

Delaware State Judiciary Pension Plan

Actuarial Valuation as of June 30, 2012

**Produced by Cheiron** 

January 2013

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January 7, 2013

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 as of June 30, 2012. The results of the valuation are contained in this report. The purpose of the valuation is discussed in the Foreword.

This report contains information on Plan assets, as well as analyses which combine asset and liability performance and projections. The report also discloses employer contribution levels and required disclosures under the Governmental Accounting Standards Board Statement No. 25.

In preparing our report, we relied on information (some oral and some written) supplied by Office of Pension's staff. 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 #23.

The results of this report are only applicable to the State contribution for Fiscal Year ending 2014 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 which 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 opinion 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 purposes 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

Fioria E. Liston, FSA Principal Consulting Actuary Margaret A. Tempkin, FSA Principal Consulting Actuary



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#### **FOREWORD**

Cheiron has performed the actuarial valuation of the Delaware State Judiciary Pension Plan as of June 30, 2012. 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 progress of the Plan;
- 3) **Determine the contribution rate** to be paid by the State for Fiscal Year 2014; and
- 4) **Provide specific information** and documentation required by the Governmental Accounting Standards Board (GASB).

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 actuarial 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 Plan liabilities, measured for actuarial, accounting, and governmental reporting purposes.

**Section IV** develops the State contribution rate determined using actuarial techniques.

**Section V** includes the required disclosures under GASB Statement number 25.

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 the actuarial methods and assumptions used in the valuations

The actuarial assumptions reflect our understanding of the likely future experience of the Plan, and the assumptions 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 could vary from our results.



### SECTION I BOARD SUMMARY

#### **General Comments**

The actuarially determined contribution rate increased slightly from 27.69% for FY 2013 to 27.71% for FY 2014.

During the year ended June 30, 2012, the Plan's assets earned 1.7% on a market value basis. However, due to the Plan's asset-smoothing technique, the return on the actuarial asset value was 6.35%. This return is less than the assumed rate of return of 7.5% and resulted in an actuarial loss on investments of \$639,100.

The Plan also experienced an actuarial gain of \$1.2 million on Plan liabilities resulting from salary increases different than assumed and members retiring, terminating, becoming disabled, and dying at rates different from the actuarial assumptions. This type of activity is normal in the course of Plan experience. The Plan will experience actuarial gains and losses over time because we cannot predict exactly how people will behave. When a plan experiences alternating gains and losses that are small compared to the total actuarial liability, then the plan's actuarial assumptions are reasonable. In addition to the actuarial gain, the Plan liability is \$0.3 million higher due to granting of a post retirement increase.

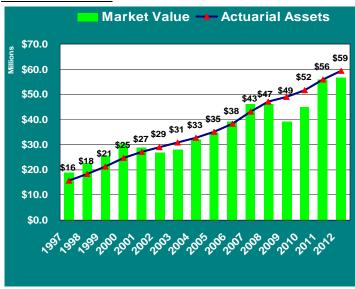
As of the June 30, 2012 actuarial valuation, the Plan's unfunded actuarial liability was \$6.7 million. This is a decrease from last year's unfunded actuarial liability of \$7.3 million.



### SECTION I BOARD SUMMARY

#### **Trends**

#### Growth in Assets



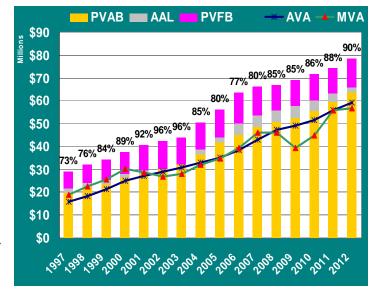
The market value of assets (MVA) returned 1.7% over the last year. The determination of the Plan's actuarial value of assets reflects only a portion of the return below 7.5%.

Over the period of July 1, 1997 to June 30, 2012, the Plan's assets returned approximately 8.6% per year measured at actuarial value, compared to a valuation assumption of 7.5% per year.

### **Assets and Liabilities**

The three colored bars represent the three different measures of liability mentioned in this report. For funding purposes, the target amount is represented by the top of the gray bar. We compare the actuarial value of assets to this measure of liability in developing the funded percent. These are the percentages shown in the graph labels.

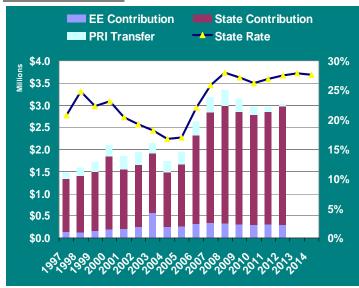
The amount represented by the top of the pink bars, the Present Value of Future Benefits (PVFB), is the amount needed to provide all benefits for the current participants and their beneficiaries. If the Plan had assets equal to the PVFB, no contributions would, in theory, be needed for the current members.





### SECTION I BOARD SUMMARY

#### **Contribution Rates**



The stacked bars in this graph show the contributions made by the State, the PRI Fund, and the members (left hand scale). The black line shows the State contribution rate as a percent of payroll (right hand scale).

The member contribution rate is set by State law, depending on the Plan in which the member participates. The State contribution rate is set by the actuarial process, and PRI Fund transfers depend on the increase granted. Please note there is a lag in the rate shown. For example, the 2012 value is the rate prepared by the 2010 valuation and implemented for the period July 1, 2011 to June 30, 2012.

### **Participant Trends**

The bars show the number of participants in each category and should be read using the left-hand scale. As with any maturing fund, this Plan continues to show growth in the number of retired members. The active-to-inactive ratio has decreased from 1.6 actives to each inactive in 1997 to 1.3 actives for each inactive today.

The black line shows the covered payroll in the Plan and is read using the right-hand scale.

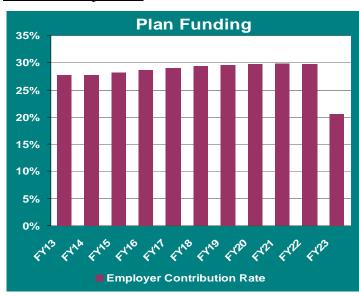




### SECTION I BOARD SUMMARY

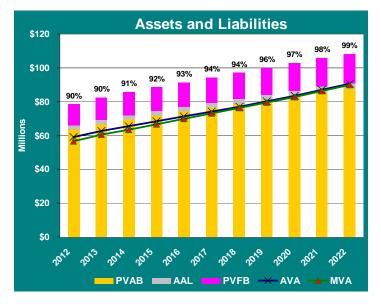
### **Future Outlook**

### **Base Line Projections**



These graphs show the expected progress of the Plan over the next ten years assuming the Plan's assets earn 7.5% on their *market value*. The chart entitled "Plan Funding" shows that the State rate is expected to increase over time as investment losses are recognized. The drop in the FY23 rate shows the end of the amortization period for a number of past plans and assumption changes.

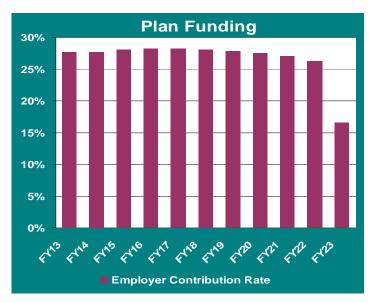
The "Assets and Liabilities" graph shows the projected funding status over the next ten years. The Plan's funded status is projected to steadily increase in the next few years, absent any future gains or losses.





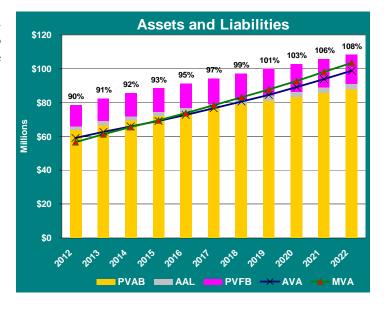
### SECTION I BOARD SUMMARY

### Projections with Asset Returns of 9.0%



The future funding status of this Plan will be influenced by the investment earnings. The next two charts show what the next ten years would look like with a 9.0% annual return in each year.

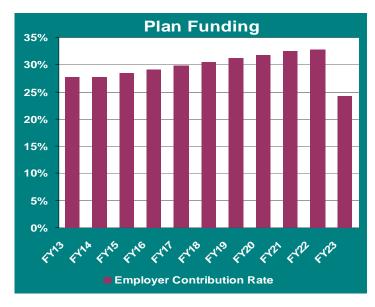
As you can see, under this projection scenario, the Plan would reach 108% funding by 2022. The contribution rate decreases in this scenario.





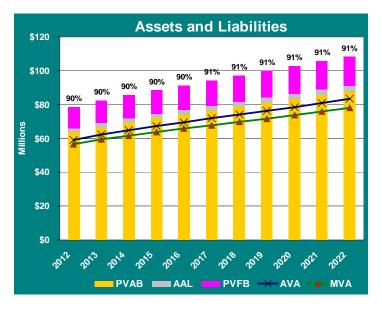
### SECTION I BOARD SUMMARY

### Projections with Asset Returns of 6.0%



To further demonstrate how the future funding of this Plan will be driven by investment earnings, we show the anticipated Plan funding projections if the invested assets earn 6.0% per year over the entire ten-year period.

Under this scenario, the contribution rate increases steadily throughout the projection period. The Plan's funded status would increase by a net 1% over the period shown.





### SECTION I BOARD SUMMARY

Table I-1							
Delaware State Judiciary Pension Plan							
Summary of Principal Plan Results Valuation as of:  June 30, 2011 June 30, 2012 % Change							
Participant Counts		, .					
Active Participants		54		55	1.85%		
Disabled Participants		2		2	0.00%		
Retirees and Beneficiaries		41		40	(2.44%)		
Terminated Vested Participants		0		0	NA		
Inactive Participants		0		0	NA		
Total		97		97	0.00%		
Annual Salaries of Active Members*	\$	9,624,200	\$	10,386,600	7.92%		
Annual Retirement Allowances for Retired Members and Beneficiaries	\$	3,107,100	\$	3,087,800	(0.62%)		
Assets and Liabilities							
Actuarial Accrued Liability (AAL)	\$	63,090,200	\$	65,946,400	4.53%		
Actuarial Value of Assets		55,784,100		59,278,500	6.26%		
Unfunded AAL	\$	7,306,100	\$	6,667,900	(8.74%)		
Funded Ratio		88.4%		89.9%			
Present Value of Accrued Benefits (PVAB)	\$	59,487,800	\$	63,621,400	6.95%		
Market Value of Assets		55,810,100		56,722,300	1.63%		
Unfunded PVAB	\$	3,677,700	\$	6,899,100	87.59%		
Accrued Benefit Funding Ratio		93.8%		89.2%			
Contributions as a Percentage of Payroll	Contributions as a Percentage of Payroll Fiscal Year 2013 Fiscal Year 2014						
Normal Cost Contribution		18.50%		19.25%			
Unfunded Actuarial Liability Contribution		9.09%		8.36%			
Administrative Expense		0.10%		0.10%			
Total State Contribution		27.69%		27.71%			

<sup>\*</sup> Assumes one year of payroll projection.



### SECTION II ASSETS

Pension plan assets play a key role in the financial operation of the plan and in the decisions 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 impact upon benefit levels, State contributions, and the ultimate security of participants' benefits.

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

- **Disclosure** of Plan assets at June 30, 2011 and June 30, 2012;
- 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 **cashflows** for the next ten years.

#### **Disclosure**

The market value of assets represents a "snap-shot or cash-out" value which provides the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace. As a result, market values are usually not suitable for long-range planning.

The actuarial values are market values which have been smoothed to avoid overreacting to any one market event. They are used for evaluating the Plan's ongoing liability to meet its obligations.

Current methods employed by this Plan set the actuarial value equal to the expected value plus 20% of the difference between the expected value of assets and the actual market value. The expected value is equal to the prior year's actuarial value, rolled forward with actual contributions and benefit payments plus interest imputed at 7.5%.

Table II-1 Changes in Market Values					
Value of Assets – June 30, 2011		\$ 55,810,100			
Additions					
Member Contributions	\$ 305,400				
Employer Contributions	2,674,000				
PRI Fund Transfer	49,300				
Investment Return	960,700				
Total Additions	\$ 3,989,400				
<b>Deductions</b>					
Benefit Payments	\$ 3,067,300				
Administrative Expenses	9,900				
Total Deductions	\$ 3,077,200				
Value of Assets – June 30, 2012		\$ 56,722,300			



### SECTION II ASSETS

	Table II-2 Development of Actuarial Value of Assets	
1.	Actuarial Value of Assets at June 30, 2011	\$ 55,784,100
2.	Amount in (1) with interest to June 30, 2012	59,967,900
3.	Employer, PRI and member contributions for the Plan Year ended June 30, 2012	3,028,700
4.	Interest on contributions assuming payments made uniformly throughout the year to June 30, 2012 at 7.50% per year	113,600
5.	Disbursements from Trust except investment expenses, July 1, 2011 through June 30, 2012	3,077,200
6.	Interest on disbursements to June 30, 2012 at 7.50% per year	115,400
7.	Expected Actuarial Value of Assets at June 30, 2012 = $(2) + (3) + (4) - (5) - (6)$	59,917,600
8.	Actual Market Value of Assets at June 30, 2012	56,722,300
9.	Excess of (8) over (7)	(3,195,300)
10.	Actuarial Value of Assets at June 30, $2012 = (7) + 20\%$ of (9)	59,278,500

### **Actuarial Value of Assets**

The actuarial value of assets represents a "smoothed" value developed by the actuary to reduce, or eliminate, erratic results which could develop from short-term fluctuations in the market value of assets. For this Plan, the actuarial value has been calculated by adding 20% of the difference between market value and expected value to the expected value. The above table illustrates the calculation of actuarial value of assets for the June 30, 2012 valuation.

### **Investment Performance**

The market value of assets (MVA) returned 1.7% during 2012, which is less than the assumed 7.5% return. A return of 6.35% on the actuarial value of assets (AVA) is primarily the result of the asset smoothing method being utilized for the calculation 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. In a period of negative returns, the AVA does not decline as rapidly as the MVA.



### SECTION II ASSETS

### **Projection of Cash Flows**

Table II-3 Projection of Plan's Benefit Payments						
Year Beginning July 1,	<b>Expected Benefit Payments</b>	Expected Contributions*				
2012	\$ 3,932,000	\$ 3,399,000				
2013	4,784,000	3,513,000				
2014	5,316,000	3,627,000				
2015	5,640,000	3,746,000				
2016	5,867,000	3,808,000				
2017	6,168,000	3,799,000				
2018	6,446,000	3,922,000				
2019	6,698,000	4,050,000				
2020	7,050,000	4,181,000				
2021	7,257,000	4,317,000				

<sup>\*</sup> 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 3.25% per year.

Expected benefit payments are projected for the closed group valued at June 30, 2012. Projecting any farther than ten years using a closed-group would not yield reliable predictions due to the omission of new hires.



### SECTION III LIABILITIES

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

- **Disclosure** of Plan liabilities at June 30, 2011 and June 30, 2012; and
- Statement of **changes** in these liabilities during the year.

### **Disclosure**

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the people ultimately using the figures and the purpose for which they are using them.

- **Present Value of Benefits:** Used for analyzing the financial outlook of the Plan, this represents the amount of money needed today to fully pay off all future benefits and expenses of the Plan, assuming participants continue to accrue benefits.
- Actuarial Accrued Liability: Used for funding calculations and GASB disclosures, this
  liability is calculated taking the Present Value of Benefits and subtracting the present value
  of future Member Contributions and future Employer Normal Costs under an acceptable
  actuarial funding method. This method is referred to as the Entry Age Normal funding
  method.
- **Present Value of Accrued Liabilities:** 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 the Plan, assuming no future accruals of benefits. These liabilities are also required for accounting purposes (Topic No. 960) and used to assess whether the Plan can meet its current benefit commitments.

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



### SECTION III LIABILITIES

Table III-1						
Liabilities/Net (Surplus)/C	Liabilities/Net (Surplus)/Unfunded June 30, 2011 June 30, 2012					
Present Value of Benefits						
Active Participant Benefits	\$	47,514,000	\$	52,407,500		
Retiree and Inactive Benefits		26,482,200		25,952,500		
Present Value of Benefits (PVB)	\$	73,996,200	\$	78,360,000		
Market Value of Assets (MVA)	\$	55,810,100	\$	56,722,300		
Future Member Contributions		1,708,000		1,711,600		
Future State Contributions & PRI Fund Transfers		16,478,100		19,926,100		
Total Resources	\$	73,996,200	\$	78,360,000		
Actuarial Accrued Liability						
Present Value of Benefits (PVB)	\$	73,996,200	\$	78,360,000		
Present Value of Future Normal Costs (PVFNC)		9,198,000		10,702,000		
Present Value of Future Member Contributions (PVFEEC)		1,708,000		1,711,600		
Actuarial Accrued Liability (AAL=PVB-PVFNC-PVFEEC)	\$	63,090,200	\$	65,946,400		
Actuarial Value of Assets (AVA)		55,784,100		59,278,500		
Net (Surplus)/Unfunded (AAL – AVA)	\$	7,306,100	\$	6,667,900		
Present Value of Accrued Liability						
Present Value of Benefits (PVB)	\$	73,996,200	\$	78,360,000		
Present Value of Future Benefit Accruals (PVFBA)		14,508,400		14,738,600		
Present Value of Accrued Liability (PVAB=PVB-PVFBA)	\$	59,487,800	\$	63,621,400		
Market Value of Assets (MVA)	\$	55,810,100	\$	56,722,300		
Net Unfunded (PVAB – MVA)	\$	3,677,700	\$	6,899,100		



### 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 hires 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 will change because of all of the above and also due to changes in Plan assets resulting from:

- Employer 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 which 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.

	Table III-2		
		<b>Actuarial</b>	Present Value
	<b>Present Value</b>	Accrued	of Accrued
(In Thousands)	of Benefits	Liability	Liability
Liabilities June 30, 2011	\$ 73,996	\$ 63,090	\$ 59,488
Liabilities June 30, 2012	78,360	65,946	63,621
Liability Increase (Decrease)	4,364	2,856	4,133
Change Due to:			
PRI Increase	252	252	252
Actuarial (Gain)/Loss	NC*	(1,215)	NC*
Assumption Changes	N/A	N/A	N/A
Benefits Accumulated and			
Other Sources	4,112	3,819	3,881

<sup>\*</sup> NC = not calculated



### SECTION III LIABILITIES

	Table III-3				
	Actuarial Liabilities fo	r Fun	ding		
		Ju	me 30, 2011	Ju	me 30, 2012
1.	Actuarial Liabilities				
	Retiree and Inactive Benefits	\$	26,482,200	\$	25,952,500
	Active Members		36,608,000		39,993,900
	Total Actuarial Liability	\$	63,090,200	\$	65,946,400
2.	Actuarial Value of Assets	\$	55,784,100	\$	59,278,500
3.	Unfunded Actuarial Liability	\$	7,306,100	\$	6,667,900
4.	Allocation of Unfunded Actuarial Liability /				
	(Amortization Period as of July 1, 2012)				
	a. Outstanding PRI Transfers/ $(1 - 5 \text{ years})$	\$	450,400	\$	669,000
	b. Social Security Decoupling/(9 years)		600,000		568,200
	c. Final Average Compensation/(9 years)		552,900		523,600
	d. Assumption Change/(9 years)		5,498,600		5,207,000
	e. Unified Service/(9 years)		990,600		938,100
	f. Assumption Change/(14 years)		632,700		620,900
	g. Total of Allocated Bases	\$	8,725,200	\$	8,526,800
5.	Net (Gain)/Loss Base for 15 Year Amort. (3-4g)	\$	(1,419,100)	\$	(1,858,900)



### SECTION IV CONTRIBUTIONS

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 is 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 stable and predictable.

For this Plan, the funding method employed is the **Entry Age Actuarial Cost Method**. Under this method, there are three components to the total contribution: the **normal cost rate**, the **unfunded actuarial liability rate** (UAL rate), and the **administrative expense rate**. The normal cost 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. This value is then divided by the value, also at entry age, of the member's expected future salary. Finally, the total normal cost rate is reduced by the member contribution rate to produce the employer normal cost rate.

Increases in the unfunded liability due to benefit improvements are amortized over the remaining periods if established prior to July 1, 2000. Those increases established on or after July 1, 2000 will be amortized over 30 years if they improve benefits to active members or five years if they improve benefits solely to retirees. The cumulative gain/loss measured as of each valuation date will be amortized over a rolling 15-year period. All payments are determined assuming total pay increases by the annual inflation rate.

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.

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

Table IV-1 Employer Contribution Rate						
June 30, 2011 June 30, 2012						
Entry Age Normal Cost Rate	18.50%	19.25%				
Amortization Payment	9.09%	8.36%				
Expense	0.10%	0.10%				
Actuarially Determined Contribution	27.69%	27.71%				



# SECTION IV CONTRIBUTIONS

Table IV-2 Development of Plan Cost as of June 30, 2012					
	]	In Dollars	As % of Payroll		
1. Present value of projected benefits attributable to:					
a. Total Normal Cost	\$	2,358,100	22.70%		
b. Expected Members Contribution		358,300	3.45%		
c. Employer Paid Normal Cost (a) – (b)	\$	1,999,800	19.25%		
<ul><li>2. Amortization of Unfunded Liability/ (Amortization Period)</li><li>a. Social Security Decoupling/(9 years)</li></ul>	\$	76,700	0.74%		
<ul> <li>b. Final Average Compensation Change/(9 years)</li> <li>c. Assumption Change/(9 years)</li> <li>d. Unified Service/(9 years)</li> <li>e. Assumption Change/(14 years)</li> <li>f. Remaining Loss Base/(15 years)</li> <li>g. Total Amortization Payments</li> </ul>	\$ \$	70,700 703,000 126,700 59,200 (168,300) 868,000	0.74% 0.68% 6.77% 1.22% 0.57% (1.62%) 8.36%		
3. Allowance for Expense	\$	10,400	0.10%		
4. Total Employer Contribution Rate $(1) + (2) + (3)$	\$	2,878,200	27.71%		



## SECTION V ACCOUNTING STATEMENT INFORMATION

ASC Topic No. 960 of the Financial Accounting Standards Board requires the Plan to disclose certain information regarding its funded status. Statement No. 25 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.

The FASB ASC Topic No. 960 disclosures 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.

The GASB-25 actuarial accrued liability is the same as the actuarial liability amount calculated for funding purposes.

Both the present value of accrued benefits (Topic No. 960) and the actuarial accrued liability (GASB-25) are determined assuming that the Plan is on-going and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities are discounted at the assumed valuation interest rate of 7.5% per annum.

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. GASB Statement No. 25 requires the actuarial accrued liability be compared with the actuarial value of assets for funding purposes. The relevant amounts as of June 30, 2012 are exhibited in Table V-1. Finally, Table V-2 reconciles the Topic No. 960 liabilities determined as of the prior valuation, July 1, 2011, to the liabilities as of June 30, 2012.

Tables V-3 through V-5 are exhibits to be used with the State CAFR report. 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.



# SECTION V ACCOUNTING STATEMENT INFORMATION

		Table V-1				
	Accounting Statement Information  June 30, 2011  June 30, 2012					
<b>A.</b>		ASB ASC Topic No. 960 Basis  Present Value of Benefits Accrued and Vested to Date				
		<ul><li>a. Members Currently Receiving Payments</li><li>b. Former Vested Members</li><li>c. Active Members</li></ul>	\$	26,482,200 0 33,005,600	\$	25,952,500 0 37,668,900
	2.	Total Present Value of Accrued Benefits $(1 (a) + 1(b) + 1(c))$	\$	59,487,800	\$	63,621,400
	3.	Assets at Market Value		55,810,100		56,722,300
	4.	Unfunded Present Value of Accrued Benefits $(2-3)$	\$	3,677,700	\$	6,899,100
	5.	Ratio of Assets to Present Value of Benefits (3 / 2)		93.8%		89.2%
В.	GA	ASB No. 25 Basis				
	1.	Actuarial Accrued Liabilities for retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	\$	26,482,200	\$	25,952,500
	2.	Actuarial Accrued Liabilities for current employees		36,608,000		39,993,900
	3.	Total Actuarial Accrued Liability (1 + 2)	\$	63,090,200	\$	65,946,400
	4.	Net Actuarial Assets available for benefits		55,784,100		59,278,500
	5.	Unfunded Actuarial Accrued Liability (3 – 4)	\$	7,306,100	\$	6,667,900



# SECTION V ACCOUNTING STATEMENT INFORMATION

Table V-2 Statement of Changes in Total Actua Present Value of All Accrued Benef	
	Accumulated Benefit Obligation (Topic No. 960)
Actuarial Present Value of Accrued Benefits at June 30, 2011	\$ 59,487,800
Increase (Decrease) During Years Attributable to:	
Passage of Time	4,346,600
Benefit Paid – FY 2012	(3,067,300)
Plan/Assumption Change	0
PRI	252,100
Benefits Accrued, Other Gains/Losses	2,602,200
Net Increase (Decrease)	4,133,600
Actuarial Present Value of Accrued Benefits at June 30, 2012	\$ 63,621,400



## 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, 2012

Actuarial cost method Entry age

Amortization method Level Percent Closed

Remaining amortization period Equivalent single amortization period is 9.64 years

Asset valuation method 5-Year smoothed market

Actuarial assumptions:

Investment rate of return\* 7.5%
Projected salary increases\* 3.8%-12.3%
Cost-of-living adjustments ad hoc

\*Includes inflation at 3.25%

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



### **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)

			, υ.	apressed ii	i iiic	iscircis,		
Type of Activity	2007	2008		2009		2010	2011	2012
Investment Income on Actuarial Assets	\$ 782	\$ (308)	\$	(2,450)	\$	(1,643)	\$ 7	\$ (639)
Combined Liability Experience	 157	 1,940		1,978		1,730	 2,169	 1,215
(Loss)/Gain During Year from Financial Experience	\$ 939	\$ 1,632	\$	(472)		87	2,176	576
Non-Recurring Items	 0	 0		0		0	(1,083)	 (252)
Composite Gain (or Loss) During Year	\$ 939	\$ 1,632	\$	(472)	\$	87	\$ 1,093	\$ 324

Table V-5 Solvency Test Aggregate Accrued Liabilities for (expressed in thousands) Active Member Actuarial Valuation Active Employer Value of Date Member Retirants & Financed Reported Portion of Accrued Liabilities											
June 30,	Con	tributions (1)	Ben	eficiaries (2)	Con	tributions (3)	I	Assets	Cover (1)	red by Reported (2)	Assets (3)
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
2008		4,382		20,398		31,076		47,209	100	100	72
2007		3,984		19,998		29,704		43,050	100	100	64



# APPENDIX A MEMBERSHIP INFORMATION

# Delaware State Judiciary Pension Plan Distribution of Active Members by Age and Service as of June 30, 2012

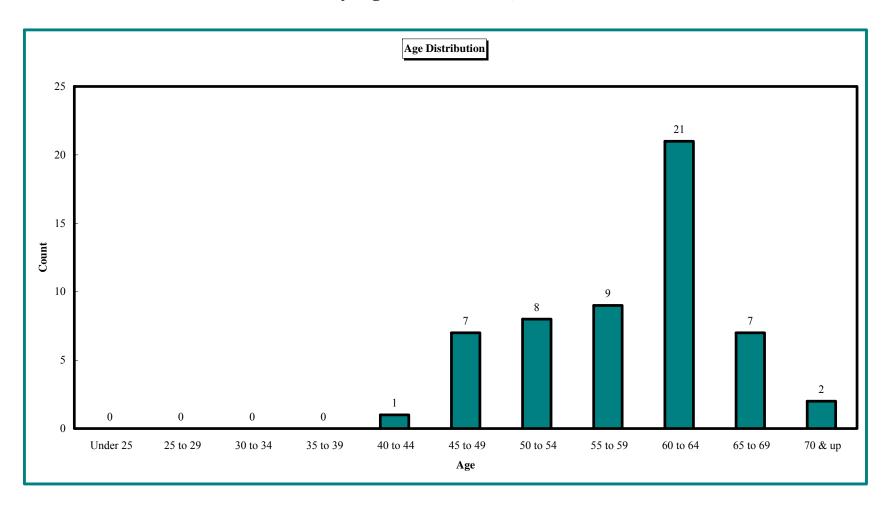
#### COUNTS BY AGE/SERVICE

					Servi						
Age	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	Total
Under 25	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
30 to 34	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
40 to 44	0	1	0	0	0	0	0	0	0	0	1
45 to 49	0	3	1	3	0	0	0	0	0	0	7
50 to 54	0	1	2	4	1	0	0	0	0	0	8
55 to 59	0	0	3	3	3	0	0	0	0	0	9
60 to 64	0	1	2	6	5	3	4	0	0	0	21
65 to 69	0	1	1	0	2	1	2	0	0	0	7
70 & up	0	0	0	0	0	1	0	1	0	0	2
						- 1					
Total	0	7	9	16	11	5	6	1	0	0	55



# APPENDIX A MEMBERSHIP INFORMATION

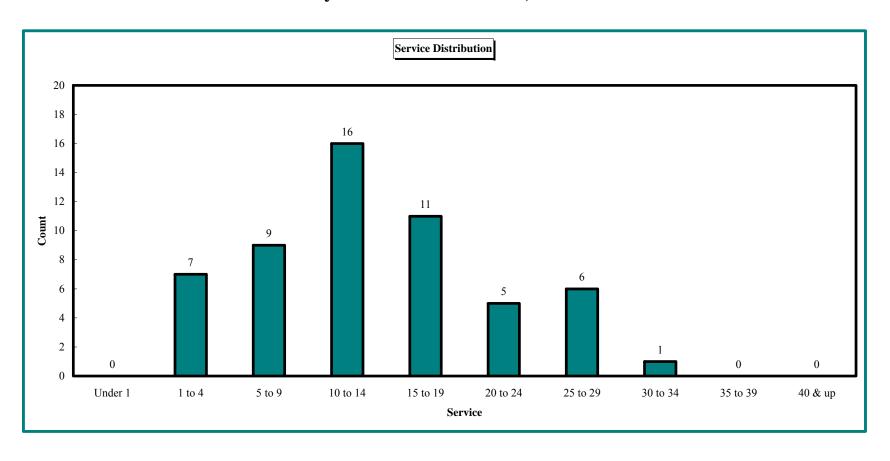
### Delaware State Judiciary Pension Plan Distribution of Active Members by Age as of June 30, 2012





# APPENDIX A MEMBERSHIP INFORMATION

### Delaware State Judiciary Pension Plan Distribution of Active Members by Service as of June 30, 2012





# APPENDIX A MEMBERSHIP INFORMATION

# Delaware State Judiciary Pension Plan Distribution of Active Members by Age and Service as of June 30, 2012

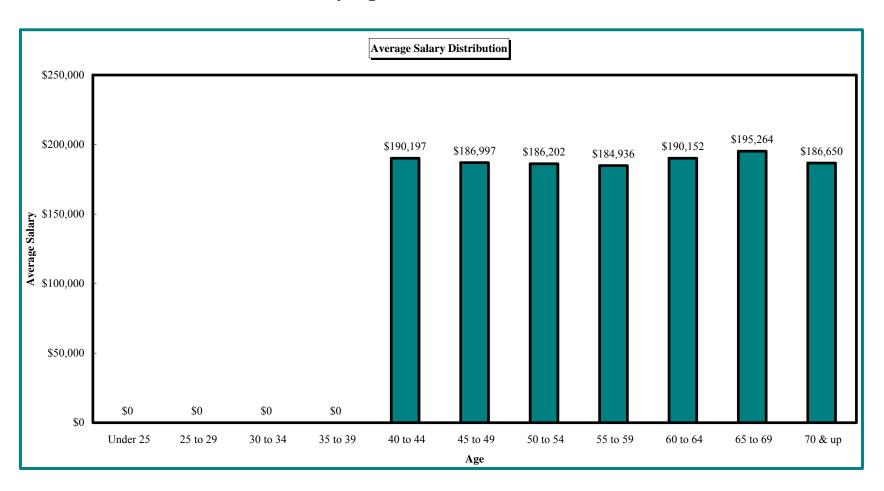
### AVERAGE SALARY BY AGE/SERVICE

					Servi	ice					
Age	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	Total
Under 25	\$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
30 to 34	\$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
40 to 44	\$0	\$190,197	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$190,197
45 to 49	\$0	\$183,565	\$183,565	\$191,574	\$0	\$0	\$0	\$0	\$0	\$0	\$186,997
50 to 54	\$0	\$176,233	\$186,650	\$189,130	\$183,565	\$0	\$0	\$0	\$0	\$0	\$186,202
55 to 59	\$0	\$0	\$185,622	\$185,622	\$183,565	\$0	\$0	\$0	\$0	\$0	\$184,936
60 to 64	\$0	\$189,735	\$189,966	\$188,735	\$190,485	\$187,678	\$193,914	\$0	\$0	\$0	\$190,152
65 to 69	\$0	\$189,735	\$189,735	\$0	\$186,650	\$211,723	\$201,177	\$0	\$0	\$0	\$195,264
70 & up	\$0	\$0	\$0	\$0	\$0	\$189,735	\$0	\$183,565	\$0	\$0	\$186,650
Total	\$0	\$185,228	\$187,044	\$188,782	\$187,271	\$192,898	\$196,335	\$183,565	\$0	\$0	\$188,847



# APPENDIX A MEMBERSHIP INFORMATION

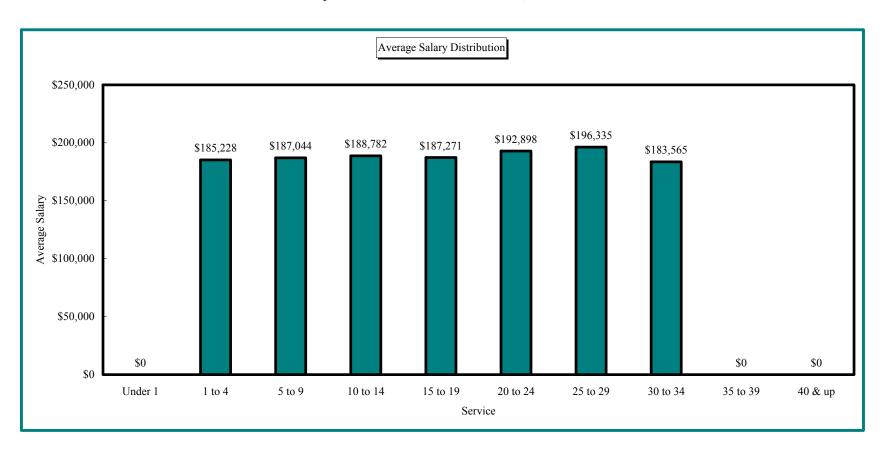
### Delaware State Judiciary Pension Plan Distribution of Active Members by Age as of June 30, 2012





# APPENDIX A MEMBERSHIP INFORMATION

### Delaware State Judiciary Pension Plan Distribution of Active Members by Service as of June 30, 2012





# APPENDIX A MEMBERSHIP INFORMATION

### Delaware State Judiciary Pension Plan Distribution of Retired Members, Survivors, and Disabled Members as of June 30, 2012

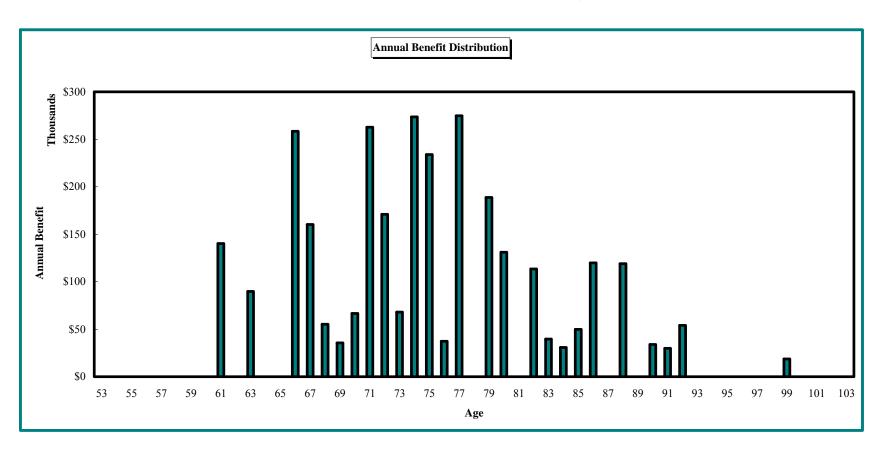
Age	Count	<b>Annual Benefit</b>	Age	Count	Annual Benefit
<25	0	\$ 0	73	1	\$ 68,031
25	0	0	74	4	273,708
26	0	0	75	2	233,917
27	0	0	76	1	37,256
28	0	0	77	4	274,908
29	0	0	78	0	0
30	0	0	79	3	188,778
31	0	0	80	1	131,081
32	0	0	81	0	0
33	0	0	82	1	113,473
34	0	0	83	1	39,710
35	0	0	84	1	30,873
36	0	0	85	1	49,890
37	0	0	86	2	119,861
38	0	0	87	0	0
39	0	0	88	2	119,111
40	0	0	89	0	0
41	0	0	90	1	33,972
42	0	0	91	1	29,969
43	0	0	92	1	54,082
44	0	0	93	0	0
45	0	0	94	0	0
46	0	0	95	0	0
47	0	0	96	0	0
48	0	0	97	0	0
49	0	0	98	0	0
50	0	0	99	1	18,668
51	0	0	100	0	0
52	0	0	101	0	0
53	0	0	102	0	0
54	0	0	103	0	0
55	0	0	104	0	0
56	0	0	105	0	0
57	0	0	106	0	0
58	0	0	107	0	0
59	0	0	108	0	0
60	0	0	109	0	0
61	1	140,332	110	0	0
62	0	0	111	0	0
63	1	89,878	112	0	0
64	0	0	113	0	0
65	0	0	114	0	0
66	3	258,556	115	0	0
67	2	160,288	116	0	0
68	1	55,349	117	0	0
69	1	35,607	118	0	0
70	1	66,570	119	0	0
71	2	262,847	120	0	0
72	2	171,017			
			Totals	42	\$3,057,732

Benefits shown before application of July 1, 2012 PRI.



# APPENDIX A MEMBERSHIP INFORMATION

# Delaware State Judiciary Pension Plan Distribution of Retired Members, Survivors, and Disabled Members as of June 30, 2012





# 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

Rates of	Rates of Healthy Active and Inactive Mortality Rates (With Projection Scale AA)								
Age	Male	Female							
20	0.03%	0.02%							
25	0.03	0.02							
30	0.04	0.02							
35	0.07	0.04							
40	0.09	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							



# APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

### **b.** Disabled Inactive Mortality

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

Rates of Disabled Inactive Mortality								
Age	Age Male Female							
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	4.53						
80	8.93	6.46						

### c. Rates of Active Disability

45% of 1946 Railroad Retirement Board Disability Rates

Rates of Active Disability						
Age	Current					
20	0.09%					
25	0.10					
30	0.11					
35	0.11					
40	0.13					
45	0.18					
50	0.32					
55	0.60					
60	1.24					

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

None assumed.



## 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

	Normal Retireme	ent
Age	Select	Ultimate
< 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 3.25% (rates shown below exclude amount for inflation.)

	Select
Service (Years)	Increase
0	9.00%
1-9	0.50

	Ultimate
Age	Increase
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.



# APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

### 2. Economic Assumptions

a.	Rate of Investment Return:	7.50%
	Rate of General Wage Increase:	3.25%
c.	Rate of Increase in Cost-of-Living	
	for Retirees:	0.00%
d.	Rate of Increase in Total Payroll	
	(for Amortization):	3.25%
e.	Administrative Expenses as a	
	Percentage of Payroll:	0.10%

### 3. Changes Since Last Valuation

None



# APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

#### **B.** Actuarial Methods

### 1. Funding Method

The Entry Age Normal Actuarial Cost 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 accrued liability is that portion of the present value of projected benefits that will not be paid by future employer 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 accrued 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.

Increases to the unfunded actuarial liability, due to benefit improvements, are amortized over their remaining periods if established prior to July 1, 2000. Those increases established on or after July 1, 2000 will be 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 will be amortized over a rolling 15-year period. All payments are determined assuming total pay increases by the annual inflation rate.

#### 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. The asset adjustment 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.

### 3. Changes Since Last Valuation

Moved from the new-entrant variation of the Entry Age Normal funding method to the individual method.



### 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 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 dependent children, if any, in equal shares until the youngest unmarried child attains age 18, as follows:

Eligibility: Death while in office or death after retirement.

Benefit: For eligible survivors of members who die in office: ½ 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.

For eligible survivors of pensioners who die:  $\frac{1}{2}$  of the pension the member was receiving at the time of death, or  $66 \frac{2}{3}\%$ , if the pensioner has so elected by taking a 2% reduction to his benefit

### 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. Changes Since Last Valuation

None

