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# *Indiana Public Retirement System*

## Legislators' Retirement System Defined Benefit Plan

Actuarial Valuation as of
June 30, 2013

pwc

December 17, 2013

Board of Trustees
Indiana Public Retirement System
1 North Capitol, Suite 001
Indianapolis, IN 46204

**Re: Certification of the Actuarial Valuations of the Indiana Public Retirement System as of June 30, 2013**

Dear Board of Trustees:

Actuarial valuations are performed annually for the Indiana Public Retirement System ("INPRS") defined benefit pension plans ("Plans"). The results of the latest actuarial valuations for all plans other than the Teachers' Retirement Fund were prepared as of June 30, 2013 and are presented in individual valuation reports pursuant to the engagement letter between INPRS 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 and amounts, as applicable, are adopted annually for each Plan by the Board. The contributions are actuarially determined based on the funding policy, actuarial assumptions, and actuarial methods adopted by the Board. Contributions determined by the actuarial valuation become effective either twelve or eighteen months after the valuation date, depending on the applicable employer. Therefore, contribution rates determined by the June 30, 2013 actuarial valuation and adopted by the Board will become effective on either July 1, 2014 or January 1, 2015. If new legislation is enacted between the valuation date and the date the contributions become effective, the Board may adjust the recommended contributions 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 contribution levels, the Board's principal objectives have been:

- To set contributions such that the unfunded actuarial accrued liability ("UAAL") will be amortized over a period not greater than 30 years.
- To set contributions such that they remain relatively level over time.

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

**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 (excluding the Teachers' Retirement Fund) increased by 4.2% from the preceding year to 83.4%, primarily due to delayed recognition of prior asset gains from fiscal 2010 and 2011 in the Actuarial Value of Assets and additional contributions made to certain plans pursuant to 2012 House Bill 1376.

**Benefit Provisions**

The benefit provisions reflected in the valuation reports are those which were in effect at June 30, 2013, as set forth in the related Indiana statutes. Material changes in benefit provisions since the 2012 valuation include the decision to modify ASA annuitizations for Public Employees' Retirement Fund (PERF) starting October 1, 2014 and amending several features of Prosecuting Attorneys' Retirement Fund to be similar to Judges' Retirement System pursuant to 2013 House Bill 1057. There were no other material changes in benefit provisions since the 2012 valuations.

**Assets and Member Data**

The valuations were based on asset values of the trust funds and member census data as of June 30, 2013. All asset information and member data were provided by INPRS. 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 majority of the actuarial assumptions used in the June 30, 2013 valuations were adopted by the Board pursuant to the Experience Studies completed in September 2011, which reflected the experience period from July 1, 2005 through June 30, 2010, and were first used in the June 30, 2011 valuation. The actuarial assumptions for interest rate and mortality were updated for the June 30, 2012 valuation. Minor assumptions were updated for the June 30, 2013 valuation including the interest rate on member account balances and assumptions for Prosecuting Attorneys' Retirement Fund due to plan changes. The actuarial assumptions and methods are summarized in the Actuarial Assumptions and Methods section of each valuation report. We believe the actuarial 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 INPRS (other than the Teachers' Retirement Fund) as of June 30, 2013 based on the underlying census data, asset information and selected assumptions and methods.

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). This report does not contain accounting information prepared in accordance with Governmental Accounting Standards No. 67 and No. 68, which will become effective for financial statements for fiscal years beginning after June 15, 2013 and June 15, 2014, respectively.

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 our understanding of 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 the PwC practitioners involved in this engagement and INPRS 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 INPRS and PwC, and is intended solely for the use and benefits of INPRS and not for reliance by any other person.

Respectfully submitted,

Cindy Fraterrigo — Sheldon A. Gamzon — Brandon A. Robertson


| Ms. Cindy Fraterrigo | Mr. Sheldon Gamzon | Mr. Brandon Robertson |
|---|---|---|
| Member, American Academy of Actuaries | Member, American Academy of Actuaries | Member, American Academy of Actuaries |
| Fellow of the Society of Actuaries | Fellow of the Society of Actuaries | Associate of the Society of Actuaries |
| Enrolled Actuary (No. 11-06229) | Enrolled Actuary (No. 11-03238) | Enrolled Actuary (No. 11-07568) |

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## HIGHLIGHTS OF THE ACTUARY'S REPORT

This report presents the results of the actuarial valuation of the Legislators' Retirement System Defined Benefit Plan (the "LEDB Fund") and has been prepared to present the current funded status of the Plan, contribution requirements for fiscal year 2015 (July 1, 2014 through June 30, 2015), and certain financial statement disclosure information. The valuation was performed using census data for plan members as of June 30, 2013 provided by INPRS, asset information as of June 30, 2013 provided by INPRS, the actuarial assumptions and methods approved by the Board and summarized in Section V, and the plan provisions effective June 30, 2013 as summarized in Section VI.

### Contributions

The LEDB Fund is a State appropriated fund. All employer contributions are made by the State of Indiana. The anticipated annual required contribution for fiscal 2015 is $118,927, compared to $138,250 for fiscal 2014. Expenses are included in these amounts and are assumed to be equal to the administrative expenses incurred during the year prior to the valuation date. It is our understanding that the State has budgeted contributions of $138,300 and $130,900 for fiscal 2014 and 2015, respectively.

### Funded Status

The funded status of the LEDB Fund is measured by the funded ratio, which is the ratio of the assets available for benefits to a benefit liability measure for the LEDB. 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, the LEDB Fund AAL funded ratio increased from 75.0% at June 30, 2012 to 79.8% at June 30, 2013. The increase is primarily due to the recognition of investment gains from prior years in the AVA development.

### Investment Experience

The assets of the LEDB Fund are commingled with the assets of other funds administered by INPRS. The overall INPRS return on the commingled funds was 6.0% during fiscal 2013. Based on the value of assets allocated to the LEDB Fund as of the prior valuation date and contribution and benefit payment activity during the year, the allocation of returns to the LEDB Fund represent a return of approximately 5.1% on market value and 8.1% on actuarial value. The return on actuarial value is different due to the smoothing of returns greater or less than expected returns over four years.

### Cost-of-Living Adjustment

Cost-of-living increases for retired members have historically been granted on an "ad hoc" basis. No increase in monthly benefits was provided to retired members, disabled members, or beneficiaries as of January 1, 2014.

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

### Changes in Actuarial Assumptions

There were no changes in actuarial assumptions for the June 30, 2013 valuation.

### Changes in Plan Provisions

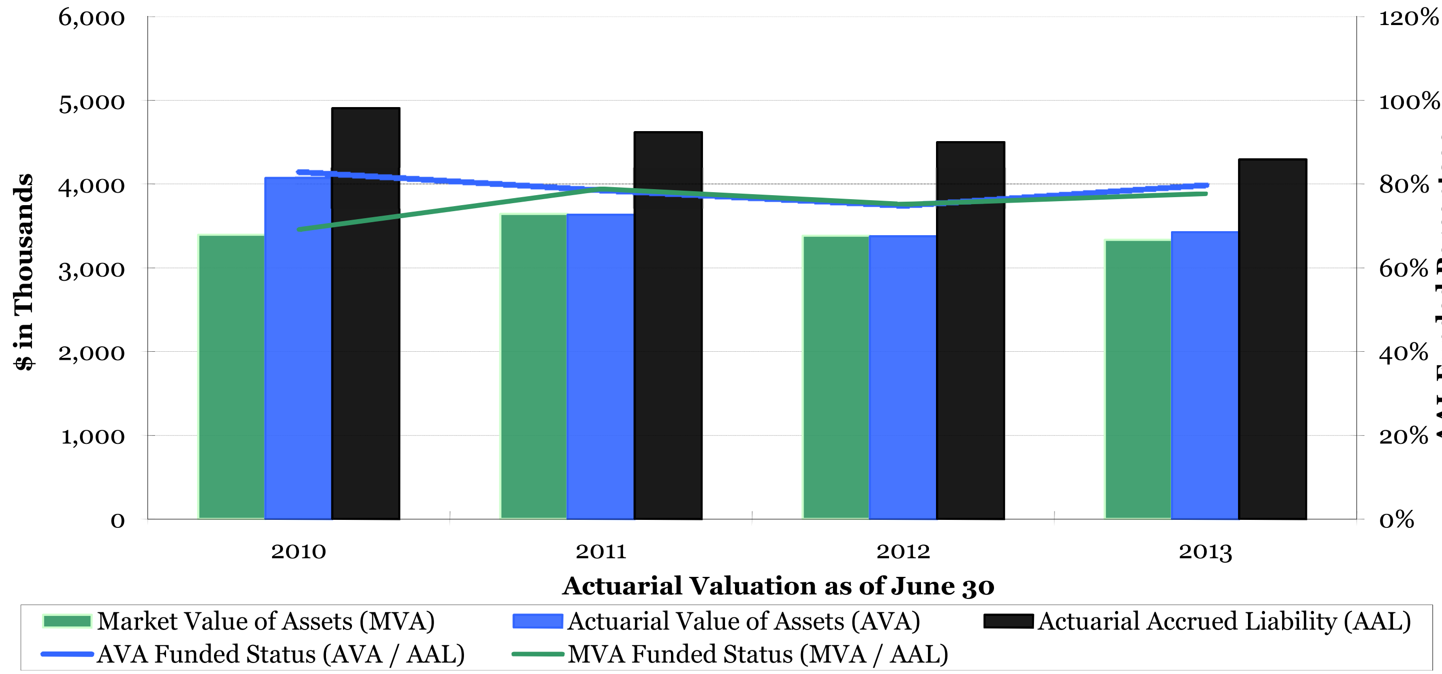
It is our understanding that there were no changes to the Plan that impacted the pension benefits during the fiscal year.

### Changes in Actuarial Methods

There have been no changes in actuarial methods since the June 30, 2012 valuation.

## HISTORICAL SUMMARY

### LEDB Fund – 4 Year History of Funded Status




| **Actuarial Valuation as of June 30:** | **2010** | **2011** | **2012** | **2013** |
|---|---|---|---|---|
| Actuarial Accrued Liability (AAL) | $4,908.6 | $4,620.8 | $4,502.9 | $4,294.9 |
| Actuarial Value of Assets (AVA) | 4,074.6 | 3,633.7 | 3,376.5 | 3,427.6 |
| Market Value of Assets (MVA) | 3,395.5 | 3,644.8 | 3,385.8 | 3,337.1 |
| Unfunded Liability (AAL - AVA) | 834.0 | 987.1 | 1,126.4 | 867.3 |
| AVA Funded Status (AVA / AAL) | 83.0% | 78.6% | 75.0% | 79.8% |
| MVA Funded Status (MVA / AAL) | 69.2% | 78.9% | 75.2% | 77.7% |

## HISTORICAL SUMMARY (CONTINUED)

### Summary of Valuation Results [1]

| Valuation Date | June 30, 2010 | June 30, 2011 | June 30, 2012 | June 30, 2013 |
|---|---|---|---|---|
| Development of Annual Required Contribution Amount: | | | | |
| 1. Normal Cost (Beginning of Year) | $ - | $ - | $ - | $ - |
| 2. Unfunded Actuarial Accrued Liability Amortizations | | | | |
| a. UAAL Balance | $ 834,046 | $ 987,147 | $ 1,126,354 | $ 867,333 |
| b. Annual Amortization | 77,195 | 90,550 | 101,366 | 84,671 |
| 3. Provision for Expenses [2] | $ 35,904 | $ 49,652 | $ 36,884 | $ 34,256 |
| 4. Annual Required Contribution: (1) + (2)(b) + (3) | **$ 113,099** | **$ 140,202** | **$ 138,250** | **$ 118,927** |

| Fiscal Year | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|
| State Appropriations [3] | **$ 113,099** | **$ 150,000** | **$ 138,300** | **$ 130,900** |

[1] The contribution amounts shown were developed on a funding basis only and do not reflect accounting requirements.

[2] Set equal to the administrative expenses actually incurred in the prior year.

[3] LEDB is a State appropriated fund. Employer contribution amounts are expected to be paid by the state of Indiana.

## HISTORICAL SUMMARY (CONTINUED)

### Summary of Valuation Results (Continued)

| | June 30, 2010 | June 30, 2011 | June 30, 2012 | June 30, 2013 |
|---|---|---|---|---|
| Census Information | | | | |
| Active | | | | |
| Number | 20 | 7 | 6 | 24 |
| Average Age | 67.6 | 65.3 | 65.2 | 70.0 |
| Average Years of Service [1] | 7.9 | 6.6 | 5.6 | 7.2 |
| Inactive | | | | |
| Number | 34 | 40 | 38 | 9 |
| Average Age | 65.8 | 67.1 | 68.5 | 67.6 |
| Average Years of Service [1] | 7.3 | 7.4 | 7.2 | 7.2 |
| Retiree/Beneficiary/Disabled | | | | |
| Number | 61 | 65 | 63 | 68 |
| Average Age | 74.2 | 75.0 | 75.6 | 75.1 |
| Annual Benefits Payable | $ 346,781 | $ 355,782 | $ 348,798 | $ 364,625 |

[1] Average based on the service before November 8, 1989.

## HISTORICAL SUMMARY (CONTINUED)

### Summary of Valuation Results (Continued)

| | June 30, 2010 | June 30, 2011 | June 30, 2012 | June 30, 2013 |
|---|---|---|---|---|
| **Actuarial Accrued Liability (AAL)** | | | | |
| Retiree/Beneficiary/Disabled | $ 3,017,015 | $ 3,037,280 | $ 3,031,394 | $ 3,191,742 |
| Active and Inactive | 1,891,620 | 1,583,555 | 1,471,531 | 1,103,156 |
| Total | $ 4,908,635 | $ 4,620,835 | $ 4,502,925 | $ 4,294,898 |
| **Actuarial Value of Assets (AVA)** | | | | |
| Retiree/Beneficiary/Disabled | $ 3,017,015 | $ 3,037,280 | $ 3,031,394 | $ 3,191,742 |
| Active and Inactive | 1,057,574 | 596,408 | 345,177 | 235,823 |
| Total | $ 4,074,589 | $ 3,633,688 | $ 3,376,571 | $ 3,427,565 |
| **Market Value of Assets (MVA)** | | | | |
| Retiree/Beneficiary/Disabled | $ 3,017,015 | $ 3,037,280 | $ 3,031,394 | $ 3,191,742 |
| Active and Inactive | 378,476 | 607,552 | 354,411 | 145,352 |
| Total | $ 3,395,491 | $ 3,644,832 | $ 3,385,805 | $ 3,337,094 |
| **Unfunded Actuarial Accrued Liability: AAL - AVA** | | | | |
| Retiree/Beneficiary/Disabled | $ - | $ - | $ - | $ - |
| Active and Inactive | 834,046 | 987,147 | 1,126,354 | 867,333 |
| Total | $ 834,046 | $ 987,147 | $ 1,126,354 | $ 867,333 |
| **Funded Percentage** | | | | |
| Retiree/Beneficiary/Disabled | 100.0% | 100.0% | 100.0% | 100.0% |
| Active and Inactive | 55.9% | 37.7% | 23.5% | 21.4% |
| Total | 83.0% | 78.6% | 75.0% | 79.8% |
| **Summary of Assumptions** | | | | |
| Valuation Interest Rate | 7.0% | 7.0% | 6.75% | 6.75% |
| Salary Scale | 3.0% | 3.0% | 3.0% | 3.0% |
| Cost-of-Living Assumption | 1.0% | 1.0% | 1.0% | 1.0% |

## FUNDING

## SECTION II - FUNDING

### A. Development of Funded Status

| | | June 30, 2012 | June 30, 2013 |
|---|---|---|---|
| 1. | Actuarial Accrued Liability | | |
| | a. Retirees, Beneficiaries, and Disableds | $ 3,031,394 | $ 3,191,742 |
| | b. Actives and Inactives | 1,471,531 | 1,103,156 |
| | c. Total: (1)(a) + (1)(b) | $ 4,502,925 | $ 4,294,898 |
| 2. | Actuarial Value of Assets [1] | | |
| | a. Retirees, Beneficiaries, and Disableds | $ 3,031,394 | $ 3,191,742 |
| | b. Actives and Inactives | 345,177 | 235,823 |
| | c. Total: (2)(a) + (2)(b) | $ 3,376,571 | $ 3,427,565 |
| 3. | Unfunded Actuarial Accrued Liability [1] | | |
| | a. Retirees, Beneficiaries, and Disableds: (1)(a) - (2)(a) | $ - | $ - |
| | b. Actives and Inactives: (1)(b) - (2)(b) | 1,126,354 | 867,333 |
| | c. Total: (1)(c) - (2)(c) | $ 1,126,354 | $ 867,333 |
| 4. | Funded Percentage [1] | | |
| | a. Retirees, Beneficiaries, and Disableds: (2)(a) / (1)(a) | 100.0% | 100.0% |
| | b. Actives and Inactives: (2)(b) / (1)(b) | 23.5% | 21.4% |
| | c. Total: (2)(c) / (1)(c) | 75.0% | 79.8% |

[1] In determining the funded percentage, the assets are allocated first to the retiree/beneficiary/disabled liability and then to the active/inactive liability.

## B. Unfunded Actuarial Accrued Liability Reconciliation

| | | | June 30, 2012 | | June 30, 2013 |
|---|---|---|---|---|---|
| 1. | Unfunded Actuarial Accrued Liability, Prior Year | $ | 987,147 | $ | 1,126,354 |
| | | | | | |
| 2. | Unfunded Actuarial Accrued Liability (Gain) / Loss | | | | |
| | a. Actuarial Value of Assets Experience | $ | 258,029 | $ | (92,519) |
| | b. Actuarial Accrued Liability Experience | | (175,381) | | (98,312) |
| | c. Additional Liability Due to Cost-of-Living Adjustments | | (41,136) [1] | | (36,011) [3] |
| | d. Additional Liability Due to Changes in Actuarial Assumptions | | 125,483 [2] | | - |
| | e. Total New Amortization Bases: (2)(a) + (2)(b) + (2)(c) + (2)(d) | $ | 166,995 | $ | (226,842) |
| | f. Reduction in Existing Bases Due to Prior Year Contributions, Net of Interest | | (27,788) | | (32,179) |
| | g. Change in Unfunded Actuarial Accrued Liability: (2)(e) + (2)(f) | $ | 139,207 | $ | (259,021) |
| | | | | | |
| 3. | Unfunded Actuarial Accrued Liability, Current Year: (1) + (2)(g) | $ | 1,126,354 | $ | 867,333 |

[1] A Cost-of-Living Adjustment (COLA) was not granted as of January 1, 2013, rather than the assumed COLA of 1.0%.

[2] Assumption changes include the change in discount rate from 7.0% to 6.75% and change in mortality table from the 2008 IRS Static Mortality projected five (5) years with Scale AA to the 2013 IRS Static Mortality projected five (5) years with Scale AA.

[3] A cost-of-living adjustment (COLA) was not granted as of January 1, 2014, rather than the assumed COLA of 1.0%.

## C. Actuarial Accrued Liability Reconciliation

| | | | |
|---|---|---|---|
| 1. | June 30, 2012 Actuarial Accrued Liability | $ 4,502,925 | |
| 2. | Normal Cost | - | |
| 3. | Actual Benefit Payments | 365,322 | |
| 4. | Interest of 6.75% on (1) + (2) - (3)/2 | 291,618 | |
| 5. | Expected June 30, 2013 Actuarial Accrued Liability: (1) + (2) - (3) + (4) | $ 4,429,221 | |
| | | Dollar Change in Liability | Percent Change in Liability |
| 6. | (Gain)/Loss Components | | |
| | a. Census | $ (98,312) | (2.2%) |
| | b. Cost-of-Living Adjustment [1] | (36,011) | (0.8%) |
| | c. Total: (6)(a) + (6)(b) | $ (134,323) | (3.0%) |
| 7. | Actual June 30, 2013 Actuarial Accrued Liability: (5) + (6)(c) | **$ 4,294,898** | |

[1] A Cost-of-Living Adjustment (COLA) was not granted as of January 1, 2014, rather than the assumed COLA of 1.0%.

## D. Reconciliation of Market Value of Assets

| | | June 30, 2012 | June 30, 2013 |
|---|---|---|---|
| 1. | Market Value of Assets, Prior June 30 | $ 3,644,832 | $ 3,385,805 |
| 2. | Receipts | | |
| | a. Employer Contributions | $ 113,099 | $ 150,000 |
| | b. Member Contributions | - | - |
| | c. Investment Income and Dividends Net of Fees | 2,067 | 200,065 |
| | d. Security Lending Income Net of Fees | 1,178 | 802 |
| | e. Transfers In | - | - |
| | f. Miscellaneous Income | - | - |
| | g. Total Receipts: (2)(a) + (2)(b) + (2)(c) + (2)(d) + (2)(e) + (2)(f) | $ 116,344 | $ 350,867 |
| 3. | Disbursements | | |
| | a. Benefits Paid During the Year | $ 338,487 | $ 365,322 |
| | b. Refund of Contributions and Interest | - | - |
| | c. Administrative and Project Expenses | 36,884 | 34,256 |
| | d. Transfers Out | - | - |
| | e. Miscellaneous Disbursements | - | - |
| | f. Total Disbursements: (3)(a) + (3)(b) + (3)(c) + (3)(d) + (3)(e) | $ 375,371 | $ 399,578 |
| 4. | Market Value of Assets, Current June 30: (1) + (2)(g) - (3)(f) | **$ 3,385,805** | **$ 3,337,094** |
| 5. | Market Value of Assets Approximate Annual Rate of Return [1] | (1.0%) | 5.1% |

[1] Assumes cash flows occur at mid-year.

## E. Reconciliation of Actuarial Value of Assets

| | | | | | | |
|---|---|---|---|---|---|---|
| 1. | Market Value of Assets, June 30, 2012 | | | | $ | 3,385,805 |
| 2. | Market Value of Assets, June 30, 2013 | | | | | 3,337,094 |
| 3. | Expected Earnings/Expenses | | | | | |
| | a. Expected Investment Earnings at 6.75% on June 30, 2012 Market Value | | | | | 228,542 |
| | b. Receipts with Expected Investment Earnings at 6.75%[1] | | | | | 155,063 |
| | c. Disbursements with Expected Investment Earnings at 6.75%[1] | | | | | 377,652 |
| 4. | Expected Assets, June 30, 2013: (1) + (3)(a) + (3)(b) - (3)(c) | | | | $ | 3,391,758 |
| 5. | 2012-2013 Gain/(Loss): (2) - (4) | | | | | (54,664) |
| 6. | Smoothing of Gain/(Loss) | | | | | |
| | | Year | Gain/(Loss) | % Unrecognized | | |
| | a. | 2012-2013 | $ (54,664) | 75% | | (40,998) |
| | b. | 2011-2012 | $ (280,888) | 50% | | (140,444) |
| | c. | 2010-2011 | $ 363,884 | 25% | | 90,971 |
| 7. | Preliminary Actuarial Value of Assets, June 30, 2013: (2) - (6)(a) - (6)(b) - (6)(c) | | | | $ | 3,427,565 |
| 8. | Corridor | | | | | |
| | a. 120% of Market Value: 1.2 x (2) | | | | | 4,004,513 |
| | b. 80% of Market Value: 0.8 x (2) | | | | | 2,669,675 |
| 9. | Actuarial Value of Assets, June 30, 2013: (7), but not greater than (8)(a) or less than (8)(b) | | | | **$** | **3,427,565** |
| 10. | Actuarial Value of Assets as a Percent of Market Value: (9) / (2) | | | | | 102.7% |
| 11. | Actuarial Value of Assets Approximate Annual Rate of Investment Return [1] | | | | | 8.1% |

[1] Assumes cash flows occur at mid-year.

## F. Contributions

| | June 30, 2012 | June 30, 2013 |
|---|---|---|
| **Development of Annual Required Contribution:** | | |
| 1. Normal Cost (Beginning of Year) | $ - | $ - |
| 2. Unfunded Actuarial Accrued Liability (UAAL) Amortizations | | |
| a. UAAL Balance | $ 1,126,354 | $ 867,333 |
| b. Annual Amortization | 101,366 | 84,671 |
| 3. Provision for Expenses [1] | $ 36,884 | $ 34,256 |
| 4. Annual Required Contribution: (1) + (2)(b) + (3) [2] | $ 138,250 | $ 118,927 |
| **Approved Funding Amount:** [2] | **$ 138,300** | **$ 130,900** |
| **Expected Percentage of Annual Required Contribution Contributed:** | 100.04% | 110.07% |

[1] Set equal to the administrative expenses actually incurred in the prior year.

[2] Amounts shown are applicable to the fiscal year beginning one year after the valuation date. It is our understanding that the Approved Funding Amounts will be appropriated from the State during fiscal 2014 and fiscal 2015, respectively.

## G. Unfunded Actuarial Accrued Liability Amortization Schedule [1]

| | Date Base Established | Reason | Remaining Unfunded | Remaining Period | Amortization Amount |
|---|---|---|---|---|---|
| 1. | 6/30/2009 | Actuarial Experience | $ 278,247 | 9 | $ 39,582 |
| 2. | 6/30/2010 | Actuarial Experience and Changes in Actuarial Assumptions | 477,439 | 27 | 36,435 |
| 3. | 6/30/2011 | Actuarial Experience | 173,342 | 28 | 13,058 |
| 4. | 6/30/2012 | Actuarial Experience and Changes in Actuarial Assumptions | 165,147 | 29 | 12,292 |
| 5. | 6/30/2013 | Actuarial Experience and Changes in Actuarial Assumptions | (226,842) | 30 | (16,696) |
| | Total | | $ 867,333 | | $ 84,671 |

[1] Valuation results prior to June 30, 2010 were calculated by the prior actuary.

## H. Approximate Annual Rate of Return for Year Ending June 30, 2013 [1]

| | | Market Value of Assets | Actuarial Value of Assets |
|---|---|---|---|
| 1. | Balance, beginning of year | $ 3,385,805 | $ 3,376,571 |
| 2. | Balance, end of year | 3,337,094 | 3,427,565 |
| 3. | Total increase: (2) - (1) | (48,711) | 50,994 |
| 4. | Contributions and Transfers In | 150,000 | 150,000 |
| 5. | Benefit payments and Transfers Out | 365,322 | 365,322 |
| 6. | Net additions: (4) - (5) | (215,322) | (215,322) |
| 7. | Net investment increase: (3) - (6) | 166,611 | 266,316 |
| 8. | Average assets: [(1) + (2) - (7)] / 2 | 3,278,144 | 3,268,910 |
| | Approximate rate of return: (7) / (8) | 5.1% | 8.1% |

## I. Historical Investment Experience

| 1. | 2. | 3. | 4. |
|---|---|---|---|
| | Actual Rate of Investment Return | | Actuarial Assumed |
| Year Ending June 30 | Market Basis [2] | Actuarial Basis [1] | Interest Rate |
| 2004 | 16.3% | 2.1% | 7.25% |
| 2005 | 9.8% | 5.6% | 7.25% |
| 2006 | 10.7% | 15.5% | 7.25% |
| 2007 | 18.2% | 16.2% | 7.25% |
| 2008 | (7.6%) | 7.8% | 7.25% |
| 2009 | (20.6%) | (2.1%) | 7.25% |
| 2010 | 13.9% | (6.6%) | 7.25% |
| 2011 | 20.1% | (2.6%) | 7.0% |
| 2012 | 0.7% | (0.9%) | 7.0% |
| 2013 | 6.0% | 8.1% | 6.75% |

[1] Based on individual fund experience. Net of expenses and assuming cash flows occur at mid-year.

[2] INPRS actual rate of return net of fees (2012-2013), 2004-2011 PERF CRIF rate of return reported as Gross of fees.

## J. Interest Rate Sensitivity

The investment return assumption (discount rate), as required by GASB, should be based on an estimated long-term investment yield for the plan, with consideration given to the nature and mix of current and expected plan investments. Management and the Board continually monitor the investment rate of return assumption and the Board formally reviews the assumption and makes changes as appropriate. The Board last changed the assumption for the June 30, 2012 valuation from 7.0% to 6.75%.

To illustrate the importance of the investment rate of return, which is used to discount the actuarial liabilities of the Plan, the Funded Ratio and Employer Contributions (for the fiscal year beginning July 1, 2014) are shown below at 6.75% (the current assumption), 6.0% (a three-fourths of a percent decrease), 6.5% (a one-fourth of a percent decrease), 7.5% (a three-fourths of a percent increase), and 8.0% (a one and one-fourth of a percent increase).

| | 0.75% Decrease: (6.0%) | 0.25% Decrease: (6.5%) | Current Assumption: (6.75%) | 0.75% Increase: (7.5%) | 1.25% Increase: (8.0%) |
|---|---|---|---|---|---|
| **Funded Status** | | | | | |
| Actuarial Accrued Liability | $ 4,536,440 | $ 4,372,706 | $ 4,294,898 | $ 4,076,302 | $ 3,941,881 |
| Actuarial Value of Assets | 3,427,565 | 3,427,565 | 3,427,565 | 3,427,565 | 3,427,565 |
| Unfunded Actuarial Accrued Liability | $ 1,108,875 | $ 945,141 | $ 867,333 | $ 648,737 | $ 514,316 |
| Funded Ratio | 75.6% | 78.4% | 79.8% | 84.1% | 87.0% |
| **Employer Contributions** | | | | | |
| Normal Cost | - | - | - | - | - |
| UAAL Amortization | $ 97,357 | $ 88,969 | $ 84,671 | $ 71,379 | $ 62,205 |
| Provision for Expenses [1] | 34,256 | 34,256 | 34,256 | 34,256 | 34,256 |
| Employer Contributions | $ 131,613 | $ 123,225 | $ 118,927 | $ 105,635 | $ 96,461 |

[1] Set equal to the administrative expenses incurred in the prior year.

## 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, as amended by GASB No. 50, 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, 2013 |
| Actuarial Cost Method | Traditional Unit Credit |
| Amortization Method | Level Dollar |
| Amortization Period | 30 Years, Closed |
| Actuarial Value of Assets | 4-Year Smoothed Market Value with 20% Corridor |
| Actuarial Assumptions: | |
| Investment Rate of Return | 6.75% |
| Future Salary Increases | 3.0% |
| Cost-of-Living Increases | 1.0% compounded annually |

### B. Membership Data

The plan consisted of the following membership as of June 30, 2013, the date of the latest actuarial valuation:

| | |
|---|---|
| Retired members, beneficiaries and disabled members receiving benefits: | 68 |
| Terminated plan members entitled to but not yet receiving benefits: | 9 |
| Active Plan Members: | 24 |
| Total membership: | 101 |

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

### C. Statement of Fiduciary Net Position

| | | | | |
|---|---|---|---|---|
| 1. | Assets | | | |
| | a. | Cash | $ | 1,496 |
| | b. | Receivables | | |
| | | i. Contributions Receivable | $ | - |
| | | ii. Miscellaneous Receivables | | - |
| | | iii. Investments Receivable | | 352,073 |
| | | iv. Interest and Dividends | | 10,579 |
| | | v. Due From Other Funds | | 51 |
| | | vi. Total Receivables: (1)(b)(i) + (1)(b)(ii) + (1)(b)(iii) + (1)(b)(iv) + (1)(b)(v) | $ | 362,703 |
| | c. | Total Investments | | 3,585,427 |
| | d. | Net Capital Assets | | 357 |
| | e. | Total Assets: (1)(a) + (1)(b)(vi) + (1)(c) + (1)(d) | $ | 3,949,983 |
| 2. | Liabilities | | | |
| | a. | Accounts Payable | $ | 286 |
| | b. | Retirement Benefits Payable | | 957 |
| | c. | Salaries and Benefits Payable | | - |
| | d. | Investments Payable | | 413,903 |
| | e. | Securities Lending Obligations | | 167,526 |
| | f. | Securities Sold Under Agreement to Repurchase | | 26,825 |
| | g. | Due To Other Funds | | 3,392 |
| | h. | Total Liabilities: (2)(a) + (2)(b) + (2)(c) + (2)(d) + (2)(e) + (2)(f) + (2)(g) | $ | 612,889 |
| 3. | Net Position Restricted for Pension Benefits: (1)(e) - (2)(h) | | **$** | **3,337,094** |

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

### D. Statement of Changes in Fiduciary Net Position

| | | | |
|---|---|---|---|
| 1. | Net Position as of June 30, 2012 | $ | 3,385,805 |
| | | | |
| 2. | Revenue (Additions) | | |
| | a. Contributions | | |
| | i. Member Contributions | $ | - |
| | ii. Employer Contributions | | 150,000 |
| | iii. Other Contributions | | - |
| | iv. Total Contributions: (2)(a)(i) + (2)(a)(ii) + (2)(a)(iii) | $ | 150,000 |
| | b. Investment Income/Loss | | |
| | i. Investment Income/Loss | $ | 220,911 |
| | ii. Securities Lending Income | | 943 |
| | iii. Securities Lending Expenses | | (141) |
| | iv. Other Investment Expenses | | (20,846) |
| | v. Net Investment Income: (2)(b)(i) + (2)(b)(ii) + (2)(b)(iii) + (2)(b)(iv) | $ | 200,867 |
| | c. Other Additions | | |
| | i. Interfund Transfers | $ | - |
| | ii. Miscellaneous Income | | - |
| | iii. Total Other Additions: (2)(c)(i) + 2(c)(ii) | $ | - |
| | d. Total Revenue (Additions): (2)(a)(iv) + (2)(b)(v) + (2)(c)(iii) | $ | 350,867 |
| | | | |
| 3. | Expenses (Deductions) | | |
| | a. Pension and Disability Benefits | $ | 365,322 |
| | b. Death, Survivor, and Funeral Benefits | | - |
| | c. Distributions of Contributions and Interest | | - |
| | d. Interfund Transfers | | - |
| | e. Pensions Relief Distributions | | - |
| | f. Local Unit Withdrawals | | - |
| | g. Administrative and Project Expenses | | 34,256 |
| | h. Total Expenses (Deductions): (3)(a) + (3)(b) + (3)(c) + (3)(d) + (3)(e) + (3)(f) + (3)(g) | $ | 399,578 |
| | | | |
| 4. | Changes in Net Position Restricted for Pension Benefits: (2)(d) - (3)(h) | $ | (48,711) |
| | | | |
| 5. | Net Position as of June 30, 2013: (1) + (4) | **$** | **3,337,094** |

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

**E. Schedule of Funding Progress [1]**

| 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. Number of Active Participants | 7. UAAL per Covered Participant (4) / (6) |
|---|---|---|---|---|---|---|
| 2007 | $ 5,035,122 | $ 5,169,152 | $ 134,030 | 97.4% | 43 | $ 3,117 |
| 2008 | 5,119,961 | 5,039,094 | (80,867) | 101.6% | 34 | (2,378) |
| 2009 | 4,730,430 | 5,087,392 | 356,962 | 93.0% | 33 | 10,817 |
| 2010 | 4,074,589 | 4,908,635 | 834,046 | 83.0% | 20 | 41,702 |
| 2011 | 3,633,688 | 4,620,835 | 987,147 | 78.6% | 7 | 141,021 |
| 2012 | 3,376,571 | 4,502,925 | 1,126,354 | 75.0% | 6 | 187,726 |
| 2013 | 3,427,565 | 4,294,898 | 867,333 | 79.8% | 24 | 36,139 |

**F. Schedule of Employer Contributions [1]**

| 1. Year Ending June 30 | 2. Annual Required Contribution (ARC) [2] | 3. Actual Employer Contribution | 4. % of ARC (3) / (2) |
|---|---|---|---|
| 2007 | $ 120,006 | $ 100,000 | 83.3% |
| 2008 | 66,023 | 100,000 | 151.5% |
| 2009 | 44,613 | 100,000 | 224.1% |
| 2010 | 63,407 | - | 0.0% |
| 2011 | 113,099 | - | 0.0% |
| 2012 | 113,099 | 113,099 | 100.0% |
| 2013 | 140,202 | 150,000 | 107.0% |

[1] Valuation results prior to June 30, 2010 were calculated by the prior actuary.

[2] Starting with the year ending June 30, 2012, the ARC amount shown is based on the ARC developed in the actuarial valuation completed one year prior to the June 30 valuation.

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

### G. Development of Net Pension Obligation (NPO)

| 1. 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) |
|---|---|---|---|---|---|---|---|---|---|
| 2011 | $ 113,099 | $ (10,692) | $ (12,309) | 12.4090 | $ 114,716 | $ - | $ 114,716 | $ (152,743) | $ (38,027) |
| 2012 | 113,099 | (2,662) | (3,064) | 12.4090 | 113,501 | 113,099 | 402 | (38,027) | (37,625) |
| 2013 | 140,202 | (2,540) | (2,956) | 12.7272 | 140,618 | 150,000 | (9,382) | (37,625) | (47,007) |

### H. Three-Year Trend Information

| 1. Year Ending June 30 | 2. Net Pension Cost (NPC) | 3. Actual Employer Contribution | 4. % of NPC (3) / (2) |
|---|---|---|---|
| 2011 | $ 114,716 | $ - | 0.0% |
| 2012 | 113,501 | 113,099 | 99.6% |
| 2013 | 140,618 | 150,000 | 106.7% |

## I. Solvency Test [1]

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

| 1. As of June 30 | 2. Member Contribution Balances | 3. Retired and Beneficiaries | 4. Non-Retired Members (Employer Financed Portion) | 5. Total Actuarial Accrued Liabilities | 6. Actuarial Value of Assets |
|---|---|---|---|---|---|
| 2007 | $ - | $ 2,432,422 | $ 2,736,730 | $ 5,169,152 | $ 5,035,122 |
| | N/A | 100.0% | 95.1% | 97.4% | |
| 2008 | - | 2,258,011 | 2,781,083 | 5,039,094 | 5,119,961 |
| | N/A | 100.0% | 100.0% | 101.6% | |
| 2009 | - | 3,147,287 | 1,940,105 | 5,087,392 | 4,730,430 |
| | N/A | 100.0% | 81.6% | 93.0% | |
| 2010 | - | 3,017,015 | 1,891,620 | 4,908,635 | 4,074,589 |
| | N/A | 100.0% | 55.9% | 83.0% | |
| 2011 | - | 3,037,280 | 1,583,555 | 4,620,835 | 3,633,688 |
| | N/A | 100.0% | 37.7% | 78.6% | |
| 2012 | - | 3,031,394 | 1,471,531 | 4,502,925 | 3,376,571 |
| | N/A | 100.0% | 23.5% | 75.0% | |
| 2013 | - | 3,191,742 | 1,103,156 | 4,294,898 | 3,427,565 |
| | N/A | 100.0% | 21.4% | 79.8% | |

[1] Valuation results prior to June 30, 2010 were calculated by the prior actuary.

## CENSUS DATA

## SECTION IV - CENSUS DATA

### A. Reconciliation of Participant Data

| | Actives | Inactive Vested | Disabled | Retired | Beneficiary | Total |
|---|---|---|---|---|---|---|
| Total as of June 30, 2012 | 6 | 38 | 0 | 50 | 13 | 107 |
| New Entrants | - | - | - | - | - | - |
| Rehires | 1 | - | - | (1) | - | - |
| Non-Vested Terminations | - | (4) | - | - | - | (4) |
| Vested Terminations | - | - | - | - | - | - |
| Retirements | - | (8) | - | 8 | - | - |
| Disablements | - | - | - | - | - | - |
| Death with Beneficiary | - | - | - | - | - | - |
| Death without Beneficiary | - | - | - | (2) | (1) | (3) |
| Refunds | - | - | - | - | - | - |
| Data Adjustments | 17 | (17) | - | 1 | - | 1 |
| Total as of June 30, 2013 | 24 | 9 | 0 | 56 | 12 | 101 |

## B. Census Information as of June 30, 2013

| | Male | Female | Total |
|---|---|---|---|
| 1. Active | | | |
| a. Number | 17 | 7 | 24 |
| b. Average Age | 67.2 | 76.7 | 70.0 |
| c. Average Years of Service [1] | 7.0 | 7.8 | 7.2 |
| 2. Inactive | | | |
| a. Number | 8 | 1 | 9 |
| b Average Age | 65.4 | 85.0 | 67.6 |
| c. Average Years of Service [1] | 8.0 | 1.0 | 7.2 |
| 3. Retiree/Beneficiary/Disabled | | | |
| a. Number | 49 | 19 | 68 |
| b. Average Age | 74.3 | 77.2 | 75.1 |
| c. Annual Benefits Payable | $ 306,801 | $ 57,824 | $ 364,625 |

[1] Creditable service as of November 8, 1989.

## C. Schedule of Active Member Valuation Data [1]

| 1. As of June 30 | 2. Active Members |
|---|---|
| 2005 | 48 |
| 2006 | 46 |
| 2007 | 43 |
| 2008 | 34 |
| 2009 | 33 |
| 2010 | 20 |
| 2011 | 7 |
| 2012 | 6 |
| 2013 | 24 |

## D. Schedule of Retirees, Beneficiaries, and Disabled Members [1]

| 1. | 2. Added | 3. Added | 4. Removed | 5. Removed | 6. End of Year [2] | 7. End of Year [2] | 8. | 9. |
|---|---|---|---|---|---|---|---|---|
| Year Ending June 30 | Number | Annual Allowances ($ in Thousands) | Number | Annual Allowances ($ in Thousands) | Number | Annual Allowances ($ in Thousands) | % Increase in Annual Allowances | Average Annual Allowances |
| 2005 | - | $ - | - | $ - | 39 | $ 244 | (0.5%) | $ 6,268 |
| 2006 | 2 | 12 | 2 | 9 | 39 | 260 | 6.2% | 6,658 |
| 2007 | 6 | 31 | - | - | 45 | 283 | 9.1% | 6,298 |
| 2008 | 1 | - | 2 | 10 | 44 | 274 | (3.4%) | 6,223 |
| 2009 | 17 | 88 | 2 | 2 | 59 | 371 | 35.3% | 6,281 |
| 2010 | 5 | 9 | 3 | 27 | 61 | 347 | (6.5%) | 5,685 |
| 2011 | 4 | 22 | - | - | 65 | 356 | 2.6% | 5,477 |
| 2012 | 2 | 13 | 4 | 20 | 63 | 349 | (2.0%) | 5,536 |
| 2013 | 9 | 41 | 4 | 26 | 68 | 364 | 4.3% | 5,362 |

[1] Valuation results prior to June 30, 2010 were calculated by the prior actuary.

[2] End of year annual allowances are not equal to the prior end of year annual allowances plus additions and less removals because of reductions for beneficiary benefits, data changes, and cost-of-living increases.

## E. Distribution of Active Members by Age and Service [1]

| Attained Age | Distribution of Active Members by Age and Service as of June 30, 2013 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 | | | | | | | | | | | |
| 35-39 | | | | | | | | | | | |
| 40-44 | | | | | | | | | | | |
| 45-49 | | | | | | | | | | | |
| 50-54 | | 1 | | | | | | | | | 1 |
| 55-59 | | 2 | | | | | | | | | 2 |
| 60-64 | | 1 | 2 | | | | | | | | 3 |
| 65-69 | | 3 | | 1 | 1 | | | | | | 5 |
| 70&Above | | 1 | 8 | 3 | 1 | | | | | | 13 |
| Total | | 8 | 10 | 4 | 2 | | | | | | 24 |

[1] Creditable service as of November 8, 1989.

## F. Distribution of Inactive Vested Members by Age and Service [1]

| Attained Age | Distribution of Inactive Vested Members by Age and Service as of June 30, 2013 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 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 | Total |
| <25 | | | | | | | | |
| 25-29 | | | | | | | | |
| 30-34 | | | | | | | | |
| 35-39 | | | | | | | | |
| 40-44 | | | | | | | | |
| 45-49 | | | | | | | | |
| 50-54 | | 1 | | | | | | 1 |
| 55-59 | | 1 | 1 | | | | | 2 |
| 60-64 | | 1 | | | | | | 1 |
| 65-69 | | | | 1 | | | | 1 |
| 70&Above | 3 | | | 1 | | | | 4 |
| Total | 3 | 3 | 1 | 2 | | | | 9 |

[1] Creditable service as of November 8, 1989.

## G. Distribution of Retired Members, Beneficiaries, and Disabled Members by Age and Number of Years Retired [1]

| Attained Age | Distribution of Retired Members, Beneficiaries, and Disabled Members by Age and Number of Years Retired as of June 30, 2013 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 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 | Total |
| <40 | | | | | | | | |
| 40-44 | | | | | | | | |
| 45-49 | | | | | | | | |
| 50-54 | | | | | | | | |
| 55-59 | | | | | | | | |
| 60-64 | 5 | 2 | | | | | | 7 |
| 65-69 | 5 | 4 | 3 | | | | | 12 |
| 70-74 | 6 | 2 | 1 | 3 | | | | 12 |
| 75-79 | 5 | 3 | 4 | 5 | 1 | | | 18 |
| 80-84 | 1 | 2 | 3 | 3 | 1 | | | 10 |
| 85-89 | | 1 | 2 | 1 | 4 | | | 8 |
| 90&Above | | | | | 1 | | | 1 |
| Total | 22 | 14 | 13 | 12 | 7 | | | 68 |

[1] One of the members does not have a date of retirement. For this member we assumed retirement occurred at age 65.

## H. Schedule of Benefit Recipients by Type of Benefit Option

| Amount of Monthly Benefit | Number of Benefit Recipients by Benefit Option as of June 30, 2013 | | | | |
|---|---|---|---|---|---|
| | Retiree Single Life Annuity | Retiree 50% Joint and Survivor Annuity | Survivors | Disability | Total |
| $ 1 - 500 | 3 | 27 | 11 | 0 | 41 |
| 501 - 1,000 | 2 | 23 | 1 | 0 | 26 |
| 1,001 - 1,500 | 0 | 1 | 0 | 0 | 1 |
| 1,501 - 2,000 | 0 | 0 | 0 | 0 | 0 |
| 2,001 - 3,000 | 0 | 0 | 0 | 0 | 0 |
| over 3,000 | 0 | 0 | 0 | 0 | 0 |
| Total | 5 | 51 | 12 | 0 | 68 |

## I. Schedule of Average Benefit Payments as of June 30, 2013 [1]

| | Years of Credited Service | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30+ | Total |
| Average Monthly Defined Benefit | $ 459 | $ 251 | $ 351 | $ 459 | $ 629 | $ 472 | $ 669 | $ 447 |
| Average Final Average Salary | $ 18,784 | $ - | $ 19,636 | $ 29,430 | $ 32,868 | $ 27,614 | $ 31,870 | $ 24,372 |
| Number of Benefit Recipients | 11 | 6 | 21 | 14 | 7 | 2 | 7 | 68 |

[1] For some members average salary at retirement and years of credited service was not available. The average salary for each group excluded these members.

## ACTUARIAL ASSUMPTIONS AND METHODS

## SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

### A. Actuarial Assumptions

The assumptions used in the valuation were selected and approved by the INPRS 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 | 6.75% (net of administrative and investment expenses) |
| Future Salary Increases | 3.0% per year |
| Inflation | 3.0% per year |
| Cost of Living Increases | 1.0% per year in retirement |
| Mortality (Healthy and Disabled) | 2013 IRS Static Mortality projected five (5) years with Scale AA |
| Disability | 75% of 1964 OASDI Tables. Illustrative rates shown below: |

| Age | Rate |
|---|---|
| 20 | 0.045% |
| 25 | 0.064% |
| 30 | 0.083% |
| 35 | 0.111% |
| 40 | 0.165% |
| 45 | 0.270% |
| 50 | 0.454% |
| 55 | 0.757% |
| 60 | 1.220% |
| 65+ | 0.000% |

## A. Actuarial Assumptions (continued)

Termination

Sarason T-2 Tables. Illustrative rates shown below:

| Age | Rate |
|---|---|
| 20 | 5.4384% |
| 25 | 5.2917% |
| 30 | 5.0672% |
| 35 | 4.6984% |
| 40 | 3.5035% |
| 45 | 1.7686% |
| 50 | 0.4048% |
| 55+ | 0.0000% |

Retirement

Retirement rates based on actual experience of current retirees. Illustrative rates shown below:

| Age | Rate |
|---|---|
| 55 | 10% |
| 56-57 | 8% |
| 58-61 | 2% |
| 62-64 | 5% |
| 65+ | 100% |

Decrement Timing

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

Spouse/Beneficiary

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.

Administrative Expense

Replacement basis. Administrative expenses incurred during the year prior to the valuation date are included in the calculation of funds to be appropriated to the LEDB Fund by the State.

## A. Actuarial Assumptions (continued)

| | |
|---|---|
| Missing Data Assumptions | Actives and inactives with no gender are assumed to be male. Spouse gender is assumed to be the opposite gender of the member.<br><br>Retirees and disabled members that are not married and do not have a retirement option listed are assumed to elect a single life annuity. Retirees and disabled members that are married and do not have a retirement option listed are assumed to be receiving a 50% joint and survivor annuity. Beneficiaries that do not have a retirement option listed are assumed to receive monthly payments for life. |
| Changes in Assumptions | There were no changes in assumptions for the June 30, 2013 valuation. |

## 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 method 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 Traditional Unit Credit.

   The normal cost is calculated separately for each active member and is equal to actuarial present value of additional benefits expected to be accrued during the year following the valuation date. The actuarial accrued liability on any valuation date is the actuarial present value of the benefits earned for service prior 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. State Appropriations

   Based on the assumptions and methods previously described, an Actuarially Calculated Amount is computed. The Board considers this information when requesting funds from the State.

4. Changes in Actuarial Methods

   There have been no changes in actuarial methods since the June 30, 2012 valuation.

## SUMMARY OF PLAN PROVISIONS

SECTION VI - SUMMARY OF PLAN PROVISIONS

## **Summary of Plan Provisions**

The benefit provisions for LEDB are set forth in IC 2-3.5-4. A summary of those defined pension benefit provisions is presented below:

| | |
|---|---|
| Participation | All members of the Indiana General Assembly who (1) were serving on April 30, 1989, and (2) filed an election to participate in this plan under IC 2-3.5-3-1(b). |

Eligibility for Defined Pension Benefits

| | | |
|---|---|---|
| a. | Normal Retirement | Age 65 with 10 or more years of creditable service<br>Age 60 with 15 or more years of creditable service<br>Age 55 with sum of age and creditable service equal to 85 or more |
| b. | Early Retirement | Age 55 with 10 or more years of creditable service |
| c. | Late Retirement | Subject to continued employment after normal retirement |
| d. | Disability Retirement | 5 or more years of creditable service and qualified for Social Security disability benefits |
| e. | Termination | 10 or more years of creditable service and no longer active (i.e. vested inactive) |
| f. | Pre-Retirement Death | 10 or more years of creditable service |

## 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 to a surviving spouse or surviving children and is equal to the lesser of (1) $40 times years of creditable service in the General Assembly completed before November 8, 1989, or (2) 100% of average monthly earnings[1]. |
| 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 normal retirement provided the benefit is reduced by 1/10% for each of the first 60 months and by 5/12% for each of the next 60 months that the benefit commencement date precedes the normal retirement date. |
| c. | Late Retirement | The late retirement benefit is calculated in the same manner as the normal retirement benefit. |
| d. | Disability Retirement | The disability retirement benefit is the accrued retirement benefit determined as of the disability date and payable commencing the month following disability date without reduction for early commencement. |
| 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. |

1 Average monthly earnings is the monthly average of earnings, including business per diem and subsistence allowances, attributable to service as a legislator during the 3 years that produce the highest such average.

## Summary of Plan Provisions (continued)

Amount of Benefits (continued)

| | |
|---|---|
| f. Death | The spouse or dependent beneficiary is entitled to receive 50% of the monthly life annuity the participant was receiving or was entitled to receive under the assumption that the participant retired on the later of age 55 or the day before the date of death. |
| Cost-of-Living Adjustments | Cost-of-living increases for retired members have historically been granted on an "ad hoc" basis. No increase in monthly benefits was provided to retired members, disabled members, or beneficiaries as of July 1, 2013. |
| 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. |
| Withdrawal from Fund | If a member's employment is terminated prior to eligibility for a retirement annuity, the member may withdraw their contributions from the Fund. |
| Changes in Provisions | No changes since prior valuation. |

## DEFINITIONS OF TECHNICAL TERMS

## Definitions of Technical Terms

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|---|---|
| Actual Rate | For valuations prior to June 30, 2011, 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 Actuarially Calculated Rate. Beginning with the June 30, 2011 valuation, the Board resolved to discontinue use of the smoothing rules for establishing contribution rates/amounts. |
| 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. |

## Definitions of Technical Terms (continued)

| | |
|---|---|
| Actuarial Valuation Date | The date as of which an actuarial valuation is performed. |
| Actuarially Calculated Rate | The precise actuarial contribution rate expressed as a percentage of covered payroll that is determined by summing the Normal Cost and amortization of unfunded Actuarial Accrued Liability and dividing by anticipated payroll. |
| 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. |

## 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. |