## Indiana Public Retirement System <br> Prosecuting Attorneys' Retirement Fund

Actuarial Valuation as of June 30, 2015

October 29, 2015

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 30,2015

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 June 30, 2015 actuarial valuations for all plans other than the Teachers' Retirement Fund are presented in individual valuation reports pursuant to the engagement letter between INPRS and PricewaterhouseCoopers LLP ("PwC"), originally executed on June 7,2010 , as amended through the date of this report. 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 and amounts determined by the June 30, 2015 actuarial valuation and adopted by the Board will become effective on either July 1, 2016 or January 1, 2017. 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 $\mathbf{1 0 0 \%}$ if contributions equal or exceed the actuarially determined amount. The combined funded ratio for all Plans (excluding the Teachers' Retirement Fund) decreased by $2.7 \%$ from the preceding year to $84.3 \%$, primarily due to changes in the actuarial assumptions pursuant to the experience study completed in April 2015, investment returns being less than the $6.75 \%$ assumed, and other adverse member experience.

## Benefit Provisions

The benefit provisions reflected in the valuation reports are those which were in effect at June 30, 2015, as set forth in the related Indiana statutes. There were no material changes in benefit provisions since the 2014 valuations.

## Assets and Member Data

The valuations were based on asset values of the trust funds as of June 30, 2015 and member census data as of June 30, 2014, adjusted for certain activity during fiscal year 2015. 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.

## pwc

## Actuarial Assumptions and Methods

The actuarial assumptions used in the June 30, 2015 valuations were adopted by the Board pursuant to the experience studies completed in April 2015, which reflected the experience period from July 1, 2010 through June 30, 2014. The June 30, 2015 valuations incorporate member census data as of June 30, 2014, adjusted for certain activity during fiscal year 2015. Standard actuarial techniques were used to roll forward valuation results over one year.

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. 67 and No. 68 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, 2015, based on the underlying census data, asset information and selected assumptions and methods. This information is presented in several schedules and exhibits in this report, including the following:

Financial Section:

- Note 1 - Tables of Plan Membership (Included in the Historical Summary)
- Note 8 - Net Pension Liability and Actuarial Information - Defined Benefit Plans (Included in the Accounting Section)
- Schedule of Changes in Net Pension Liability and Plan Fiduciary Net Position
- Schedule of Contributions (Actuarially Determined Contribution)
- Schedule of Notes to Required Supplementary Information


## Actuarial Section:

- Summary of INPRS Funded Status (Included in the Historical Summary)
- Historical Summary of Actuarial Valuation Results by Retirement Plan (Schedule of Funding Progress Included in the Historical Summary)
- Summary of Actuarial Assumptions, Methods and Plan Provisions
- Analysis of Financial Experience (Included in the Unfunded Actuarial Accrued Liability Reconciliation)
- Solvency Test (Included in the Historical Summary)
- Schedule of Active Member Valuation Data
- Schedule of Retirants and Beneficiaries


## Statistical Section:

- Membership Data Summary (Included in the Historical Summary)
- Ratio of Active Members to Annuitants (Census Counts Included in the Historical Summary)
- Schedule of Benefit Recipients by Type of Benefit Option
- Schedule of Average Benefit Payments

This report contains certain accounting information required to be included in the System's Comprehensive Annual Financial Report. This information for the system has been prepared in accordance with our understanding of GASB No.67. This report also contains employer accounting information prepared in accordance with our understanding of GASB No. 68.

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.

## pw

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,


Ms. Cindy Fraterrigo
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Fellow of the Society of Actuaries
Enrolled Actuary (No. 14-06229)


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Enrolled Actuary (No. 14-07568)

The content of this document is limited to the matters specifically addressed herein and does not address any other potential tax consequences, or the potential application of tax penalties, to any matter other than as set forth herein. Our conclusions are not binding upon any taxing authority or the courts and there is no assurance that any relevant taxing authority will not successfully assert a contrary position. In addition, no exceptions (including the reasonable cause exception) are available for any federal or state penalties imposed if any portion of a transaction is determined to lack economic substance or fails to satisfy any similar rule of law, and our advice will not protect you from any such penalties. This document supersedes all prior written or oral advice with respect to the issues addressed in this document and all such prior communications should not be relied upon by any person for any purpose.

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## HIGHLIGHTS OF THE ACTUARY'S REPORT

This report presents the results of the actuarial valuation of the Prosecuting Attorneys' Retirement Fund ("PARF") and has been prepared to present the current funded status of the Plan, contribution requirements for fiscal year 2017 (July 1, 2016 through June 30, 2017), and certain financial statement disclosure information. The valuation was performed using census data for plan members as of June 30, 2014, adjusted for certain activity during fiscal year 2015, as provided by INPRS and summarized in Section IV, asset information as of June 30, 2015 provided by INPRS, the actuarial assumptions and methods approved by the Board and summarized in Section V, and the plan provisions effective June 30, 2015 summarized in Section VI.

## Contributions

PARF is a State appropriated fund. All employer contributions are made by the State of Indiana. The estimated actuarially determined contribution for fiscal 2017 is $\$ 2.2$ million, compared to $\$ 1.4$ million for fiscal year 2016. It is our understanding that the State has budgeted contributions of $\$ 1.5$ million for fiscal 2017 and \$1.4 million for fiscal 2016.

Members of PARF contribute $6 \%$ of their compensation during their first 22 years of membership. If a 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 PARF to make a direct rollover of the distribution amount. When a member becomes vested with at least 8 years of service, the member's account balance may not be refunded and is instead combined with the employer contributions in order to fund the member's future retirement annuity benefit.

## Funded Status

The funded status of PARF is measured by the funded ratio, which is the ratio of the assets available for benefits to a benefit liability measure for PARF. While there are several such measures that could be appropriately used, the benefit liability measure that ties most closely to INPRS's 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 PARF AAL funded ratio decreased from $81.0 \%$ at June 30, 2014 to $70.4 \%$ at June 30, 2015. The decrease is due to changes in the actuarial assumptions pursuant to the experience study completed in April 2015, investment returns being less than the $6.75 \%$ assumed, and census experience losses.

## Investment Experience

For the fiscal year ending June 30, 2015, the INPRS actual time-weighted return net of fees was $0.0 \%$. Based on the value of assets allocated to PARF as of the prior valuation date and contribution and benefit payment activity during the year, the allocation of returns to PARF represent a return of approximately (o.3)\% on market value and $5.4 \%$ 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.

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

## Cost-of-Living Adjustment

No increase in monthly benefits was provided to retired members, disabled members, or beneficiaries as of July 1, 2015.

## Changes in Actuarial Assumptions

An assumption study was performed in April of 2015 resulting in an update to the following assumptions:

The inflation assumption changed from 3.0\% per year to $2.25 \%$ per year.
The mortality assumption changed from the 2013 IRS Static Mortality projected five (5) years with Scale AA to the RP-2014 (with MP-2014 improvement removed) White Collar mortality tables, with future mortality improvement projected generationally using future mortality improvement inherent in the Social Security Administration's 2014 Trustee report.

The retirement assumption changed from an age and points-based table to an age and service-based table, reflecting higher rates of retirement after 22 years of service.

## 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 were no method changes for the June 30, 2015 valuation

## Governmental Accounting Standards

This report contains certain financial statement information, including notes and required supplemental information, prepared in accordance with our understanding of Governmental Accounting Standards No. 67 and No. 68 ("GASB 67" and "GASB 68") to assist INPRS with the implementation of the new standards. GASB 67 is effective for public pension plans for fiscal years beginning after June 15, 2013. GASB 68 is effective for employers sponsoring and/or participating in public pension plans for fiscal years beginning after June 15, 2014.

HISTORICAL SUMMARY

PARF - 5 Year History of Funded Status


## HISTORICAL SUMMARY (CONTINUED)

PARF - 5 Year History of Contributions

${ }^{1}$ Includes a contribution of $\$ 17,363,392$ made to the Plan pursuant to 2012 HB 1376.
${ }^{2}$ The ADC amount is based on the ADC Rates in effect during the fiscal year, multiplied by actual payroll for the fiscal year.
${ }^{3}$ Starting July 1, 2013, members contribute $6 \%$ of pay to the Fund during the first 22 years of service only. Previously, members contributed during all years of service.

## SECTION I - EXECUTIVE SUMMARY

## HISTORICAL SUMMARY (CONTINUED)

## Summary of Valuation Results ${ }^{1}$

| Valuation Date | June 30, 2011 |  | June 30, 2012 |  | June 30, 2013 |  | June 30, 2014 |  | June 30, 2015 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Development of Actuarially Determined Contribution Amount: |  |  |  |  |  |  |  |  |  |  |
| 1. Anticipated Payroll | \$ | 18,081,976 | \$ | 21,705,384 | \$ | 21,216,903 | \$ | 21,431,900 | \$ | 21,990,791 |
| 2. Normal Cost (Beginning of Year) |  |  |  |  |  |  |  |  |  |  |
| a. Amount | \$ | 1,381,736 | \$ | 1,568,461 | \$ | 1,586,626 | \$ | 1,602,704 | \$ | 1,625,509 |
| b. Percentage of Payroll |  | 7.64\% |  | 7.23\% |  | 7.48\% |  | 7.48\% |  | 7.39\% |
| 3. Unfunded Actuarial Accrued Liability Annual Amortizations |  |  |  |  |  |  |  |  |  |  |
| a. Amount | \$ | 2,148,558 | \$ | 2,202,951 | \$ | 1,014,464 | \$ | 971,472 | \$ | 1,767,268 |
| b. Percentage of Payroll |  | 11.88\% |  | 10.15\% |  | 4.78\% |  | 4.53\% |  | 8.04\% |
| 4. Expected Employee Contributions ${ }^{2}$ |  |  |  |  |  |  |  |  |  |  |
| a. Amount | \$ | 1,084,919 | \$ | 1,302,323 | \$ | 1,176,584 | \$ | 1,188,507 | \$ | 1,306,310 |
| b. Percentage of Payroll |  | 6.00\% |  | 6.00\% |  | 5.55\% |  | 5.55\% |  | 5.94\% |
| 5. Actuarially Determined Contribution Rate: $(2)(b)+(3)(b)-(4)(b)$ |  | 13.52\% |  | 11.38\% |  | 6.71\% |  | 6.46\% |  | 9.49\% |
| 6. Estimated Actuarially Determined Contribution Amount a. Fiscal Year Beginning | 6. Estimated Actuarially Determined Contribution Amount |  |  |  |  |  |  |  |  |  |
| b. Anticipated Payroll: (1) $\times[(1+4.0 \%)]$ | \$ | 18,805,255 | \$ | 22,573,599 | \$ | 22,065,579 | \$ | 22,289,176 | \$ | 22,870,423 |
| c. Amount: (5) x (6)(b) ${ }^{3}$ | \$ | 2,542,470 | \$ | 2,568,876 | \$ | 1,480,600 | \$ | 1,439,881 | \$ | 2,170,403 |
| Fiscal Year |  | 2013 |  | 2014 |  | 2015 |  | 2016 |  | 2017 |
| State Appropriations ${ }^{4}$ | \$ | 19,443,392 | \$ | 1,173,827 | \$ | 1,062,800 | \$ | 1,440,000 | \$ | 1,485,700 |
| ${ }^{1}$ The contribution rates shown were developed on a funding basis only and do not reflect accounting requirements. |  |  |  |  |  |  |  |  |  |  |
| ${ }^{2}$ Starting July 1, 2013, only members with less than 22 years of service contribute to the plan. Anticipated payroll for active members with less than 22 years of service as of June 30 , 2014 is $\$ 21,771,839$. |  |  |  |  |  |  |  |  |  |  |
| ${ }^{3}$ Since the fiscal year to which contributions apply begins one year after the valuation date, the Actuarially Determined Contribution Amount is estimated by assuming payroll will increas 4.0\% per year and then applying the Actuarially Determined Contribution Rate computed at the valuation date. |  |  |  |  |  |  |  |  |  |  |
| ${ }^{4}$ PARF is a State appropriated fund. Employer contribution amount | are | e expected to be p |  | state of Indian |  |  |  |  |  |  |

## SECTION I - EXECUTIVE SUMMARY

## HISTORICAL SUMMARY (CONTINUED)

## Summary of Valuation Results (Continued) ${ }^{1}$

|  | June 30, 2011 |  | June 30, 2012 |  | June 30, 2013 |  | June 30, 2014 |  | June 30, 2015 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Census Information |  |  |  |  |  |  |  |  |  |  |
| Active |  |  |  |  |  |  |  |  |  |  |
| Number |  | 212 |  | 219 |  | 210 |  | 210 |  | 196 |
| Average Age |  | 48.0 |  | 48.6 |  | 48.9 |  | 48.9 |  | 49.0 |
| Average Years of Service |  | 9.0 |  | 9.4 |  | 10.0 |  | 10.0 |  | 9.8 |
| Anticipated Payroll of Actives ${ }^{2}$ | \$ | 18,081,976 | \$ | 21,705,384 | \$ | 21,216,903 | \$ | 21,431,900 | \$ | 21,990,791 |
| Inactive - Vested |  |  |  |  |  |  |  |  |  |  |
| Number |  | 85 |  | 84 |  | 83 |  | 83 |  | 97 |
| Average Age |  | 54.9 |  | 55.9 |  | 56.0 |  | 56.0 |  | 57.1 |
| Average Years of Service |  | 12.3 |  | 12.3 |  | 12.5 |  | 12.5 |  | 14.4 |
| Inactive - Non-Vested ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Number |  | 177 |  | 165 |  | 162 |  | 162 |  | 153 |
| Retiree/Beneficiary/Disabled |  |  |  |  |  |  |  |  |  |  |
| Number |  | 76 |  | 81 |  | 95 |  | 95 |  | 107 |
| Average Age |  | 69.1 |  | 69.7 |  | 69.9 |  | 69.9 |  | 70.2 |
| Annual Benefits Payable | \$ | 1,617,923 | \$ | 1,770,076 | \$ | 2,101,176 | \$ | 2,101,176 | \$ | 2,395,155 |

[^0]
## SECTION I - EXECUTIVE SUMMARY

## HISTORICAL SUMMARY (CONTINUED)

## Summary of Valuation Results (Continued)

## Actuarial Accrued Liability (AAL)

Member Contribution Balance Retiree/Beneficiary/Disabled Active and Inactive
Total
Actuarial Value of Assets (AVA)
Member Contribution Balance Retiree/Beneficiary/Disabled Active and Inactive
Total

## Market Value of Assets (MVA)

Member Contribution Balance Retiree/Beneficiary/Disabled Active and Inactive Total

June 30, 2012
June 3o, 2013
June 30, 2014
June 30, 2015

| \$ | $\begin{array}{r} 21,591,820 \\ 16,806,641 \\ 14,853,913 \\ \hline \end{array}$ | \$ | $\begin{array}{r} 23,405,926 \\ 18,660,088 \\ 14,013,941 \\ \hline \end{array}$ | \$ | $\begin{array}{r} 25,371,079 \\ 22,004,193 \\ 14,565,117 \\ \hline \end{array}$ | \$ | $\begin{array}{r} 26,654,126 \\ 22,665,324 \\ 16,016,990 \\ \hline \end{array}$ | \$ | $\begin{aligned} & 25,479,269 \\ & 26,635,724 \\ & 25,745,660 \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 53,252,374 | \$ | 56,079,955 | \$ | 61,940,389 | \$ | 65,336,440 | \$ | 77,860,653 |
| \$ | $\begin{array}{r} 21,591,820 \\ 4,059,642 \end{array}$ | \$ | $\begin{array}{r} 23,405,926 \\ 4,094,646 \end{array}$ | \$ | $\begin{array}{r} 25,371,079 \\ 22,004,193 \\ 1,387,122 \\ \hline \end{array}$ | \$ | $\begin{array}{r} 26,654,126 \\ 22,665,324 \\ 3,616,511 \\ \hline \end{array}$ | \$ | $\begin{array}{r} 25,479,269 \\ 26,635,724 \\ 2,733,319 \\ \hline \end{array}$ |
| \$ | 25,651,462 | \$ | 27,500,572 | \$ | 48,762,394 | \$ | 52,935,961 | \$ | 54,848,312 |
| \$ | $\begin{array}{r} 21,591,820 \\ 4,885,921 \end{array}$ | \$ | $\begin{array}{r} 23,405,926 \\ 4,284,362 \end{array}$ | \$ | $\begin{array}{r} 25,371,079 \\ 22,004,193 \\ 544,467 \\ \hline \end{array}$ | \$ | $\begin{array}{r} 26,654,126 \\ 22,665,324 \\ 5,188,042 \\ \hline \end{array}$ | \$ | $\begin{array}{r} 25,479,269 \\ 26,635,724 \\ 1,308,173 \\ \hline \end{array}$ |
| \$ | 26,477,741 | \$ | 27,690,288 | \$ | 47,919,739 | \$ | 54,507,492 | \$ | 53,423,166 |

Member Contribution Balance
Retiree/Beneficiary/Disabled
Active and Inactive
Total

Funded Percentage: AVA / AAL ${ }^{1}$
Member Contribution Balance
Retiree/Beneficiary/Disabled
Active and Inactive
Total

## Summary of Assumptions

Valuation Interest Rate
Salary Scale
\$


|  | $23,012,341$ |
| :--- | :--- |
| $\$$ | $23,012,341$ |


| 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
| :---: | :---: | :---: | :---: | :---: |
| 24.2\% | 21.9\% | 100.0\% | 100.0\% | 100.0\% |
| 0.0\% | 0.0\% | 9.5\% | 22.6\% | 10.6\% |
| 48.2\% | 49.0\% | 78.7\% | 81.0\% | 70.4\% |
| 7.0\% | 6.75\% | 6.75\% | 6.75\% | 6.75\% |
| 4.0\% | 4.0\% | 4.0\% | 4.0\% | 4.0\% |

${ }^{1}$ In determining the unfunded actuarial accrued liability and funded percentage, the assets are allocated first to member contribution balances, then to the retiree/beneficiary/disabled liability, and then to the active/inactive liability.

## FUNDING

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## SECTION II - FUNDING

## A. Development of Funded Status

1. Actuarial Accrued Liability
a. Member Contribution Account
b. Retirees, Beneficiaries, and Disableds
c. Actives and Inactives
d. Total: $(1)(a)+(1)(b)+(1)(c)$


[^1] retiree/beneficiary/disabled liability, and then to the active/inactive liability.

## B. Unfunded Actuarial Accrued Liability Reconciliation

1. Unfunded Actuarial Accrued Liability, Prior Year
2. Unfunded Actuarial Accrued Liability (Gain) / Loss
a. Actuarial Value of Assets Experience

| June 30, 2014 |  | June 30, 2015 |  |
| :---: | :---: | :---: | :---: |
| \$ | 13,177,995 | \$ | 12,400,479 |
| \$ | $(584,092)$ | \$ | 1,044,886 |
|  | - |  | 4,550,500 |
|  | - |  | - |
|  | - |  | 5,216,488 |
|  | - |  | - |
| \$ | $(584,092)$ | \$ | 10,811,874 |
|  | $(193,424)$ |  | $(200,012)$ |
| \$ | $(777,516)$ | \$ | 10,611,862 |
| \$ | 12,400,479 | \$ | 23,012,341 |

${ }^{1}$ The retirement and mortality assumptions were updated pursuant to an experience study completed in April 2015.

## C. Actuarial Accrued Liability Reconciliation

1. June 30, 2014 Actuarial Accrued Liability
2. Normal Cost
3. Actual Benefit Payments ${ }^{1}$
4. Employer Service Purchases
5. Interest of $6.75 \%$ on $(1)+(2)-(3) / 2+(4) / 2$
6. Expected June 30, 2015 Actuarial Accrued Liability

$$
(1)+(2)-(3)+(4)+(5)
$$

7. (Gain)/Loss Components
a. Census
b. Assumption Changes ${ }^{2}$
c. Plan Changes
d. Total: $(7)(a)+(7)(b)+(7)(c)$
8. Actual June 30, 2015 Actuarial Accrued Liability: (6) + (7)(d)

| $\$$ | $65,336,440$ |
| ---: | ---: |
| $1,602,704$ |  |
| $3,254,047$ |  |
|  | - |
|  | $4,408,568$ |
| $\$$ | $68,093,665$ |


|  | Dollar Change in Liability | Percent Change in Liability |
| :---: | :---: | :---: |
| \$ | 4,550,500 | 6.6\% |
|  | 5,216,488 | 7.7\% |
|  | - | 0.0\% |
| \$ | 9,766,988 | 14.3\% |
| \$ | 77,860,653 |  |

${ }^{1}$ Includes refunds of accumulated member contributions and net interfund transfers.
${ }^{2}$ The retirement and mortality assumptions were updated pursuant to an experience study completed in April 2015.

## SECTION II - FUNDING

## D. Reconciliation of Market Value of Assets

1. Market Value of Assets, Prior June 30
2. Receipts
a. Employer Contributions
b. Member Contributions
c. Investment Income and Dividends Net of Fees
d. Security Lending Income Net of Fees
e. Member Reassignments
f. Miscellaneous Income
g. Total Receipts: $(2)(a)+(2)(b)+(2)(c)+(2)(d)+(2)(e)+(2)(f)$
3. Disbursements
a. Benefits Paid During the Year
b. Refund of Contributions and Interest
c. Administrative and Project Expenses
d. Member Reassignments
e. Miscellaneous Disbursements
f. Total Disbursements: $(3)(a)+(3)(b)+(3)(c)+(3)(d)+(3)(e)$
4. Market Value of Assets, Current June 30: (1) + (2)(g) - (3)(f)
5. Market Value of Assets Approximate Annual Rate of Return ${ }^{1}$

| June 30, 2014 |  | June 30, 2015 |  |
| :---: | :---: | :---: | :---: |
| \$ | 47,919,739 | \$ | 54,507,492 |
| \$ | 1,173,800 | \$ | 1,062,800 |
|  | 1,333,635 |  | 1,268,695 |
|  | 6,572,026 |  | $(42,546)$ |
|  | 7,747 |  | 7,665 |
|  | - |  | - |
|  | 3,511 |  | - |
| \$ | 9,090,719 | \$ | 2,296,614 |
| \$ | 2,346,787 | \$ | 2,995,219 |
|  | 50,938 |  | 258,828 |
|  | 105,241 |  | 126,893 |
|  | - |  | - |
|  | - |  | - |
| \$ | 2,502,966 | \$ | 3,380,940 |
| \$ | 54,507,492 | \$ | 53,423,166 |
|  | 13.5\% |  | (0.3\%) |

[^2]
## SECTION II - FUNDING

## E. Reconciliation of Actuarial Value of Assets

1. Market Value of Assets, June 30, 2014
2. Market Value of Assets, June 30, 2015
\$
54,507,492

53,423,166
3. Expected Earnings/Expenses
a. Expected Investment Earnings at $6.75 \%$ on June 30, 2014 Market Value

3,679,256
b. Receipts with Expected Investment Earnings at $6.75 \%{ }^{1}$

2,410,183
c. Disbursements with Expected Investment Earnings at $6.75 \%^{1}$
4. Expected Assets, June 30, 2015: (1) + (3)(a) + (3)(b) - (3)(c)
5. 2014-2015 Gain/(Loss): (2) - (4)
6. Smoothing of Gain/(Loss)

|  | Year | Gain/(Loss) |  | \% Unrecognized |
| :---: | :---: | :---: | :---: | :---: |
| a. | 2014-2015 | \$ | $(3,809,894)$ | 75\% |
| b. | 2013-2014 | \$ | 3,236,129 | 50\% |
| c. | 2012-2013 | \$ | (743,160) | 25\% |

7. Preliminary Actuarial Value of Assets, June 30, 2015: (2) - (6)(a) - (6)(b) - (6)(c)
8. Corridor
a. $120 \%$ of Market Value: $1.2 \times(2)$
b. $80 \%$ of Market Value: $0.8 \times(2)$

64,107,799
42,738,533
9. Actuarial Value of Assets, June 30, 2015: (7), but not greater than (8)(a) or less than (8)(b)
\$
54,848,312
102.7\%
11. Actuarial Value of Assets Approximate Annual Rate of Investment Return ${ }^{1}$

1 Assumes cash flows occur at mid-year.

## SECTION II - FUNDING

## F. Contributions

## Development of Actuarially Determined Contribution:

1. Anticipated Payroll
2. Normal Cost (Beginning of Year)
a. Amount
b. Percentage of Payroll
3. Unfunded Actuarial Accrued Liability (UAAL) Annual Amortizations
a. Amount
b. Percentage of Payroll

| June 30, 2014 |  | June 30, 2015 |  |
| :---: | :---: | :---: | :---: |
| \$ | 21,431,900 | \$ | 21,990,791 |
| \$ | 1,602,704 | \$ | 1,625,509 |
|  | 7.48\% |  | 7.39\% |
| \$ | 971,472 | \$ | 1,767,268 |
|  | 4.53\% |  | 8.04\% |
| \$ | 1,188,507 | \$ | 1,306,310 |
|  | 5.55\% |  | 5.94\% |
|  | 6.46\% |  | 9.49\% |
|  | July 1, 2015 |  | July 1, 2016 |
| \$ | 22,289,176 | \$ | 22,870,423 |
| \$ | $\mathbf{1 , 4 3 9 , 8 8 1}$ | \$ | 2,170,403 |
| \$ | 1,440,000 | \$ | 1,485,700 |
|  | 100.01\% |  | 68.45\% |

[^3]
## G. Unfunded Actuarial Accrued Liability Amortization Schedule ${ }^{1}$

| Date Base <br> Established | Reason | Remaining Unfunded |  | Remaining Period | Amortization <br> Amount |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6/30/2009 | Fresh Start | \$ | 5,631,934 | 22 | \$ | 467,121 |
| 6/30/2010 | Actuarial Experience and Changes in Actuarial Assumptions |  | 1,626,343 | 25 |  | 127,802 |
| 6/30/2011 | Actuarial Experience and Changes in Actuarial Assumptions |  | 1,598,052 | 26 |  | 123,680 |
| 6/30/2012 | Actuarial Experience and Changes in Actuarial Assumptions |  | 446,605 | 27 |  | 34,082 |
| 6/30/2013 | Actuarial Experience and Changes in Actuarial Assumptions |  | 3,475,158 | 28 |  | 261,778 |
| 6/30/2014 | Actuarial Experience |  | $(577,625)$ | 29 |  | $(42,991)$ |
| 6/30/2015 | Actuarial Experience and Changes in Actuarial Assumptions |  | 10,811,874 | 30 |  | 795,796 |
| Total |  | \$ | 23,012,341 | 26.9 | \$ | 1,767,268 |

${ }^{1}$ Valuation results prior to June 30, 2010 were calculated by the prior actuary.
${ }^{2}$ The weighted average remaining UAAL amortization period is calculated by weighting the remaining amortization period of each base by the amortization amount of each base.
H. Approximate Annual Rate of Return for Year Ending June 30, $2015^{1}$

1. Balance, beginning of year
2. Balance, end of year
3. Total increase: (2) - (1)
4. Contributions
5. Benefit payments ${ }^{2}$
6. Net additions: (4) - (5)
7. Net investment increase: (3) - (6)
8. Average assets: $[(1)+(2)-(7)] / 2$
9. Approximate rate of return: $(7) /(8)^{1}$

| Market Value of Assets |  | Actuarial Value of Assets |  |
| :---: | :---: | :---: | :---: |
| \$ | 54,507,492 | \$ | 52,935,961 |
|  | 53,423,166 |  | 54,848,312 |
|  | $(1,084,326)$ |  | 1,912,351 |
|  | 2,331,495 |  | 2,331,495 |
|  | 3,254,047 |  | 3,254,047 |
|  | $(922,552)$ |  | $(922,552)$ |
|  | $(161,774)$ |  | 2,834,903 |
|  | 54,046,216 |  | 52,474,685 |
|  | (0.3\%) |  | 5.4\% |

## I. Historical Investment Experience

| Year Ending June 30 | Actual Rate of Investment Return |  | Actuarial Assumed Interest Rate |
| :---: | :---: | :---: | :---: |
|  | Market Basis ${ }^{3}$ | Actuarial Basis ${ }^{1}$ |  |
| 2006 | 10.7\% | 14.4\% | 7.25\% |
| 2007 | 18.2\% | 15.4\% | 7.25\% |
| 2008 | (7.6\%) | 8.2\% | 7.25\% |
| 2009 | (20.6\%) | (1.0\%) | 7.25\% |
| 2010 | 13.9\% | (1.9\%) | 7.25\% |
| 2011 | 20.1\% | (1.0\%) | 7.0\% |
| 2012 | 0.7\% | 2.3\% | 7.0\% |
| 2013 | 6.0\% | 7.6\% | 6.75\% |
| 2014 | 13.7\% | 8.3\% | 6.75\% |
| 2015 | 0.0\% | 5.4\% | 6.75\% |

${ }^{1}$ Based on individual fund experience. Net of expenses and assuming cash flows occur at mid-year.
${ }^{2}$ Includes refunds of accumulated member contributions and net interfund transfers.
${ }^{3}$ INPRS actual time-weighted rate of return net of fees for 2012-2015. PERF Consolidated Defined Benefit time-weighted rate of return reported as gross of fees for 2006-2011.

## J. Interest Rate Sensitivity

The investment return assumption (discount rate) 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 Actuarially Determined Contribution Rate (for the fiscal year beginning July 1, 2016) are shown below and on the following page at interest rates from $5.75 \%$ to $8.00 \%$, in $0.25 \%$ increments.

|  |  | 1.00\% <br> Decrease: (5.75\%) |  | $0.75 \%$ <br> Decrease: (6.00\%) |  | $0.50 \%$ <br> Decrease: (6.25\%) |  |  | Current Assumption: (6.75\%) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Funded Status |  |  |  |  |  |  |  |  |  |  |
| Actuarial Accrued Liability | \$ | 87,855,370 | \$ | 85,166,717 | \$ | 82,609,924 | \$ | 80,177,033 | \$ | 77,860,653 |
| Actuarial Value of Assets |  | 54,848,312 |  | 54,848,312 |  | 54,848,312 |  | 54,848,312 |  | 54,848,312 |
| Unfunded Actuarial Accrued Liability | \$ | 33,007,058 | \$ | 30,318,405 | \$ | 27,761,612 | \$ | 25,328,721 | \$ | 23,012,341 |
| Funded Ratio |  | 62.4\% |  | 64.4\% |  | 66.4\% |  | 68.4\% |  | 70.4\% |
| Actuarially Determined Contribution Rate |  |  |  |  |  |  |  |  |  |  |
| Normal Cost Rate |  | 9.18\% |  | 8.68\% |  | 8.22\% |  | 7.79\% |  | 7.39\% |
| UAAL Amortization Rate |  | 10.39\% |  | 9.80\% |  | 9.21\% |  | 8.62\% |  | 8.04\% |
| Expected Employee Contribution Rate |  | 5.94\% |  | 5.94\% |  | 5.94\% |  | 5.94\% |  | 5.94\% |
| Actuarially Determined Contribution Rate |  | 13.63\% |  | 12.54\% |  | 11.49\% |  | 10.47\% |  | 9.49\% |

## Funded Status

Actuarial Accrued Liability

Actuarial Value of Assets

Unfunded Actuarial Accrued Liability
Funded Ratio

Actuarially Determined Contribution Rate
Normal Cost Rate
UAAL Amortization Rate

Expected Employee Contribution Rate

Actuarially Determined Contribution Rate

1.25\% Increase: (8.00\%)
$\$ 75,653,886$
\$ 73,550,316
\$ 71,543,957
\$ 69,629,221
$\$ \quad 67,800,901$
54,848,312
\$ 20,805,574
$54,848,312$
$\$ 18,702,004$
$\qquad$ 54,848,312
\$ 16,695,645
$76.7 \%$
\$ 14,780,909
78.8\%

| $54,848,312$ |
| :--- |

\$ 12,952,589
$72.5 \%$
74.6\%
7.02\%
$7.45 \%$
6.68\%
6.87\%

| $7.02 \%$ | $6.68 \%$ | $6.36 \%$ | $6.06 \%$ | $5.78 \%$ |
| :---: | :---: | :---: | :---: | :---: |
| $7.45 \%$ | $6.87 \%$ | $6.30 \%$ | $5.72 \%$ | $5.15 \%$ |
| $5.94 \%$ | $5.94 \%$ | $5.94 \%$ | $5.94 \%$ | $5.94 \%$ |
|  | $7.61 \%$ | $6.72 \%$ | $5.84 \%$ | $4.99 \%$ |


| $7.02 \%$ | $6.68 \%$ | $6.36 \%$ | $6.06 \%$ | $5.78 \%$ |
| :---: | :---: | :---: | :---: | :---: |
| $7.45 \%$ | $6.87 \%$ | $6.30 \%$ | $5.72 \%$ | $5.15 \%$ |
| $5.94 \%$ | $5.94 \%$ | $5.94 \%$ | $5.94 \%$ | $5.94 \%$ |
|  | $7.61 \%$ | $6.72 \%$ | $5.84 \%$ | $4.99 \%$ |

8.53\%

| $7.02 \%$ | $6.68 \%$ | $6.36 \%$ | $6.06 \%$ | $5.78 \%$ |
| :---: | :---: | :---: | :---: | :---: |
| $7.45 \%$ | $6.87 \%$ | $6.30 \%$ | $5.72 \%$ | $5.15 \%$ |
| $5.94 \%$ | $5.94 \%$ | $5.94 \%$ | $5.94 \%$ | $5.94 \%$ |
|  | $7.61 \%$ | $6.72 \%$ | $5.84 \%$ | $4.99 \%$ |


| $7.02 \%$ | $6.68 \%$ | $6.36 \%$ | $6.06 \%$ | $5.78 \%$ |
| :---: | :---: | :---: | :---: | :---: |
| $7.45 \%$ | $6.87 \%$ | $6.30 \%$ | $5.72 \%$ | $5.15 \%$ |
| $5.94 \%$ | $5.94 \%$ | $5.94 \%$ | $5.94 \%$ | $5.94 \%$ |
|  | $7.61 \%$ | $6.72 \%$ | $5.84 \%$ | $4.99 \%$ |

5.84\% 80.9\%

## ACCOUNTING

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## SECTION III - ACCOUNTING

## PLAN FINANCIAL STATEMENTS UNDER GASB \#67

## A. Statement of Fiduciary Net Position under GASB \#67 as of June 30, 2015

1. Assets
a. Cash \$
\$ 3
b. Receivables
i. Contributions Receivable
ii. Miscellaneous Receivables

37,446
iii. Investments Receivable
iv. Foreign Exchange Contract Receivable

840,853
v. Interest and Dividends
,294,159 137,327
vi. Due From Other Funds
vii. Total Receivables

3,309,785
c. Total Investments
i. Short-Term Investments

| \$ | $13,309,785$ |
| :--- | ---: |
| $\$$ | - |
|  | $2,478,272$ |
|  | $18,310,982$ |
|  | $11,835,332$ |
|  | $20,863,928$ |
|  | 2,019 |
|  | $2,676,750$ |
| $\$$ | $56,167,283$ |
|  | 5,382 |
|  | - |
| $\$$ | $69,482,453$ |

2. Liabilities

| a. | Accounts Payable | $\$$ |
| :--- | :--- | ---: |
| b. | Retirement Benefits Payable | $\mathbf{1 9 , 0 3 4}$ |
| c. | Salaries and Benefits Payable | - |
| d. | Investments Payable | - |
| e. | Foreign Exchange Contracts Payable | 609,004 |
| f. | Securities Lending Obligations | $12,342,548$ |
| g. | Securities Sold Under Agreement to Repurchase | $2,676,750$ |
| h. | Due To Other Funds | 406,903 |
| i. | Due To Other Governments | 5,048 |
| j. | Total Liabilities: $(2)(\mathrm{a})+(2)(\mathrm{b})+(2)(\mathrm{c})+(2)(\mathrm{d})+(2)(\mathrm{e})+(2)(\mathrm{f})+(2)(\mathrm{g})+(2)(\mathrm{h})+(2)(\mathrm{i})$ | - |
| Fiduciary Net Position Restricted for Pensions: $(1)(\mathrm{f})-(2)(\mathrm{j})$ | $\mathbf{\$}$ | $\mathbf{1 6 , 0 5 9 , 2 8 7}$ |

## SECTION III - ACCOUNTING

## PLAN FINANCIAL STATEMENTS UNDER GASB \#67

## B. Statement of Changes in Fiduciary Net Position under GASB \#67 for the Year Ended June 30, 2015

1. Fiduciary Net Position as of June 30, 2014
\$ 54,507,492
2. Additions
a. Contributions
i. Member Contributions
\$ 1,268,695
ii. Employer Contributions
iii. Employer Service Purchases
iv. Non-Employer Contributing Entity Contributions
v. Total Contributions
b. Investment Income/(Loss)
i. Net Appreciation/(Depreciation) ${ }^{1,2}$
ii. Net Interest and Dividend Income
iii. Securities Lending Income
iv. Other Net Investment Income

|  | - |
| :--- | ---: |
|  | - |
| $\$$ | $2,331,495$ |
| $\$$ | $(370,296)$ |
|  | 724,300 |
|  | 9,142 |
|  | 6,232 |
|  | $(402,782)$ |
|  | $(1,477)$ |
|  | $(34,881)$ |

vi. Securities Lending Expenses
vii. Total Investment Income/(Loss)
c. Other Additions
i. Member Reassignments
ii. Miscellaneous Receipts
iii. Total Other Additions
d. Total Revenue (Additions): (2)(a)(v) + (2)(b)(vii) + (2)(c)(iii)

| $\$$ | - |
| :--- | ---: |
| $\$$ | - |
| $\$$ | $2,296,614$ |

3. Deductions
a. Pension and Disability Benefit
\$ 2,995,219
b. Death, Survivor, and Funeral Benefits

|  | - |
| ---: | ---: |
|  | 258,828 |
|  | - |
| $\$$ | $3,380,940$ |
| $\$$ | $(1,084,326)$ |

d. Member Reassignments
e. Administrative and Project Expenses
f. Total Expenses (Deductions): (3)(a) + (3)(b) + (3)(c) + (3)(d) + (3)(e)
4. Net Increase (Decrease) in Fiduciary Net Position: (2)(d) - (3)(f)
5. Fiduciary Net Position as of June 30, 2015: (1) + (4)

The calculation of realized gains and losses is independent of the calculation of the net change in the fair value of pension plan investments.
${ }^{2}$ Realized gains and losses on investments that had been held in more than one reporting period and sold in the current period were included as a change in the fair value reported in the prior period(s) and the current period.

## SECTION III - ACCOUNTING

## EMPLOYER FINANCIAL STATEMENTS UNDER GASB \#68

## C. Net Pension Liability under GASB \#68 for the Year Ended June 30, 2015

1. Total Pension Liability
a. Total Pension Liability - Beginning of year
b. Service cost ${ }^{1}$
c. Interest cost ${ }^{2}$
d. Experience (gains)/losses
e. Assumption changes
f. Plan amendments
g. Benefit payments ${ }^{3}$
h. Member reassignments ${ }^{4}$
i. Total Pension Liability - End of year
2. Plan Fiduciary Net Position
a. Plan Fiduciary Net Position - Beginning of year
b. Employer contributions
c. Member contributions
d. Non-employer contributing entity contributions
e. Investment return
i. Expected investment return ${ }^{5}$
ii. Investment gain/(loss)
iii. Total investment return
iv. Investment Expenses
v. Net investment return
f. Benefit payments ${ }^{3}$
g. Member reassignments ${ }^{4}$
h. Administrative and Project Expenses
i. Plan Fiduciary Net Position - End of year
3. Net Pension Liability
a. Net Pension Liability: (1)(i) - (2)(i)
b. Plan Fiduciary Net Position as a Percentage of the Total Pension Liability : (2)(i) / (1)(i)

| $\$$ | $4,048,096$ <br> $(3,678,718)$ |
| :---: | :---: |
| $\$$ | 369,378 <br> $(404,259)$ |


${ }^{1}$ As of the beginning of the year.
${ }^{2}$ Includes interest of $6.75 \%$ on the beginning-of-year service cost.
3 Includes refunds of accumulated member contributions.
4 Includes net interfund transfers.
$56.75 \%$, net of investment expenses and assuming cash flows occur at mid-year.

## SECTION III - ACCOUNTING

## EMPLOYER FINANCIAL STATEMENTS UNDER GASB \#68

## D. Deferred Inflows and Outflows of Resources under GASB \#68 for the Year Ended June 30, $2015{ }^{1}$

| Fiscal Year <br> Established | Reason | Remaining Balance <br> At Beginning of Year | Remaining Period ${ }^{2}$ | Annual Recognition | Remaining Balance <br> At End of Year |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Liability experience |  |  |  |  |  |
| a. Inflows |  |  |  |  |  |
| None |  |  |  |  |  |
| b. Outflows |  |  |  |  |  |
|  | Experience loss | (4,550,500) | 2.03 | $(2,241,626)$ | \$ (2,308,874) |

2. Assumption changes
a. Inflows

None
b. Outflows

$$
2015 \text { Assumption change loss }
$$

\$ $\quad(5,216,488)$
2.03
$\$ \quad(2,569,699) \quad \$$
(2,646,789)
3. Investment experience ${ }^{3}$
a. Inflows

2014 Investment gain
\$
4.00
\$
590,643 \$
1,771,930
b. Outflows

2015 Investment loss
\$
(4,082,977)
5.00
\$
$(816,595) \quad \$$
(3,266,382)
4. Total deferred inflows / outflows: $(1)+(2)+(3)$
a. Inflows

Total
\$ 2,362,573
\$ 590,643 $\quad \$ \quad \mathbf{1 , 7 7 1 , 9 3 0}$
b. Outflows

## Total

\$ (13,849,965)
$\$ \quad(5,627,920) \quad \$$
(8,222,045)

1 The effort and cost to re-create financial statement information for 10 years was not practical. Information was prepared prospectively from June 30, 2013 for GASB \#68 purposes.
${ }^{2}$ The initial amortization period for liability experience gains / losses and assumption change gains / losses is equal to the expected future working lifetime of all members, active and inactive. The initial amortization period for investment gains / losses is five years.
${ }^{3}$ Net of investment expenses.

## EMPLOYER FINANCIAL STATEMENTS UNDER GASB \#68

## D. Deferred Inflows and Outflows of Resources under GASB \#68 for the Year Ended June 30, 2015 (Continued) ${ }^{1}$

Amounts reported as deferred inflows / (outflows) of resources to be recognized in pension expense:

| Year Ending June 30: | $\$$ | $(5,037,277)$ |
| :--- | :--- | :--- |
| 2015 | $(5,037,277)$ |  |
| 2016 | $(370,290)$ |  |
| 2017 | $\$$ | $(225,951)$ |
| 2018 | $\$$ | $(816,597)$ |
| 2019 | $\$$ | - |
| 2020 | $\$$ | $\$$ |
| Thereafter | $\$$ | - |

[^4]
## SECTION III - ACCOUNTING

## EMPLOYER FINANCIAL STATEMENTS UNDER GASB \#68

## E. Pension Expense under GASB \#68 for the Year Ended June 30, 2015

1. Service cost

| a. Total service cost ${ }^{1}$ | \$ | 1,602,704 |
| :---: | :---: | :---: |
| b. Member contributions |  | $(1,268,695)$ |
| c. Administrative and Project Expenses |  | 126,893 |
| d. Net employer service cost: $(1)(\mathrm{a})+(1)(\mathrm{b})+(1)(\mathrm{c})$ |  | 460,902 |
| Interest cost ${ }^{2}$ |  | 4,408,568 |
| Expected return on assets ${ }^{3}$ |  | (4,048,096) |
| Plan amendments |  | - |
| Recognition of deferred (inflows) / outflows of resources related to: |  |  |
| a. Liability experience (gains) / losses |  | 2,241,626 |
| b. Assumption changes (gains) / losses |  | 2,569,699 |
| c. Investment (gains) / losses |  | 225,952 |
| d. Total: $(5)(\mathrm{a})+(5)(\mathrm{b})+(5)(\mathrm{c})$ |  | 5,037,277 |
| Preliminary pension expense: $(1)(\mathrm{d})+(2)+(3)+(4)+(5)(\mathrm{d})$ | \$ | 5,858,651 |
| Employer Service Purchases |  | - |
| Total Pension Expense: (6) + (7) | \$ | 5,858,651 |

As of the beginning of the year.
Includes interest of $6.75 \%$ on the beginning-of-year service cost.
${ }^{3} 6.75 \%$ net of investment expenses and assuming cash flows occur at mid-year. Includes a half year of interest on employee contributions and administrative expenses.

## NOTES TO THE FINANCIAL STATEMENTS UNDER GASB \#67 AND \#68

## F. Selected Notes to the Financial Statements under GASB \#67 and \#68

1 PARF is a single-employer plan for GASB accounting purposes.
2. Significant actuarial assumptions and other inputs used to measure the total pension liability:

- Measurement Date
- Valuation Date Assets:

Liabilities:

- Inflation
- Future Salary Increases
- Cost-of-Living Increases
- Mortality Assumption
- Experience Study
- Discount Rate

June 30, 2015

June 30, 2015
June 30, 2014 - Member census data as of June 30, 2014 was used in the valuation and adjusted, where appropriate, to reflect changes between June 30, 2014 and June 30, 2015. Standard actuarial roll forward techniques were then used to project the total pension liability computed as of June 30, 2014 to the June 30, 2015 measurement date.
2.25\%
4.0\%

N/A
RP-2014 (with MP-2014 improvement removed) White Collar mortality tables, with future mortality improvement projected generationally using future mortality improvement inherent in the Social Security Administration's 2014 Trustee report.

The most recent comprehensive experience study was completed in April 2015 and was based on member experience between June 30, 2010 and June 30, 2014. The demographic assumptions were updated as needed for the June 30, 2015 actuarial valuation based on the results of the study.

The discount rate used to measure the total pension liability was $6.75 \%$ as of June, 30,2015 , and is equal to the longterm expected return on plan investments. The projection of cash flows used to determine the discount rate assumed that employer contributions would be made at the actuarially calculated amount computed in accordance with the current funding policy adopted by the Board, which requires payment of the normal cost and amortization of the unfunded actuarially accrued liability in level dollar installments over 30 years utilizing a closed period approach. Since the current funding policy was adopted, the state's contributions have been consistent with the amounts requested by the Board utilizing this policy. Based on this assumption, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members.

|  | 1\% Decrease (5.75\%) |  | Current Rate (6.75\%) |  | 1\% Increase (7.75\%) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 34,432,204 | \$ | 24,437,487 | \$ | 16,206,05 |

## SECTION III - ACCOUNTING

## NOTES TO THE FINANCIAL STATEMENTS UNDER GASB \#67 AND \#68

## F. Selected Notes to the Financial Statements under GASB \#67 and \#68 (Continued)

3. Classes of plan members covered: ${ }^{1}$

- Retired members, beneficiaries and disabled members receiving benefits:
- Terminated vested plan members entitled to but not yet receiving benefits:
- Terminated non-vested plan members entitled to a distribution of contributions:
- Active Plan Members:
- Total membership:

4. Money-weighted rate of return:

The money-weighted rate of return equals investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested. For the fiscal year ending June 30, 2015, the money-weighted return on the plan assets is (0.1\%).
5. The components of the Net Pension Liability for the PARF plan as of June 30, 2015, are as follows:

- Total Pension Liability $\quad \$ \quad 77,860,653$
- Plan Fiduciary Net Position
- Net Pension Liability
- Plan Fiduciary Net Position as a Percentage of the Total Pension Liability

[^5]
## SECTION III - ACCOUNTING

## REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB \#67 AND \#68

## G. Schedule of Changes in the Net Pension Liability and Plan Fiduciary Net Position under GASB \#67 and \#68 ${ }^{\mathbf{1}}$

Year Ending June 30:

1. Total Pension Liability
a. Total Pension Liability - Beginning of year
b. Service cost ${ }^{2}$
c. Interest cost ${ }^{3}$
d. Experience (gains)/losses
e. Assumption changes
f. Plan amendments
g. Benefit payments ${ }^{4}$
h. Member reassignments ${ }^{5}$
i. Total Pension Liability - End of year
2. Plan Fiduciary Net Position
a. Plan Fiduciary Net Position - Beginning of year
b. Employer contributions
c. Member contributions
d. Non-employer contributing entity contributions
e. Net investment return
f. Benefit payments ${ }^{3}$
g. Member reassignments ${ }^{5}$
h. Administrative and Project Expenses
i. Plan Fiduciary Net Position - End of year

| 2013 |  | 2014 |  | 2015 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 56,079,955 | \$ | 61,940,389 | \$ | 65,336,440 |
|  | 1,568,461 |  | 1,586,626 |  | 1,602,704 |
|  | 3,815,835 |  | 4,207,150 |  | 4,408,568 |
|  | 1,473,837 |  |  |  | 4,550,500 |
|  | $(108,430)$ |  |  |  | 5,216,488 |
|  | 1,345,781 |  | - |  | - |
|  | $(2,235,050)$ |  | $(2,397,725)$ |  | $(3,254,047)$ |
|  | - |  | - |  | - |
| \$ | 61,940,389 | \$ | 65,336,440 | \$ | 77,860,653 |
| \$ | 27,690,288 | \$ | 47,919,739 | \$ | 54,507,492 |
|  | 19,443,392 |  | 1,173,800 |  | 1,062,800 |
|  | 1,271,481 |  | 1,333,635 |  | 1,268,695 |
|  |  |  |  |  | - |
|  | 1,894,508 |  | 6,583,284 |  | $(34,881)$ |
|  | (2,235,050) |  | $(2,397,725)$ |  | $(3,254,047)$ |
|  |  |  | - |  | - |
|  | $(144,880)$ |  | $(105,241)$ |  | $(126,893)$ |
| \$ | 47,919,739 | \$ | 54,507,492 | \$ | 53,423,166 |

1 The effort and cost to re-create financial statement information for 10 years was not practical. Information was prepared prospectively from June 30, 2012 for GASB \#67 puposes and prospectively from June 30, 2013 for GASB \#68 purposes.
${ }^{2}$ As of the beginning of the year.
3 Includes interest of $6.75 \%$ on the beginning-of-year service cost.
4 Includes refunds of accumulated member contributions.
Includes net interfund transfers.

## SECTION III - ACCOUNTING

## REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB \#67 AND \#68

H. Schedule of Net Pension Liability and Related Ratios under GASB \#67 and \#68 ${ }^{1}$


[^6]
## SECTION III - ACCOUNTING

## REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB \#67 AND \#68

## I. Schedule of Contributions under GASB \#67 and \#68 ${ }^{1 .}$

| 1. | 2. |  | 3. |  | 4. |  |  |  | 6. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | tual |  |  |  |
|  | Actuarially |  |  |  | Actual |  | Contribution |  | Covered |  | Contributions as a |
| Year | Determined |  | Employer |  | Excess / (Deficiency) |  | Employee |  | Percentage of |
| Ending |  | tion ${ }^{2}$ |  | utions ${ }^{3}$ |  | (Deficiency) | Payroll ${ }^{4}$ |  | Covered Payroll |
|  |  |  |  |  | (3) - (2) |  |  |  | (3) / (5) |
| 6/30/2013 | \$ | 2,542,470 | \$ | 19,443,392 |  | 16,900,922 | \$ | 18,805,255 | 103.4\% |
| 6/30/2014 | \$ | 2,345,144 | \$ | 1,173,800 |  | $(1,171,344)$ | \$ | 20,607,596 | 5.7\% |
| 6/30/2015 | \$ | 1,418,829 | \$ | 1,062,800 |  | $(356,029)$ | \$ | 21,144,991 | 5.0\% |

${ }^{1}$ The effort and cost to re-create financial statement information for 10 years was not practical. Information was prepared prospectively from June 30,2012 for GASB \#67 puposes and prospectiv from June 30, 2013 for GASB \#68 purposes.
${ }^{2}$ The actuarially determined contribution amounts are based on the actuarially determined contribution rates developed in the actuarial valuation completed one year prior to the beginning of the fiscal year, multiplied by actual payroll during the fiscal year
${ }^{3}$ Excludes employer service purchases.
${ }^{4}$ Pensionable pay as provided by INPRS. Gross member compensation, which may include components of compensation that are not included in pensionable pay, was not made available to PwC.
${ }^{5}$ Includes a contribution of \$17,363,392 made to the Plan pursuant to 2012 HB 1376.

## REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB \#67 AND \#68

## J. Schedule of Money-Weighted Returns under GASB \#67 and \#68 ${ }^{\mathbf{1}}$

| 1. | 2. |
| :---: | :---: |
| Year |  |
| Ending |  | | Money-Weighted <br> Rate of Return |
| :---: |
| $6 / 30 / 2013$ |
| $6 / 30 / 2014$ |
| $6 / 30 / 2015$ |

[^7]
## SECTION IV - CENSUS DATA

## CENSUS DATA

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G. Distribution of Retired Members, Beneficiaries, and Disabled Members by Age and Number of Years Retired ..... 36
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## SECTION IV - CENSUS DATA

## A. Reconciliation of Participant Data ${ }^{1}$

|  | Actives | Inactive Non-Vested With Member Contribution Balance | Inactive Vested | Disabled | Retired | Beneficiary | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total as of June 30, 2013 | 210 | 162 | 83 | 1 | 89 | 5 | 550 |
| Data Adjustments for Activity |  |  |  |  |  |  |  |
| During Fiscal Year 2014 | - | - | - | - | - | - | - |
| Adjusted Total as of June 30, 2013 | 210 | 162 | 83 | 1 | 89 | 5 | 550 |
| New Entrants | 5 | - | - | - | - | - | 5 |
| Rehires | 3 | (3) | - | - | - | - | - |
| Non-Vested Terminations | (2) | 3 | (1) | - | - | - | - |
| Vested Terminations | (16) | (4) | 20 | - | - | - | - |
| Retirements | (3) | (4) | (5) | - | 12 | - | - |
| Disablements | - | - | - | - | - | - | - |
| Death with Beneficiary | - | - | (1) | - | (1) | 2 | - |
| Death without Beneficiary | - | - | - | - | (1) | - | (1) |
| Refunds | (1) | (1) | - | - | - | - | (2) |
| Data Adjustments | - | - | 1 | - | - | - | 1 |
| Total as of June 30, 2014 | 196 | 153 | 97 | 1 | 99 | 7 | 553 |
| Data Adjustments for Activity |  |  |  |  |  |  |  |
| During Fiscal Year 2015 | - | - - | - | - | - | - | - |
| Adjusted Total as of June 30, 2014 | 196 | 153 | 97 | 1 | 99 | 7 | 553 |

[^8]
## SECTION IV - CENSUS DATA

B. Census Information as of June 30, $2014{ }^{1}$
. Active
a. Number
b. Average Age

Male

- 49.5
c. Average Years of Service 9.6
d. Anticipated Payroll of Actives ${ }^{2}$
\$
17,537,604
\$
Female
Total

2. Inactive - Vested

| a. | Number | 81 | 16 |
| :--- | :--- | ---: | ---: |
| b | Average Age | 57.3 | 56.4 |
| c. | Average Years of Service | 14.8 | 12.2 |

3. $\quad$ Inactive - Non-Vested ${ }^{3}$
a. Number

110
43
153
4. Retiree/Beneficiary/Disabled

| a. | Number | 102 | 5 | 107 |  |
| :--- | :--- | ---: | ---: | ---: | ---: |
| b. | Average Age | 70.3 |  | 67.6 | 70.2 |
| c. | Annual Benefits Payable | $\$$ | $2,236,171$ | $\$$ | 158,984 |

${ }^{1}$ The valuation results as of June 30, 2015 were calculated using June 30, 2014 census data, adjusted for certain activity during fiscal year 2015.
${ }^{2}$ Figures shown are the anticipated pay for the one-year period following the valuation date.
${ }^{3}$ As of June 30, 2014, inactive non-vested members entitled to a refund of their member contribution had balances totaling \$2,885,768.

## SECTION IV - CENSUS DATA

## C. Schedule of Active Member Valuation Data ${ }^{1,2}$

| Valuation Date | Active Members |
| :---: | :---: |
| 6/30/2006 | 218 |
| 6/30/2007 | 206 |
| 6/30/2008 | 209 |
| 6/30/2009 | 221 |
| 6/30/2010 | 217 |
| 6/30/2011 | 212 |
| 6/30/2012 | 219 |
| 6/30/2013 | 210 |
| 6/30/2014 | 210 |
| 6/30/2015 | 196 |


|  | pated roll <br> usands) ${ }^{3}$ |
| :---: | :---: |
| \$ | 19,225 |
|  | 18,092 |
|  | 20,617 |
|  | 20,782 |
|  | 21,016 |
|  | 18,082 |
|  | 21,705 |
|  | 21,217 |
|  | 21,432 |
|  | 21,991 |


${ }^{1}$ Valuation results prior to June 30, 2010 were calculated by the prior actuary.
${ }^{2}$ The valuation results beginning as of June 30, 2014 were calculated using census data as of the prior year end, adjusted for certain activity during the current fiscal year.
${ }^{3}$ Figures shown are the anticipated pay for the one-year period following the valuation date.

## SECTION IV - CENSUS DATA

## D. Schedule of Retirees, Beneficiaries, and Disabled Members ${ }^{\mathbf{1 , 2}}$

| 1. <br> Valuation <br> Date | 2. $\quad 3$. |  |  | 4. 5. Removed |  |  | 6. 7. End of Year ${ }^{3}$ |  |  | 8. | 9. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Number | Annual Allowances (\$ in Thousands) |  | Number | Annual <br> Allowances (\$ in Thousands) |  | Number | AnnualAllowances$(\$$ in Thousands) |  | \% Change in <br> Annual <br> Allowances | Average <br> Annual <br> Allowances |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6/30/2006 | - | \$ | - | - | \$ | - | 18 | \$ | 249 | 0.1\% | \$ | 13,850 |
| 6/30/2007 | 4 |  | 121 | 2 |  | 32 | 20 |  | 338 | 35.6\% |  | 16,905 |
| 6/30/2008 | 7 |  | 207 | 1 |  | 14 | 26 |  | 522 | 54.3\% |  | 20,068 |
| 6/30/2009 | 26 |  | 536 | 2 |  | 26 | 50 |  | 1,032 | 97.8\% |  | 20,636 |
| 6/30/2010 | 9 |  | 187 | 1 |  | 16 | 58 |  | 1,201 | 16.4\% |  | 20,715 |
| 6/30/2011 | 19 |  | 473 | 1 |  | 16 | 76 |  | 1,618 | 34.7\% |  | 21,288 |
| 6/30/2012 | 6 |  | 178 | 1 |  | 27 | 81 |  | 1,770 | 9.4\% |  | 21,853 |
| 6/30/2013 | 15 |  | 362 | 1 |  | 27 | 95 |  | 2,101 | 18.7\% |  | 22,118 |
| 6/30/2014 | - |  | - | - |  | - | 95 |  | 2,101 | 0.0\% |  | 22,118 |
| 6/30/2015 | 14 |  | 319 | 2 |  | 14 | 107 |  | 2,395 | 14.0\% |  | 22,385 |

${ }^{1}$ Valuation results prior to June 30, 2010 were calculated by the prior actuary.
${ }^{2}$ The valuation results beginning as of June 30, 2014 were calculated using census data as of the prior year end, adjusted for certain activity during the current fiscal year.
3 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.

## SECTION IV - CENSUS DATA

## E. Distribution of Active Members by Age and Service ${ }^{1}$

| Attained Age | Distribution of Active Members by Age and Service as of June 30, $2014{ }^{1}$ |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under 10 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 | 2 |  |  |  |  |  |  |  | 2 |
| 30-34 | 8 |  |  |  |  |  |  |  | 8 |
| 35-39 | 25 | 2 |  |  |  |  |  |  | 27 |
| 40-44 | 21 | 14 | 2 |  |  |  |  |  | 37 |
| 45-49 | 14 | 5 | 13 |  |  |  |  |  | 32 |
| 50-54 | 16 | 6 | 8 | 3 | 1 |  |  |  | 34 |
| 55-59 | 5 | 5 | 6 | 2 |  |  |  |  | 18 |
| 60-64 | 5 | 7 | 9 | 1 |  |  |  |  | 22 |
| 65-69 | 7 | 5 |  |  |  |  |  |  | 12 |
| 70\&Up | 1 | 1 | 1 | 1 |  |  |  |  | 4 |
| Total | 104 | 45 | 39 | 7 | 1 |  |  |  | 196 |

${ }^{1}$ The valuation results as of June 30, 2015 were calculated using June 30, 2014 census data, adjusted for certain activity during fiscal year 2015.

## SECTION IV - CENSUS DATA

## 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, $2014{ }^{1}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under 10 | 10 to 14 years | 15 to 19 years | 20 to 24 years | 25 to 29 years | 30 to 34 years | Over 35 years | Total |
| <25 |  |  |  |  |  |  |  |  |
| 25-29 |  |  |  |  |  |  |  |  |
| 30-34 |  |  |  |  |  |  |  |  |
| 35-39 |  |  |  |  |  |  |  |  |
| 40-44 | 2 | 2 |  |  |  |  |  | 4 |
| 45-49 | 5 | 5 | 3 |  |  |  |  | 13 |
| 50-54 | 5 | 4 | 3 |  |  |  |  | 12 |
| 55-59 | 2 | 13 | 7 | 4 | 1 |  |  | 27 |
| 60-64 | 3 | 15 |  | 6 | 1 | 2 |  | 27 |
| 65-69 | 5 | 4 |  | 3 |  | 1 |  | 13 |
| 70\&Up | 1 |  |  |  |  |  |  | 1 |
| Total | 23 | 43 | 13 | 13 | 2 | 3 |  | 97 |

1 The valuation results as of June 30, 2015 were calculated using June 30, 2014 census data, adjusted for certain activity during fiscal year 2015.

## SECTION IV - CENSUS DATA

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, $2014{ }^{1}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under 10 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 | 1 |  |  |  |  |  | 1 |
| 55-59 | 1 | 1 |  |  |  |  | 2 |
| 60-64 | 7 |  |  |  |  |  | 7 |
| 65-69 | 52 | 1 |  |  |  |  | 53 |
| 70-74 | 22 | 4 | 2 |  |  |  | 28 |
| 75-79 | 2 | 4 | 3 |  |  |  | 9 |
| 8o-84 |  |  | 3 | 1 |  |  | 4 |
| 85-89 |  |  |  | 2 |  |  | 2 |
| 90\&Up |  |  | 1 |  |  |  | 1 |
| Total | 85 | 10 | 9 | 3 |  |  | 107 |

[^9]
## SECTION IV - CENSUS DATA

## H. Schedule of Benefit Recipients by Type of Benefit Option ${ }^{1}$

| Number of Benefit Recipients by Benefit Option as of June 30, 2014 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Retiree 50\% <br> Joint and <br> Amount of <br> Monthly <br> Benefit |  |  |  |  |  |  |  |  | Retiree Single <br> Life Annuity | Survivor <br> Annuity | Survivors | Disability | Total |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\$ 1-500$ | 1 | 8 | 2 | 0 | 11 |  |  |  |  |  |  |  |  |
| $501-1,000$ | 2 | 13 | 2 | 0 | 17 |  |  |  |  |  |  |  |  |
| $1,001-1,500$ | 0 | 19 | 2 | 0 | 21 |  |  |  |  |  |  |  |  |
| $1,501-2,000$ | 1 | 12 | 1 | 1 | 15 |  |  |  |  |  |  |  |  |
| $2,001-3,000$ | 1 | 23 | 0 | 0 | 24 |  |  |  |  |  |  |  |  |
| over 3,000 | 1 | 18 | 0 | 0 | 19 |  |  |  |  |  |  |  |  |
| Total | 6 | 93 | 7 | 1 | 107 |  |  |  |  |  |  |  |  |

## I. Schedule of Average Benefit Payments as of June 30, $2014{ }^{1,2}$

Average Monthly Defined Benefit Average Final Average Salary Number of Benefit Recipients

| $<10$ |  | 10-14 |  | 15-19 |  | 20-24 |  | 25-29 |  | $30+$ |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 1,163 | \$ | 1,498 | \$ | 1,969 | \$ | 2,467 | \$ | 2,589 | \$ | 1,693 | \$ | 1,865 |
| \$ | 83,896 | \$ | 62,194 | \$ | 73,614 | \$ | 86,752 | \$ | 99,686 | \$ | 113,499 | \$ | 76,315 |
|  | 8 |  | 38 |  | 27 |  | 20 |  | 8 |  | 6 |  | 107 |

[^10]
## ACTUARIAL ASSUMPTIONS AND METHODS

|  | Page |
| :--- | ---: |
| A. Actuarial Assumptions | 38 |
| B. Actuarial Methods | 40 |

## 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 at least every five years through a study of actual experience. The last study was completed in April 2015. 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

Funding
Accounting

Interest on Member Balances

Future Salary Increases

Inflation

Cost of Living Increases

Mortality (Healthy and Disabled)

Disability
6.75\% (net of administrative and investment expenses)
6.75\% (net of investment expenses)
$3.5 \%$ per year
4.0\% per year
2.25\% per year

N/A
RP-2014 (with MP-2014 improvement removed) White Collar mortality tables, with future mortality improvement projected generationally using future mortality improvement inherent in the Social Security Administration's 2014 Trustee report.

Illustrative rates shown below:

| Age | Male | Female |
| :---: | :---: | :---: |
| 20 | 0.0067\% | 0.0050\% |
| 30 | 0.0208\% | 0.0158\% |
| 40 | 0.0646\% | 0.0496\% |
| 50 | 0.2005\% | 0.1556\% |
| 60 | 0.6220\% | 0.4881\% |
| 70 | 0.1000\% | 0.1000\% |
| 71+ | 0.0000\% | 0.0000\% |

## SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

Termination

Retirement

Decrement Timing

Spouse/Beneficiary

Data Assumptions

Changes in Assumptions

## A. Actuarial Assumptions (Continued)

$10 \%$ per year for all members prior to retirement eligibility.
Based on 2010-2014 experience. Rates shown below:

| Age | Service $<22$ |  | Service $\geq 22$ |
| :---: | :---: | :---: | :---: |
| -61 | $0 \%$ |  | $70 \%$ |
| 62 | $20 \%$ |  | $70 \%$ |
| 63 | $20 \%$ |  | $70 \%$ |
| 64 | $20 \%$ |  | $70 \%$ |
| $65+$ | $100 \%$ |  | $100 \%$ |

Decrements are assumed to occur at the beginning of the year.
$90 \%$ of participants are assumed either to be married or to have a dependent beneficiary. Males are assumed to be three (3) years older than their spouses.

Spouse gender is assumed to be the opposite gender of the member. Additionally, payroll for new hires is annualized.

Retirees and disabled members that are not married and do not have a retirement option listed are assumed to be receiving 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.

An assumption study was performed in April of 2015 resulting in an update to the following assumptions:

The inflation assumption changed from 3.0\% per year to $2.25 \%$ per year.
The mortality assumption changed from the 2013 IRS Static Mortality projected five (5) years with Scale AA to the RP-2014 (with MP-2014 improvement removed) White Collar mortality tables, with future mortality improvement projected generationally using future mortality improvement inherent in the Social Security Administration's 2014 Trustee report.

The retirement assumption changed from an age and points-based table to an age and service-based table, reflecting higher rates of retirement after 22 years of service.

## SECTION V - 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 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 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.

For funding, 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. However, when the plan is at or above $100 \%$ funded (based on Actuarial Value of Assets), the past amortization bases are considered fully amortized and a single amortization base equal to the surplus is amortized over a 30-year period with level payments each year. 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.

For accounting, gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants (actives and inactives). Gains and losses occurring from investment experience different than assumed are amortized into expense over a 5-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.

Member census data as of June 30, 2014 was used in the valuation and adjusted, where appropriate, to reflect changes between June 30, 2014 and June 30, 2015. Standard actuarial roll forward techniques were then used to project the liabilities computed as of June 30, 2014 to the June 30, 2015 measurement date.

## 2. Asset Valuation Method

The Actuarial Value of Assets smoothes the recognition of gains and losses on the Market Value of Assets over four years, subject to a $20 \%$ corridor.

## SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

## B. Actuarial Methods (Continued)

3. State Appropriations

Based on the assumptions and methods previously described, an actuarially determined contribution amount is computed. The Board considers this information when requesting funds from the State.
4. Anticipated Payroll

The Anticipated Payroll of $\$ 21,990,791$ for the fiscal year beginning July 1, 2015 is equal to the actual payroll during the year ending June 30, 2015 increased with one year of salary scale, but does not include amounts for members who have reached the age at which retirement is assumed to occur immediately.
5. Changes in Actuarial Methods

There were no method changes for the June 30, 2015 valuation.

## SUMMARY OF PLAN PROVISIONS

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Summary of Plan Provisions

## SECTION VI - SUMMARY OF PLAN PROVISIONS

## Summary of Plan Provisions

The benefit provisions for PARF are set forth in IC 33-39-7. A summary of those defined pension benefit provisions is presented below:

Participation All individuals serving as a prosecuting attorney or chief deputy prosecuting attorney in Indiana on or after January 1, 1990.

Eligibility for Defined Pension Benefits

| a. | Normal Retirement | Earliest of: <br> - Age 65 with 8 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 62 with 8 or more years of creditable service |
| c. | Late Retirement | Subject to continued employment after normal retirement |
| d. | Disability Retirement | Qualify for Social Security disability benefits or federal Civil Service disability benefits |
| e. | Termination | 8 or more years of creditable service and no longer active (i.e. vested inactive) |
| f. | Pre-Retirement Death | 8 or more years of creditable service entitled to a future benefit |

## 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 ${ }^{1}$ in accordance with the following table:

| Years of Service | Percentage |
| :---: | :---: |
| less than 8 | $0 \%$ |
| 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 | $60 \%$ |

The percentages shown above are prorated for partial years of creditable service.
The benefit is reduced by the pension, if any, payable from PERF.
${ }^{1}$ Earnings is the highest annual salary attributable to service as a prosecuting attorney or chief deputy at the time of separation from service. Amounts paid to a participant by a county or counties are not included.

## Summary of Plan Provisions (Continued)

Amount of Benefits (continued)
b. Early Retirement
c. Late Retirement
d. Disability 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 $0.25 \%$ for each month that the benefit commencement date precedes the normal retirement date. The benefit is reduced by the pension, if any, payable from PERF.

The late retirement benefit is calculated in the same manner as the normal retirement benefit. The benefit is reduced by the pension, if any, payable from PERF.

The disability retirement benefit is payable for the duration of the disability commencing the month following disability date without 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:

| Years of Service | Percentage |
| :---: | :---: |
| Less than 12 | $50 \%$ |
| 13 | $51 \%$ |
| 14 | $52 \%$ |
| 15 | $53 \%$ |
| 16 | $54 \%$ |
| 17 | $55 \%$ |
| 18 | $56 \%$ |
| 19 | $57 \%$ |
| 20 | $58 \%$ |
| 21 | $59 \%$ |
| 22 or more | $60 \%$ |

The percentages shown above are prorated for partial years of creditable service.
The benefit is reduced by the pension, if any, payable from PERF.

## Summary of Plan Provisions (Continued)

Amount of Benefits (continued)
e. Termination
f. Death

Member Contributions

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. The benefit is reduced by the pension, if any, payable from PERF.

The spouse or dependent beneficiary is entitled to receive $50 \%$ of the monthly life annuity the participant was receiving or was entitled to receive (or $\$ 12,000$ annually, if greater) under the assumption that the participant retired on the later of age 62 or the day before the date of death. The benefit is reduced by the pension, if any, payable from PERF.

Each member is required to contribute to the Fund at the rate of $6 \%$ of pay until completion of 22 year of service. These contributions are kept on deposit and credited with interest until such time as they are refunded or used to provide the annuity benefit at retirement.

Forms of Payment
a. Single Life Member will receive a monthly benefit for life, but there are no monthly payments to anyone after death. Annuity
b. Joint with One-Half Survivor Benefits

Withdrawal From Fund

Changes in Provisions
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.

If member's employment is terminated prior to eligibility for a retirement annuity, the member may withdraw their contributions from the Fund.

No changes since the prior valuation.

## Definitions of Technical Terms

Definitions of Technical Terms

## SECTION VII - DEFINITIONS OF TECHNICAL TERMS

## Definitions of Technical Terms

Actuarial Accrued Liability (AAL)

Actuarial Assumptions

Actuarial Cost Method

Actuarial Gain/(Loss)

Actuarial Present Value

Actuarial Valuation

Actuarial Valuation Date

Actuarially Determined
Contribution

Actuarially Equivalent

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, the portion of the PVFB attributable to past service.

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.

A mathematical procedure for allocating the Present Value of Future Benefits to service periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.

The difference between actual Unfunded Actuarial Accrued Liability and anticipated Unfunded Actuarial Accruec Liability resulting from differences between actual and expected plan experience between two valuation dates.

The single amount that is equal to a payment or series of payments in the future. It is determined by discounting future payments using predetermined Actuarial Assumptions for interest and by probabilities of payment.

The determination, as of an Actuarial Valuation Date, of the Present Value of Future Benefits, Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values.

The date as of which an Actuarial Valuation is performed.

The precise actuarial contribution rate (expressed as a percentage of covered payroll) or amount determined in accordance with a Funding Policy, which generally reflects the Normal Cost and amortization of any Unfunded Actuarial Accrued Liability.

Having the same Actuarial Present Value, based on a set of Actuarial Assumptions.

## SECTION VII - DEFINITIONS OF TECHNICAL TERMS

## Definitions of Technical Terms (Continued)

Amortization

Creditable Service

Funding Policy

Level Dollar Amortization

Level Percent Amortization

Normal Cost (NC)

Plan Assets

Plan Members

The payment of a present value financial obligation on an installment basis over a future period.
Service credited under the system that was rendered before the date of the actuarial valuation.

A set of principles, often including a prescribed Actuarial Cost Method, Actuarial Assumptions, and/or Unfunded Actuarial Accrued Liability Amortization Method, that guide the calculation of the Actuarially Determined Contribution and management decisions regarding funding.

Amortization where the installments are equal dollar amounts during each period.

Amortization where the installments are an equal percent of employee payroll during each period.

That portion of the Present Value of Future Benefits which is allocated to the year following the Actuarial Valuation Date by the Actuarial Cost Method. The normal cost is specific to the cost method used.

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.

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.

## SECTION VII - DEFINITIONS OF TECHNICAL TERMS

## Definitions of Technical Terms (Continued)

Present Value of Future Benefits (PVFB)

Unfunded Actuarial Accrued Liability (UAAL)

Unfunded Actuarial Accrued Liability Amortization Method

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.

The difference between the Actuarial Accrued Liability and Plan Assets as of a particular date. Plan assets may be market value or a smoothed value.

A predetermined process by which any Unfunded Actuarial Accrued Liability will be amortized for calculating the Actuarially Determined Contribution.


[^0]:    The valuation results beginning as of June 30, 2014 were calculated using census data as of the prior year end, adjusted for certain activity during the current fiscal year
    ${ }^{2}$ Figures shown are the anticipated pay for the one-year period following the valuation date.
    ${ }^{3}$ As of June 30, 2014, inactive non-vested members entitled to a refund of their member contribution had balances totaling \$2,885,768.

[^1]:    ${ }^{1}$ In determining the unfunded actuarial accrued liability and funded percentage, the assets are allocated first to member contribution balances, then to the

[^2]:    ${ }^{1}$ Based on individual fund experience. Net of expenses and assumes cash flows occur at mid-year.

[^3]:    ${ }^{1}$ Only members with less than 22 years of service contribute to the plan. Anticipated payroll for active members with less than 22 years of service as of June 30,2014 is $\$ 21,771,839$.
    ${ }^{2}$ Since the fiscal year to which contributions apply begins one year after the valuation date, the Actuarially Determined Contribution Amount is estimated by assuming payroll will increase $4.0 \%$ per year and then applying the Actuarially Determined Contribution Rate computed at the valuation date
    ${ }^{3}$ PARF is a State appropriated fund. Employer contribution amounts are expected to be paid by the state of Indiana.

[^4]:    ${ }^{1}$ The effort and cost to re-create financial statement information for 10 years was not practical. Information was prepared prospectively from June 30,2013 for GASB \#68 purposes.

[^5]:    ${ }^{1}$ The valuation results as of June 30, 2015 were calculated using June 30, 2014 census data, adjusted for certain activity during fiscal year 2015.

[^6]:    ${ }^{1}$ The effort and cost to re-create financial statement information for 10 years was not practical. Information was prepared prospectively from June 30 , 2012 for GASB \#67 puposes and prospectively from June 30, 2013 for GASB \#68 purposes.
    ${ }^{2}$ Pensionable pay as provided by INPRS. Gross member compensation, which may include components of compensation that are not included in pensionable pay, was not made available to PwC.

[^7]:    ${ }^{1}$ The effort and cost to re-create financial statement information for 10 years was not practical. Information was prepared prospectively from June 30, 2012 for GASB \#67 puposes and prospectively from June 30, 2013 for GASB \#68 purposes.

[^8]:    ${ }^{1}$ The valuation results as of June 30, 2015 were calculated using June 30, 2014 census data, adjusted for certain activity during fiscal year 2015

[^9]:    ${ }^{1}$ The valuation results as of June 30, 2015 were calculated using June 30, 2014 census data, adjusted for certain activity during fiscal year 2015 .

[^10]:    ${ }^{1}$ The valuation results as of June 30, 2015 were calculated using June 30, 2014 census data, adjusted for certain activity during fiscal year 2015.
    ${ }^{2}$ For some members average salary at retirement was not available. The average salary for each group excludes these members.

