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# *Indiana Public Retirement System*

Legislators' Retirement System Defined Benefit Plan

Actuarial Valuation as of  
June 30, 2016



November 22, 2016

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, 2016**

Dear Board of Trustees:

Actuarial valuations are performed annually as required under statute for the Indiana Public Retirement System ("INPRS") defined benefit pension plans. The results of the June 30, 2016 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"). These plans (the "Plans") include:

- Public Employees' Retirement Fund
- 1977 Police Officers' and Firefighters' Pension and Disability Fund
- Judges' Retirement System
- State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers' Retirement Plan
- Prosecuting Attorneys' Retirement Fund
- Legislators' Retirement System Defined Benefit Plan

The reports are intended to provide the Board of Trustees ("Board") and INPRS staff with information on the funded status of the Plans, development of the contribution rates, and certain financial statement disclosure information. The reports are intended for their sole use and benefit, and are not intended for reliance by other persons.

For accounting purposes, the actuarial assumptions and methods used in the June 30, 2016 valuations were selected and approved by the Board, and are in accordance with our understanding of GASB No.67.

For funding purposes, employer contribution rates and amounts, as applicable, are adopted annually for each Plan by the Board, per Indiana statutes. The contributions are actuarially determined based on the funding policy, actuarial assumptions, and actuarial methods selected and approved 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, 2016 actuarial valuation and adopted by the Board will become effective on either July 1, 2017 or January 1, 2018. 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") of plans that are open to new entrants will be amortized over a period not greater than 20 years for any UAAL arising during the year ending June 30, 2016, and 30 years for any UAAL that arose prior to the year ending June 30, 2016. For plans that are closed to new entrants, the UAAL will be amortized over a period not greater than 5 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 and/or adverse experience it should increase over time, until it reaches 100% if contributions equal or exceed the actuarially determined amount. The combined funded ratio for all Plans (excluding the Teachers' Retirement Fund) increased by 0.3% from the preceding year to 84.6%, primarily due to contributions exceeding the actuarially determined amounts, offset by investment returns less than the 6.75% assumed, and other adverse member demographic experience.



### **Benefit Provisions**

The benefit provisions reflected in the valuation reports are those which were in effect at June 30, 2016, as set forth in Indiana statutes. There were no material changes in benefit provisions since the 2015 valuations.

### **Assets and Member Data**

The valuations were based on asset values of the trust funds as of June 30, 2016 and member census data as of June 30, 2015, adjusted for certain activity during fiscal year 2016. 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 actuarial assumptions used in the June 30, 2016 valuations were the same assumptions used in the 2015 valuations. The assumptions were adopted by the Board pursuant to an experience study completed in April 2015, which reflected the experience period from July 1, 2010 through June 30, 2014, as well as data from earlier studies. The June 30, 2016 valuations incorporate member census data as of June 30, 2015, adjusted for certain activity during fiscal year 2016. Standard actuarial techniques were used to roll forward valuation results from June 30, 2015 to June 30, 2016.

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 purposes stated therein.

### **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, 2016, 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

Subject to reliance on the data provided, all estimates are based on information available as of a point in time and are subject to ongoing unforeseen and random events. As such, any reported results must be viewed as having a likely range of variability from the estimate, both up and down. Differences between our estimates and actual results depend on the extent to which future experience conforms to the assumptions made for this analysis. It is certain that actual experience will not conform exactly to the assumptions used in this analysis. Although estimated amounts have not been rounded, no inference should be made regarding the precision of such results.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.



To the best of our knowledge our actuarial reports are complete and accurate and have 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.

Respectfully submitted,

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Enrolled Actuary (No. 14-08239)

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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## SECTION I - EXECUTIVE SUMMARY

### **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 2018 (July 1, 2017 through June 30, 2018), and certain financial statement disclosure information. The valuation was performed using census data for plan members as of June 30, 2015, adjusted for certain activity during fiscal year 2016, as provided by INPRS and summarized in Section IV, asset information as of June 30, 2016, provided by INPRS, the actuarial assumptions and methods approved by the Board and summarized in Section V, and the plan provisions effective June 30, 2016 summarized in Section VI.

#### **Contributions**

The LEDB Fund is a State appropriated fund. All employer contributions are made by the State of Indiana. The estimated actuarially determined contribution for fiscal 2018 is \$236,527, compared to \$169,734 for fiscal 2017. 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. Based on the results of the June 30, 2016 valuation, the Board has requested appropriations from the State of \$237 thousand for fiscal 2018 and \$269 thousand for fiscal 2019 for the 2018-2019 two-year budget cycle. Since appropriations are budgeted on a two-year cycle but actuarial valuations are completed annually, the actual appropriations from the State during the second year of the budget cycle generally differ from the actuarially determined contribution for that year.

#### **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 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 five (5) years, the LEDB Fund AAL funded ratio increased from 77.1% at June 30, 2015 to 80.7% at June 30, 2016. The increase is due to contributions exceeding the actuarially determined contribution and liability experience gains, offset by investment returns less than the 6.75% assumed.

#### **Investment Experience**

For the fiscal year ending June 30, 2016, the INPRS actual time-weighted return net of fees was 0.8%. 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 (1.1%) on market value and 3.9% on actuarial value. The return on actuarial value is different due to the smoothing of returns greater or less than expected returns over five years.

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

Cost-of-living increases for retired members have historically been granted on an "ad hoc" basis. INPRS has confirmed that no increase in monthly benefits will be provided to retired members, disabled members, or beneficiaries as of January 1, 2017.

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## SECTION I - EXECUTIVE SUMMARY

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

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

There were no assumption changes for the June 30, 2016 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**

The INPRS Board approved the following changes in methods, effective June 30, 2016:

For funding purposes and when the plan is below 100% funded (based on Actuarial Value of Assets), gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes will be amortized over a 5-year period with level payments each year, rather than a 30-year period. All amortization basis established prior to June 30, 2016 were wiped out. A new gain or loss base will continue to be established each year. If the plan is at or above 100% funded (based on Actuarial Value of Assets), the methodology of treating past amortization bases as fully amortized and amortizing the entire surplus over an open 30-year period is unchanged. This change increased the annual amortization payment toward the Unfunded Actuarial Accrued Liability reflected in development of the Actuarially Determined Contribution by \$90,456 at June 30, 2016.

For funding purposes, the smoothing period for investment gains and losses in the development of the Actuarial Value of Assets was increased from four years to five years at June 30, 2016. This change was implemented retroactively in that the Actuarial Value of Assets at June 30, 2016 was computed as if the five-year amortization period for recognizing investment gains and losses had always been in effect. This change increased the Actuarial Value of Assets, and therefore decreased the Unfunded Actuarial Accrued Liability of the plan by \$29,427 (\$2,166 on the Actuarially Determined Contribution) at June 30, 2016.

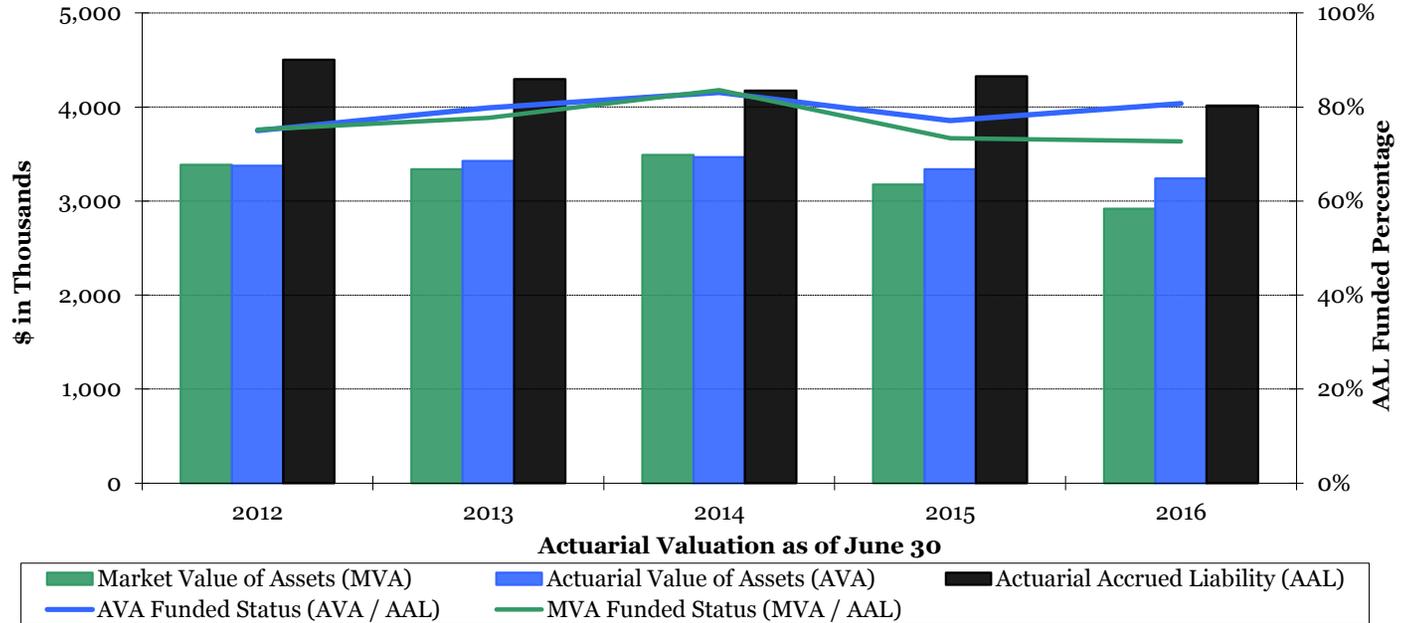
#### **Governmental Accounting Standards**

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") in order to assist INPRS with its financial report requirements and to assist INPRS in preparing financial reporting information for participating employers.

SECTION I - EXECUTIVE SUMMARY

HISTORICAL SUMMARY

**LEDB Fund – 5 Year History of Funded Status**

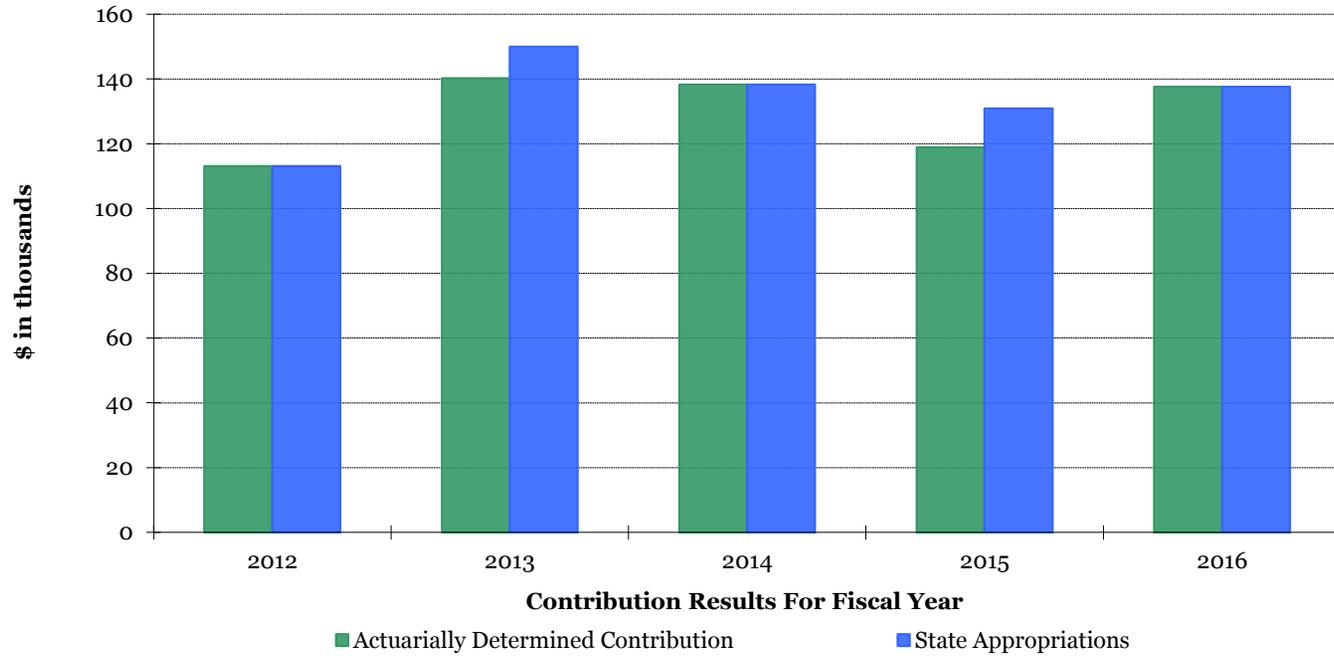


<b>Actuarial Valuation as of June 30:</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Actuarial Accrued Liability (AAL)	\$4,502.9	\$4,294.9	\$4,173.0	\$4,327.8	\$4,016.2
Actuarial Value of Assets (AVA)	3,376.6	3,427.6	3,467.4	3,336.4	3,241.2
Market Value of Assets (MVA)	3,385.8	3,337.1	3,489.0	3,175.3	2,919.1
Unfunded Liability (AAL - AVA)	1,126.4	867.3	705.6	991.4	775.0
AVA Funded Status (AVA / AAL)	75.0%	79.8%	83.1%	77.1%	80.7%
MVA Funded Status (MVA / AAL)	75.2%	77.7%	83.6%	73.4%	72.7%

**SECTION I - EXECUTIVE SUMMARY**

**HISTORICAL SUMMARY (CONTINUED)**

**LEDB Fund – 5 Year History of Contributions**



<b><u>Contribution Results For Fiscal Year:</u></b>	<b><u>2012</u></b>	<b><u>2013</u></b>	<b><u>2014</u></b>	<b><u>2015</u></b>	<b><u>2016</u></b>
Actuarially Determined Contribution	\$113.1	\$140.2	\$138.3	\$118.9	\$137.6
State Appropriations	\$113.1	\$150.0	\$138.3	\$130.9	\$137.6
ADC % Contributed	100.0%	107.0%	100.0%	110.1%	100.0%

SECTION I - EXECUTIVE SUMMARY

**HISTORICAL SUMMARY (CONTINUED)**

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

<b><u>Valuation Date</u></b>	<b><u>June 30, 2012</u></b>	<b><u>June 30, 2013</u></b>	<b><u>June 30, 2014</u></b>	<b><u>June 30, 2015</u></b>	<b><u>June 30, 2016</u></b>
Development of Actuarially Determined Contribution Amount:					
1. Normal Cost (Beginning of Year)	\$ -	\$ -	\$ -	\$ -	\$ -
2. Unfunded Actuarial Accrued Liability Amortizations					
a. UAAL Balance	\$ 1,126,354	\$ 867,333	\$ 705,617	\$ 991,370	\$ 775,040
b. Annual Amortization	101,366	84,671	75,111	98,539	175,889
3. Provision for Expenses <sup>2</sup>	\$ 36,884	\$ 34,256	\$ 62,488	\$ 71,195	\$ 60,638
4. Actuarially Determined Contribution: (1) + (2)(b) + (3)	<b>\$ 138,250</b>	<b>\$ 118,927</b>	<b>\$ 137,599</b>	<b>\$ 169,734</b>	<b>\$ 236,527</b>
<b><u>Fiscal Year</u></b>	<b><u>2014</u></b>	<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>2017</u></b>	<b><u>2018</u></b>
State Appropriations <sup>3</sup>	<b>\$ 138,300</b>	<b>\$ 130,900</b>	<b>\$ 138,000</b>	<b>\$ 134,800</b>	<b>\$ 237,000</b>

<sup>1</sup> The contribution amounts shown were developed on a funding basis only and do not reflect accounting requirements.

<sup>2</sup> Set equal to the administrative expenses actually incurred in the prior year.

<sup>3</sup> LEDB is a State appropriated fund. Employer contribution amounts are expected to be paid by the State of Indiana.

SECTION I - EXECUTIVE SUMMARY

**HISTORICAL SUMMARY (CONTINUED)**

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

	<u>June 30, 2012</u>	<u>June 30, 2013</u>	<u>June 30, 2014</u>	<u>June 30, 2015</u>	<u>June 30, 2016</u>
Census Information					
Active					
Number	6	24	24	17	11
Average Age	65.2	70.0	70.0	71.6	71.8
Average Years of Service <sup>2</sup>	5.6	7.2	7.2	7.6	7.5
Inactive					
Number	38	9	9	14	12
Average Age	68.5	67.6	67.6	66.7	67.9
Average Years of Service <sup>2</sup>	7.2	7.2	7.2	7.0	7.3
Retiree/Beneficiary/Disabled					
Number	63	68	68	68	74
Average Age	75.6	75.1	75.1	76.2	75.9
Annual Benefits Payable <sup>3</sup>	\$ 348,798	\$ 364,625	\$ 364,625	\$ 365,629	\$ 364,024

<sup>1</sup> 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.

<sup>2</sup> Average based on the service before November 8, 1989.

<sup>3</sup> Figures shown reflect cost-of-living increases effective January 1 following the date of the census data, if provided.

SECTION I - EXECUTIVE SUMMARY

**HISTORICAL SUMMARY (CONTINUED)**

**Summary of Valuation Results (Continued)**

	<u>June 30, 2012</u>	<u>June 30, 2013</u>	<u>June 30, 2014</u>	<u>June 30, 2015</u>	<u>June 30, 2016</u>
<b>Actuarial Accrued Liability (AAL)</b>					
Retiree/Beneficiary/Disabled	\$ 3,031,394	\$ 3,191,742	\$ 3,076,342	\$ 3,212,555	\$ 3,207,537
Active and Inactive	<u>1,471,531</u>	<u>1,103,156</u>	<u>1,096,665</u>	<u>1,115,193</u>	<u>808,649</u>
Total	\$ 4,502,925	\$ 4,294,898	\$ 4,173,007	\$ 4,327,748	\$ 4,016,186
<b>Actuarial Value of Assets (AVA)</b>					
Retiree/Beneficiary/Disabled	\$ 3,031,394	\$ 3,191,742	\$ 3,076,342	\$ 3,212,555	\$ 3,207,537
Active and Inactive	<u>345,177</u>	<u>235,823</u>	<u>391,048</u>	<u>123,823</u>	<u>33,609</u>
Total	\$ 3,376,571	\$ 3,427,565	\$ 3,467,390	\$ 3,336,378	\$ 3,241,146
<b>Market Value of Assets (MVA)</b>					
Retiree/Beneficiary/Disabled	\$ 3,031,394	\$ 3,191,742	\$ 3,076,342	\$ 3,175,268	\$ 2,919,061
Active and Inactive	<u>354,411</u>	<u>145,352</u>	<u>412,658</u>	<u>-</u>	<u>-</u>
Total	\$ 3,385,805	\$ 3,337,094	\$ 3,489,000	\$ 3,175,268	\$ 2,919,061
<b>Unfunded Actuarial Accrued Liability: AAL - AVA <sup>1</sup></b>					
Retiree/Beneficiary/Disabled	\$ -	\$ -	\$ -	\$ -	\$ -
Active and Inactive	<u>1,126,354</u>	<u>867,333</u>	<u>705,617</u>	<u>991,370</u>	<u>775,040</u>
Total	\$ 1,126,354	\$ 867,333	\$ 705,617	\$ 991,370	\$ 775,040
<b>Funded Percentage: AVA / AAL <sup>1</sup></b>					
Retiree/Beneficiary/Disabled	100.0%	100.0%	100.0%	100.0%	100.0%
Active and Inactive	<u>23.5%</u>	<u>21.4%</u>	<u>35.7%</u>	<u>11.1%</u>	<u>4.2%</u>
Total	75.0%	79.8%	83.1%	77.1%	80.7%
<b>Summary of Assumptions</b>					
Valuation Interest Rate	6.75%	6.75%	6.75%	6.75%	6.75%
Salary Scale	3.0%	3.0%	3.0%	2.25%	2.25%
Cost-of-Living Assumption	1.0%	1.0%	1.0%	1.0%	1.0%

<sup>1</sup> For purposes of this summary, in determining the unfunded actuarial accrued liability and funded percentage, the assets are allocated first to the retiree/beneficiary/disabled liability and then to the active/inactive liability.

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## SECTION II - FUNDING

### **FUNDING**

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SECTION II - FUNDING

**A. Development of Funded Status**

	<u>June 30, 2015</u>	<u>June 30, 2016</u>
1. Actuarial Accrued Liability		
a. Retirees, Beneficiaries, and Disableds	\$ 3,212,555	\$ 3,207,537
b. Actives and Inactives	<u>1,115,193</u>	<u>808,649</u>
c. Total: (1)(a) + (1)(b)	\$ 4,327,748	\$ 4,016,186
2. Actuarial Value of Assets <sup>1</sup>		
a. Retirees, Beneficiaries, and Disableds	\$ 3,212,555	\$ 3,207,537
b. Actives and Inactives	<u>123,823</u>	<u>33,609</u>
c. Total: (2)(a) + (2)(b)	\$ 3,336,378	\$ 3,241,146
3. Unfunded Actuarial Accrued Liability <sup>1</sup>		
a. Retirees, Beneficiaries, and Disableds: (1)(a) - (2)(a)	\$ -	\$ -
b. Actives and Inactives: (1)(b) - (2)(b)	<u>991,370</u>	<u>775,040</u>
c. Total: (1)(c) - (2)(c)	\$ 991,370	\$ 775,040
4. Funded Percentage <sup>1</sup>		
a. Retirees, Beneficiaries, and Disableds: (2)(a) / (1)(a)	100.0%	100.0%
b. Actives and Inactives: (2)(b) / (1)(b)	<u>11.1%</u>	<u>4.2%</u>
c. Total: (2)(c) / (1)(c)	77.1%	80.7%

<sup>1</sup> For purposes of this summary, in determining the unfunded actuarial accrued liability and funded percentage, the assets are allocated first to the retiree/beneficiary/disabled liability and then to the active/inactive liability.

SECTION II - FUNDING

**B. Unfunded Actuarial Accrued Liability Reconciliation**

1. June 30, 2015 Unfunded Actuarial Accrued Liability	\$	991,370
2. Normal Cost		-
3. Actuarially Determined Contributions <sup>1</sup>		98,538
4. Interest of 6.75% on (1) + (2) - (3)		60,266
5. Expected June 30, 2016 Unfunded Actuarial Accrued Liability (1) + (2) - (3) + (4)	<u>\$</u>	<u>953,098</u>
6. Actuarial Value of Assets Experience (Gain)/Loss		
a. Investment Experience	\$	91,395
b. Contribution and Payroll Experience		(7,628)
c. Changes in Actuarial Methods <sup>2</sup>		(29,427)
7. Actuarial Accrued Liability Experience (Gain)/Loss		
a. Actuarial Accrued Liability Experience		(196,312)
b. Additional Liability Due to Cost-of-Living Adjustments <sup>3</sup>		(36,086)
c. Additional Liability Due to Changes in Actuarial Assumptions		-
d. Additional Liability Due to Changes in Plan Provisions		<u>-</u>
8. Total Experience (Gain)/Loss (6)(a) + (6)(b) + (6)(c) + (7)(a) + (7)(b) + (7)(c) + (7)(d)	\$	(178,058)
9. Actual June 30, 2016 Unfunded Actuarial Accrued Liability (5) + (8)	\$	775,040

<sup>1</sup> Does not include the provision for expenses included in the prior year actuarially determined contribution calculation.

<sup>2</sup> The INPRS Board approved a change in the method used to compute the Actuarial Value of Assets beginning June 30, 2016 to retroactively increase the smoothing period for investment gains and losses from four years to five years.

<sup>3</sup> A Cost-of-Living Adjustment (COLA) will not be granted as of January 1, 2017, compared to the assumed COLA of 1.0%.

SECTION II - FUNDING

**C. Actuarial Accrued Liability Reconciliation**

1. June 30, 2015 Actuarial Accrued Liability	\$	4,327,748	
2. Normal Cost		-	
3. Actual Benefit Payments <sup>1</sup>		359,165	
4. Service Purchases (Employer and Member)		-	
5. Interest of 6.75% on (1) + (2) - (3)/2 + (4)/2		<u>280,001</u>	
6. Expected June 30, 2016 Actuarial Accrued Liability (1) + (2) - (3) + (4) + (5)	\$	4,248,584	
		<u>Dollar Change</u>	<u>Percent Change</u>
7. (Gain)/Loss Components		<u>in Liability</u>	<u>in Liability</u>
a. Census	\$	(196,312)	(4.6%)
b. Cost-of-Living Adjustment <sup>2</sup>	\$	(36,086)	(0.9%)
c. Assumption Changes	\$	-	0.0%
d. Plan Changes	\$	-	0.0%
e. Total: (7)(a) + (7)(b) + (7)(c) + (7)(d)	\$	<u>(232,398)</u>	<u>(5.5%)</u>
8. Actual June 30, 2016 Actuarial Accrued Liability: (6) + (7)(e)	\$	<b>4,016,186</b>	

<sup>1</sup> Includes net interfund transfers.

<sup>2</sup> A Cost-of-Living Adjustment (COLA) will not be granted as of January 1, 2017, compared to the assumed COLA of 1.0%.

SECTION II - FUNDING

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

	<b>June 30, 2015</b>	<b>June 30, 2016</b>
1. Market Value of Assets, Prior June 30	\$ 3,489,000	\$ 3,175,268
2. Receipts		
a. Employer Contributions	\$ 130,900	\$ 137,600
b. Member Contributions	-	-
c. Investment Income and Dividends Net of Fees	(4,338)	25,578
d. Security Lending Income Net of Fees	470	418
e. Member Reassignments	-	-
f. Miscellaneous Income	-	-
g. Total Receipts: (2)(a) + (2)(b) + (2)(c) + (2)(d) + (2)(e) + (2)(f)	\$ 127,032	\$ 163,596
3. Disbursements		
a. Benefits Paid During the Year	\$ 369,569	\$ 359,165
b. Refund of Contributions and Interest	-	-
c. Administrative Expenses	71,195	60,638
d. Member Reassignments	-	-
e. Miscellaneous Disbursements	-	-
f. Total Disbursements: (3)(a) + (3)(b) + (3)(c) + (3)(d) + (3)(e)	\$ 440,764	\$ 419,803
4. Market Value of Assets, Current June 30: (1) + (2)(g) - (3)(f)	<b>\$ 3,175,268</b>	<b>\$ 2,919,061</b>
5. Market Value of Assets Approximate Annual Rate of Return <sup>1</sup>	(2.2%)	(1.1%)

<sup>1</sup> Based on individual fund experience. Net of expenses and assuming cash flows occur at mid-year.

SECTION II - FUNDING

**E. Reconciliation of Actuarial Value of Assets <sup>1</sup>**

1.	Market Value of Assets, June 30, 2015	\$	3,175,268
2.	Market Value of Assets, June 30, 2016		2,919,061
3.	Expected Earnings/Expenses		
a.	Expected Investment Earnings at 6.75% on June 30, 2015 Market Value		214,331
b.	Receipts with Expected Investment Earnings at 6.75% <sup>2</sup>		142,244
c.	Disbursements with Expected Investment Earnings at 6.75% <sup>2</sup>		371,287
4.	Expected Assets, June 30, 2016: (1) + (3)(a) + (3)(b) - (3)(c)	\$	3,160,556
5.	2015-2016 Gain/(Loss): (2) - (4)		(241,495)
6.	Smoothing of Gain/(Loss)		
	<u>Year</u>	<u>Gain/(Loss)</u>	<u>% Unrecognized</u>
a.	2015 - 2016	\$ (241,495)	80%
b.	2014 - 2015	\$ (302,516)	60%
c.	2013 - 2014	\$ 158,885	40%
d.	2012 - 2013	\$ (54,664)	20%
7.	Preliminary Actuarial Value of Assets, June 30, 2016: (2) - (6)(a) - (6)(b) - (6)(c) - (6)(d)	\$	3,241,146
8.	Corridor		
a.	120% of Market Value: 1.2 x (2)		3,502,873
b.	80% of Market Value: 0.8 x (2)		2,335,249
9.	Actuarial Value of Assets, June 30, 2016: (7), but not greater than (8)(a) or less than (8)(b)	\$	<b>3,241,146</b>
10.	Actuarial Value of Assets as a Percent of Market Value: (9) / (2)		111.0%
11.	Actuarial Value of Assets Approximate Annual Rate of Investment Return <sup>3</sup>		3.9%

<sup>1</sup> The INPRS Board approved a change in the method used to compute the Actuarial Value of Assets beginning June 30, 2016 to retroactively increase the smoothing period for investment gains and losses from four years to five years.

<sup>2</sup> Assumes cash flows occur at mid-year.

<sup>3</sup> Net of expenses, assumes cash flows occur at mid-year, and is net of the impact of changing from four-year to a five-year smoothing.

SECTION II - FUNDING

**F. Contributions**

	<b>June 30, 2015</b>	<b>June 30, 2016</b>
<b>Development of Actuarially Determined Contribution:</b>		
1. Normal Cost (Beginning of Year)	\$ -	\$ -
2. Unfunded Actuarial Accrued Liability (UAAL) Amortizations		
a. UAAL Balance	\$ 991,370	\$ 775,040
b. Annual Amortization	98,539	175,889
3. Provision for Expenses <sup>1</sup>	\$ 71,195	\$ 60,638
4. Actuarially Determined Contribution: (1) + (2)(b) + (3) <sup>2</sup>	\$ 169,734	\$ 236,527
Fiscal Year Beginning:	July 1, 2016	July 1, 2017
<b>Approved Funding Amount: <sup>2</sup></b>	<b>\$ 134,800</b>	<b>\$ 237,000</b>
<b>Expected Percentage of Actuarially Determined Contribution Contributed:</b>	79.42%	100.20%

<sup>1</sup> Set equal to the administrative expenses actually incurred in the prior year.

<sup>2</sup> LEDB is a State appropriated fund. Employer contributions amounts are expected to be paid by the State of Indiana.

SECTION II - FUNDING

**G. Unfunded Actuarial Accrued Liability Amortization Schedule**

	<u>Date Base Established</u>	<u>Reason</u>	<u>Remaining Unfunded</u>	<u>Remaining Period</u>	<u>Amortization Amount</u>
1.	6/30/2016	Fresh Start <sup>1, 2</sup>	<u>775,040</u>	<u>5.0</u>	<u>175,889</u>
	Total		\$ 775,040	5.0 <sup>3</sup>	\$ 175,889

<sup>1</sup> The INPRS Board approved a change in the method used to amortize the Unfunded Actuarial Accrued Liability beginning with a fresh start at June 30, 2016 to decrease the amortization period for annual gains and losses from 30 years to 5 years.

<sup>2</sup> Includes the impact of changing from four-year to a five-year smoothing on the Actuarial Value of Assets.

<sup>3</sup> 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.

SECTION II - FUNDING

**H. Approximate Annual Rate of Return for Year Ending June 30, 2016**<sup>1</sup>

	<u>Market Value of Assets</u>	<u>Actuarial Value of Assets</u>
1. Balance, beginning of year	\$ 3,175,268	\$ 3,336,378
2. Balance, end of year	2,919,061	3,241,146
3. Total increase: (2) - (1)	(256,207)	(95,232)
4. Contributions	137,600	137,600
5. Benefit payments <sup>2</sup>	359,165	359,165
6. Net additions: (4) - (5)	(221,565)	(221,565)
7. Net investment increase: (3) - (6)	(34,642)	126,333
8. Average assets: [(1) + (2) - (7)] / 2	3,064,486	3,225,596
9. Approximate rate of return: (7) / (8)	(1.1%)	3.9% <sup>3</sup>

**I. Historical Investment Experience**

<u>Year Ending June 30</u>	<u>Actual Rate of Investment Return</u>		<u>Actuarial Assumed Interest Rate</u>
	<u>Market Basis</u> <sup>4</sup>	<u>Actuarial Basis</u> <sup>1</sup>	
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%
2014	13.7%	8.0%	6.75%
2015	0.0%	3.2%	6.75%
2016	1.2%	3.9% <sup>3</sup>	6.75%

<sup>1</sup> Based on individual fund experience. Net of expenses and assuming cash flows occur at mid-year.

<sup>2</sup> Includes net interfund transfers.

<sup>3</sup> Net of the impact of changing from four-year to a five-year smoothing.

<sup>4</sup> INPRS actual time-weighted rate of return net of fees for 2012-2016. PERF Consolidated Defined Benefit time-weighted rate of return reported as gross of fees for 2007-2011.

SECTION II - FUNDING

**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 Amount (for the fiscal year beginning July 1, 2017) are shown below and on the following page at interest rates from 5.75% to 8.00%, in 0.25% increments.

	1.00% Decrease: (5.75%)	0.75% Decrease: (6.0%)	0.50% Decrease: (6.25%)	0.25% Decrease: (6.5%)	Current Assumption: (6.75%)
<b><u>Funded Status</u></b>					
Actuarial Accrued Liability	\$ 4,318,795	\$ 4,239,183	\$ 4,162,291	\$ 4,087,999	\$ 4,016,186
Actuarial Value of Assets	<u>3,241,146</u>	<u>3,241,146</u>	<u>3,241,146</u>	<u>3,241,146</u>	<u>3,241,146</u>
Unfunded Actuarial Accrued Liability	\$ 1,077,649	\$ 998,037	\$ 921,145	\$ 846,853	\$ 775,040
Funded Ratio	75.0%	76.5%	77.9%	79.3%	80.7%
<b><u>Actuarially Determined Contribution Amount</u></b>					
Normal Cost	-	-	-	-	-
UAAL Amortization	\$ 240,277	\$ 223,519	\$ 207,215	\$ 191,345	\$ 175,889
Provision for Expenses <sup>1</sup>	<u>60,638</u>	<u>60,638</u>	<u>60,638</u>	<u>60,638</u>	<u>60,638</u>
Actuarially Determined Contribution Amount	\$ 300,915	\$ 284,157	\$ 267,853	\$ 251,983	\$ 236,527

<sup>1</sup> Set equal to the administrative expenses incurred in the prior year.

SECTION II - FUNDING

**J. Interest Rate Sensitivity (Continued)**

	0.25% Increase: (7.0%)	0.50% Increase: (7.25%)	0.75% Increase: (7.5%)	1.00% Increase: (7.75%)	1.25% Increase: (8.0%)
<b><u>Funded Status</u></b>					
Actuarial Accrued Liability	\$ 3,946,746	\$ 3,879,568	\$ 3,814,557	\$ 3,751,615	\$ 3,690,656
Actuarial Value of Assets	<u>3,241,146</u>	<u>3,241,146</u>	<u>3,241,146</u>	<u>3,241,146</u>	<u>3,241,146</u>
Unfunded Actuarial Accrued Liability	\$ 705,600	\$ 638,422	\$ 573,411	\$ 510,469	\$ 449,510
Funded Ratio	82.1%	83.5%	85.0%	86.4%	87.8%
<b><u>Actuarially Determined Contribution Amount</u></b>					
Normal Cost	-	-	-	-	-
UAAL Amortization	\$ 160,831	\$ 146,153	\$ 131,839	\$ 117,874	\$ 104,243
Provision for Expenses <sup>1</sup>	<u>60,638</u>	<u>60,638</u>	<u>60,638</u>	<u>60,638</u>	<u>60,638</u>
Actuarially Determined Contribution Amount	\$ 221,469	\$ 206,791	\$ 192,477	\$ 178,512	\$ 164,881

<sup>1</sup> Set equal to the administrative expenses incurred in the prior year.

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## SECTION III - ACCOUNTING

### **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, 2016**

1. Assets		
a. Cash	\$	263
b. Receivables		
i. Contributions Receivable	\$	-
ii. Miscellaneous Receivables		-
iii. Investments Receivable		45,474
iv. Foreign Exchange Contract Receivable		699,057
v. Interest and Dividends		7,222
vi. Due From Other Funds		-
vii. Total Receivables	\$	751,753
c. Total Investments		
i. Short-Term Investments	\$	-
ii. Pooled Repurchase Agreements		759
iii. Pooled Short-Term Investments		195,153
iv. Pooled Fixed Income		936,768
v. Pooled Equity		658,382
vi. Pooled Alternative Investments		1,192,931
vii. Pooled Derivatives		(131)
viii. Securities Lending Collateral		44,770
ix. Total Investments	\$	3,028,632
d. Net Capital Assets		-
e. Prepaid Expenses		-
f. Total Assets: (1)(a) + (1)(b)(vii) + (1)(c)(ix) + (1)(d) + (1)(e)	\$	3,780,648
2. Liabilities		
a. Accounts Payable	\$	2,870
b. Retirement Benefits Payable		-
c. Salaries and Benefits Payable		-
d. Investments Payable		84,730
e. Foreign Exchange Contracts Payable		696,545
f. Securities Lending Obligations		44,770
g. Securities Sold Under Agreement to Repurchase		31,655
h. Due To Other Funds		1,017
i. Due to Other Governments		-
j. Total Liabilities: (2)(a) + (2)(b) + (2)(c) + (2)(d) + (2)(e) + (2)(f) + (2)(g) + (2)(h) + (2)(i)	\$	861,587
3. Fiduciary Net Position Restricted for Pensions: (1)(f) - (2)(j)	\$	<b>2,919,061</b>

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, 2016**

1. Fiduciary Net Position as of June 30, 2015	\$	3,175,268
2. Additions		
a. Contributions		
i. Member Contributions	\$	-
ii. Employer Contributions		137,600
iii. Service Purchases (Employer and Member)		-
iv. Non-Employer Contributing Entity Contributions		-
v. Total Contributions	\$	137,600
b. Investment Income/(Loss)		
i. Net Appreciation/(Depreciation) <sup>1, 2</sup>	\$	3,834
ii. Net Interest and Dividend Income		42,030
iii. Securities Lending Income		513
iv. Other Net Investment Income		385
v. Investment Management Expenses		(19,209)
vi. Direct Investment Expenses		(1,462)
vii. Securities Lending Expenses		(95)
viii. Total Investment Income/(Loss)	\$	25,996
c. Other Additions		
i. Member Reassignments	\$	-
ii. Miscellaneous Receipts		-
iii. Total Other Additions	\$	-
d. Total Revenue (Additions): (2)(a)(v) + (2)(b)(viii) + (2)(c)(iii)	\$	163,596
3. Deductions		
a. Pension and Disability Benefits	\$	359,165
b. Death, Survivor, and Funeral Benefits		-
c. Distributions of Contributions and Interest		-
d. Member Reassignments		-
e. Administrative Expenses		60,638
f. Total Expenses (Deductions): (3)(a) + (3)(b) + (3)(c) + (3)(d) + (3)(e)	\$	419,803
4. Net Increase (Decrease) in Fiduciary Net Position: (2)(d) - (3)(f)	\$	(256,207)
5. Fiduciary Net Position as of June 30, 2015: (1) + (4)	\$	<b>2,919,061</b>

<sup>1</sup> The calculation of realized gains and losses is independent of the calculation of the net change in the fair value of pension plan investments.

<sup>2</sup> 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, 2016**

1. Total Pension Liability		
a. Total Pension Liability - Beginning of Year	\$	4,325,905
b. Service Cost <sup>1</sup>		1,528
c. Interest Cost <sup>2</sup>		279,980
d. Experience (Gains)/Losses		(233,475)
e. Assumption Changes		-
f. Plan Amendments		-
g. Benefit Payments		(359,165)
h. Member Reassignments <sup>3</sup>		-
i. Service Purchases (Employer and Member)		-
j. Total Pension Liability - End of Year	\$	4,014,773
2. Plan Fiduciary Net Position		
a. Plan Fiduciary Net Position - Beginning of Year	\$	3,175,268
b. Employer Contributions		137,600
c. Member Contributions		-
d. Non-Employer Contributing Entity Contributions		-
e. Investment Return		
i. Expected Investment Return <sup>4</sup>	\$	206,853
ii. Investment Gain/(Loss)		(180,857)
iii. Net Investment Return		25,996
f. Benefit Payments		(359,165)
g. Member Reassignments <sup>3</sup>		-
h. Administrative Expenses		(60,638)
i. Plan Fiduciary Net Position - End of Year	\$	2,919,061
3. Net Pension Liability		
a. Net Pension Liability: (1)(j) - (2)(i)	\$	1,095,712
b. Plan Fiduciary Net Position as a Percentage of the Total Pension Liability : (2)(i) / (1)(j)		72.7%

<sup>1</sup> As of the beginning of the year.

<sup>2</sup> Includes interest of 6.75% on the beginning-of-year service cost.

<sup>3</sup> Includes net interfund transfers.

<sup>4</sup> 6.75%, 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, 2016 <sup>1</sup>**

Fiscal Year Established	Reason	Remaining Balance At Beginning of Year	Remaining Period <sup>2</sup>	Annual Recognition	Remaining Balance At End of Year
1. Liability Experience					
a. Inflows					
2016	Experience Gain	\$ 233,475	1.00	\$ 233,475	\$ -
b. Outflows					
None					
2. Assumption Changes					
a. Inflows					
None					
b. Outflows					
None					
3. Investment Experience <sup>3</sup>					
a. Inflows					
2014	Investment Gain	\$ 118,307	3.00	\$ 39,436	\$ 78,871
b. Outflows					
2015	Investment Loss	\$ (203,072)	4.00	\$ (50,768)	\$ (152,304)
2016	Investment Loss	\$ (180,857)	5.00	\$ (36,172)	\$ (144,685)
4. Total Collective Deferred Inflows / Outflows: (1) + (2) + (3)					
a. Inflows					
	Total	\$ 351,782		\$ 272,911	\$ 78,871
b. Outflows					
	Total	\$ (383,929)		\$ (86,940)	\$ (296,989)

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> Net of investment expenses.

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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, 2016 (Continued)**

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

Year Ending June 30:

2016	\$	185,971
2017	\$	(47,504)
2018	\$	(47,505)
2019	\$	(86,940)
2020	\$	(36,169)
2021	\$	-
Thereafter	\$	-

SECTION III - ACCOUNTING

**EMPLOYER FINANCIAL STATEMENTS UNDER GASB #68**

**E. Pension Expense under GASB #68 for the Year Ended June 30, 2016**

1. Service Cost		
a. Total Service Cost <sup>1</sup>	\$	1,528
b. Member Contributions		-
c. Administrative Expenses		<u>60,638</u>
d. Net Employer Service Cost: (1)(a) + (1)(b) + (1)(c)		62,166
2. Interest Cost <sup>2</sup>		279,980
3. Expected Return on Assets <sup>3</sup>		(206,853)
4. Plan Amendments		-
5. Recognition of Deferred (Inflows) / Outflows of Resources Related to:		
a. Liability Experience (Gains) / Losses		(233,475)
b. Assumption Change (Gains) / Losses		-
c. Investment (Gains) / Losses		<u>47,504</u>
d. Total: (5)(a) + (5)(b) + (5)(c)		(185,971)
6. Preliminary Pension Expense: (1)(d) + (2) + (3) + (4) + (5)(d)	\$	(50,678)
7. Employer Service Purchases		-
8. Total Pension Expense: (6) + (7)	\$	<b>(50,678)</b>

<sup>1</sup> As of the beginning of the year.

<sup>2</sup> Includes interest of 6.75% on the beginning-of-year service cost.

<sup>3</sup> 6.75% net of investment expenses and assuming cash flows occur at mid-year.

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**

1. The LEDB Fund 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                      June 30, 2016
  - Valuation Date  
Assets:                                      June 30, 2016  
Liabilities:                                June 30, 2015 - Member census data as of June 30, 2015 was used in the valuation and adjusted, where appropriate, to reflect changes between June 30, 2015 and June 30, 2016. Standard actuarial roll forward techniques were then used to project the total pension liability computed as of June 30, 2015 to the June 30, 2016 measurement date.
  - Inflation                                      2.25%
  - Future Salary Increases                2.25%
  - Cost-of-Living Increases                1.0% compounded annually, beginning January 1, 2018. A COLA was granted neither at January 1, 2017 nor January 1, 2016, which is reflected in the valuation.
  - Mortality Assumption                    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.
  - Experience Study                         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.
  - Discount Rate                              The discount rate used to measure the total pension liability as of June 30, 2016, is 6.75% and is equal to the long-term expected return on plan investments, net of administrative expenses. The INPRS Board of Trustees has established a funding policy of requesting appropriations from the State in an amount equal to the actuarially determined contribution amount computed by the actuary using the assumptions and methods selected by the Board for the annual actuarial valuations. The assumptions and methods selected by the Board for the June 30, 2016 actuarial valuation include a 6.75% expected return on assets assumption, a 5-year level dollar closed method for amortizing the unfunded actuarial accrued liability, a 5-year smoothing method for recognizing investment gains and losses in the actuarial value of assets, and a provision for funding back any administrative expenses paid out of plan assets during the prior year.

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)**

- Discount Rate  
(Continued)                      Therefore, if the Board continues to follow its current funding policy and the State complies in its contributions to the plan, which has been the case for the past several years, the appropriations will be sufficient to fully fund the plan within 5 years. We note that appropriations are requested on a 2-year budget cycle, such that the amount requested for the second year of each cycle may end up being more or less than the actuarially determined amount for that year, depending on whether the plan experiences gains or loss in the first year of the budget cycle. However, any excess or shortfall in contributions received during the second year of the cycle gets factored into the actuarially determined contribution calculation for the following 2-year cycle, ensuring that the plan is fully funded within the period required by the Board's funding policy. As a result, a detailed projection of plan assets and cash flows was not prepared to prove that plan assets will be sufficient to pay all future benefit payments for current members.

	1% Decrease (5.75%)	Current Rate (6.75%)	1% Increase (7.75%)
- Discount Rate Sensitivity Net Pension Liability	\$ 1,397,797	\$ 1,095,712	\$ 831,515

3. Classes of Plan Members Covered: <sup>1</sup>	
- Retired Members, Beneficiaries and Disabled Members Receiving Benefits:	74
- Terminated Vested Plan Members Entitled to but Not Yet Receiving Benefits:	12
- Terminated Non-Vested Plan Members Entitled to a Distribution of Contributions:	-
- Active Plan Members:	11
- Total Membership:	97

- 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, 2016, the money-weighted return on the plan assets is 0.8%.

5. The components of the Net Pension Liability for the LEDB Fund plan as of June 30, 2016, are as follows:	
- Total Pension Liability	\$ 4,014,773
- Plan Fiduciary Net Position	2,919,061
- Net Pension Liability	\$ 1,095,712
- Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	72.7%

<sup>1</sup> The valuation results as of June 30, 2016 were calculated using June 30, 2015 census data, adjusted for certain activity during fiscal year 2016.

SECTION III - ACCOUNTING

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

**G. Schedule of Changes in the Total Pension Liability and Plan Fiduciary Net Position under GASB #67 and #68 <sup>1</sup>**

Year Ending June 30:	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
1. Total Pension Liability				
a. Total Pension Liability - Beginning of Year	\$ 4,496,986	\$ 4,285,380	\$ 4,166,349	\$ 4,325,905
b. Service Cost <sup>2</sup>	2,519	3,260	3,341	1,528
c. Interest Cost <sup>3</sup>	291,387	277,234	268,981	279,980
d. Experience (Gains)/Losses	(140,190)	(36,574)	(67,951)	(233,475)
e. Assumption Changes	-	-	324,754	-
f. Plan Amendments	-	-	-	-
g. Benefit Payments	(365,322)	(362,951)	(369,569)	(359,165)
h. Member Reassignments <sup>4</sup>	-	-	-	-
i. Service Purchases (Employer and Member)	-	-	-	-
j. Total Pension Liability - End of Year	<u>\$ 4,285,380</u>	<u>\$ 4,166,349</u>	<u>\$ 4,325,905</u>	<u>\$ 4,014,773</u>
2. Plan Fiduciary Net Position				
a. Plan Fiduciary Net Position - Beginning of Year	\$ 3,385,805	\$ 3,337,094	\$ 3,489,000	\$ 3,175,268
b. Employer Contributions	150,000	138,300	130,900	137,600
c. Member Contributions	-	-	-	-
d. Non-Employer Contributing Entity Contributions	-	-	-	-
e. Net Investment Return	200,867	439,045	(3,868)	25,996
f. Benefit Payments	(365,322)	(362,951)	(369,569)	(359,165)
g. Member Reassignments <sup>4</sup>	-	-	-	-
h. Administrative Expenses	(34,256)	(62,488)	(71,195)	(60,638)
i. Plan Fiduciary Net Position - End of Year	<u>\$ 3,337,094</u>	<u>\$ 3,489,000</u>	<u>\$ 3,175,268</u>	<u>\$ 2,919,061</u>

<sup>1</sup> 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 purposes and prospectively from June 30, 2013 for GASB #68 purposes.

<sup>2</sup> As of the beginning of the year.

<sup>3</sup> Includes interest of 6.75% on the beginning-of-year service cost.

<sup>4</sup> 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** <sup>1</sup>

1.  Year Ending	2.  Total Pension Liability	3.  Plan Fiduciary Net Position	4.  Net Pension Liability  (2) - (3)	5.  Fiduciary Net Pension as a Percentage of Total Pension Liability  (3) / (2)	6.  Actual Covered Employee Payroll	7.  Net Pension Liability as a Percentage of Covered Payroll  (4) / (6)
6/30/2013	\$ 4,285,380	\$ 3,337,094	\$ 948,286	77.9%	N/A	N/A
6/30/2014	\$ 4,166,349	\$ 3,489,000	\$ 677,349	83.7%	N/A	N/A
6/30/2015	\$ 4,325,905	\$ 3,175,268	\$ 1,150,637	73.4%	N/A	N/A
6/30/2016	\$ 4,014,773	\$ 2,919,061	\$ 1,095,712	72.7%	N/A	N/A

<sup>1</sup> 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 purposes and prospectively from June 30, 2013 for GASB #68 purposes.

SECTION III - ACCOUNTING

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

**I. Schedule of Contributions under GASB #67 and #68**<sup>1</sup>

1.  Year Ending	2.  Actuarially Determined Contribution <sup>2</sup>	3.  Actual Employer Contributions <sup>3</sup>	4.  Contribution Excess / (Deficiency) (Deficiency) (3) - (2)	5.  Actual Covered Employee Payroll	6.  Contributions as a Percentage of Covered Payroll (3) / (5)
6/30/2013	\$ 140,202	\$ 150,000	\$ 9,798	N/A	N/A
6/30/2014	\$ 138,250	\$ 138,300	\$ 50	N/A	N/A
6/30/2015	\$ 118,927	\$ 130,900	\$ 11,973	N/A	N/A
6/30/2016	\$ 137,599	\$ 137,600	1	N/A	N/A

<sup>1</sup> 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 purposes and prospectively from June 30, 2013 for GASB #68 purposes.

<sup>2</sup> The actuarially determined contribution amounts are developed in the actuarial valuation completed one year prior to the beginning of the fiscal year.

<sup>3</sup> Excludes employer service purchases.

SECTION III - ACCOUNTING

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

**J. Schedule of Money-Weighted Returns under GASB #67 and #68**<sup>1</sup>

1. Year Ending	2. Money-Weighted Rate of Return
6/30/2013	6.2%
6/30/2014	13.7%
6/30/2015	(0.1%)
6/30/2016	0.8%

<sup>1</sup> 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 purposes and prospectively from June 30, 2013 for GASB #68 purposes.

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SECTION IV - CENSUS DATA

**CENSUS DATA**

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SECTION IV - CENSUS DATA

**A. Reconciliation of Participant Data**<sup>1</sup>

	<u>Actives</u>	<u>Inactive Vested</u>	<u>Disabled</u>	<u>Retired</u>	<u>Beneficiary</u>	<u>Total</u>
Total as of June 30, 2014	17	14	-	56	12	99
Data Adjustments for Activity During Fiscal Year 2015	-	-	-	-	-	-
Adjusted Total as of June 30, 2014	17	14	-	56	12	99
New Entrants	-	-	-	-	-	-
Rehires	-	-	-	-	-	-
Non-Vested Terminations	-	-	-	-	-	-
Vested Terminations	-	-	-	-	-	-
Retirements	(4)	(2)	-	6	-	-
Disablements	-	-	-	-	-	-
Death with Beneficiary	(2)	-	-	(2)	4	-
Death without Beneficiary	-	-	-	(1)	(1)	(2)
Refunds	-	-	-	-	-	-
Data Adjustments	-	-	-	-	-	-
Total as of June 30, 2015	11	12	-	59	15	97
Data Adjustments for Activity During Fiscal Year 2016	-	-	-	-	-	-
Adjusted Total as of June 30, 2015	11	12	-	59	15	97

<sup>1</sup> The valuation results as of June 30, 2016 were calculated using June 30, 2015 census data, adjusted for certain activity during fiscal year 2016.

SECTION IV - CENSUS DATA

**B. Census Information as of June 30, 2015**<sup>1</sup>

	<u>Male</u>	<u>Female</u>	<u>Total</u>
1. Active			
a. Number	7	4	11
b. Average Age	69.6	75.8	71.8
c. Average Years of Service <sup>2</sup>	7.5	7.4	7.5
2. Inactive			
a. Number	11	1	12
b. Average Age	66.4	85.0	67.9
c. Average Years of Service <sup>2</sup>	7.1	9.0	7.3
3. Retiree/Beneficiary/Disabled			
a. Number	54	20	74
b. Average Age	75.5	77.2	75.9
c. Annual Benefits Payable <sup>3</sup>	\$ 299,056	\$ 64,968	\$ 364,024

<sup>1</sup> The valuation results as of June 30, 2016 were calculated using June 30, 2015 census data, adjusted for certain activity during fiscal year 2016.

<sup>2</sup> Creditable service as of November 8, 1989.

<sup>3</sup> Figures shown reflect cost-of-living increases effective January 1 following the date of the census data, if provided.

SECTION IV - CENSUS DATA

**C. Schedule of Active Member Valuation Data**<sup>1,2</sup>

<u>1.</u> Valuation Date	<u>2.</u> Active Members
6/30/2007	43
6/30/2008	34
6/30/2009	33
6/30/2010	20
6/30/2011	7
6/30/2012	6
6/30/2013	24
6/30/2014	24
6/30/2015	17
6/30/2016	11

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

<sup>2</sup> 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.

SECTION IV - CENSUS DATA

**D. Schedule of Retirees, Beneficiaries, and Disabled Members** <sup>1,2</sup>

1.	2. Added		3. Removed		4. End of Year <sup>3</sup>		5.	6.	7.	8.	9.
Valuation Date	Number	Annual Allowances (\$ in Thousands) <sup>4</sup>	Number	Annual Allowances (\$ in Thousands) <sup>4</sup>	Number	Annual Allowances (\$ in Thousands) <sup>4</sup>	Number	Annual Allowances (\$ in Thousands) <sup>4</sup>	% Increase in Annual Allowances <sup>4</sup>	Average Annual Allowances <sup>4</sup>	
6/30/2007	6	\$ 31	-	\$ -	45	\$ 283			9.1%	\$ 6,298	
6/30/2008	1	-	2	10	44	274			(3.4%)	6,223	
6/30/2009	17	88	2	2	59	371			35.3%	6,281	
6/30/2010	5	9	3	27	61	347			(6.5%)	5,685	
6/30/2011	4	22	-	-	65	356			2.6%	5,477	
6/30/2012	2	13	4	20	63	349			(2.0%)	5,536	
6/30/2013	9	41	4	26	68	364			4.3%	5,362	
6/30/2014	-	-	-	-	68	364			0.0%	5,362	
6/30/2015	1	2	1	1	68	366			0.5%	5,377	
6/30/2016	8	23	2	14	74	364			(0.5%)	4,919	

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

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> Annual allowances reflect cost-of-living increases effective January 1 following the date of the census data, if provided.

SECTION IV - CENSUS DATA

**E. Distribution of Active Members by Age and Service**<sup>1,2</sup>

<b>Attained</b>	Distribution of Active Members by Age and Service as of June 30, 2015								
<b>Age</b>	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									
30-34									
35-39									
40-44									
45-49									
50-54									
55-59	1								1
60-64	1								1
65-69	2								2
70&Above	5	1	1						7
Total	9	1	1						11

<sup>1</sup> The valuation results as of June 30, 2016 were calculated using June 30, 2015 census data, adjusted for certain activity during fiscal year 2016.

<sup>2</sup> Creditable service as of November 8, 1989.

SECTION IV - CENSUS DATA

**F. Distribution of Inactive Vested Members by Age and Service** <sup>1,2</sup>

<b>Attained</b>	Distribution of Inactive Vested Members by Age and Service as of June 30, 2015						
<b>Age</b>	Under 10 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							
55-59	3	1					4
60-64	1						1
65-69		1	1				2
70&Above	4		1				5
Total	8	2	2				12

<sup>1</sup> The valuation results as of June 30, 2016 were calculated using June 30, 2015 census data, adjusted for certain activity during fiscal year 2016.

<sup>2</sup> Creditable service as of November 8, 1989.

SECTION IV - CENSUS DATA

**G. Distribution of Retired Members, Beneficiaries, and Disabled Members by Age and Number of Years Retired <sup>1</sup>**

Attained Age	Distribution of Retired Members, Beneficiaries, and Disabled Members by Age and Number of Years Retired as of June 30, 2015					
	Under 10 Years	10 to 14 years	15 to 19 years	20 to 24 years	25 to 29 years	Total
<40						
40-44						
45-49						
50-54						
55-59						
60-64	5					5
65-69	7	2				9
70-74	12	4	1			17
75-79	7	6	2	4		19
80-84	7	1	6	1		15
85-89		3	2	3		8
90&Above				1		1
Total	38	16	11	9		74

<sup>1</sup> The valuation results as of June 30, 2016 were calculated using June 30, 2015 census data, adjusted for certain activity during fiscal year 2016.

SECTION IV - CENSUS DATA

**H. Schedule of Benefit Recipients by Type of Benefit Option <sup>1</sup>**

Number of Benefit Recipients by Benefit Option as of June 30, 2015

Amount of Monthly Benefit	Retiree 50%		Survivors	Disability	Total
	Retiree Single Life Annuity	Joint and Survivor Annuity			
\$ 1 - 500	2	32	13	-	47
501 - 1,000	2	22	2	-	26
1,001 - 1,500	-	1	-	-	1
1,501 - 2,000	-	-	-	-	-
2,001 - 3,000	-	-	-	-	-
over 3,000	-	-	-	-	-
<b>Total</b>	<b>4</b>	<b>55</b>	<b>15</b>	<b>-</b>	<b>74</b>

**I. Schedule of Average Benefit Payments as of June 30, 2015 <sup>1,2</sup>**

	Years of Credited Service							Total
	0-10	10-14	15-19	20-24	25-29	30+		
Average Monthly Defined Benefit	\$ 250	\$ 451	\$ 667	\$ 1,008	\$ 577	\$ 784	\$ 410	
Average Final Average Salary	\$ 25,932	\$ 22,383	\$ 24,244	\$ -	\$ -	\$ -	\$ 24,785	
Number of Benefit Recipients	39	16	15	2	1	1	74	

<sup>1</sup> The valuation results as of June 30, 2016 were calculated using June 30, 2015 census data, adjusted for certain activity during fiscal year 2016. Distributions are based on monthly benefit amounts at July 1, 2015. No cost-of-living increases were provided on January 1, 2016 or January 1, 2017.

<sup>2</sup> For some members average salary at retirement was not available. The average salary for each group excluded these members.

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SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

**ACTUARIAL ASSUMPTIONS AND METHODS**

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C. Actuarial Methods	42

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: 6.75% (net of administrative and investment expenses)  
Accounting: 6.75% (net of investment expenses)

Future Salary Increases 2.25% per year

Inflation 2.25% per year

Cost of Living Increases 1.0% per year in retirement beginning January 1, 2018. No cost-of-living increases were provided on January 1, 2016 or January 1, 2017 which is reflected in the liability valuation at June 30, 2016.

Mortality (Healthy and Disabled) 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.

Disability 75% of 1964 OASDI Tables. Illustrative rates shown below:

<u>Age</u>	<u>Rate</u>
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%

SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

**A. Actuarial Assumptions (Continued)**

Termination

Sarason T-2 Tables. Illustrative rates shown below:

<u>Age</u>	<u>Rate</u>
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

Based on historical experience of plan members. Rates shown below:

<u>Age</u>	<u>Rate</u>
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.

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SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

**A. Actuarial Assumptions (Continued)**

Data Assumptions	Spouse gender is assumed to be the opposite gender of the member.
Changes in Assumptions	There were no assumption changes for the June 30, 2016 valuation.

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SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

**B. Assumptions Rationale**

Investment Return

The investment return assumption is based on analysis completed by the INPRS investment advisor and an independent, high-level analysis completed by PwC using a "building block" approach that considered the target asset allocation from the Board's investment policy and capital market forecasts from various investment professionals.

Other Assumptions

The Board of Trustees adopts actuarial assumptions, each of which individually represents a reasonable long-term estimate of anticipated experience under the System, derived from experience studies conducted at least every five years. The most recent comprehensive experience study was completed in April 2015. The economic and demographic assumptions listed previously in the report were reviewed and updated, where appropriate, based on the historical experience observed during the study and expectations for the future.

## SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

### C. 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 five 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

**Funding:** 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. Since the benefits for all members of the Legislator's Defined Benefit Plan are fixed and no longer increasing with future service credit or future salary increases, applying the Traditional Unit Credit cost method results in the Actuarial Accrued Liability being equal to the Present Value of Future Benefits (i.e. all benefits are treated as though they are attributable to past service) and the Normal Cost being equal to \$0. This is consistent with the actual status of member benefit accruals.

Gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 5-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 5-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.

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

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

Gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants (active and inactive). 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, 2015 was used in the valuation and adjusted, where appropriate, to reflect changes between June 30, 2015 and June 30, 2016. Standard actuarial roll forward techniques were then used to project the liabilities computed as of June 30, 2015 to the June 30, 2016 measurement date.

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## SECTION V - ACTUARIAL ASSUMPTIONS AND METHODS

### **C. Actuarial Methods (Continued)**

2. Asset Valuation Method

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

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. Changes in Actuarial Methods

The INPRS Board approved the following changes in methods, effective June 30, 2016:

For funding purposes and when the plan is below 100% funded (based on Actuarial Value of Assets), gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes will be amortized over a 5-year period with level payments each year, rather than a 30-year period. All amortization basis established prior to June 30, 2016 were wiped out. A new gain or loss base will continue to be established each year. If the plan is at or above 100% funded (based on Actuarial Value of Assets), the methodology of treating past amortization bases as fully amortized and amortizing the entire surplus over an open 30-year period is unchanged. This change increased the annual amortization payment toward the Unfunded Actuarial Accrued Liability reflected in development of the Actuarially Determined Contribution by \$90,456 at June 30, 2016.

For funding purposes, the smoothing period for investment gains and losses in the development of the Actuarial Value of Assets was increased from four years to five years at June 30, 2016. This change was implemented retroactively in that the Actuarial Value of Assets at June 30, 2016 was computed as if the five-year amortization period for recognizing investment gains and losses had always been in effect. This change increased the Actuarial Value of Assets, and therefore decreased the Unfunded Actuarial Accrued Liability, of the plan by \$29,427 (\$2,166 on the Actuarially Determined Contribution) at June 30, 2016.

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SECTION VI - SUMMARY OF PLAN PROVISIONS

**SUMMARY OF PLAN PROVISIONS**

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Summary of Plan Provisions

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## SECTION VI - SUMMARY OF PLAN PROVISIONS

### **Summary of Plan Provisions**

The benefit provisions for LEDB are set forth in IC 2-3.5-4. Below is a summary of the plan provisions that are pertinent to the valuation herein and may exclude certain provision that are not deemed relevant to our calculations. This summary is based on our understanding of the plan provisions set forth in the applicable statutes of the State of Indiana. If there is a discrepancy between the summary below and the applicable statutes, the applicable statutes shall govern.

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  
   Age 60 with 15 or more years of creditable service  
   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

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SECTION VI - SUMMARY OF PLAN PROVISIONS

**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<sup>1</sup>.
  
- 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.

<sup>1</sup> 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.



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SECTION VII - DEFINITIONS OF TECHNICAL TERMS

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Definitions of Technical Terms

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## SECTION VII - DEFINITIONS OF TECHNICAL TERMS

### Definitions of Technical Terms

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, 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 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.
Actuarial Gain/(Loss)	The difference between actual Unfunded Actuarial Accrued Liability and anticipated Unfunded Actuarial Accrued Liability resulting from differences between actual and expected plan experience between two valuation dates.
Actuarial Present Value	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.
Actuarial Valuation	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.
Actuarial Valuation Date	The date as of which an Actuarial Valuation is performed.
Actuarially Determined Contribution	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.
Actuarially Equivalent	Having the same Actuarial Present Value, based on a set of Actuarial Assumptions.

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## SECTION VII - DEFINITIONS OF TECHNICAL TERMS

### **Definitions of Technical Terms (Continued)**

Amortization	The payment of a present value financial obligation on an installment basis over a future period.
Creditable Service	Service credited under the system that was rendered before the date of the actuarial valuation.
Funding Policy	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.
Level Dollar Amortization	Amortization where the installments are equal dollar amounts during each period.
Level Percent Amortization	Amortization where the installments are an equal percent of employee payroll during each period.
Normal Cost (NC)	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.
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.
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.

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## SECTION VII - DEFINITIONS OF TECHNICAL TERMS

### **Definitions of Technical Terms (Continued)**

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.

Unfunded Actuarial Accrued  
Liability (UAAL)

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.

Unfunded Actuarial Accrued  
Liability Amortization Method

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