

[www.pwc.com](http://www.pwc.com)

# *The State of Indiana Public Employees' Retirement Fund*

## Judges' Retirement System

Actuarial Valuation as of  
June 30, 2010



April 20, 2011

Board of Trustees  
The State of Indiana Public Employees' Retirement Fund  
1 North Capitol, Suite 001  
Indianapolis, IN 46204

**Re: Certification of the Actuarial Valuations of the State of Indiana Public Employees' Retirement Fund as of June 30, 2010**

Dear Board of Trustees:

Actuarial valuations are performed annually for the State of Indiana Public Employees' Retirement Fund ("Indiana PERF") defined benefit pension plans ("Plans"). The results of the latest actuarial valuations, which were prepared as of June 30, 2010, are presented in individual valuation reports for each fund and were prepared pursuant to the engagement letter between Indiana PERF and PricewaterhouseCoopers LLP ("PwC"), dated June 7, 2010. The reports are intended to provide the Board of Trustees ("Board") with information on the funded status of the Plans, development of the contribution rates, and certain financial statement disclosure information.

Under Indiana statutes, employer contribution rates are adopted annually for each Plan by the Board. These rates are actuarially determined based on the Board's funding policy and adopted actuarial assumptions. Contribution rates determined by the actuarial valuation become effective either twelve or eighteen months after the valuation date, depending on the applicable employer. For example, the rates determined by the June 30, 2010 actuarial valuation and adopted by the Board will become effective on either July 1, 2011 or January 1, 2012. If new legislation is enacted between the valuation date and the date the contribution rates become effective, the Board may adjust the recommended rates before adopting them, in order to reflect this new legislation. Such adjustments are based on information supplied by the actuary.

**Financing Objectives and Funding Policy**

In setting the contribution rates, the Board's principal objectives have been:

- To set contribution rates such that the unfunded actuarial accrued liability ("UAAL") will be amortized over a 30-year period.
- To set contribution rates such that they remain relatively level over time.

To accomplish this, the Board's funding policy requires that the employer contribution rate be equal to the sum of the employer normal cost rate (which pays the current year cost) and an amortization rate which results in the amortization of the UAAL in equal installments.

In addition, the Board has adopted contribution rate smoothing rules for the Public Employees' Retirement Fund, the State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers' Retirement Plan, the 1977 Police Officers' and Firefighters' Pension and Disability Fund, and the Prosecuting Attorneys' Retirement Fund. The contribution rate smoothing rules vary based on the size of the employer and are periodically revised via Board Resolutions. The contribution rate smoothing rules reduce annual volatility in the contribution rates, by phasing in the effects of gains and losses over time.

For 2008, an additional smoothing rule was adopted which stated that any employer contribution amount or rate developed based on the 2008 valuation could not be less than the employer contribution amount or rate based on the prior year valuation. This smoothing rule was adopted in anticipation of the recent economic downturn. This additional smoothing rule was continued for the 2009 and 2010 valuations, but will be reconsidered in future years.

No membership growth is anticipated in setting the contribution rate. This is consistent with GASB #25, which prohibits anticipating membership growth in determining the minimum Annual Required Contribution ("ARC").



### **Progress Toward Realization of Financing Objectives**

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a Plan's funded status. In the absence of benefit improvements, it should increase over time, until it reaches 100%. The combined funded ratio for all Plans decreased by 7.4% from the preceding year due to experience losses when compared to that anticipated by the actuarial assumptions.

### **Benefit Provisions**

The benefit provisions reflected in the valuation reports are those which were in effect at June 30, 2010, as set forth in the related Indiana statutes. None of the Plans had any material changes in benefit provisions since the 2009 valuation.

### **Assets and Member Data**

The valuations were based on asset values of the trust funds and member census data as of June 30, 2010. All asset and member data was provided by Indiana PERF. While certain checks for reasonableness were performed, the data was used unaudited. The accuracy of the results presented in the reports is dependent upon the accuracy and completeness of the underlying asset and census information.

### **Actuarial Assumptions and Methods**

The actuarial assumptions and methods used in the valuations have been selected and approved by the Board. In our opinion, the assumptions and methods are reasonable for the purposes of the valuation reports and comply with the parameters set forth in Statements No. 25 and No. 27 of the Governmental Accounting Standards Board ("GASB"). Different assumptions and methods may be reasonable for other purposes. As such, the results presented in the valuation reports should only be relied upon for the intended purpose.

### **Certification**

We certify that the information presented herein is accurate and fairly portrays the actuarial position of each Plan administered by PERF as of June 30, 2010.

This report contains the required accounting information to be included in the Comprehensive Annual Financial Report. This information has been prepared in accordance with our understanding of Governmental Accounting Standards No. 25 and No. 27 (as amended by No. 50).

To the best of our knowledge this actuarial statement is complete and accurate and has been prepared in accordance with generally accepted actuarial principles and practice and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of Indiana state law. The undersigned actuaries are members of the Society of Actuaries and other professional organizations, including the American Academy of Actuaries, and meet the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States relating to pension plans. There is no relationship between PwC and Indiana PERF that may impair our objectivity.

This document was not intended or written to be used, and it cannot be used, for the purpose of avoiding U.S. federal, state, or local tax penalties. This includes penalties that may apply if the transaction that is the subject of this document is found to lack economic substance or fails to satisfy any other similar rule of law. This document has been prepared pursuant to an engagement letter between Indiana PERF and PwC, and is intended solely for the use and benefits of Indiana PERF and not for reliance by any other person.

Respectfully submitted,

---

Ms. Cindy Fraterrigo  
Member, American Academy of Actuaries  
Fellow of the Society of Actuaries  
Enrolled Actuary (No. 11-06229)

---

Mr. Sheldon Gamzon  
Member, American Academy of Actuaries  
Fellow of the Society of Actuaries  
Enrolled Actuary (No. 11-03238)

---

Mr. Brandon Robertson  
Member, American Academy of Actuaries  
Associate of the Society of Actuaries  
Enrolled Actuary (No. 11-07568)

---

TABLE OF CONTENTS

<b>I. EXECUTIVE SUMMARY</b>	<b>1</b>
<b>II. FUNDING</b>	
A. Development of Funded Status	7
B. Unfunded Actuarial Accrued Liability Reconciliation	8
C. Actuarial Accrued Liability Reconciliation	9
D. Reconciliation of Market Value of Assets	10
E. Reconciliation of Actuarial Value of Assets	11
F. Contribution Rate	12
G. Unfunded Actuarial Accrued Liability Amortization Schedule	13
H. Historical Investment Experience	14
<b>III. ACCOUNTING</b>	
A. Assumptions and Methods Under GASB #25 and #27	15
B. Membership Data	15
C. Statement of Plan Net Assets	16
D. Statement of Changes in Plan Net Assets	17
E. Schedule of Funding Progress	18
F. Schedule of Employer Contributions	18
G. Development of Net Pension Obligation (NPO)	19
H. Three-Year Trend Information	19
I. Solvency Test	20
<b>IV. CENSUS DATA</b>	<b>21</b>
<b>V. ACTUARIAL ASSUMPTIONS AND METHODS</b>	<b>28</b>
<b>VI. SUMMARY OF PLAN PROVISIONS</b>	<b>32</b>
<b>VII. DEFINITION OF TECHNICAL TERMS</b>	<b>37</b>

---

## SECTION I - EXECUTIVE SUMMARY

### **HIGHLIGHTS OF THE ACTUARY'S REPORT**

This report presents the results of the actuarial valuation of the Judges' Retirement System ("JRS") and has been prepared to present the current funded status of the Plan, contribution requirements for fiscal year 2012 (July 1, 2011 through June 30, 2012), and certain financial statement disclosure information. The valuation was performed using census data for plan members as of as of June 30, 2010 provided by Indiana PERF, asset information as of June 30, 2010 provided by Indiana PERF, the actuarial assumptions and methods approved by the Board and summarized in Section V, and the plan provisions effective June 30, 2010 as summarized in Section VI.

#### **Contributions**

JRS is a state appropriated fund. All employer contributions are made by the State of Indiana. The annual cost for the State has increased from \$16,076,869 for fiscal 2011 to \$18,909,921 for fiscal 2012. This increase is a result of asset losses resulting in a higher amortization of the unfunded actuarial accrued liability, as well as changes to actuarial assumptions.

Members of JRS contribute 6% of their compensation during each year of membership or for 22 years, whichever is shorter. If a JRS member terminates employment with less than 8 years of service, the accumulated contributions with interest can be withdrawn as a lump sum or the member may direct the JRS to make a direct rollover of the distribution amount. When a member becomes vested, the member account balance may not be refunded and is instead combined with the employee contributions in order to fund the member's future retirement annuity benefit.

#### **Funded Status**

The funded status of JRS is measured by the funded ratio, which is the ratio of the assets available for benefits to a benefit liability measure for JRS. While there are several such measures that could be appropriately used, the benefit liability measure that ties most closely to your funding strategy is the Actuarial Accrued Liability ("AAL").

Using the Actuarial Value of Assets ("AVA"), an asset value that smoothes the market gains and losses over four (4) years, JRS AAL funded ratio decreased from 72.9% at June 30, 2009 to 66.5% at June 30, 2010. The decrease is primarily due to a loss on the AVA from smoothing investment losses that occurred in 2008 and 2009, as well as the net effect of changes to the discount rate and mortality assumptions, which increased the AAL.

#### **Investment Experience**

On a Market Value basis, from June 30, 2009 to June 30, 2010, JRS experienced an approximate investment return of 12.9%. However, on an Actuarial Value basis over the same time period, the JRS experienced an approximate investment return of (1.8%). The negative investment return on the AVA can be attributed to the smoothing of prior losses that more than offset the gain on Market Value from June 30, 2009 to June 30, 2010.

---

## SECTION I - EXECUTIVE SUMMARY

### **HIGHLIGHTS OF THE ACTUARY'S REPORT (CONTINUED)**

#### **Cost-of-Living Adjustment**

Benefits for retired members increase automatically based on the annual pay increase granted for the position the member held at the time of retirement. The annual cost-of-living assumption for the valuation is 4.0%, which is the same as the salary increase assumption for active members.

#### **Changes in Actuarial Assumptions**

For the June 30, 2010 valuation, the Board approved the following assumption changes:

- The interest rate (net of administrative and investment expenses) was lowered from 7.25% to 7.0%.
- The mortality assumption was changed from the UP 1994 Mortality Table for healthy lives and 115% of UP 1994 Mortality Table for disabled lives to the IRS 2008 Static Mortality Table projected forward five (5) years with Scale AA for both healthy and disabled lives.

#### **Changes in Plan Provisions**

There have been no changes in the plan provisions since the June 30, 2009 valuation.

#### **Changes in Actuarial Methods**

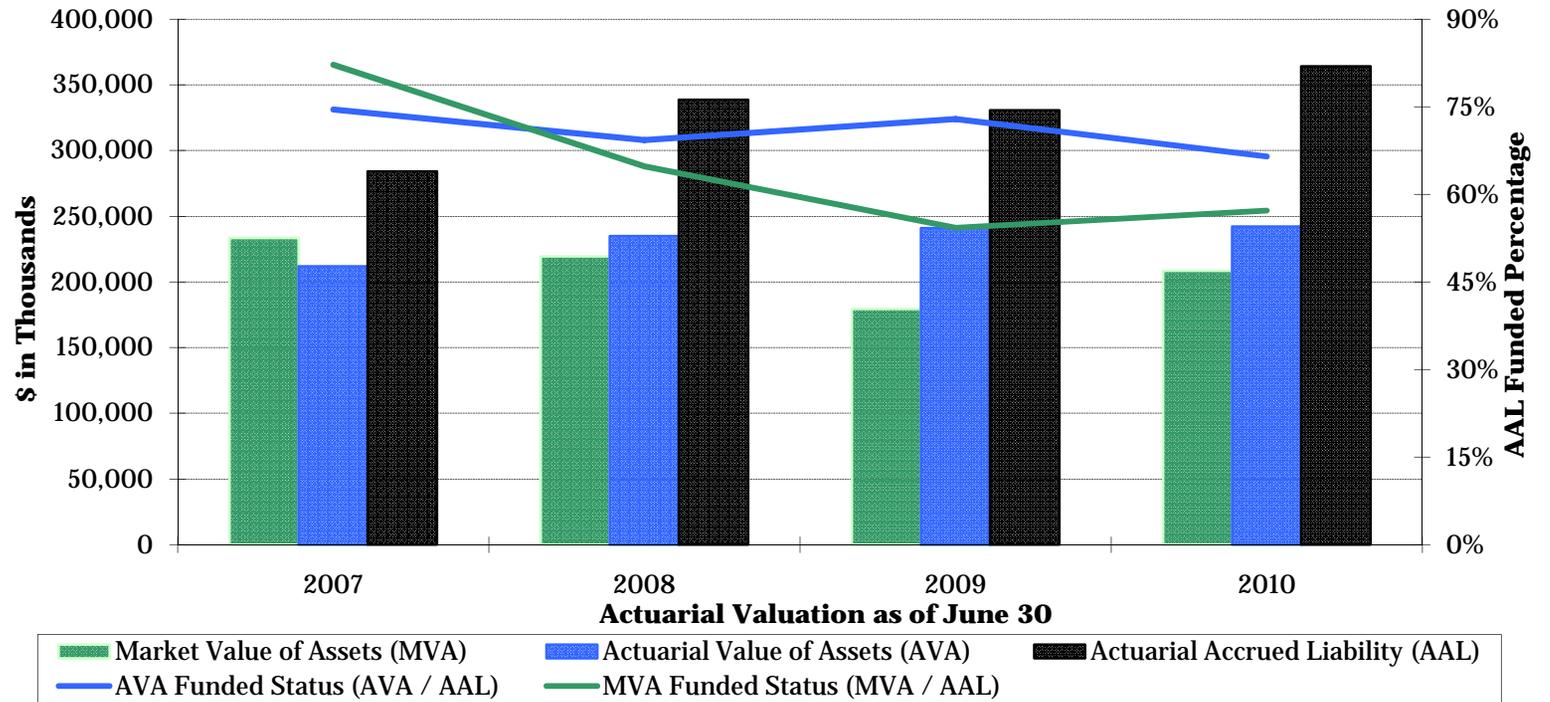
For the June 30, 2010 valuation, the Board approved the following method changes:

- The method of amortizing gains and losses was changed from a level dollar, fresh start method with a decreasing amortization period starting at 30 years on June 30, 2006 to a level dollar, closed ended 30-year method under which a new base is established each year beginning July 1, 2010.
- The AVA was updated to include a 20% corridor, where the AVA cannot be more than 120% or less than 80% of the Market Value of Assets ("MVA") after the four-year smoothing of gains and losses is applied.

**SECTION I - EXECUTIVE SUMMARY**

**HISTORICAL SUMMARY**

**JRS – 4 Year History of Funded Status<sup>1</sup>**



<b><u>Actuarial Valuation as of June 30:</u></b>	<b><u>2007</u></b>	<b><u>2008</u></b>	<b><u>2009</u></b>	<b><u>2010</u></b>
Actuarial Accrued Liability (AAL)	\$283,995.2	\$338,749.0	\$330,551.2	\$364,122.7
Actuarial Value of Assets (AVA)	211,746.5	234,880.5	240,953.9	242,142.8
Market Value of Assets (MVA)	233,385.4	219,425.5	179,428.1	208,395.2
Unfunded Liability (AAL - AVA)	72,248.7	103,868.5	89,597.3	121,979.9
AVA Funded Status (AVA / AAL)	74.6%	69.3%	72.9%	66.5%
MVA Funded Status (MVA / AAL)	82.2%	64.8%	54.3%	57.2%

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

SECTION I - EXECUTIVE SUMMARY

**HISTORICAL SUMMARY (CONTINUED)**

**Summary of Valuation Results**<sup>1</sup>

	<u>June 30, 2007</u>	<u>June 30, 2008</u>	<u>June 30, 2009</u>	<u>June 30, 2010</u>
Employer Contributions				
Normal Cost (Beginning of Year)	\$ 5,708,981	\$ 9,277,927	\$ 10,425,527	\$ 11,567,716
Amortization of Unfunded Actuarial Accrued Liability	5,622,545	8,172,875	7,134,782	9,515,365
Interest Adjustment <sup>2</sup>	410,768	632,592	636,561	-
Employee Contributions	<u>(1,713,923)</u>	<u>(1,952,273)</u>	<u>(2,120,001)</u>	<u>(2,173,160)</u>
Total Contribution Amount	\$ 10,028,371	\$ 16,131,121	\$ 16,076,869	\$ 18,909,921
Total Employer Contributions Rate as a % of Payroll	33.8%	47.8%	44.4%	51.5%

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

<sup>2</sup> Valuation results prior to June 30, 2010 included an interest adjustment to the middle of the year because the payroll used for computing contribution rates was not discounted to the beginning of the year.

SECTION I - EXECUTIVE SUMMARY

**HISTORICAL SUMMARY (CONTINUED)**

**Summary of Valuation Results (Continued)**<sup>1</sup>

	<u>June 30, 2007</u>	<u>June 30, 2008</u>	<u>June 30, 2009</u>	<u>June 30, 2010</u>
Census Information				
Active				
Number	258	267	288	291
Average Age	54.8	54.8	54.1	55.0
Average Years of Service	10.4	10.1	8.7	9.5
Covered Payroll of Actives	\$ 29,712,252	\$ 33,729,411	\$ 36,195,775	\$ 36,721,919
Inactive - Vested				
Number	95	93	83	73
Average Age				60.7
Average Years of Service				18.4
Inactive - Non-Vested <sup>2</sup>				
Number				31
Retiree/Beneficiary/Disabled				
Number	279	276	293	298
Average Age				75.3
Annual Benefits Payable	\$ 13,899,408	\$ 14,753,638	\$ 15,229,582	\$ 15,389,828

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

<sup>2</sup> For June 30, 2010, inactive non-vested members entitled to a refund of their ASA balances totaling \$452,175.

SECTION I - EXECUTIVE SUMMARY

**HISTORICAL SUMMARY (CONTINUED)**

**Summary of Valuation Results (Continued)**<sup>1</sup>

	<u>June 30, 2007</u>	<u>June 30, 2008</u>	<u>June 30, 2009</u>	<u>June 30, 2010</u>
<b>Actuarial Accrued Liability</b>				
ASA Balance	\$ 21,276,000	\$ 22,243,000	\$ 21,649,000	\$ 23,137,615
Retiree/Beneficiary/Disabled	143,645,324	155,177,081	170,962,026	182,023,263
Active and Inactive	<u>119,073,841</u>	<u>161,328,902</u>	<u>137,940,181</u>	<u>158,961,853</u>
Total	\$ 283,995,165	\$ 338,748,983	\$ 330,551,207	\$ 364,122,731
<b>Actuarial Value of Assets (AVA)</b>				
ASA Balance	\$ 21,276,000	\$ 22,243,000	\$ 21,649,000	\$ 23,137,615
Retiree/Beneficiary/Disabled	143,645,324	155,177,081	170,962,026	182,023,263
Active and Inactive	<u>46,825,189</u>	<u>57,460,441</u>	<u>48,342,855</u>	<u>36,981,965</u>
Total	\$ 211,746,513	\$ 234,880,522	\$ 240,953,881	\$ 242,142,843
<b>Market Value of Assets (MVA)</b>				
ASA Balance	\$ 21,276,000	\$ 22,243,000	\$ 21,649,000	\$ 23,137,615
Retiree/Beneficiary/Disabled	143,645,324	155,177,081	157,779,055	182,023,263
Active and Inactive	<u>68,464,043</u>	<u>42,005,420</u>	-	<u>3,234,360</u>
Total	\$ 233,385,367	\$ 219,425,501	\$ 179,428,055	\$ 208,395,238
<b>Unfunded Actuarial Accrued Liability: AAL - AVA</b>				
ASA Balance	\$ -	\$ -	\$ -	\$ -
Retiree/Beneficiary/Disabled	-	-	-	-
Active and Inactive	<u>72,248,652</u>	<u>103,868,461</u>	<u>89,597,326</u>	<u>121,979,888</u>
Total	\$ 72,248,652	\$ 103,868,461	\$ 89,597,326	\$ 121,979,888
<b>Funded Percentage</b>				
ASA Balance	100.0%	100.0%	100.0%	100.0%
Retiree/Beneficiary/Disabled	100.0%	100.0%	100.0%	100.0%
Active and Inactive	<u>39.3%</u>	<u>35.6%</u>	<u>35.0%</u>	<u>23.3%</u>
Total	74.6%	69.3%	72.9%	66.5%
<b>Summary of Assumptions</b>				
Valuation Interest Rate	7.25%	7.25%	7.25%	7.00%
Salary Scale	4.00%	4.00%	4.00%	4.00%
Cost-of-Living Assumption	4.00%	4.00%	4.00%	4.00%

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

---

**SECTION II - FUNDING**

**FUNDING**

	<u>Page</u>
A. Development of Funded Status	7
B. Unfunded Actuarial Accrued Liability Reconciliation	8
C. Actuarial Accrued Liability Reconciliation	9
D. Reconciliation of Market Value of Assets	10
E. Reconciliation of Actuarial Value of Assets	11
F. Contribution Rate	12
G. Unfunded Actuarial Accrued Liability Amortization Schedule	13
H. Historical Investment Experience	14

SECTION II - FUNDING

**A. Development of Funded Status**<sup>1</sup>

	<b>June 30, 2009</b>	<b>June 30, 2010</b>
1. Actuarial Accrued Liability		
a. Annuity Savings Account	\$ 21,649,000	\$ 23,137,615
b. Retirees, Beneficiaries, and Disabled	170,962,026	182,023,263
c. Active and Inactive	137,940,181	158,961,853
d. Total: (1)(a) + (1)(b) + (1)(c)	\$ 330,551,207	\$ 364,122,731
2. Actuarial Value of Assets		
a. Annuity Savings Account	\$ 21,649,000	\$ 23,137,615
b. Retirees, Beneficiaries, and Disabled	170,962,026	182,023,263
c. Active and Inactive	48,342,855	36,981,965
d. Total: (2)(a) + (2)(b) + (2)(c)	\$ 240,953,881	\$ 242,142,843
3. Unfunded Actuarial Accrued Liability		
a. Annuity Savings Account	\$ -	\$ -
b. Retirees, Beneficiaries, and Disabled	-	-
c. Active and Inactive	89,597,326	121,979,888
d. Total: (1)(d) - (2)(d)	\$ 89,597,326	\$ 121,979,888
4. Funded Status		
a. Annuity Savings Account	100.0%	100.0%
b. Retirees, Beneficiaries, and Disabled	100.0%	100.0%
c. Active and Inactive	35.0%	23.3%
d. Total: (2)(d) / (1)(d)	72.9%	66.5%

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

SECTION II - FUNDING

**B. Unfunded Actuarial Accrued Liability Reconciliation**<sup>1</sup>

	<b>June 30, 2009</b>	<b>June 30, 2010</b>
1. Unfunded Actuarial Accrued Liability, Prior Year	\$ 103,868,461	\$ 89,597,326
2. Changes in Unfunded Actuarial Accrued Liability		
a. Actuarial Value of Assets Experience (Gain)/Loss	\$ 19,766,007	\$ 19,082,848
b. Actuarial Accrued Liability Experience (Gain)/Loss	(32,802,197)	(11,997,179)
c. Additional Liability Due to Transition from Prior Actuary	-	(338,963)
d. Additional Liability Due to Changes in Actuarial Assumptions	-	26,792,104
e. Additional Liability Due to Changes in Plan Provisions	-	-
f. Total New Amortization Bases	N/A	\$ 33,538,810
(2)(a) + (2)(b) + (2)(c) + 2(d) + (2)(e)		
g. Amortization of Existing Bases	(1,234,945)	(1,156,248)
h. Change in Unfunded Actuarial Accrued Liability:	\$ (14,271,135)	\$ 32,382,562
(2)(f) + (2)(g)		
3. Unfunded Actuarial Accrued Liability, Current Year: (1) + (2)(h)	\$ 89,597,326	\$ 121,979,888

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

SECTION II - FUNDING

**C. Actuarial Accrued Liability Reconciliation**

1. June 30, 2009 Actuarial Accrued Liability <sup>1</sup>	\$	330,551,207	
2. Normal Cost <sup>1</sup>		10,425,527	
3. Actual Benefit Payments		15,469,991	
4. Interest of 7.25% on (1) + (2) - (3)/2		24,160,026	
5. Expected June 30, 2010 Actuarial Accrued Liability: (1) + (2) - (3) + (4)	\$	349,666,769	
		<u>Dollar Change</u>	<u>Percent Change</u>
		<u>in Liability</u>	<u>in Liability</u>
6. (Gain)/Loss Components			
a. Transition from Prior Actuary	\$	(338,963)	(0.1%)
b. Census		(11,997,179)	(3.4%)
c. Mortality Assumption Change		16,988,410	4.9%
d. Discount Rate Assumption Change		9,803,694	2.8%
e. Total: (6)(a) + (6)(b) + (6)(c) + (6)(d)	\$	14,455,962	4.2%
7. Actual June 30, 2010 Actuarial Accrued Liability: (5) + (6)(e)	\$	<b>364,122,731</b>	

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

SECTION II - FUNDING

**D. Reconciliation of Market Value of Assets**

	<b>June 30, 2009</b>	<b>June 30, 2010</b>
1. Market Value of Assets, Prior June 30	\$ 219,425,501	\$ 179,428,055
2. Receipts		
a. Employer Contributions	\$ 20,861,106	\$ 18,630,651
b. Employee Contributions	2,195,643	2,228,719
c. Investment Income and Dividends Net of Fees	(48,192,041)	23,486,135
d. Security Lending Income Net of Fees	-	136,268
e. Net Transfers In	-	59,549
f. Miscellaneous Income	150,537	-
g. Total Receipts:	\$ (24,984,755)	\$ 44,541,322
3. Disbursements		
a. Benefits Paid During the Year	\$ 14,649,478	\$ 15,469,991
b. Refund of Contributions and Interest	55,489	-
c. Administrative Expenses	307,724	104,148
d. Net Transfers Out	-	-
e. Miscellaneous Disbursements	-	-
f. Total Disbursements:	\$ 15,012,691	\$ 15,574,139
4. Market Value of Assets, Current June 30: (1) + (2)(g) + (3)(f)	<b>\$ 179,428,055</b>	<b>\$ 208,395,238</b>
5. Market Value of Assets Approximate Annual Rate of Investment Return	(21.7%)	12.9%

SECTION II - FUNDING

**E. Reconciliation of Actuarial Value of Assets**

1.	Market Value of Assets, June 30, 2009	\$	179,428,055
2.	Market Value of Assets, June 30, 2010		208,395,238
3.	Expected Earnings/Expenses		
a.	Expected Investment Earnings at 7.25% on June 30, 2009 Market Value		13,008,534
b.	Expected Receipts and Investment Earnings at 7.25%		21,677,230
c.	Expected Disbursements and Investment Expenses at 7.25%		16,030,778
4.	Expected Assets, June 30, 2010: (1) + (3)(a) + (3)(b) + (3)(c)		198,083,041
5.	2009-2010 Gain/(Loss): (2) - (4)		10,312,197
6.	Smoothing of Gain/(Loss)		
	<u>Year</u>	<u>Gain/(Loss)</u>	<u>% Unrecognized</u>
a.	2009-2010	\$ 10,312,197	75%
b.	2008-2009	(64,716,323)	50%
c.	2007-2008	(36,494,362)	25%
7.	Preliminary Actuarial Value of Assets, June 30, 2010: (2) - (6)(a) - (6)(b) - (6)(c)		242,142,843
8.	Corridor		
a.	120% of Market Value		250,074,286
b.	80% of Market Value		166,716,190
9.	Actuarial Value of Assets, June 30, 2010		<b>242,142,843</b>
10.	Actuarial Value of Assets as a Percent of Market Value: (9) / (2)		116.2%
11.	Actuarial Value of Assets Approximate Annual Rate of Investment Return		(1.7%)

SECTION II - FUNDING

**F. Contribution Rate**

	<b>June 30, 2010</b>	
	<b>\$</b>	<b>% of Payroll</b>
1. Current Payroll	\$ 36,721,919	
2. Normal Cost (Beginning of Year)	11,567,716	31.5%
3. Unfunded Actuarial Accrued Liability (UAAL) Amortizations		
a. UAAL Balance	121,979,888	
b. Annual Amortization	9,515,365	25.9%
4. Expected Employee Contributions <sup>1</sup>	2,173,160	5.9%
5. Employer Contributions - True Rate: (2) + (3)(b) - (4)	<b>18,909,921</b> <sup>2</sup>	<b>51.5%</b>

<sup>1</sup> Only members with less than 22 years of service contribute to the plan.

<sup>2</sup> JRS is a State appropriated fund. The Employer Contribution amount is expected to be paid by the State of Indiana during fiscal 2012.

SECTION II - FUNDING

**G. Unfunded Actuarial Accrued Liability Amortization Schedule**<sup>1</sup>

	<u>Date Base Established</u>	<u>Reason</u>	<u>Remaining Unfunded</u>	<u>Remaining Period</u>	<u>Amortization Amount</u>
1.	6/30/2009	Actuarial Experience Loss	\$ 88,441,078	26	\$ 6,989,410
2.	6/30/2010	Actuarial Experience Loss and Change in Actuarial Assumptions	33,538,810	30	2,525,955
3.	Total		\$ 121,979,888		\$ 9,515,365

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

---

SECTION II - FUNDING

**H. Historical Investment Experience**

1.	2.		3.	4.
Year Ending June 30	<u>Approximate Annual Rate of Investment Return</u>			<u>Actuarial Assumed</u>
	<u>Actuarial Basis</u>	<u>Market Basis</u>		<u>Interest Rate</u>
2003	(1.0%)	5.3%		
2004	3.3%	16.1%		
2005	7.0%	9.6%		
2006	15.1%	10.5%		
2007	15.8%	18.0%		7.25%
2008	8.3%	(8.2%)		7.25%
2009	(1.0%)	(21.7%)		7.25%
2010	(1.7%)	12.9%		7.25%

---

**SECTION III - ACCOUNTING**

**ACCOUNTING**

	<u>Page</u>
A. Assumptions and Methods Under GASB #25 and #27	15
B. Membership Data	15
C. Statement of Plan Net Assets	16
D. Statement of Changes in Plan Net Assets	17
E. Schedule of Funding Progress	18
F. Schedule of Employer Contributions	18
G. Development of Net Pension Obligation (NPO)	19
H. Three-Year Trend Information	19
I. Solvency Test	20

---

SECTION III - ACCOUNTING

**REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB #25 AND #27**

**A. Assumptions and Methods Under GASB #25 and #27**

Under the Governmental Accounting Standards Board (GASB) Statements No. 25 and No. 27, certain information about the plan is required to be disclosed. The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation Date	June 30, 2010
Actuarial Cost Method	Entry Age Actuarial Cost Method
Amortization Method	Level Dollar
Amortization Period	30 Years
Actuarial Value of Assets	4-Year Smoothed Market Value with 20% Corridor
Actuarial Assumptions:	
Investment Rate of Return	7.0% (changed from 7.25% as of June 30, 2009)
Future Salary Increases	4.0% (includes 3.0% wage inflation)
Cost-of-Living Increases	4.0% (tied to salary scale)

**B. Membership Data**

The plan consisted of the following membership as of June 30, 2010, the date of the latest actuarial valuation:

Retired members, beneficiaries and disabled members receiving benefits:	298
Terminated vested plan members entitled to but not yet receiving benefits:	73
Terminated non-vested plan members entitled to refund of ASA balance:	31
Active Plan Members:	291
Total membership:	<u>693</u>

SECTION III - ACCOUNTING

**REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB #25 AND #27 (CONTINUED)**

**C. Statement of Plan Net Assets**

1. Assets		
a. Cash and Cash Equivalents	\$	19,328,403
b. Securities Lending Collateral		38,807,403
c. Receivables		
i. Contributions Receivable	\$	109,014
ii. Accrued Investment Income		705,688
iii. Receivables for Investment Securities		15,977,489
iv. Member Loans		-
v. Miscellaneous Receivables		-
vi. Due From Other Governmental Plans		-
vii. Due From Other Funds		-
viii. Total Receivables	\$	16,792,191
d. Investments		
i. Debt Securities	\$	63,110,952
ii. Equity Securities		75,810,824
iii. Mutual Funds		11,814,903
iv. Other Investments		41,330,419
v. Total Investments	\$	192,067,098
e. Capital Assets		-
f. Total Assets: (1)(a) + (1)(b) + (1)(c)(viii) + (1)(d)(v) + (1)(e)	\$	266,995,095
2. Liabilities		
a. Accounts Payable	\$	12,754
b. Salaries and Benefits Payable		-
c. Investments Payable		18,311,160
d. Securities Lending Collateral		38,807,403
e. Due To Other Governmental Plans		-
f. Due To Other Funds		1,468,540
g. Total Current Liabilities	\$	58,599,857
h. Compensated Absences - Long Term		-
i. Total Liabilities: (2)(a) + (2)(b) + (2)(c) + (2)(d) + (2)(e) + (2)(f) + (2)(g) + (2)(h)	\$	58,599,857
3. Net Assets Held in Trust for Pension Benefits: (1)(f) - (2)(i)	\$	<b>208,395,238</b>

SECTION III - ACCOUNTING

**REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB #25 AND #27 (CONTINUED)**

**D. Statement of Changes in Plan Net Assets**

1. Net Assets as of June 30, 2009	\$	179,428,055
2. Revenue (Additions)		
a. Contributions		
i. Member Contributions	\$	2,228,719
ii. Employer Contributions		18,630,651
iii. Other Contributions		-
iv. Total Contributions	\$	20,859,370
b. Investment Income/Loss		
i. Investment Income/Loss	\$	24,891,659
ii. Securities Lending Income		195,025
iii. Securities Lending Expenses		(58,757)
iv. Other Investment Expenses		(1,405,524)
v. Net Investment Income	\$	23,622,403
c. Other Additions		
i. Intergovernmental Transfers	\$	59,549
ii. Miscellaneous Income		-
iii. Total Other Additions	\$	59,549
d. Total Revenue (Additions): (2)(a)(iv) + (2)(b)(iv) + (2)(c)(iv)	\$	44,541,322
3. Expenses (Deductions)		
a. Pension and Disability Benefits	\$	15,469,991
b. Death, Survivor, and Funeral Benefits		-
c. Distributions of Contributions and Interest		-
d. Intergovernmental Transfers		-
e. Pensions Relief Distributions		-
f. Local Unit Withdrawals		-
g. Administrative Expenses		104,148
h. Total Expenses (Deductions): (3)(a) + (3)(b) + (3)(c) + (3)(d) + (3)(e) + (3)(f) + (3)(g)	\$	15,574,139
4. Changes in Net Assets Held in Trust for Pension Benefits: (2)(d) - (3)(h)	\$	28,967,183
5. Net Assets as of June 30, 2010: (1) + (4)	\$	<b>208,395,238</b>

SECTION III - ACCOUNTING

**REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB #25 AND #27 (CONTINUED)**

**E. Schedule of Funding Progress**<sup>1</sup>

(\$ in Thousands)

1. Actuarial Valuation Date June 30	2. Actuarial Value of Assets	3. Actuarial Accrued Liability (AAL)	4. Unfunded Actuarial Accrued Liability (UAAL) (3) - (2)	5. AAL Funded Ratio (2) / (3)	6. Annual Anticipated Payroll	7. UAAL as a % of Payroll (4) / (6)
2005	\$ 151,003	\$ 272,855	\$ 121,852	55.3%	\$ 32,231	378.1%
2006	178,276	272,997	94,721	65.3%	34,065	278.1%
2007	211,747	283,995	72,248	74.6%	29,712	243.2%
2008	234,881	338,749	103,868	69.3%	33,729	307.9%
2009	240,954	330,551	89,597	72.9%	36,196	247.5%
2010	242,143	364,123	121,980	66.5%	36,722	332.2%

**F. Schedule of Employer Contributions**<sup>1</sup>

(\$ in Thousands)

1. Plan Year Ending June 30	2. Annual Required Contribution (ARC)	3. Actual Employer Contribution	4. % of ARC (3) / (2)
2005	\$ 10,064	\$ 13,540	134.5%
2006	14,932	13,537	90.7%
2007	12,249	14,662	119.7%
2008	10,028	15,920	158.8%
2009	16,131	20,861	129.3%
2010	16,077	18,631	115.9%

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

SECTION III - ACCOUNTING

**REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB #25 AND #27 (CONTINUED)**

**G. Development of Net Pension Obligation (NPO) <sup>1</sup>**

(\$ in Thousands)

1. Plan Year Ending June 30	2. Annual Required Contribution (ARC)	3. Interest on NPO at Discount Rate	4. ARC Adjustment (9) / (5)	5. Amortization Factor	6. Net Pension Cost (NPC) (2) + (3) - (4)	7. Actual Employer Contribution	8. Change in NPO (6) - (7)	9. NPO at Beginning of Year	10. NPO at End of Year (8) + (9)
2008	\$ 10,028	\$ (1,131)	\$ (1,302)	11,9812	\$ 10,199	\$ 15,920	\$ (5,721)	\$ (15,600)	\$ (21,321)
2009	16,131	\$ (1,546)	(1,799)	11,8498	16,384	20,861	(4,477)	(21,321)	(25,797)
2010	16,077	\$ (1,870)	(2,203)	11,7089	16,410	18,631	(2,221)	(25,797)	(28,018)

**H. Three-Year Trend Information <sup>1</sup>**

(\$ in Thousands)

1. Plan Year Ending June 30	2. Net Pension Cost (NPC)	3. Actual Employer Contribution	4. % of NPO (3) / (2)
2008	\$ 10,199	\$ 15,920	156.1%
2009	16,384	20,861	127.3%
2010	16,410	18,631	113.5%

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

SECTION III - ACCOUNTING

**I. Solvency Test**<sup>1</sup>

Portion of Actuarial Liability Provided by Assets  
(\$ in Thousands)

1. As of June 30	2. ASA Balances	3. Retired and Beneficiaries	4. Non-Retired Members (Employer Financed Portion)	5. Total Actuarial Accrued Liabilities	6. Actuarial Value of Assets
2005	\$ 19,515 100.0%	\$ 137,631 95.5%	\$ 115,709 0.0%	\$ 272,855 55.3%	\$ 151,003
2006	20,861 100.0%	134,272 100.0%	117,865 19.6%	272,998 65.3%	178,276
2007	21,276 100.0%	143,645 100.0%	119,074 39.3%	283,995 74.6%	211,747
2008	22,243 100.0%	155,177 100.0%	161,329 35.6%	338,749 69.3%	234,881
2009	21,649 100.0%	170,962 100.0%	137,940 35.0%	330,551 72.9%	240,954
2010	23,138 100.0%	182,023 100.0%	158,962 23.3%	364,123 66.5%	242,143

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

---

**SECTION V - CENSUS DATA**

**CENSUS DATA**

	<u>Page</u>
A. Reconciliation of Participant Data	21
B. Census Information	22
C. Schedule of Active Member Valuation Data	23
D. Schedule of Retirees, Beneficiaries, and Disabled Members	24
E. Distribution of Active Members by Age and Service	25
F. Distribution of Inactive Vested Members by Age and Service	26
G. Distribution of Retired Members, Beneficiaries, and Disabled Members by Age and Number of Years Retired	27

SECTION V - CENSUS DATA

**A. Reconciliation of Participant Data**

	Inactive Non-Vested						Total
	Actives	ASA Balance	Inactive Vested	Disabled	Retired	Beneficiary	
PwC Total as of June 30, 2009	288	30	83	-	197	96	694
New Entrants	4	-	-	-	-	-	4
Rehires	16	(3)	(13)	-	-	-	-
Non-Vested Terminations	(4)	4	-	-	-	-	-
Vested Terminations	(9)	-	9	-	-	-	-
Retirements	(2)	-	(6)	-	8	-	-
Disablements	-	-	-	-	-	-	-
Death with Beneficiary	(1)	-	-	-	(3)	4	-
Death without Beneficiary	-	-	-	-	(2)	(4)	(6)
Refunds	-	-	-	-	-	-	-
Data Adjustments <sup>1</sup>	(1)	-	-	-	-	2	1
Total as of June 30, 2010	291	31	73	-	200	98	693

<sup>1</sup> Data adjustments are member records that were not included in the June 30, 2009 valuation date file provided by the prior actuary, but were included in the June 30, 2010 data received from Indiana PERF.

SECTION V - CENSUS DATA

**B. Census Information**

	<b>June 30, 2009</b>	<sup>1</sup>	<b>June 30, 2010</b>
1. Active			
a. Number	288		291
b. Average Age	54.1		55.0
c. Average Years of Service	8.7		9.5
d. Covered Payroll of Actives	\$ 36,195,775		\$ 36,721,919
2. Inactive - Vested			
a. Number	83		73
b. Average Age			60.7
c. Average Years of Service			18.4
3. Inactive - Non-Vested <sup>2</sup>			
a. Number			31
4. Retiree/Beneficiary/Disabled			
a. Number	293		298
b. Average Age			75.3
c. Annual Benefits Payable	\$ 15,229,582		\$ 15,389,828

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

<sup>2</sup> For June 30, 2010, inactive non-vested members entitled to a refund of their ASA balances totaling \$452,175.

SECTION V - CENSUS DATA

**C. Schedule of Active Member Valuation Data**<sup>1</sup>

1. As of June 30	2. Active Members	3. Annual Payroll (\$ in Thousands)	4. Average Pay (3) / (2)	5. Annual Percent Increase
2005	282	\$ 32,231	\$ 114,293	22.3%
2006	274	34,065	124,323	8.8%
2007	258	29,712	115,164	(7.4%)
2008	267	33,729	126,327	9.7%
2009	288	36,196	125,680	(0.5%)
2010	291	36,722	126,192	0.4%

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

SECTION V - CENSUS DATA

**D. Schedule of Retirees, Beneficiaries, and Disabled Members**<sup>1</sup>

(\$ in Thousands)

1.	2.	3.	4.	5.	6.	7.	8.	9.
Year Beginning June 30	Added Number	Annual Allowances (\$ in Thousands)	Removed Number	Annual Allowances (\$ in Thousands)	End of Year <sup>2</sup> Number	Annual Allowances (\$ in Thousands)	% Increase in Annual Allowances	Average Annual Allowances
2004	13	\$ 667	11	\$ 374	264	\$ 12,272	24.5%	\$ 46,485
2005	12	868	7	474	269	12,983	5.8%	48,266
2006	18	976	8	409	279	13,899	7.1%	49,819
2007	23	1,257	26	991	276	14,754	6.1%	53,455
2008	74	3,744	57	1,835	293	15,230	3.2%	51,978
2009	11	627	6	339	298	15,390	1.1%	51,644

<sup>1</sup> Valuation results prior to June 30, 2010 were calculated by the prior actuary.

<sup>2</sup> End of year annual allowances are not equal to the prior end of year annual allowances plus addition and less removals because of data changes and cost-of-living increases.

SECTION V - CENSUS DATA

**E. Distribution of Active Members by Age and Service**

<b>Attained Age</b>	Distribution of Active Members by Age and Service as of June 30, 2010										
	Under 1 year	1 to 4 years	5 to 9 years	10 to 14 years	15 to 19 years	20 to 24 years	25 to 29 years	30 to 34 years	35 to 39 years	Over 40 years	Total
<25											
25-29											
30-34		2									2
35-39	1	7	2								10
40-44	1	19	7	1							28
45-49		13	15	1	3						32
50-54		11	18	16	11	4					60
55-59		17	19	14	16	3					69
60-64		9	15	20	18	4					66
65-69		5	4	4	4	1					18
70&Up			1	3		2					6
<b>Total</b>	<b>2</b>	<b>83</b>	<b>81</b>	<b>59</b>	<b>52</b>	<b>14</b>					<b>291</b>

SECTION V - CENSUS DATA

**F. Distribution of Inactive Vested Members by Age and Service**

<b>Attained Age</b>	<b>Distribution of Inactive Vested Members by Age and Service as of June 30, 2010</b>							<b>Total</b>
	<b>Under 5 years</b>	<b>5 to 9 years</b>	<b>10 to 14 years</b>	<b>15 to 19 years</b>	<b>20 to 24 years</b>	<b>25 to 29 years</b>	<b>Over 30 years</b>	
<25								
25-29								
30-34								
35-39								
40-44			1					1
45-49			3					3
50-54		2	3	2	2			9
55-59		1	3	5	10			19
60-64		4	2	5	11	1		23
65-69			1		14			15
70&Up					3			3
<b>Total</b>		7	13	12	40	1		73

SECTION V - CENSUS DATA

**G. Distribution of Retired Members, Beneficiaries, and Disabled Members by Age and Number of Years Retired**

<b>Attained Age</b>	Distribution of Retired Members, Beneficiaries, and Disabled Members by Age and Number of Years Retired as of June 30, 2010							Total
	Under 5 years	5 to 9 years	10 to 14 years	15 to 19 years	20 to 24 years	25 to 29 years	Over 30 years	
<40								
40-44								
45-49								
50-54	1							1
55-59	2							2
60-64	38	1	1				1	41
65-69	31	23	2					56
70-74	8	20	14				1	43
75-79	5	5	28	3	2		2	45
80-84	1	2	10	17	6		1	38
85-89			3	7	13		7	32
90&Up				3	5		14	40
<b>Total</b>	<b>86</b>	<b>51</b>	<b>58</b>	<b>30</b>	<b>26</b>	<b>25</b>	<b>22</b>	<b>298</b>

---

SECTION VI - ACTUARIAL ASSUMPTIONS AND METHODS

**ACTUARIAL ASSUMPTIONS AND METHODS**

	<u>Page</u>
A. Actuarial Assumptions	28
B. Actuarial Methods	31

---

## SECTION VI - ACTUARIAL ASSUMPTIONS AND METHODS

### A. Actuarial Assumptions

The assumptions used in the valuation were selected and approved by the Indiana PERF Board of Trustees. The demographic assumptions are reviewed every five years through a study of actual experience. In this way, the actuary provides guidance to the Board in selecting the assumptions. The actuary and other economic and investment professionals also provide advice to the Board for selecting the economic assumptions. In our opinion, the assumptions are reasonable for purposes of this valuation.

Interest Rate / Investment Return	7.0% (net of administrative and investment expenses)
Future Salary Increases	4.0% per year
Inflation	3.0% per year
Cost of Living Increases	4.0% per year in deferral and retirement
Mortality (Healthy and Disabled)	2008 IRS Static Mortality projected 5 years with Scale AA

**SECTION VI - ACTUARIAL ASSUMPTIONS AND METHODS**

**A. Actuarial Assumptions (continued)**

Disability

1964 OASDI Table. Illustrative rates shown below:

<u>Age</u>	<u>Rate</u>
20	0.060%
25	0.085%
30	0.110%
35	0.147%
40	0.220%
45	0.360%
50	0.606%
55	1.009%
60	1.627%
65+	0.000%

Termination

Based on PERF experience 2000-2005 – 4.0% per year for all members prior to retirement eligibility.

Retirement

Based on 2000-2005 experience study. Rates shown below:

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
55-61	20%	70	10%
62	25%	71	15%
63	15%	72	5%
64	10%	73	20%
65	25%	74	10%
66-68	15%	75+	100%
69	20%		

Decrement Timing

Decrements are assumed to occur at the beginning of the year.

---

**SECTION VI - ACTUARIAL ASSUMPTIONS AND METHODS**

**A. Actuarial Assumptions (continued)**

Spouse's Benefit	90% of members are assumed to be married or to have a dependent beneficiary. Males are assumed to be three (3) years older than females.
Data Assumptions	Actives and inactives with no date of birth and/or no gender are assumed to be age 56 and/or male. Spouse gender is assumed to be the opposite gender of the member.  Retirees and disabled members with an unknown marital status are assumed to be married. Retirees and disabled members that are not married are assumed to be receiving a single life annuity. Retirees and disabled members that are married are assumed to elect a 50% joint and survivor annuity.
Changes in Assumptions	For the June 30, 2010 valuation, the Board approved the following assumption changes: <ul style="list-style-type: none"><li>- The interest rate (net of administrative and investment expenses) was lowered from 7.25% to 7.0%.</li><li>- The mortality assumption was changed from the 1994 Group Annuity Mortality Basic Table for healthy lives and 115% of 1994 Group Annuity Mortality Basic Table for disabled lives to the IRS 2008 Static Mortality Table projected forward 5 years with Scale AA for both healthy and disabled lives.</li></ul>

## SECTION VI - ACTUARIAL ASSUMPTIONS AND METHODS

### **B. Actuarial Methods**

The actuarial methods used in this valuation were selected and approved by the Board. In general, the methods provide orderly funding of all benefits being accrued, as well as unfunded past-service benefit liabilities, over a period of thirty years. However, the smoothing methods employed in determining the Actuarial Value of Assets may accelerate or lengthen the effective funding period, depending on whether gains or losses are experienced. In our opinion, the actuarial methods are reasonable for the purposes of this valuation.

#### 1. Actuarial Cost Method

The actuarial cost method is Entry Age Normal - Level Percent of Payroll.

The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.

Gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 30-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 30-year period. The purpose of the method is to give a smooth progression of the costs from year to year and, at the same time, provide for an orderly funding of the unfunded liabilities.

#### 2. Asset Valuation Method

Actuarial Value of Assets is equal to a four-year smoothing of gains and losses on the Market Value of Assets, subject to a 20% corridor.

#### 3. Changes in Actuarial Methods

For the June 30, 2010 valuation, the Board approved the following method changes:

- The method of amortizing gains and losses was changed from a level dollar, fresh start method with a decreasing amortization period starting at 30 years on June 30, 2006 to a level dollar, closed ended 30-year method under which a new base is established each year beginning July 1, 2010.
- The AVA was updated to include a 20% corridor, where the AVA cannot be more than 120% or less than 80% of the Market Value of Assets after the four-year smoothing of gains and losses is applied.

---

SECTION VII - SUMMARY OF PLAN PROVISIONS

**SUMMARY OF PLAN PROVISIONS**

	<u>Page</u>
A. Summary of Plan Provisions	32



SECTION VII - SUMMARY OF PLAN PROVISIONS

**A. Summary of Plan Provisions (continued)**

Amount of Benefits

- a. Normal Retirement      The normal retirement benefit is a monthly annuity payable for life with a 50% continuation (or \$12,000 annually, if greater) to a surviving spouse or surviving dependent children. The benefit is equal to a percentage of earnings<sup>1</sup> in accordance with the following table:

<u>Years of Service</u>	<u>Percentage</u>
7 or less	0%
8	24%
9	27%
10	30%
11	33%
12	50%
13	51%
14	52%
15	53%
16	54%
17	55%
18	56%
19	57%
20	58%
21	59%
22 or more	60%

An additional percentage shall be calculated by prorating between applicable percentages, based on the number of months in a partial year of service.

<sup>1</sup> Earnings is the annual salary being paid for the office which the participant held at the time of separation from service.

SECTION VII - SUMMARY OF PLAN PROVISIONS

**A. Summary of Plan Provisions (continued)**

Amount of Benefits (continued)

- b. Early Retirement      The early retirement benefit is the accrued retirement benefit determined as of the early retirement date and payable commencing at the normal retirement date. A participant may elect to have the benefit commence prior to age 65 provided the benefit is reduced by 0.1% for each month that the benefit commencement date precedes age 65.
  
- c. Late Retirement      The late retirement benefit is calculated in the same manner as the normal retirement benefit. Creditable service and earnings earned after normal retirement is included in the computation.
  
- d. Disability Retirement      The disability retirement benefit is payable for the duration of the disability commencing the month following disability date with reduction for early commencement. The amount of monthly benefit shall be equal to a percentage of average monthly earnings in accordance with the following table:

<u>Years of Service</u>	<u>Percentage</u>
12 or less	50%
13	51%
14	52%
15	53%
16	54%
17	55%
18	56%
19	57%
20	58%
21	59%
22 or more	60%

An additional percentage shall be calculated by prorating between applicable percentages, based on the number of months in a partial year of service.

---

**SECTION VII - SUMMARY OF PLAN PROVISIONS**

**A. Summary of Plan Provisions (continued)**

Amount of Benefits (continued)

- e. Termination                      The termination benefit is the accrued retirement benefit determined as of the termination date and payable commencing as of the normal retirement date. The participant may elect to receive a reduced early retirement benefit.
  
- f. Death Benefit                      If death occurs (a) while receiving benefits, (b) while in service as a judge with 8 or more years of service, or (c) while permanently disabled, the spouse or family of dependent children shall be eligible for a benefit equal to the greater of \$12,000 (effective July 1, 1977) annually or 50% of the benefit the participant was receiving or was entitled to receive at the time of death.

Spousal benefits are payable as a lifetime monthly pension.

- g. Post-Retirement Benefit Increases                      Participant benefits in the Judges 1977 Retirement, Disability, and Death System increase in the same ratio as the salary being paid for the office a participant held at the time of separation from service increases. Effective January 1, 2010, the Judges 1985 Retirement, Disability, and Death System will also have benefits increase in the same manner, on a prospective basis only.

Member Contributions

Each participant contributes 6% of his total salary until completion of 22 years of service.

Forms of Payment

- a. Single Life Annuity                      Member will receive a monthly benefit for life, but there are no monthly payments to anyone after death.
  
- b. Joint with One-Half Survivor Benefits                      Member will be paid a monthly benefit for life. After death, one-half (1/2) of the benefit will be paid to the spouse for their lifetime or the dependent until age 18 unless disabled. If the dependent child was named the beneficiary, once they are no longer entitled to the benefit, the spouse would receive the benefit for life.

---

SECTION VII - SUMMARY OF PLAN PROVISIONS

**A. Summary of Plan Provisions (continued)**

Withdrawal from Fund	If member's employment is terminated prior to eligibility for a retirement annuity, the member may withdraw their contributions from the Fund.
Cost-of-Living Adjustments	Benefits for retired members increase automatically based on the annual pay increase granted for the position the member held at the time of retirement. The annual cost-of-living assumption for the valuation is 4.0%, which is the same as the salary increase assumption for active members.
Changes in Provisions	No changes since prior valuation.

---

**SECTION VII - DEFINITIONS OF TECHNICAL TERMS**

**Definitions of Technical Terms**

	<u>Page</u>
A. Definitions of Technical Terms	37

---

## SECTION VII - DEFINITIONS OF TECHNICAL TERMS

### A. Definitions of Technical Terms

Actual Rate	The contribution rate expressed as a percentage of covered payroll on an annual basis (not less than 0.0%) that is the result of applying applicable smoothing rules to the prior year Actual Rate and current year True Rate.
Actuarial Accrued Liability (AAL)	That portion, as determined by a particular Actuarial Cost Method, of the Present Value of Future Benefits (PVFB) and expenses which is not provided for by future Normal Costs. Generally this means the portion of the PVFB attributable to past service.
Actuarial Assumptions	Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; changes in compensation and Government provided pension benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and other relevant items.
Actuarial Cost Method	A procedure for determining an actuarially equivalent allocation of the Present Value of Future Benefits to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.
Actuarially Equivalent	A method of making the actuarial present value of two series of payments equal as of a given date using the same assumptions.
Actuarial Gain/(Loss)	The difference between actual unfunded Actuarial Accrued Liability and anticipated unfunded Actuarial Accrued Liability — during the period between two valuation dates. It is a measurement of the difference between actual and expected experience.
Actuarial Present Value	The single amount now that is equal to a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest and by probabilities of payment.
Actuarial Valuation	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.

---

## SECTION VII - DEFINITIONS OF TECHNICAL TERMS

### **A. Definitions of Technical Terms (continued)**

Actuarial Valuation Date	The date as of which an actuarial valuation is performed.
Amortization	The payment of a present value financial obligation on an installment basis over a future number of years.
Annual Required Contribution of the Employer (ARC)	The employer's periodic required contributions to a defined benefit pension plan, calculated in accordance with the plan provisions, actuarial assumptions, actuarial cost method and other actuarial method prescribed by Governmental Accounting Standards No. 25 and No. 27.
Creditable Service	Service credited under the system that was rendered before the date of the actuarial valuation.
Funding Policy	The program for the amounts and timing of contributions to be made by plan members, employer, and other contributing entities (for example, state government contributions to a local government plan) to provide the benefits specified by a pension plan.
Level Dollar Amortization Method	The amount to be amortized is divided into equal dollar amounts to be paid over a given number of years; part of each payment is interest and part is principal (similar to a mortgage payment on a building). Because payroll can be expected to increase as a result of inflation, level dollar payments generally represent a decreasing percentage of payroll; in dollars adjusted for inflation, the payments can be expected to decrease over time.
Normal Cost (NC)	That portion of the present value of future benefits which is allocated to a valuation year by the Actuarial Cost Method. The normal cost is specific to the cost method used.
Plan Assets	Resources, usually in the form of stocks, bonds, and other classes of investments, that have been segregated and restricted in a trust, or equivalent arrangement, in which (a) employer contributions to the plan are irrevocable, (b) assets are dedicated to providing benefits to retirees and their beneficiaries, and (c) assets are legally protected from creditors of the employer(s) or plan administrator, for the payment of benefits in accordance with the terms of the plan.

---

**SECTION VII - DEFINITIONS OF TECHNICAL TERMS**

**A. Definitions of Technical Terms (continued)**

Plan Members	The individuals covered by the terms of a pension plan. The plan membership generally includes employees in active service, terminated employees who have accumulated benefits but are not yet receiving them, and retired employees and beneficiaries currently receiving benefits.
Present Value of Future Benefits (PVFB)	Projected benefits estimated to be payable to plan members (retirees and beneficiaries, terminated employees entitled to benefits but not yet receiving them, and current active members upon retirement) as a result of their service through the valuation date and their expected future service. The actuarial present value of projected future benefits as of the valuation date is the present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment (taking into account mortality, turnover, probability of participating in plan retirement, etc.). Alternatively, it is the amount that would have to be invested on the valuation date so that the amount invested plus investment earnings will provide sufficient assets to pay the projected benefits when due.
True Rate	The precise actuarial contribution rate (not less than 0.0%) determined by summing the Normal Cost and amortization of unfunded Actuarial Accrued Liability and dividing by anticipated payroll.