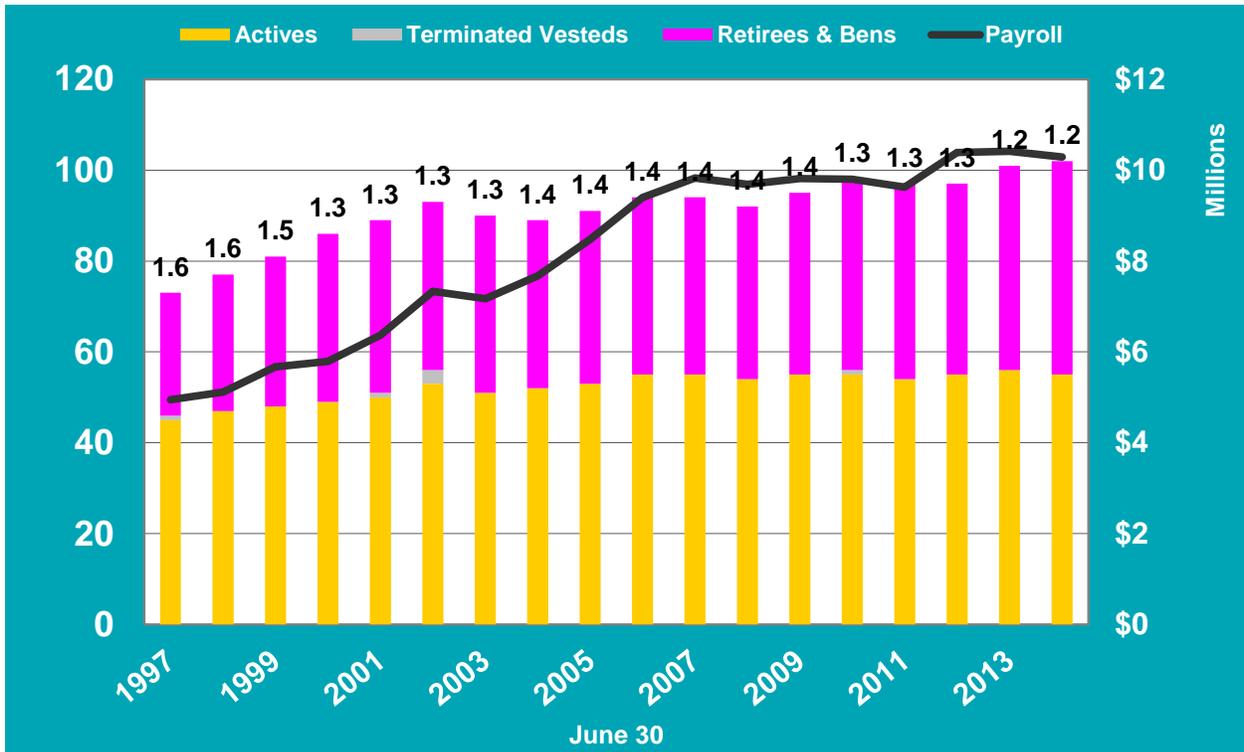
**DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014**

**SECTION I  
BOARD SUMMARY**

Participant Trends

The bars below show the number of members as of each valuation date, divided between active members, terminated vested members, and retirees/beneficiaries. These bars should be read using the left-hand scale. As with most maturing funds, this Plan continues to show growth in the number of inactive members. The numbers that appear above each bar represent the ratio of active members to inactive members (retirees, beneficiaries, and terminated vested members) at each valuation date. The active-to-inactive ratio has decreased from 1.6 actives to each inactive in 1997 to 1.2 actives for each inactive today.

The black line shows the covered payroll for the Plan as of each valuation date and is read using the right-hand scale.



SECTION I  
 BOARD SUMMARY

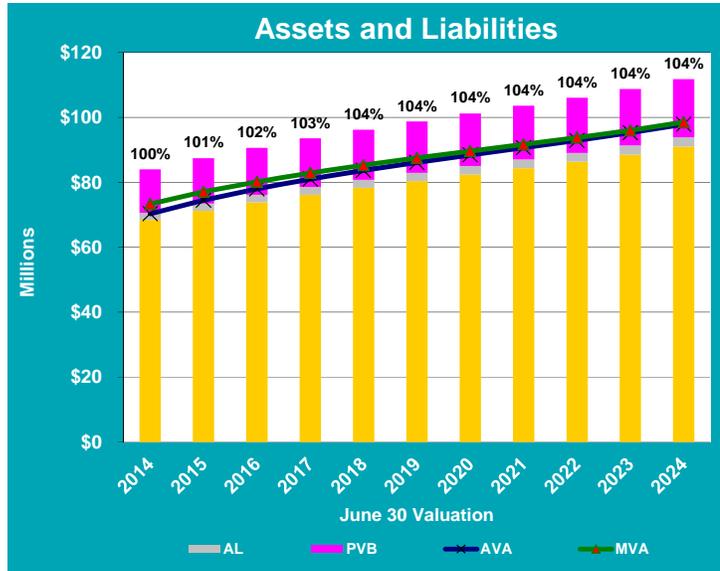
Future Outlook

Baseline Projections



These graphs show the expected progress of the Plan over the next ten years assuming the Plan’s assets earn 7.2% on a *market value* basis and assuming all assumptions are exactly met, including that the ADC amounts are made in full. The chart entitled “Plan Funding” shows a decrease in the State ADC rate next year due to the revised amortization schedule and the drop over time to 19.2% with the recognition of stored investment gains, absent further gains or losses.

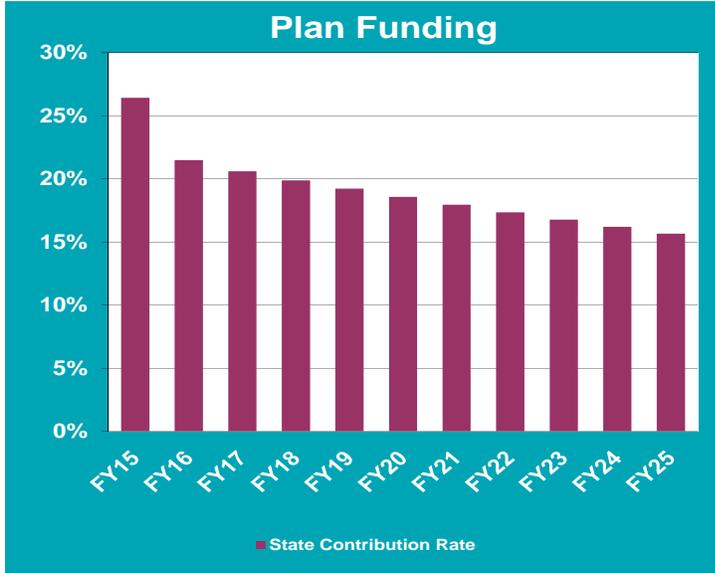
The “Assets and Liabilities” graph shows the projected funded ratios of the Plan over the next ten years. The Plan’s funded status is projected to steadily increase from 100% to 104% over the projection period, assuming all assumptions are exactly met.



**DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014**

**SECTION I  
BOARD SUMMARY**

Projections with Asset Returns of 8.2%

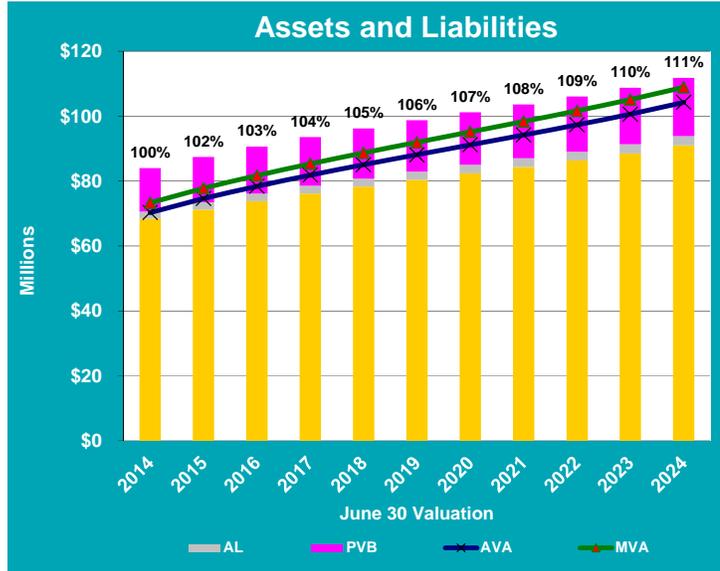


The Plan’s investment earnings will affect the future funding status of the Plan. These two graphs show what the next ten years would be expected to look like if the Plan’s investment performance is 8.2% each year, 1.0% higher than the valuation investment rate of return assumption.

These two graphs assume all other assumptions are exactly met, including State contributions equal to the full actuarially determined amounts.

The “Plan Funding” graph shows that the State ADC rate under this scenario decreases even more than the baseline scenario, dropping to approximately 15.7% of payroll at the end of the projected period

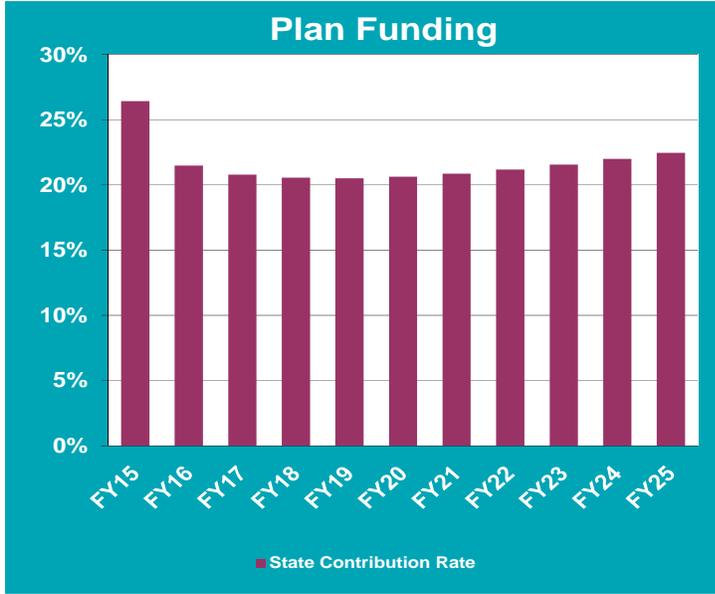
The “Assets and Liabilities” graph shows that the Plan would reach a 111% funded ratio by 2024 under this scenario, an improvement over the baseline scenario’s 104%.



**DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014**

**SECTION I  
BOARD SUMMARY**

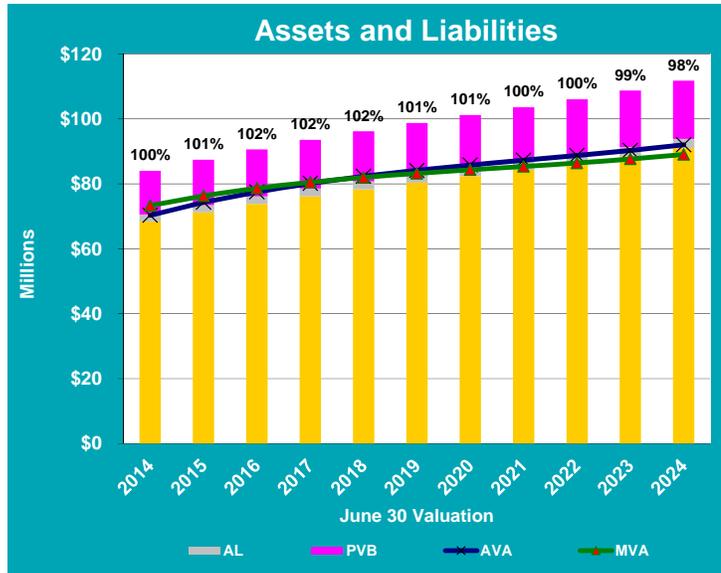
Projections with Asset Returns of 6.2%



The graphs on this page show projections of the Plan’s funding status assuming the Plan’s investment performance is 6.2% each year of the projection, 1.0% lower than the valuation investment rate of return assumption. While the current remaining unrecognized gains would cushion the new annual losses for a period, eventually the new losses would result in the funded ratio dropping and the required contributions increasing compared to the baseline scenario. This effect demonstrates the importance of investment earnings on the Plan’s future funding needs.

Note that these projections assume all other assumptions are exactly met, including payment of State contributions equal to the full actuarially determined contribution.

Under this scenario, the State’s ADC rate initially decreases with the revised amortization schedule and then gradually increases to approximately 22.5% of payroll for the final year of the projection, compared to 19.2% in the baseline scenario. The funded ratio as of 2024 under this scenario decreases to 98%, compared to 104% in the baseline scenario.



DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014

**SECTION I  
BOARD SUMMARY**

**Table I-1  
Summary of Principal Plan Results**

Valuation as of:	June 30, 2013	June 30, 2014	% Change
<b><u>Member Counts</u></b>			
Active Members	56	55	(1.79%)
Disabled Members	2	2	0.00%
Retirees and Beneficiaries	43	45	4.65%
Terminated Vested Members	0	0	N/A
Terminated Non-Vested Members	0	0	N/A
<b>Total</b>	<b>101</b>	<b>102</b>	<b>0.99%</b>
Covered Payroll of Active Members*	\$ 10,416,400	\$ 10,290,200	(1.21%)
Annual Benefit Payments for Retirees, Disabled Members, and Beneficiaries	\$ 3,395,800	\$ 3,797,500	11.83%
<b><u>Assets and Liabilities</u></b>			
Actuarial Liability (AL)	\$ 66,566,500	\$ 70,606,600	6.07%
Actuarial Value of Assets (AVA)	63,511,600	70,334,500	10.74%
Unfunded AL (UAL)	\$ 3,054,900	\$ 272,100	(91.09%)
Funded Ratio	95.4%	99.6%	
Present Value of Accrued Benefits (PVAB)	\$ 64,211,200	\$ 68,433,400	6.58%
Market Value of Assets (MVA)	62,822,100	73,325,000	16.72%
Unfunded PVAB	\$ 1,389,100	\$ (4,891,600)	(452.14%)
Accrued Benefit Funded Ratio	97.8%	107.1%	
<b><u>State Contribution Rate</u></b>			
	<b>Fiscal Year 2015</b>	<b>Fiscal Year 2016</b>	
Entry Age Normal Cost	20.31%	21.54%	
UAL Amortization Payment	6.03%	(0.13%)	
Administrative Expense	0.10%	0.10%	
Actuarially Determined Contribution (ADC)	26.44%	21.51%	

\* Assumes one year of payroll increase projection, so represents payroll beginning on each valuation date.

DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014

SECTION II  
ASSETS

Pension plan assets play a key role in the financial operation of the plan and in the decisions that the Trustees may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely affect benefit levels, State actuarially determined contributions, and the ultimate security of members' benefits.

In this section, we present detailed information on the Plan's assets including:

- **Disclosure** of the Plan's assets at June 30, 2013 and June 30, 2014;
- Statement of the **changes** in market values during the year;
- Development of the **actuarial value of assets**;
- An assessment of **investment performance**; and
- A projection of the Plan's expected **cash flows** for the next ten years.

**Market Value of Assets Disclosure**

The market values of assets represent "snap-shot or cash-out" values that provide the principal basis for measuring financial performance from one year to the next. However, market values can fluctuate widely with swings in the marketplace, and as such, are usually not suitable for budgeting and long-range planning.

Table II-1 below shows the market values as of June 30, 2013 and June 30, 2014, along with the changes between the two.

<b>Market Value of Assets – June 30, 2013</b>		<b>\$ 62,822,100</b>
<b><u>Additions</u></b>		
Member Contributions	\$ 317,200	
State Contributions	2,839,300	
PRI Transfers	164,800	
Investment Returns	10,782,500	
<b>Total Additions</b>	<b>\$ 14,103,800</b>	
<b><u>Deductions</u></b>		
Benefit Payments	\$ 3,588,100	
Administrative Expenses	12,800	
<b>Total Deductions</b>	<b>\$ 3,600,900</b>	
<b>Market Value of Assets – June 30, 2014</b>		<b>\$ 73,325,000</b>

**DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014**

**SECTION II  
ASSETS**

**Actuarial Value of Assets**

The actuarial value of assets represents a “smoothed” value developed by the actuary to reduce, or eliminate, erratic results that could develop from short-term fluctuations in the market value of assets. The actuarial value for this plan equals the expected actuarial value of assets, developed from the immediately prior valuation, plus 20% of the difference between the actual market value of assets and that expected actuarial value of assets at the valuation date. For this June 30, 2014 valuation, the actuarial value of assets also recognizes an additional 30% of past deferred gains to partially offset the increases in liability and normal cost resulting from the reduction of the investment rate of return assumption from 7.50% to 7.20%. The table below illustrates the calculation of the actuarial value of assets as of June 30, 2014.

1.	Actuarial Value of Assets at June 30, 2013	\$ 63,511,600
2.	Amount in (1) with interest to June 30, 2014 at 7.50% per year	\$ 68,275,000
3.	State, PRI and member contributions for the Plan Year ended June 30, 2014	3,321,300
4.	Interest on contributions assuming payments made uniformly throughout the year to June 30, 2014 at 7.50% per year	124,500
5.	Disbursements from Trust except investment expenses, July 1, 2013 through June 30, 2014	3,600,900
6.	Interest on disbursements to June 30, 2014 at 7.50% per year	<u>135,000</u>
7.	Expected Actuarial Value of Assets at June 30, 2014 = (2) + (3) + (4) – (5) – (6)	\$ 67,984,900
8.	Actual Market Value of Assets at June 30, 2014	<u>\$ 73,325,000</u>
9.	Excess of (8) over (7)	5,340,100
10.	Additional 30% Recognition of Past Deferred Gains = 30% of 80% of (9)	<u>1,281,600</u>
11.	Actuarial Value of Assets at June 30, 2014 = (7) + 20% of (9) + (10)	\$ 70,334,500

DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014

SECTION II  
ASSETS

**Investment Performance**

The market value of assets (MVA) returned 17.2% during 2014, which is greater than the assumed 7.5% investment rate of return. The actuarial value of assets (AVA) returned 11.2% over this same year, including reflecting the additional 30% recognized due to the assumption changes adopted and the standard asset smoothing method being utilized by the Plan for the measurement of the actuarial value of assets. Since only 20% of the gain or loss from the performance of the Plan is recognized in a given year, in periods of very good performance, the AVA can lag significantly behind the MVA, and in a period of negative returns, the AVA does not decline as rapidly as the MVA.

**Projection of Cash Flows**

<b>Table II-3</b>		
<b>Cash Flow Projections</b>		
<b>Year Beginning July 1,</b>	<b>Expected Benefit Payments</b>	<b>Expected Contributions*</b>
2014	\$ 4,689,000	\$ 3,247,000
2015	5,150,000	2,824,000
2016	5,643,000	2,850,000
2017	6,100,000	2,803,000
2018	6,449,000	2,887,000
2019	6,687,000	2,973,000
2020	7,020,000	3,062,000
2021	7,185,000	3,154,000
2022	7,236,000	3,249,000
2023	7,243,000	3,346,000

\* Expected contributions include State contributions, Member contributions, and PRI transfers. For illustration purposes, we have assumed the State contribution rate will remain level and that payroll will increase at the actuarially assumed rate of 3.00% per year.

Expected benefit payments are projected for the closed group valued at June 30, 2014. Projecting any further than ten years using a closed-group would not yield reliable predictions due to the omission of new hires in the benefit payments, compounded by their inclusion in the expected contributions.

### SECTION III LIABILITIES

In this section, we present detailed information on the Plan's liabilities including:

- **Disclosure** of the Plan's liabilities at June 30, 2013 and June 30, 2014; and
- Statement of **changes** in these liabilities during the year.

#### Disclosure

Three liability measurements are calculated and presented in this report. Each type is distinguished by the purpose, or purposes, for which they are used.

- **Present Value of Benefits (PVB):** Used for analyzing the financial outlook of the plans, this represents the amount of money needed today to fully pay off all future benefits and expenses of the Plan, assuming current members continue to accrue benefits and there are no new entrants.
- **Actuarial Liability (AL):** Used for funding calculations and GASB disclosures, this liability is calculated by taking the present value of benefits (PVB) and subtracting the present value of future member contributions (PVFEEC) and the present value of future State normal costs (PVFNC) under an acceptable actuarial funding method. This Plan uses the **Entry Age Normal** funding method.
- **Present Value of Accrued Benefits (PVAB):** Used for communicating the current level of liabilities, this liability represents the total amount of money needed today to fully pay off the current accrued obligations of a plan, assuming no future accruals of benefits. These liabilities are also required for some accounting purposes (Topic No. 960) and are sometimes used as part of assessing whether a plan can meet its current benefit commitments.

The following table discloses each of these liabilities for the current and immediately prior valuations. With respect to each disclosure, a subtraction of an appropriate value of plan assets yields, for each respective type, either a net surplus or an unfunded amount.

DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014

**SECTION III  
LIABILITIES**

**Table III-1  
Liabilities and Net (Surplus)/Unfunded Amounts**

	June 30, 2013	June 30, 2014
<b><u>Present Value of Benefits</u></b>		
Active Member Benefits	\$ 50,932,200	\$ 51,257,300
Retiree, Beneficiary, Disabled, and Terminated Members Benefits	<u>28,458,300</u>	<u>32,803,200</u>
<b>Present Value of Benefits (PVB)</b>	<b>\$ 79,390,500</b>	<b>\$ 84,060,500</b>
Market Value of Assets (MVA)	\$ 62,822,100	\$ 73,325,000
Future Member Contributions	1,763,200	1,782,100
Future State Contributions & PRI Fund Transfers	<u>14,805,200</u>	<u>8,953,400</u>
<b>Total Resources</b>	<b>\$ 79,390,500</b>	<b>\$ 84,060,500</b>
<b><u>Actuarial Liability</u></b>		
Present Value of Benefits (PVB)	\$ 79,390,500	\$ 84,060,500
Present Value of Future State Normal Costs (PVFNC)	11,060,800	11,671,800
Present Value of Future Member Contributions (PVFEEC)	<u>1,763,200</u>	<u>1,782,100</u>
<b>Actuarial Liability (AL=PVB-PVFNC-PVFEEC)</b>	<b>\$ 66,566,500</b>	<b>\$ 70,606,600</b>
Actuarial Value of Assets (AVA)	<u>63,511,600</u>	<u>70,334,500</u>
<b>Net (Surplus)/Unfunded (AL - AVA)</b>	<b>\$ 3,054,900</b>	<b>\$ 272,100</b>
<b><u>Present Value of Accrued Benefits</u></b>		
Present Value of Benefits (PVB)	\$ 79,390,500	\$ 84,060,500
Present Value of Future Benefit Accruals (PVFBA)	<u>15,179,300</u>	<u>15,627,100</u>
<b>Present Value of Accrued Benefits (PVAB=PVB-PVFBA)</b>	<b>\$ 64,211,200</b>	<b>\$ 68,433,400</b>
Market Value of Assets (MVA)	\$ 62,822,100	\$ 73,325,000
<b>Net (Surplus)/Unfunded PVAB (PVAB - MVA)</b>	<b>\$ 1,389,100</b>	<b>\$ (4,891,600)</b>

**SECTION III  
 LIABILITIES**

**Changes in Liabilities**

Each of the liabilities disclosed in the prior table are expected to change at each valuation. The components of that change, depending upon which liability is analyzed, can include:

- New entrants since the last valuation
- Benefits accrued since the last valuation
- Plan amendments increasing benefits
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Participants retiring, terminating, or dying at rates different than expected
- A change in actuarial or investment assumptions
- A change in the actuarial funding method

Unfunded liabilities (or surpluses) will change because of all of the above as well as due to changes in plan assets resulting from:

- State contributions different than expected
- Investment earnings different than expected
- A change in the method used to measure Plan assets

In each valuation, we report on those elements of change that are of particular significance, potentially affecting the long-term financial outlook of the Plan. Below we present key changes in liabilities since the last valuation, in thousands.

<b>Table III-2 Liability Changes</b>			
<b>(In Millions)</b>	<b>Present Value of Benefits</b>	<b>Actuarial Liability</b>	<b>Present Value of Accrued Benefits</b>
Liabilities June 30, 2013	\$ 79,391	\$ 66,567	\$ 64,211
Liabilities June 30, 2014	84,061	70,607	68,433
Liability Increase (Decrease)	4,670	4,040	4,222
Change Due to:			
PRI	0	0	0
Actuarial (Gain)/Loss	NC *	(1,361)	NC *
Assumption Change	2,132	1,692	1,952
Benefits Accumulated and Other Sources	2,538	3,709	2,270

\* NC = not calculated

**DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014**

**SECTION III  
LIABILITIES**

Table III-3 below provides additional information about the liability measurements for funding purposes as of both the current and the immediately prior valuations.

<b>Table III-3</b>		
<b>Actuarial Liabilities for Funding</b>		
	<b>June 30, 2013</b>	<b>June 30, 2014</b>
1. Actuarial Liabilities		
Retiree, Beneficiary, Disabled, and Terminated Members Benefits	\$ 28,458,300	\$ 32,803,200
Active Members	<u>38,108,200</u>	<u>37,803,400</u>
<b>Total Actuarial Liability</b>	<b>\$ 66,566,500</b>	<b>\$ 70,606,600</b>
2. Actuarial Value of Assets	\$ 63,511,600	\$ 70,334,500
3. Unfunded Actuarial Liability	\$ 3,054,900	\$ 272,100
4. Allocation of Unfunded Actuarial Liability / (Amortization Period as of July 1, 2014)		
a. Present Value of Outstanding PRI Transfers	\$ 554,500	\$ 425,600
b. Social Security Decoupling/(7 years)	531,500	N/A
c. Final Average Compensation/(7 years)	489,800	N/A
d. Assumption Change/(7 years)	4,870,600	N/A
e. Unified Service/(7 years)	877,500	N/A
f. Assumption Change/(12 years)	<u>606,300</u>	<u>N/A</u>
<b>g. Total of Allocated Bases</b>	<b>\$ 7,930,200</b>	<b>\$ 425,600</b>
5. <b>Net Base for 15-Year Amortization (3-4g)</b>	<b>\$ (4,875,300)</b>	<b>\$ (153,500)</b>

#### SECTION IV LIABILITIES

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level, if any, of contributions are needed to properly maintain the funding status of the plan. Typically, the actuarial process will use a funding technique that will result in a pattern of contributions that are both fairly stable and predictable.

For this Plan, the funding method employed is the **Entry Age Actuarial** funding method. Under this method, there are three components to the total contribution: the **normal cost contribution**, the **unfunded actuarial liability contribution** (UAL contribution), and the **administrative expense contribution**.

The normal cost contribution rate is determined in the following steps. First, for each active member, an individual normal cost rate is determined by taking the value, as of entry age into the Plan, of that member's projected future benefits and dividing it by the value, also at entry age, of the member's expected future salary. Then, this total normal cost rate is reduced by the member contribution rate to produce the State normal cost rate for each member. The State normal cost rate times payroll for each active member equals the State normal cost. The sum of the State normal cost amounts for all active members is then divided by the covered payroll to produce the State normal cost contribution rate.

The actuarial liability is that portion of the present value of projected benefits that will not be paid by future State normal cost contributions or member contributions. The difference between this liability and the funds accumulated as of the same date is referred to as the unfunded actuarial liability (UAL).

Prior to the 2014 valuation, increases in the unfunded liability due to benefit improvements were amortized over the remaining periods of the amortization period what was established for each benefit improvement base established prior to July 1, 2000. Those increases established on or after July 1, 2000 were amortized over 30 years if they improved benefits to active members or over five years if they improved benefits solely to retirees prior to the 2014 valuation. Finally, prior to the 2014 valuation, the cumulative gain/loss measured as of each valuation date was amortized over a rolling 15-year period. All payments were determined assuming total pay increased by the annual inflation rate.

Commencing with the 2014 valuation, the UAL contribution rate is calculated by amortizing all UAL, reflecting the present value of scheduled PRI transfers, over an open 15-year period. All payments are determined assuming total pay increases by the annual inflation rate of 3.00% (3.25% for 2013 results).

The assumed administrative expense rate is 0.10% of payroll. This rate, when applied to payroll, is intended to provide an allowance above the cost of funding the benefits to pay for the expense of operating the Plan.

**DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014**

**SECTION IV  
LIABILITIES**

The table below presents and compares the State contribution rates for the Plan for this valuation and the immediately prior one.

<b>Table IV-1</b>		
<b>State Contribution Rate</b>		
	<b>June 30, 2013 Fiscal Year 2015</b>	<b>June 30, 2014 Fiscal Year 2016</b>
Entry Age Normal Cost Rate	20.31%	21.54%
UAL Amortization Payment	6.03%	(0.13%)
Administrative Expense	<u>0.10%</u>	<u>0.10%</u>
Actuarially Determined Contribution	26.44%	21.51%

Table IV-2 below provides additional detail about the development of the State contribution rate as well as the expected dollar amounts, in which these rates will result, for FY 2016.

<b>Table IV-2</b>		
<b>Expected FY 2016 State Contributions</b>		
	<b>In Dollars</b>	<b>As % of Payroll</b>
1. Present Value of Projected Benefits Attributable to:		
a. Total Normal Cost	\$ 2,567,300	24.95%
b. Expected Members Contribution	<u>350,900</u>	<u>3.41%</u>
c. State Paid Normal Cost (a) – (b)	\$ 2,216,400	21.54%
2. Amortization of Unfunded Liability	\$ (13,800)	(0.13%)
3. Allowance for Administrative Expense	<u>\$ 10,300</u>	<u>0.10%</u>
4. Total State Actuarially Determined Contribution Rate (1) + (2) + (3)	\$ 2,212,900	21.51%

**DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014**

**SECTION V  
ACCOUNTING STATEMENT INFORMATION**

ASC Topic No. 960 of the Financial Accounting Standards Board (FASB) requires plans subject to it to disclose certain information regarding its funded status. Statement No. 67 of the Governmental Accounting Standards Board (GASB) establishes standards for disclosure of pension information by public employee retirement systems (PERS) and governmental employers in notes to financial statements and supplementary information.

Disclosures based on FASB ASC Topic No. 960 provide a quasi “snap shot” view of how the Plan’s assets compare to its liabilities if contributions stopped and accrued benefit claims had to be satisfied. However, due to potential legal requirements and the possibility that alternative interest rates would have to be used to determine the liabilities, these values may not be a good indication of the amount of money it would take to buy the benefits for all members if the Plan were to terminate.

FASB ASC Topic No. 960 specifies that a comparison of the present value of accrued (accumulated) benefits with the market value of the assets as of the valuation date must be provided. The relevant amounts as of June 30, 2013 and June 30, 2014 are exhibited in Table V-1, which also includes a reconciliation of liabilities determined as of the prior valuation, July 1, 2013, to the liabilities as of June 30, 2014.

This valuation contains information reported in the June 30, 2014 Comprehensive Annual Financial Report (CAFR) of Delaware PERS under the new GASB Statement No. 67. Disclosures are based on the use of updated procedures to roll forward the 2013 valuation results. The 2013 starting point is higher than the funding numbers from 2013, because it includes the reduction in the assumed investment return, which was first effective for funding purposes in the 2014 valuation. The calculation of Net Pension Liability in Table V-2 shows the amounts disclosed for the plan year June 30, 2014, based on the updated 2013 liability valuation, as well as a projection of the anticipated June 30, 2015 disclosures, based on 2014 liability valuations, assuming all actuarial assumptions are met over the coming year.

Tables V-3 through V-5 are exhibits to be used for the State’s CAFR. Table V-3 is the Note to Required Supplementary Information, Table V-4 is a history of gains and losses in accrued liability, and Table V-5 is the Solvency Test, which shows the portion of accrued liability covered by assets. This valuation does not contain any information reported based on the new GASB Statement No. 68 that will be effective for the State beginning with their Fiscal Year 2015 CAFR.

DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014

**SECTION V**  
**ACCOUNTING STATEMENT INFORMATION**

**Table V-1**  
**Accounting Statement Disclosure and**  
**Reconciliation of Present Value of Accrued Benefits**

	<b>June 30, 2013</b>	<b>June 30, 2014</b>
<b>FASB ASC Topic No. 960 Basis</b>		
1. Present Value of Accrued Benefits		
a. Members Currently Receiving Payments	\$ 28,458,300	\$ 32,803,200
b. Former Vested Members (and LTDs)	0	0
c. Active Members	<u>35,752,900</u>	<u>35,630,200</u>
2. Total Present Value of Accrued Benefits (1 (a) + 1(b) + 1(c))	\$ 64,211,200	\$ 68,433,400
3. Assets at Market Value	<u>62,822,100</u>	<u>73,325,000</u>
4. Unfunded Present Value of Accrued Benefits (2 – 3)	\$ 1,389,100	\$ (4,891,600)
5. Ratio of Assets to Present Value of Benefits (3 / 2)	97.8%	107.1%
<b>Reconciliation of Present Value of Accrued Benefits</b>		
Actuarial Present Value of Accrued Benefits at June 30, 2013		\$ 64,211,200
Increase (Decrease) During Years Attributable to:		
Passage of Time		4,681,300
Benefit Paid – FY 2014		(3,588,100)
Assumption Change		1,952,200
PRI		0
Benefits Accrued, Other Gains/Losses		<u>1,176,800</u>
Net Increase (Decrease)		4,222,200
Actuarial Present Value of Accrued Benefits at June 30, 2014		\$ 68,433,400

DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014

**SECTION V**  
**ACCOUNTING STATEMENT INFORMATION**

<b>Table V-2</b>		
<b>GASB No. 67 Disclosures</b>		
	<b>June 30, 2014</b>	<b>Estimated June 30, 2015</b>
<b><u>Total Pension Liability</u></b>		
Service cost	\$ 2,542,000	\$ 2,568,000
Interest	4,869,000	5,009,000
Changes in benefit terms	0	263,000
Differences between expected and actual experience	0	(1,361,000)
Changes in assumptions	0	0
Benefit payments, including refunds of member contributions	(3,588,000)	(4,689,000)
<b>Net change in Total Pension Liability</b>	<b>\$ 3,823,000</b>	<b>\$ 1,790,000</b>
<b>Total Pension Liability - beginning</b>	<b>\$ 68,145,000</b>	<b>\$ 71,968,000</b>
<b>Total Pension Liability - ending (a)</b>	<b>\$ 71,968,000</b>	<b>\$ 73,758,000</b>
<b><u>Plan Fiduciary Net Position</u></b>		
Contributions - Employer	\$ 2,839,000	\$ 2,720,000
Contributions - Non-employer	165,000	176,000
Contributions - Member	317,000	351,000
Net investment income	10,783,000	5,229,000
Benefit payments, including refunds of member contributions	(3,588,000)	(4,689,000)
Administrative expenses	(13,000)	(10,000)
<b>Net change in Plan Fiduciary Net Position</b>	<b>\$ 10,503,000</b>	<b>\$ 3,777,000</b>
<b>Plan Fiduciary Net Position - beginning</b>	<b>\$ 62,822,000</b>	<b>\$ 73,325,000</b>
<b>Plan Fiduciary Net Position - ending (b)</b>	<b>\$ 73,325,000</b>	<b>\$ 77,102,000</b>
<b>Plan Net Pension Liability (Asset) - ending [(a)-(b)]</b>	<b>\$ (1,357,000)</b>	<b>\$ (3,344,000)</b>

Items printed in red will be replaced with actual amounts once known at the end of FY 2015.

DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014

SECTION V  
ACCOUNTING STATEMENT INFORMATION

**Table V-3**  
**Note to Required Supplementary Information**

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows:

Valuation date	July 1, 2014
Actuarial cost method	Entry age
Amortization method	Percentage of pay - open
Remaining amortization period	15 years
Asset valuation method	5-Year smoothed market
Actuarial assumptions:	
Investment rate of return*	7.2%
Projected salary increases*	3.5%-12.3%
Cost-of-living adjustments	ad hoc
*Includes inflation at	3.00%

The actuarial assumptions used have been recommended by the actuary and adopted by the Plan's Board of Trustees based on the most recent review of the Plan's experience completed in 2011. The Board of Trustees further modified the investment rate of return and inflation assumptions for the 2014 Plan Year.

The rate of State contributions to the Plan is composed of the normal cost, amortization of the unfunded actuarial liability and an allowance for administrative expenses. The normal cost is a level percent of payroll cost that, along with member contributions, will pay for projected benefits at retirement for each active member. The actuarial liability is that portion of the present value of projected benefits that will not be paid by future State normal costs or member contributions. The difference between this liability and the funds accumulated as of the same date is the unfunded actuarial liability. The allowance for administrative expenses is based upon the Plan's actual administrative expenses.

DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014

SECTION V  
ACCOUNTING STATEMENT INFORMATION

**Table V-4**  
**Analysis of Financial Experience**

**Gain and Loss in Accrued Liability During Years Ended June 30**  
**Resulting from Differences Between Assumed Experience and Actual Experience**  
*Gain (or Loss) for Year ending June 30,*  
*(expressed in thousands)*

Type of Activity	2009	2010	2011	2012	2013	2014
Investment Income on Actuarial Assets	\$ (2,450)	\$ (1,643)	\$ 7	\$ (639)	\$ (172)	\$ 1,068
Combined Liability Experience	1,978	1,730	2,169	1,215	2,889	1,361
(Loss)/Gain During Year from Financial Experience	\$ (472)	87	2,176	576	2,717	2,429
Non-Recurring Items	0	0	(1,083)	(252)	589	(410)
Composite Gain (or Loss) During Year	\$ (472)	\$ 87	\$ 1,093	\$ 324	\$ 3,306	\$ 2,019

**Table V-5**  
**Solvency Test**  
**Aggregate Accrued Liabilities for**

(expressed in thousands)

Valuation Date June 30,	Active Member Contributions (1)	Retirees & Beneficiaries (2)	Active Member State Financed Contributions (3)	Actuarial Value of Reported Assets	Portion of Accrued Liabilities Covered by Reported Assets		
					(1)	(2)	(3)
2014	\$ 5,841	\$ 32,803	\$ 31,963	\$ 70,335	100%	100%	99%
2013	5,896	28,458	32,213	63,512	100	100	91
2012	5,986	25,953	34,007	59,279	100	100	80
2011	5,400	26,482	31,208	55,784	100	100	77
2010	5,047	23,928	31,129	51,550	100	100	73
2009	4,816	22,315	30,668	49,036	100	100	71

**DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014**

**APPENDIX A  
MEMBERSHIP INFORMATION**

**Delaware State Judiciary Pension Plan Population Distribution  
of Active Members by Age and Service as of June 30, 2014**

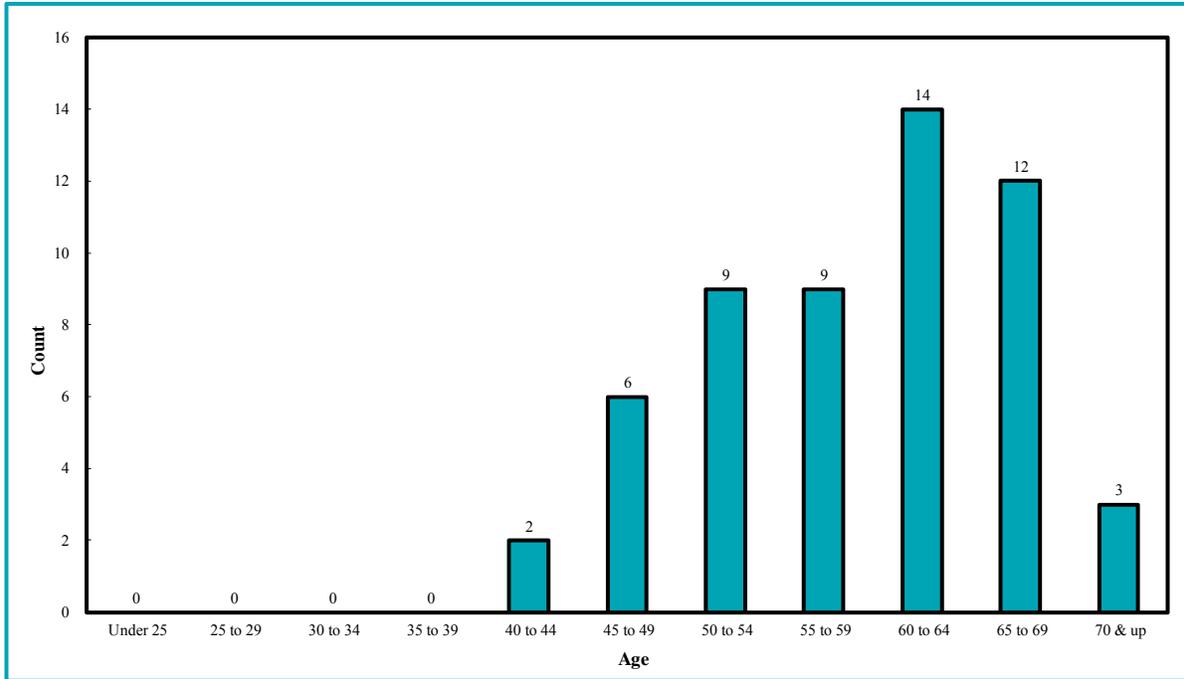
**COUNTS BY AGE/SERVICE**

Age	Service										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up		
Under 25	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	0	0	0	0
40 to 44	1	1	0	0	0	0	0	0	0	0	0	2
45 to 49	0	4	2	0	0	0	0	0	0	0	0	6
50 to 54	1	2	1	2	3	0	0	0	0	0	0	9
55 to 59	0	1	0	5	3	0	0	0	0	0	0	9
60 to 64	0	2	3	2	2	5	0	0	0	0	0	14
65 to 69	0	0	1	2	3	1	4	1	0	0	0	12
70 & up	0	0	1	0	1	0	0	1	0	0	0	3
Total	2	10	8	11	12	6	4	2	0	0	0	55

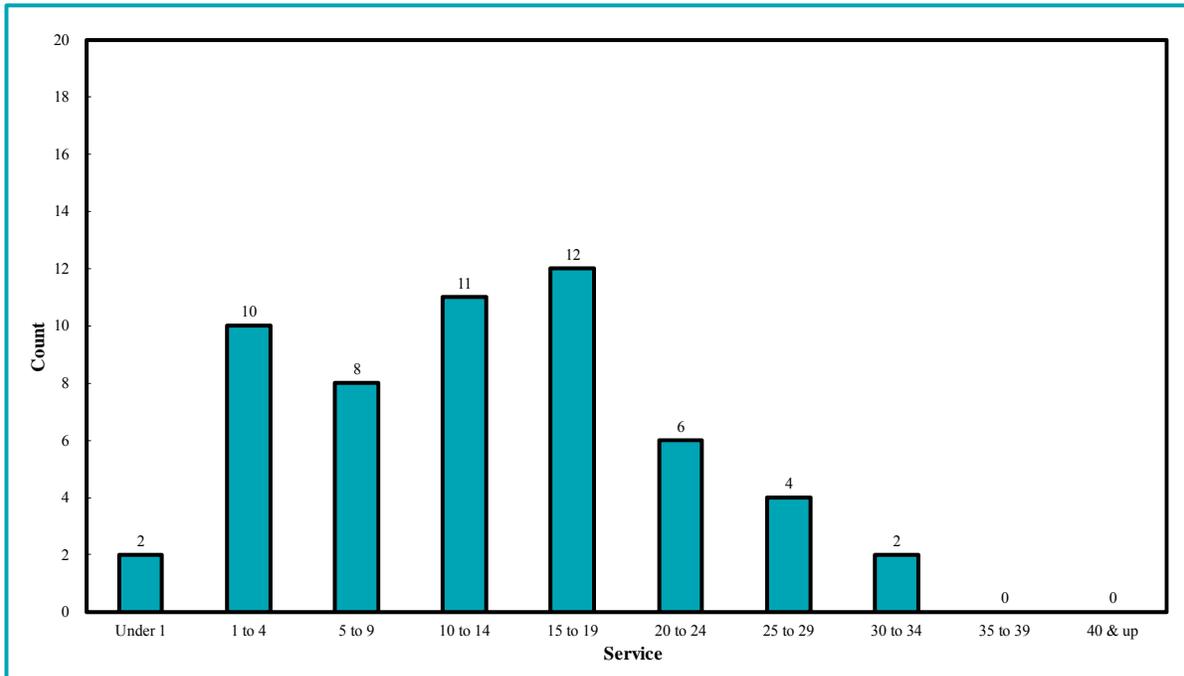
DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014

APPENDIX A  
MEMBERSHIP INFORMATION

Delaware State Judiciary Pension Plan Population Distribution  
of Active Members by Age as of June 30, 2014



Delaware State Judiciary Pension Plan Population Distribution  
of Active Members by Service as of June 30, 2014



**DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014**

**APPENDIX A  
MEMBERSHIP INFORMATION**

**Delaware State Judiciary Pension Plan Salary Distribution  
of Active Members by Age and Service as of June 30, 2014**

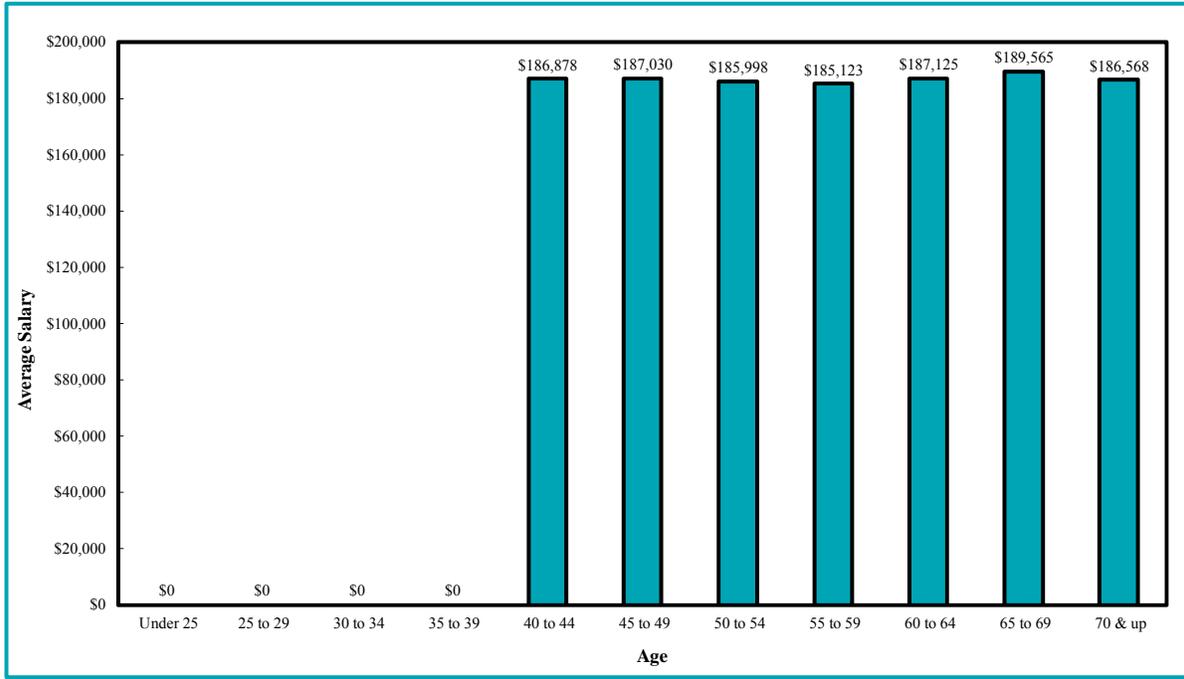
**AVERAGE SALARY BY AGE/SERVICE**

Age	Service											Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up		
Under 25	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
25 to 29	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
30 to 34	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
35 to 39	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
40 to 44	\$ 187,187	\$ 186,568	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 186,878
45 to 49	\$ 0	\$ 188,887	\$ 183,316	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 187,030
50 to 54	\$ 162,021	\$ 183,316	\$ 186,568	\$ 186,569	\$ 195,207	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 185,998
55 to 59	\$ 0	\$ 186,568	\$ 0	\$ 185,268	\$ 184,400	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 185,123
60 to 64	\$ 0	\$ 186,569	\$ 186,568	\$ 183,316	\$ 189,075	\$ 188,424	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 187,125
65 to 69	\$ 0	\$ 0	\$ 186,569	\$ 186,568	\$ 186,569	\$ 186,569	\$ 192,562	\$ 198,555	\$ 0	\$ 0	\$ 0	\$ 189,565
70 & up	\$ 0	\$ 0	\$ 186,569	\$ 0	\$ 186,568	\$ 0	\$ 0	\$ 186,568	\$ 0	\$ 0	\$ 0	\$ 186,568
Total	\$ 174,604	\$ 186,845	\$ 185,755	\$ 185,386	\$ 188,604	\$ 188,115	\$ 192,562	\$ 192,562	\$ 0	\$ 0	\$ 0	\$ 187,096

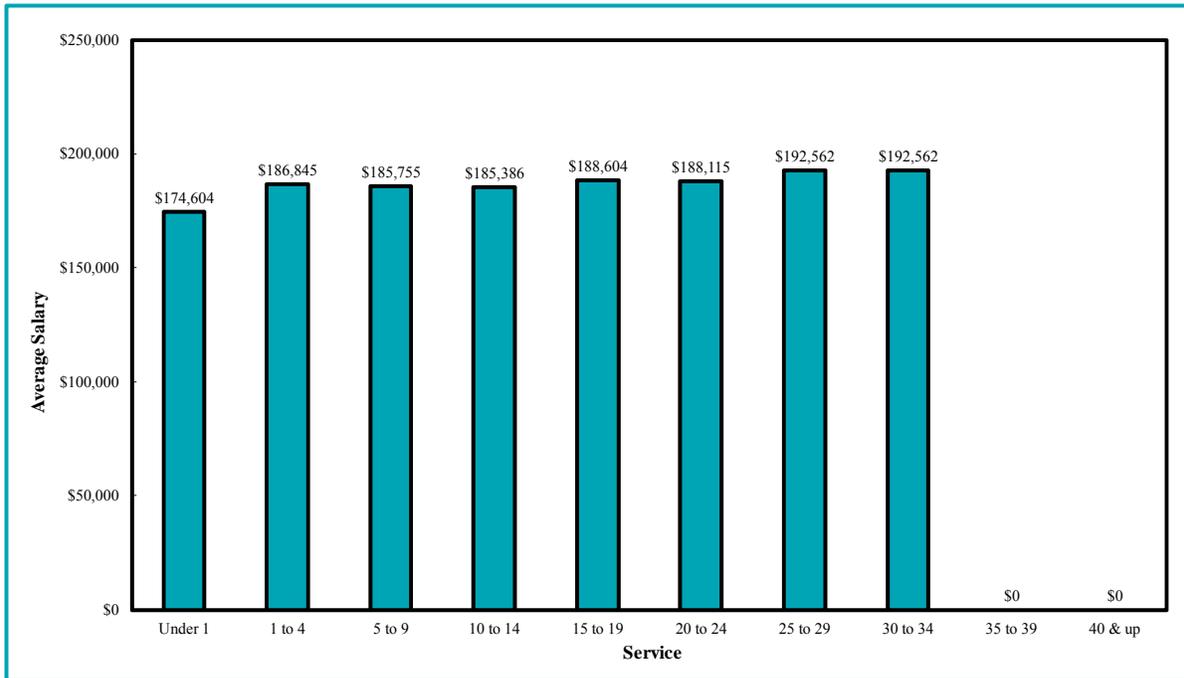
**DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014**

**APPENDIX A  
MEMBERSHIP INFORMATION**

**Delaware State Judiciary Pension Plan Salary Distribution  
of Active Members by Age as of June 30, 2014**



**Delaware State Judiciary Pension Plan Salary Distribution  
of Active Members by Service as of June 30, 2014**



**DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014**

**APPENDIX A  
MEMBERSHIP INFORMATION**

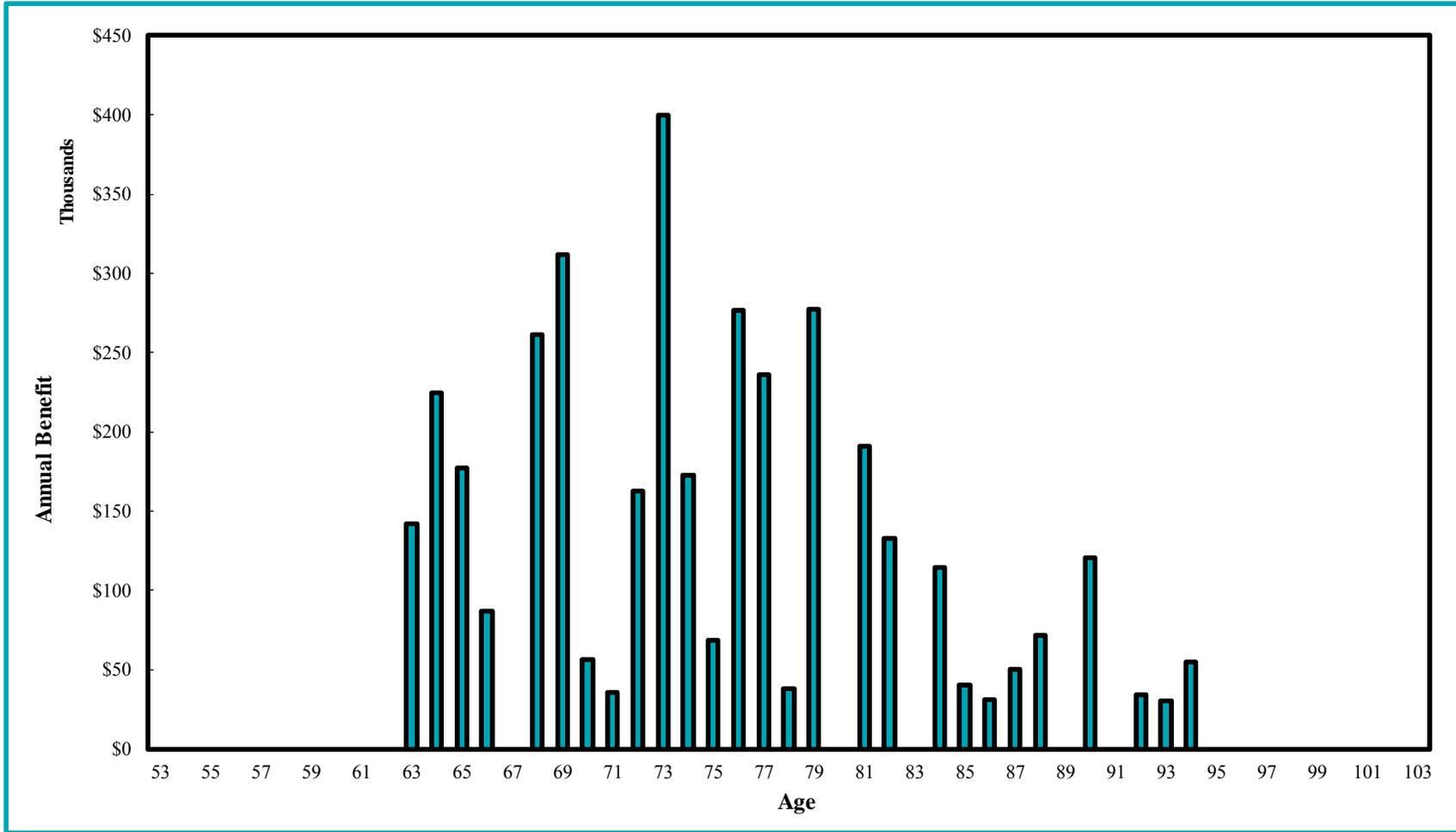
**Delaware State Judiciary Pension Plan Distribution by Age of Retired  
Members, Beneficiaries, and Disabled Members as of June 30, 2014**

Age	Count	Annual Benefit	Age	Count	Annual Benefit
<25	0	\$ -	73	3	\$ 400,113
25	0	-	74	2	172,727
26	0	-	75	1	68,712
27	0	-	76	4	276,446
28	0	-	77	2	236,257
29	0	-	78	1	37,629
30	0	-	79	4	277,658
31	0	-	80	0	-
32	0	-	81	3	190,666
33	0	-	82	1	132,392
34	0	-	83	0	-
35	0	-	84	1	114,607
36	0	-	85	1	40,107
37	0	-	86	1	31,181
38	0	-	87	1	50,389
39	0	-	88	1	71,697
40	0	-	89	0	-
41	0	-	90	2	120,302
42	0	-	91	0	-
43	0	-	92	1	34,312
44	0	-	93	1	30,269
45	0	-	94	1	54,623
46	0	-	95	0	-
47	0	-	96	0	-
48	0	-	97	0	-
49	0	-	98	0	-
50	0	-	99	0	-
51	0	-	100	0	-
52	0	-	101	0	-
53	0	-	102	0	-
54	0	-	103	0	-
55	0	-	104	0	-
56	0	-	105	0	-
57	0	-	106	0	-
58	0	-	107	0	-
59	0	-	108	0	-
60	0	-	109	0	-
61	0	-	110	0	-
62	0	-	111	0	-
63	1	141,735	112	0	-
64	2	224,362	113	0	-
65	2	176,901	114	0	-
66	1	87,056	115	0	-
67	0	-	116	0	-
68	3	261,142	117	0	-
69	3	311,885	118	0	-
70	1	55,902	119	0	-
71	1	35,963	120	0	-
72	2	162,518			
			Totals	47	\$ 3,797,550

DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014

APPENDIX A  
MEMBERSHIP INFORMATION

**Delaware State Judiciary Pension Plan Distribution by Age of Retired  
Members, Beneficiaries, and Disabled Members as of June 30, 2014**



**APPENDIX B  
ACTUARIAL ASSUMPTIONS AND METHODS**

**A. Long-Term Assumptions Used to Determine Plan Costs and Liabilities**

**1. Demographic Assumptions**

**a. Healthy Active and Inactive Mortality**

Mortality Improvements Projected to 2015 (Projection Scale AA)

Male: RP-2000 Combined Mortality Table

Female: RP-2000 Combined Mortality Table

<b>Rates of Healthy Active and Inactive Mortality Rates (With Projection Scale AA)</b>		
<b>Age</b>	<b>Male</b>	<b>Female</b>
20	0.03%	0.02%
25	0.03	0.02
30	0.04	0.02
35	0.07	0.04
40	0.10	0.06
45	0.12	0.09
50	0.16	0.13
55	0.27	0.24
60	0.53	0.47
65	1.03	0.90
70	1.77	1.55
75	3.06	2.49
80	5.54	4.13
85	9.97	7.08
90	17.27	12.59

**DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014**

**APPENDIX B  
ACTUARIAL ASSUMPTIONS AND METHODS**

**b. Disabled Inactive Mortality**

2011 PBGC Disabled Mortality Tables, 50% Social Security Disabled / 50% Non-Social Security Disabled.

<b>Rates of Disabled Inactive Mortality</b>		
<b>Age</b>	<b>Male</b>	<b>Female</b>
40	1.97%	1.06%
45	2.22	1.24
50	2.51	1.47
55	2.88	1.79
60	3.33	2.21
65	3.91	2.77
70	4.78	3.38
75	6.39	4.54
80	8.93	6.46

**c. Rates of Active Disability**

45% of 1946 Railroad Retirement Board Disability Rates

<b>Rates of Active Disability</b>	
<b>Age</b>	<b>Current</b>
20	0.09%
25	0.10
30	0.11
35	0.11
40	0.13
45	0.18
50	0.32
55	0.61
60	1.24

**d. Termination of Employment (Prior to Normal Retirement Eligibility)**

None assumed.

**DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014**

**APPENDIX B  
ACTUARIAL ASSUMPTIONS AND METHODS**

**e. Retirement**

Normal Retirement: one-year Select & Ultimate (age-based) upon attaining the earliest of:

- i. age 65 with 12 years of credited service for participants hired prior to 7/1/1980
- ii. age 62 with 12 years of credited service for participants hired after 7/1/1980
- iii. 24 years of credited service

<b>Age</b>	<b>Normal Retirement</b>	
	<b>Select</b>	<b>Ultimate</b>
< 55	40.00%	0.00%
55-61	40.00	30.00
62-69	50.00	40.00
70 +	100.00	100.00

**f. Merit/Seniority Salary Increase (in addition to across-the-board increase)**

10-year Select (service-based) & Ultimate (age-based) merit tables plus an annual inflation rate of 3.00% (rates shown below exclude amount for inflation.)

<b>Service (Years)</b>	<b>Select</b>	
	<b>Increase</b>	
0	9.00%	
1-9	0.50	

<b>Age</b>	<b>Ultimate</b>	
	<b>Increase</b>	
All ages	0.50%	

**g. Family Composition**

Female spouses are assumed to be three years younger than males.  
80% are assumed married for both male and female employees.  
Actual marital characteristics are used for pensioners.

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ACTUARIAL VALUATION AS OF JUNE 30, 2014

APPENDIX B  
ACTUARIAL ASSUMPTIONS AND METHODS

**2. Economic Assumptions**

a. Investment Rate of Return:	7.20%
b. General Wage Increase Rate:	3.00%
c. Annual Cost-of-Living Increase Rate for Retirees:	0.00%
d. Total Payroll Increase Rate (for Amortization):	3.00%
e. Administrative Expenses as a Percentage of Covered Payroll:	0.10%

**3. Changes Since Last Valuation**

Based upon adoption by the Board of Pension Trustees, the following assumptions were changed:

Investment Rate of Return was reduced from 7.5% to 7.2%.

General Wage Increase Rate was reduced from 3.25% to 3.00%.

Total Payroll Increase Rate (for Amortization) was reduced from 3.25% to 3.00%.

**APPENDIX B**  
**ACTUARIAL ASSUMPTIONS AND METHODS**

**B. Actuarial Methods**

**1. Funding Method**

The Entry Age Normal funding method is used to determine costs. Under this funding method, a normal cost rate is determined as a level percent of pay for each active member. The normal cost rate times payroll equals the normal cost. The normal cost plus member contributions will pay for projected benefits at retirement for each active plan participant.

The actuarial liability is that portion of the present value of projected benefits that will not be paid by future State normal costs or member contributions. The difference between this liability and funds accumulated as of the same date is referred to as the unfunded actuarial liability.

The portion of the actuarial liability in excess of plan assets is funded according to a schedule which is intended to amortize such unfunded actuarial liability fully after a period of years. This is in addition to each year's employer normal cost. Under this cost method, actuarial gains and losses are directly reflected in the size of the unfunded actuarial liability.

Prior to the 2014 valuation, layers of unfunded actuarial liability that arose prior to July 1, 2000 were amortized over a 25-year period from July 1, 1996. Those increases established on or after July 1, 2000 were amortized over 30 years if they improve benefits to active members or five years if they improve benefits solely to retirees. The cumulative actuarial gain/loss measured as of each valuation date was amortized over a rolling 15-year period. All payments are determined assuming total pay increased by the annual inflation rate.

Commencing with the 2014 valuation, the portion of unfunded liability which is not expected to be paid through transfers from the PRI is amortized over a rolling 15-year period.

**2. Actuarial Value of Assets**

For purposes of determining the State Judiciary employer contribution rate to the Plan, we use an actuarial value of assets. This asset smoothing method dampens the volatility in asset values that could occur because of fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process.

The actuarial value of assets is a weighted average giving 20% weight to the current market value and 80% weight to the prior year's actuarial value increased by expected interest and contributions and decreased by benefit payments and expenses. This is mathematically equivalent to recognizing 100% of the actuarially assumed interest rate, plus contributions, less payments each year, and 20% of the portion of each year's returns that have not already been reflected in asset values.

DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014

**APPENDIX B**  
**ACTUARIAL ASSUMPTIONS AND METHODS**

In the 2014 valuation, there was an additional recognition of 30% of the remaining balance of past investment gains.

**3. Changes Since Last Valuation**

There was an additional recognition of 30% of the past investment gains in the asset smoothing method.

The amortization period was changed as described in 1. above.

**APPENDIX C**  
**SUMMARY OF PLAN PROVISIONS**

**1. Membership**

The Plan covers individuals while members of the State Judiciary.

**2. Member Contributions**

3% of compensation, which exceeds \$6,000 per annum plus an additional 2% of compensation in excess of the Social Security wage base

**3. Credited Service**

All service as a member.

After accruing 12 years of Judicial service, previous State service may be credited for purposes of retirement eligibility.

**4. Final Average Compensation**

Final Average Compensation is the average over the highest three consecutive years (or shorter period of service) of compensation paid to the judge.

**5. Normal Retirement**

Eligibility: (i) age 62 with 12 years of service as a judge, or (ii) any age with 24 years of service, or (iii) involuntarily retired after 22 years of service as a judge.

Benefit: 1/24 of final average compensation for each of the first 12 years of service as a judge plus 1/48 of final average compensation for each of the next 12 years of service as a judge.

**6. Disability Benefit**

Eligibility: Permanently disabled while active.

Benefit: Normal retirement benefit with the following revisions: For judges appointed after June 30, 1980, a minimum of 12 years of service as a judge and a maximum of 24 years of service as a judge is used in the benefit determination.

**APPENDIX C**  
**SUMMARY OF PLAN PROVISIONS**

**7. Survivor's Benefit**

A pension is payable to the surviving spouse of a judge who dies in office regardless of his or her number of years of service at the time of death. A pension is also payable to the surviving spouse of a former judge with a vested right to a pension or a retired judge. If a judge is not survived by a spouse, a pension is payable to surviving eligible dependent children, if any, in equal shares until the youngest unmarried child attains age 18 (or age 22 if attending school or child's death if permanently disabled), as follows:

Eligibility: Death while in office.

Benefit: For eligible survivors of members who die in office: 66  $\frac{2}{3}$ % of the member's accrued pension based on not less than 12 years of service, deferred to age 50, or reduced if paid prior to age 50, with a 3% reduction for form of payment.

**8. Vesting**

Eligibility: 12 or more years of service as a judge.

Benefit: Normal Retirement based on final average compensation and service at date of termination. In lieu of a pension, a member may receive a refund of accumulated contributions (with interest for judges appointed after June 30, 1980). Upon application for a refund of contributions, a member's vested right to a monthly benefit shall be forfeited.

**9. Withdrawal**

Eligibility: Terminates service and is not eligible for other benefits.

Benefit: Accumulated employee contributions with interest for judges appointed prior to July 1, 1980. Accumulated employee contributions with interest for judges appointed after June 30, 1980.

**10. Form of Payment**

The normal form of payment is a 50% joint and survivor annuity.

As an alternative to the normal form, a member may elect one of the following optional forms of payment upon service retirement or disability:

- 67% joint and survivor form with a 2% reduction in benefits;
- 75% joint and survivor form with a 3% reduction in benefits; or
- 100% joint and survivor form with a 6% reduction in benefits.

The 66  $\frac{2}{3}$ % and 100% options are only available for retirement on or after January 1, 2015.

DELAWARE STATE JUDICIARY PENSION PLAN  
ACTUARIAL VALUATION AS OF JUNE 30, 2014

APPENDIX C  
SUMMARY OF PLAN PROVISIONS

**11. Cost-of-Living Adjustment**

Cost-of-Living adjustments are made only on an ad hoc basis.

**12. Changes Since Last Valuation**

None