

nyhart

***Indiana State Teachers'
Retirement Fund
1996 Account***

***Annual Actuarial Valuation
June 30, 2015***

**Indiana State Teachers' Retirement Fund
1996 Account**

Annual Actuarial Valuation as of June 30, 2015

Nyhart

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November 1, 2015

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***The Board of Trustees
Indiana Public Retirement System
Indianapolis, IN***

Dear Board Members:

An actuarial valuation is prepared annually for the Indiana State Teachers' Retirement Fund 1996 Account. Submitted in this report are the results of the June 30, 2015 actuarial valuation.

Census Data and Asset Information

The member census data and the asset information for this valuation were furnished by the Chief Financial Officer and Staff. Their efforts and cooperation in furnishing these materials are acknowledged with appreciation. We did not audit the information provided, but we did review it thoroughly for reasonableness and compared it with the prior year's submission for consistency.

Assumptions and Methods

The majority of the actuarial assumptions used in the June 30, 2015 valuation were adopted by the Board pursuant to the Experience Study completed in April 2015, which reflects the experience period from July 1, 2011 to June 30, 2014. The Board also adopted a change to the mortality basis effective with the June 30, 2015 valuation, and confirmed the 6.75% interest rate in use since 2012. Assumptions are summarized in the Assumptions and Methods section of this report. These assumptions and methods have been used to develop the Actuarially Determined Contribution and are consistent with the accounting requirements detailed in GASB Statements No. 67 and No. 68.

Benefit obligations in the June 30, 2015 valuation are determined using June 30, 2014 census data and rolled-forward to the June 30, 2015 measurement date at the valuation interest rate, using actual distributions and ASA account returns during that period. We are not aware of any material events that would require additional adjustments to the benefit obligations for changes to the population not anticipated in the demographic assumptions used in the valuation.

Funding Objective

The funding objective of the Indiana State Teachers' Retirement Fund 1996 Account is to establish and receive contributions that, when invested at the assumed rate of return, will ultimately accumulate assets over each member's working lifetime that will be sufficient to pay expected retirement allowances. As such, an employer contribution rate is calculated each year. That rate is then considered in conjunction with the goal of maintaining a relatively stable contribution over time.

Fund Structure

The Indiana State Teachers' Retirement Fund (TRF) is one fund comprised of a two-account structure in compliance with Indiana Code Section 5-10.4-2-2:

The 1996 Account consists of members who were:

1. hired on or after July 1, 1995; or
2. hired before July 1, 1995, and prior to June 30, 2005:
 - a. were either hired by another school corporation or institution covered by TRF, or
 - b. were re-hired by a covered prior employer.

Characteristics of the 1996 Account

1. As members depart from active service in the Pre-1996 Account, their replacements will become members of the 1996 Account. If the 1996 Account were a stand-alone plan, this pattern of departures and hirings would produce a fairly constant population size.
2. Defined Benefits payable from the 1996 Account are funded by contributions from local school corporations or other institutions that employ covered members. At the time of retirement, ASA benefits payable from the 1996 Account are funded by the annuitization of 1996 Account member contributions.

Funding Arrangements

Defined Benefits payable from the 1996 Account are funded through employer percent-of-pay contributions. The Board of the Indiana Public Retirement System sets this contribution rate after reviewing the most recent actuarial valuation report.

The contribution rate of 7.50% for fiscal year 2016 was set by the Board in fiscal year 2015. The contribution rate of 7.50% for fiscal year 2017 was set by the Board in fiscal year 2016.

Progress Toward Realization of Financing Objectives

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a Plan's funded status. In the absence of benefit improvements, it should increase over time, until it reaches 100%. The funded ratio of the 1996 Account decreased to 92.5% from 96.1% for the preceding year. Based on the actuarial assumptions, it is anticipated that the 1996 Account will attain 100% funded status on 6/30/2026.

Certification

We have included several schedules and exhibits in this report, including the following:

Financial Section

- Note 1 – Tables of Plan Membership
- Note 8 – Net Pension Liability and Actuarial Information – Defined Benefit Plans
- Schedule of Changes in Net Pension Liability and Net Pension Liability
- Schedule of Contributions (Actuarially Determined Contribution)
- Schedule of Notes to Required Supplementary Information

Actuarial Section

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

Statistical Section

- Membership Data Summary
- Ratio of Active Members to Annuitants
- Schedule of Benefit Recipients by Type of Benefit Option
- Schedule of Average Benefit Payments

To the best of our knowledge, this report presents a fair position of the funded status of the plan in accordance with the Actuarial Standards of Practice as described by the American Academy of Actuaries. In addition, information has been prepared in accordance with applicable government standards of financial reporting for defined benefit pension plans.

The actuarial valuation is prepared using information which has been reconciled and reviewed for reasonableness. We are not aware of any material inadequacy in employee census or asset values. The census information and the asset information have been provided to us by the Chief Financial Officer and Staff. We have not audited the information at the source, and therefore do not accept responsibility for the accuracy or the completeness of the data on which the information is based.

In our opinion, the actuarial assumptions and methods are individually reasonable and in combination represent our best estimate of anticipated experience of the plan.

Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report.

The undersigned are compliant with the continuing education requirements of the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States.

Respectfully submitted,



Michael Zurek, EA, MAAA



Matt Sherertz, ASA, EA



Tayt V. Odom, FSA, EA, MAAA

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Comments

Contribution Rates

The Calculated Contribution Rate section shows the calculated rate for the 1996 Account. That rate is determined as if the 1996 Account were a stand-alone plan.

Plan Provisions

There is no ad-hoc COLA on January 1, 2016. Instead, retirees were paid a service-related lump sum (i.e., referred to as 13th check) in September 2015. These changes are reflected in the June 30, 2015 valuation. Any future COLA is estimated by an ongoing assumption of 1.0% annual increases in all pension payments beginning January 1, 2017.

ASA annuitizations are scheduled to be based on a 5.75% conversion rate for the period from October 1, 2014 through September 30, 2015, and at a 4.50% conversion rate for the period from October 1, 2015 through December 31, 2016. After January 1, 2017, annuity conversions will occur outside of the plan. Benefit obligations in the June 30, 2014 valuation have been adjusted for the anticipated gains through December 31, 2016 for conversions at interest rates lower than the valuation interest rate of 6.75%.

We are not aware of any other material changes in the plan provisions since the June 30, 2014 actuarial valuation.

Census Data

Census data for the valuation was provided by INPRS. We have thoroughly examined the data for reasonableness and consistency with prior years, but we did not otherwise audit it.

Assumptions and Methods

The actuarial assumptions used in the June 30, 2015 valuation are based on plan experience from July 1, 2011 to June 30, 2014. The Board adopted a change to the mortality basis effective with the June 30, 2015 valuation and confirmed the 6.75% interest rate assumption in use since 2012.

Benefit obligations in the June 30, 2015 valuation are determined using June 30, 2014 census data and rolled-forward to the June 30, 2015 measurement date at the valuation interest rate, using actual distributions and ASA account returns during that period. We are not aware of any material events that would require additional adjustments to the benefit obligations for changes to the population not anticipated in the demographic assumptions used in the valuation.

Investment Experience

The investment return for the year ended June 30, 2015 was lower than the assumed 6.75% return. The assets of the TRF 1996 Account are commingled with the assets of other funds administered by INPRS. The TRF money-weighted return was 0.57% during fiscal 2015. Under the asset valuation method, market gains and losses are spread over a four-year period. The Market Value of Assets is currently \$82 million lower than the Actuarial Value of Assets, meaning the plan is currently in a position of having net deferred investment losses to be recognized in future years.

Challenges

The 1996 Account has been steadily funded since its inception. As membership in that portion of the plan increases, the amount of required contributions will increase as a dollar amount, but should remain relatively stable as a percentage of covered payroll with plan experience causing gradual changes.

Summary of Key Valuation Results

	June 30, 2015	June 30, 2014	June 30, 2013	June 30, 2012
Member Information				
Number				
Active Members	52,424	51,204	51,204	47,885
Inactive Vested Members	4,132	3,103	3,103	2,985
Inactive Nonvested Members	12,292	11,147	11,147	12,528
Retired Members and Beneficiaries	4,136	3,665	3,665	2,971
Total	72,984	69,119	69,119	66,369
Valuation Payroll	\$ 2,827,310,987	\$ 2,740,661,321	\$ 2,740,939,967	\$ 2,594,952,143
Projected Payroll	\$ 3,078,600,000	\$ 2,987,300,000		
Annual Benefit Payments				
Annuity	\$ 8,189,292	\$ 7,111,980	\$ 7,111,980	\$ 5,885,028
Pension	67,524,240	60,057,396	60,057,396	49,589,640
Total	\$ 75,713,532	\$ 67,169,376	\$ 67,169,376	\$ 55,474,668
Assets and Liabilities				
Accrued Liability				
ASA Account Balance	\$ 1,170,914,523	\$ 1,120,728,729	\$ 991,924,506	\$ 899,338,904
ASA Annuities	108,501,422	86,516,737	78,374,599	65,008,426
Pension: Retirees	788,534,587	672,727,439	703,495,761	581,152,801
Pension: Non-retirees	3,837,740,501	3,357,020,264	2,975,573,809	2,792,808,887
Total	\$ 5,905,691,033	\$ 5,236,993,169	\$ 4,749,368,675	\$ 4,338,309,018
Market Value of Assets				
ASA Account Balance	\$ 1,170,914,523	\$ 1,120,728,729	\$ 991,924,506	\$ 899,338,904
ASA Annuities	108,501,422	86,516,737	78,374,599	65,008,426
Pension: Retirees	788,534,587	672,727,439	703,495,761	581,152,801
Pension: Non-retirees	3,311,162,510	3,309,469,425	2,659,891,307	2,472,648,706
Total	\$ 5,379,113,042	\$ 5,189,442,330	\$ 4,433,686,173	\$ 4,018,148,837
Actuarial Value of Assets				
ASA Account Balance	\$ 1,170,914,523	\$ 1,120,728,729	\$ 991,924,506	\$ 899,338,904
ASA Annuities	108,501,422	86,516,737	78,374,599	65,008,426
Pension: Retirees	788,534,587	672,727,439	703,495,761	581,152,801
Pension: Non-retirees	3,393,221,851	3,155,258,596	2,680,033,218	2,390,954,905
Total	\$ 5,461,172,383	\$ 5,035,231,501	\$ 4,453,828,084	\$ 3,936,455,036
Unfunded Accrued Liability				
ASA Account Balance	\$ 0	\$ 0	\$ 0	\$ 0
ASA Annuities	0	0	0	0
Pension: Retirees	0	0	0	0
Pension: Non-retirees	444,518,650	201,761,668	295,540,591	401,853,982
Total	\$ 444,518,650	\$ 201,761,668	\$ 295,540,591	\$ 401,853,982
Funded Percentage				
ASA Account Balance	100.0%	100.0%	100.0%	100.0%
ASA Annuities	100.0%	100.0%	100.0%	100.0%
Pension: Retirees	100.0%	100.0%	100.0%	100.0%
Pension: Non-retirees	88.4%	94.0%	90.1%	85.6%
Total	92.5%	96.1%	93.8%	90.7%
Pension Normal Cost	\$ 167,836,193	\$ 170,892,424	\$ 155,314,388	\$ 147,336,605
Annual Costs				
	Fiscal 2017	Fiscal 2016	Fiscal 2015	Fiscal 2014
Actuarially Determined Contribution (ADC)	\$ 216,422,370	\$ 201,966,380	\$ 178,260,000	\$ 177,711,000
Calculated Contribution Rate				
Normal Cost	5.45%	5.72%	5.67%	5.68%
Amortization of Unfunded Liability	1.12%	0.54%	0.83%	1.16%
Total	6.57%	6.26%	6.50%	6.84%
Actual Employer Contribution Rate	7.50%	7.50%	7.50%	7.50%

Valuations on and after June 30, 2014 are based on census data collected at the prior measurement date.

Unfunded Accrued Liability

\$Millions				
June 30	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Percentage
1996	\$ 48	\$ 21	\$ 27	43.8%
1997	176	72	104	40.9%
1998	298	136	162	45.6%
1999	498	240	258	48.2%
2000	706	368	338	52.1%
2001	828	447	381	54.0%
2002	1,167	621	546	53.2%
2003	1,392	826	566	59.3%
2004	1,649	1,039	610	63.0%
2005	2,011	1,268	743	63.1%
2006	2,363	2,209	154	93.5%
2007	2,828	2,713	115	95.9%
2008	2,958	3,080	(122)	104.1%
2009	3,136	2,921	215	93.1%
2010	3,615	3,423	192	94.7%
2011	3,997	3,665	332	91.7%
2012	4,338	3,936	402	90.7%
2013	4,750	4,454	296	93.8%
2014	5,237	5,035	202	96.1%
2015	5,906	5,461	445	92.5%

Active Member Data

June 30	Number	Valuation Payroll (\$000s)	Average			
			Age	Service	Pay	Pay Increase %
1996	8,683	\$ 72,506	32.2	1.3	\$ 8,350	
1997	20,686	245,168	33.0	1.8	11,852	41.9%
1998	25,634	395,758	33.6	2.2	15,439	30.3
1999	21,185	538,837	35.3	4.0	25,435	64.7
2000	24,950	631,072	36.4	4.7	25,293	(0.6)
2001	24,846	754,426	36.3	5.5	30,364	20.0
2002	27,873	1,004,515	36.7	6.1	36,039	18.7
2003	29,936	1,136,864	37.0	6.5	37,976	5.4
2004	32,000	1,267,173	37.3	6.9	39,599	4.3
2005	34,826	1,428,604	37.5	7.2	41,021	3.6
2006	36,356	1,565,341	37.7	7.5	43,056	5.0
2007	39,307	1,891,605	38.2	7.8	48,124	11.8
2008	41,628	2,052,719	38.1	8.2	49,311	2.5
2009	45,046	2,308,548	38.3	8.4	51,249	3.9
2010	46,433	2,447,509	38.6	8.8	52,711	2.9
2011	46,633	2,507,193	39.2	9.4	53,764	2.0
2012	47,885	2,594,952	39.4	9.8	54,191	0.8
2013	51,204	2,740,940	39.3	9.8	53,530	(1.2)
2014*	51,204	2,740,940	39.3	9.8	53,530	(1.2)
2015*	52,424	2,827,311	39.4	10.0	53,932	0.8

* Valuations on and after June 30, 2014 are based on census data collected at the prior measurement date.

Reconciliation of Market Value of Assets

	June 30, 2014 thru June 30, 2015	June 30, 2013 thru June 30, 2014
Market Value, beginning of year	\$ 5,189,442,330	\$ 4,433,686,173
Member Contributions	\$ 86,515,294	\$ 81,399,655
Employer Contributions	205,763,142	194,750,861
Non-Employer Contributing Entity Contributions	0	0
Benefit Payments	(127,898,876)	(108,719,624)
Net Transfers	<u>5,889,210</u>	<u>8,258,032</u>
Non-Investment Net Cash Flow	\$ 170,268,770	\$ 175,688,924
Administrative and Project Expenses	\$ (6,185,233)	\$ (6,707,586)
Investment Return	<u>25,587,175</u>	<u>586,774,819</u>
Net Investment Return	\$ 19,401,942	\$ 580,067,233
Market Value, end of year	\$ 5,379,113,042	\$ 5,189,442,330
Market Value of Assets Approximate Time-Weighted Annual Rate of Return ¹	0.4%	12.8%

¹ Consolidated pension and ASA account return, net of investment and administrative expenses, assumes cash flows occur at mid-year.

Development of the Actuarial Value of Assets

	June 30, 2014 thru June 30, 2015	June 30, 2013 thru June 30, 2014
1. Total Actuarial Value, beginning of year	\$10,393,582,888	\$ 9,688,931,998
2. Total ASA Account Balance, beginning of year	<u>\$ 2,836,068,903</u>	<u>\$ 2,804,754,433</u>
3. Total Actuarial Value, Net of ASA Account Balance, beginning of year [(1) – (2)]	\$ 7,557,513,985	\$ 6,884,177,565
4. Total Market Value, Net of ASA Account Balance, beginning of year	\$ 7,855,240,302	\$ 6,844,124,317
5. Total Market Value, Net of ASA Account Balance, end of year	\$ 7,886,652,537	\$ 7,855,240,302
6. Total Non-Investment Net Cash Flow	40,489,264	27,814,880
7. Total Net Investment Return		
a. Expected [.0675 x ((4)+0.5*(6))]	531,595,233	462,917,144
b. Actual [(5) - (4) - (6)]	(9,077,029)	983,301,105
8. Total Current Year Market Value Gain/(Loss) [(7b) - (7a)]	\$ (540,672,262)	\$ 520,383,961
9. Total Deferred Recognition of Investment Gain/(Loss)		
a. Current Fiscal Year (75% of (8))	\$ (405,504,197)	\$ 390,287,971
b. Current Fiscal Year - 1 (50%)	260,191,981	(16,953,030)
c. Current Fiscal Year - 2 (25%)	(8,476,515)	(75,608,624)
d. Total [(a) + (b) + (c)]	\$ (153,788,731)	\$ 297,726,317
10. Total Preliminary Actuarial Value, end of year [(5) - (9d)]	\$ 8,040,441,268	\$ 7,557,513,985
a. 80% of Market Value, end of year [80% of (5)]	6,309,322,030	6,284,192,242
b. 120% of Market Value, end of year [120% of (5)]	9,463,983,044	9,426,288,362
11. Total Actuarial Value, end of year [(10), but not Greater than (10b), nor Less than (10a)]	\$ 8,040,441,268	\$ 7,557,513,985
12. Total Actuarial Value as a % of Market Value [(11) / (5)]	101.9499874%	96.2098382%
13. Total Net Investment Return on Actuarial Value [(11) - (3) - (6)]	\$ 442,438,019	\$ 645,521,540
14. Total Actuarial Value Net Rate of Return [(13) / ((3) + 0.5*(6))]	5.84%	9.36%
15. 1996 Market Value, Net of ASA Account Balance, end of year	\$ 4,208,198,519	\$ 4,068,713,601
16. 1996 Actuarial Value, Net of ASA Account Balance, end of year [(12) x (15)]	\$ 4,290,257,860	\$ 3,914,502,772
17. 1996 ASA Account Balance, end of year	\$ 1,170,914,523	\$ 1,120,728,729
18. 1996 Actuarial Value, end of year [(16) + (17)]	\$ 5,461,172,383	\$ 5,035,231,501

The Actuarial Value of Assets is determined in total for TRF Pre-1996 and 1996 Accounts (lines 1 - 14) and applied on a plan basis (lines 15 – 18.)

Accrued Liability Reconciliation

	June 30, 2014 thru June 30, 2015	June 30, 2013 thru June 30, 2014
Total Accrued Liability, beginning of year	\$ 5,236,993,169	\$ 4,749,368,675
ASA Account Balance, beginning of year	\$ 1,120,728,729	\$ 991,924,506
Accrued Liability, Net of ASA Account Balance, beginning of year	\$ 4,116,264,440	\$ 3,757,444,169
Normal Cost	170,892,424	155,314,388
Actual Benefit Payments	(90,266,941)	(77,253,362)
Transfers	27,488,475	22,496,220
Expected Interest	<u>287,264,315</u>	<u>262,263,149</u>
Expected Accrued Liability, Net of ASA Account Balance, end of year	\$ 4,511,642,713	\$ 4,120,264,564
Sources of Change:		
Experience (Gain) or Loss	(34,483,801)	7,204,077
Mortality Change ¹	303,071,328	0
Other Assumption Changes ²	(39,080,278)	0
Additional Liability due to Cost-of-Living Adjustment ³	(6,373,452)	(6,700,000)
Plan Provision Change ⁴	<u>0</u>	<u>(4,504,201)</u>
Accrued Liability, Net of ASA Account Balance, end of year	\$ 4,734,776,510	\$ 4,116,264,440
ASA Account Balance, end of year	\$ 1,170,914,523	\$ 1,120,728,729
Total Accrued Liability, end of year	\$ 5,905,691,033	\$ 5,236,993,169

¹ The June 30, 2015 mortality assumption was updated to the RP-2014 White Collar mortality table with Social Security Administration improvement scale applied from 2006.

² Assumption changes other than mortality adopted on June 30, 2015 pursuant to the 2015 experience study.

³ 13th check to retirees in lieu of the assumed 2016 and 2015 1.0% COLAs.

⁴ Recognition of cost of future ASA account conversions to annuities from October 1, 2014 through December 31, 2016 at conversion interest rates lower than the valuation interest rate of 6.75%.

Asset and Liability Allocation¹

	June 30, 2015		
	Non-Retired	Retired	Total
Accrued Liability (AL)			
ASA Balance	\$ 1,159,597,089	\$ 11,317,434	\$ 1,170,914,523
ASA Annuities	0	108,501,422	108,501,422
Pension: Retirees	0	788,534,587	788,534,587
Pension: Non-Retirees	3,837,740,501	0	3,837,740,501
Total	\$ 4,997,337,590	\$ 908,353,443	\$ 5,905,691,033
Market Assets			
ASA Balance	\$ 1,159,597,089	\$ 11,317,434	\$ 1,170,914,523
ASA Annuities	0	108,501,422	108,501,422
Pension: Retirees	0	788,534,587	788,534,587
Pension: Non-Retirees	3,311,162,510	0	3,311,162,510
Total	\$ 4,470,759,599	\$ 908,353,443	\$ 5,379,113,042
Actuarial Assets			
ASA Balance	\$ 1,159,597,089	\$ 11,317,434	\$ 1,170,914,523
ASA Annuities	0	108,501,422	108,501,422
Pension: Retirees	0	788,534,587	788,534,587
Pension: Non-Retirees	3,393,221,851	0	3,393,221,851
Total	\$ 4,552,818,940	\$ 908,353,443	\$ 5,461,172,383
Unfunded AL			
ASA Balance	\$ 0	\$ 0	\$ 0
ASA Annuities	0	0	0
Pension: Retirees	0	0	0
Pension: Non-Retirees	444,518,650	0	444,518,650
Total	\$ 444,518,650	\$ 0	\$ 444,518,650

	June 30, 2014		
	Non-Retired	Retired	Total
Accrued Liability (AL)			
ASA Balance	\$ 1,102,685,520	\$ 18,043,209	\$ 1,120,728,729
ASA Annuities	0	86,516,737	86,516,737
Pension: Retirees	0	672,727,439	672,727,439
Pension: Non-Retirees	3,357,020,264	0	3,357,020,264
Total	\$ 4,459,705,784	\$ 777,287,385	\$ 5,236,993,169
Market Assets			
ASA Balance	\$ 1,102,685,520	\$ 18,043,209	\$ 1,120,728,729
ASA Annuities	0	86,516,737	86,516,737
Pension: Retirees	0	672,727,439	672,727,439
Pension: Non-Retirees	3,309,469,425	0	3,309,469,425
Total	\$ 4,412,154,945	\$ 777,287,385	\$ 5,189,442,330
Actuarial Assets			
ASA Balance	\$ 1,102,685,520	\$ 18,043,209	\$ 1,120,728,729
ASA Annuities	0	86,516,737	86,516,737
Pension: Retirees	0	672,727,439	672,727,439
Pension: Non-Retirees	3,155,258,596	0	3,155,258,596
Total	\$ 4,257,944,116	\$ 777,287,385	\$ 5,035,231,501
Unfunded AL			
ASA Balance	\$ 0	\$ 0	\$ 0
ASA Annuities	0	0	0
Pension: Retirees	0	0	0
Pension: Non-Retirees	201,761,668	0	201,761,668
Total	\$ 201,761,668	\$ 0	\$ 201,761,668

¹ Assets are allocated first to member ASA account liabilities, then to ASA annuity liabilities, then to Pension: Retirees liabilities, and finally to Pension: Non-Retirees liabilities to determine unfunded accrued liabilities.

Solvency Test

\$Thousands

Year Ended June 30	Accrued Liability				Portion of Accrued Liability Covered by Assets				
	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total	Actuarial Value of Assets	Active Member Contribs.	Retirees and Bfcys	Active Member (Employer Financed Portion)	Total
2005	\$535,179	\$219,722	\$1,255,845	\$2,010,746	\$1,268,575	100.0%	100.0%	40.9%	63.1%
2006	\$602,051	\$282,638	\$1,478,412	\$2,363,101	\$2,209,468	100.0%	100.0%	89.6%	93.5%
2007	\$656,918	\$449,452	\$1,721,184	\$2,827,554	\$2,713,051	100.0%	100.0%	93.3%	95.9%
2008	\$649,840	\$514,933	\$1,792,985	\$2,957,758	\$3,080,057	100.0%	100.0%	100.0%	104.1%
2009	\$655,843	\$432,942	\$2,046,748	\$3,135,533	\$2,920,735	100.0%	100.0%	89.5%	93.1%
2010	\$750,575	\$483,117	\$2,380,867	\$3,614,559	\$3,422,554	100.0%	100.0%	91.9%	94.7%
2011	\$840,341	\$562,445	\$2,594,053	\$3,996,839	\$3,664,657	100.0%	100.0%	87.2%	91.7%
2012	\$882,942	\$662,558	\$2,792,809	\$4,338,309	\$3,936,455	100.0%	100.0%	85.6%	90.7%
2013	\$975,309	\$798,486	\$2,975,573	\$4,749,368	\$4,453,828	100.0%	100.0%	90.1%	93.8%
2014	\$1,102,686	\$777,287	\$3,357,020	\$5,236,993	\$5,035,232	100.0%	100.0%	94.0%	96.1%
2015	\$1,159,597	\$908,353	\$3,837,741	\$5,905,691	\$5,461,172	100.0%	100.0%	88.4%	92.5%

Analysis of Financial Experience¹

\$Thousands	June 30, 2014 thru June 30, 2015	June 30, 2013 thru June 30, 2014
Unfunded Accrued Liability, beginning of year	\$ 201,762	\$ 295,540
(Gain) / Loss:		
Actuarial Value of Assets	\$ 36,284	\$ (74,202)
Actuarial Accrued Liabilities	(34,484)	7,204
Amortization of Existing Bases	(16,661)	(15,576)
Mortality Change ²	303,071	0
Other Assumption Changes ³	(39,080)	0
Additional Liability due to Cost-of-Living Adjustment ⁴	(6,373)	(6,700)
Plan Provision Change ⁵	<u>0</u>	<u>(4,504)</u>
Net Change	\$ 242,757	\$ (93,778)
Unfunded Accrued Liability, end of year	\$ 444,519	\$ 201,762

¹ Based on pension and ASA annuities only, i.e. net of ASA account balances.

² The June 30, 2015 mortality assumption was updated to the RP-2014 White Collar mortality table with Social Security Administration improvement scale applied from 2006.

³ Assumption changes other than mortality adopted on June 30, 2015 pursuant to the 2015 experience study.

⁴ 13th check to retirees in lieu of the assumed 2016 and 2015 1.0% COLAs.

⁵ Recognition of cost of future ASA account conversions to annuities from October 1, 2014 through December 31, 2016 at conversion interest rates lower than the valuation interest rate of 6.75%.

Sensitivity to Changes in Assumed Investment Return / Interest Rate

\$Millions	Assumed Investment Return / Interest Rate				
	5.75%	6.00%	6.25%	6.50%	6.75%
Funded Status					
Actuarial Accrued Liability	\$ 6,787.1	\$ 6,552.5	\$ 6,327.7	\$ 6,112.2	\$ 5,905.7
Actuarial Value of Assets	<u>5,461.2</u>	<u>5,461.2</u>	<u>5,461.2</u>	<u>5,461.2</u>	<u>5,461.2</u>
Unfunded Accrued Liability	\$ 1,325.9	\$ 1,091.3	\$ 866.5	\$ 651.0	\$ 444.5
Funded Ratio	80.5%	83.3%	86.3%	89.3%	92.5%
Actuarially Determined Contribution Rate					
Normal Cost %	7.31%	6.79%	6.31%	5.87%	5.45%
UAL Amortization %	<u>2.94%</u>	<u>2.48%</u>	<u>2.03%</u>	<u>1.57%</u>	<u>1.12%</u>
Actuarially Determined Contribution %	10.25%	9.27%	8.34%	7.44%	6.57%

\$Millions	Assumed Investment Return / Interest Rate				
	7.00%	7.25%	7.50%	7.75%	8.00%
Funded Status					
Actuarial Accrued Liability	\$ 5,720.4	\$ 5,542.3	\$ 5,371.2	\$ 5,206.8	\$ 5,048.7
Actuarial Value of Assets	<u>5,461.2</u>	<u>5,461.2</u>	<u>5,461.2</u>	<u>5,461.2</u>	<u>5,461.2</u>
Unfunded Accrued Liability	\$ 259.2	\$ 81.1	\$ (90.0)	\$ (254.4)	\$ (412.5)
Funded Ratio	95.5%	98.5%	101.7%	104.9%	108.2%
Actuarially Determined Contribution Rate					
Normal Cost %	5.08%	4.73%	4.40%	4.10%	3.81%
UAL Amortization %	<u>0.69%</u>	<u>0.25%</u>	<u>-0.18%</u>	<u>-0.62%</u>	<u>-1.05%</u>
Actuarially Determined Contribution %	5.77%	4.98%	4.22%	3.48%	2.76%

Calculated Employer Contribution Rate

	June 30, 2015	% of Projected Payroll for Fiscal 2016
Normal Cost	\$ 167,836,193	5.45%
Amortization of Unfunded Accrued Liability		
Unfunded Accrued Liability (UAL)*	\$ 444,518,650	
Unamortized UAL from Prior Years	198,103,352	
Net Unamortized UAL	\$ 246,415,298	
Amortization Factor (30-years, level dollar)	13.5862	
Current Year Amortization Payment	\$ 18,137,176	
Payments Established in Prior Years	16,184,757	
Total Amortization Payments	\$ 34,321,933	1.12%
Calculated Employer Contribution Rate	\$ 202,158,126	6.57%
Projected Fiscal 2017 Payroll	\$ 3,294,100,000	
Projected Fiscal 2017 ADC	\$ 216,422,370	

* Pension and ASA annuity only

Statement of Fiduciary Net Position

	June 30, 2015	June 30, 2014
Assets		
Cash and Cash Equivalents	\$ 1,082,812	\$ 1,975,794
Receivables		
Contributions	\$ 2,249,757	\$ 1,966,508
Miscellaneous	299,460	293,447
Investments	81,431,379	81,479,179
Foreign Exchange Contracts	1,002,489,643	672,205,899
Accrued Interest and Dividends	15,335,120	14,929,084
Due from Other Funds	<u>1,116,070</u>	<u>1,230,769</u>
Total Receivables	\$ 1,102,921,429	\$ 772,104,886
Investments		
Short Term	\$ 9,953,374	\$ 2,183,740
Pooled Unit Trust Assets		
Repurchase Agreements	\$ 0	\$ 0
Short Term Investments	223,459,504	214,805,070
Fixed Income	2,122,904,122	2,113,033,612
Equities	1,397,181,889	1,379,778,762
Alternatives	1,646,501,214	1,514,698,352
Derivatives	608,228	4,548,567
Securities Lending Collateral	<u>211,163,685</u>	<u>358,987,612</u>
Total Investments	\$ 5,611,772,016	\$ 5,588,035,715
Net Capitalized Assets	<u>\$ 717,683</u>	<u>1,079,784</u>
Total Assets	\$ 6,716,493,940	\$ 6,363,178,179
Liabilities		
Accounts Payable	\$ 236,622	\$ 610,245
Retirement Benefits Payable	17,515,010	6,473,481
Salaries and Benefits Payable	0	0
Investments Payable	69,656,855	92,696,571
Foreign Exchange Contracts	1,006,080,660	675,496,916
Securities Lending Obligations	211,163,685	358,987,612
Securities Sold Under Agreement to Repurchase	32,099,795	37,410,269
Due to Other Funds	<u>628,271</u>	<u>2,060,755</u>
Total Liabilities	\$ 1,337,380,898	\$ 1,173,735,849
Net Position Restricted for Pensions	\$ 5,379,113,042	\$ 5,189,442,330

Statement of Changes in Fiduciary Net Position

	June 30, 2015	June 30, 2014
Additions		
Contributions		
Member Contributions	\$ 86,515,294	\$ 81,801,667
Employer Contributions	205,763,142	194,750,861
Nonemployer Contributing Entity Contributions	0	0
Other Contributions	<u>0</u>	<u>0</u>
Total Contributions	\$ 292,278,436	\$ 276,552,528
Investment Income/(Loss)		
Net Appreciation/(Depreciation)		
Fair Value of Investments	\$ (14,664,501)	\$ 546,019,437
Other Net Investment Income	764,980	777,238
Net Interest and Dividends Income	71,351,232	69,918,382
Miscellaneous Income	0	0
Securities Lending Income	<u>702,276</u>	<u>665,734</u>
Total Investment Income/(Loss)	\$ 58,153,987	\$ 617,380,791
Less Direct Investment Expenses		
Investment Management Fees	\$ (29,958,051)	\$ (28,178,695)
Securities Lending Fees	(113,395)	(91,980)
Other Direct Investment Expenses	<u>(2,495,365)</u>	<u>(2,326,469)</u>
Total Direct Investment Expenses	\$ (32,566,811)	\$ (30,597,144)
Net Investment Income/(Loss)	\$ 25,587,176	\$ 586,783,647
Other Additions		
Miscellaneous	\$ 24,170	\$ 20,749
Interfund Transfers	<u>7,133,930</u>	<u>8,883,525</u>
Total Other Additions	\$ 7,158,100	\$ 8,904,274
Total Additions	\$ 325,023,712	\$ 872,240,449
Deductions		
Pension and Disability Benefits	\$ 116,186,940	\$ 97,985,767
Special Death Benefits	0	0
Distributions of Contributions and Interest	11,711,936	10,733,857
Pension Relief Distributions	0	0
Local Unit Withdrawals	0	0
Administrative Expenses	5,602,399	5,347,154
Project Expenses	582,834	1,360,432
Interfund Transfers	<u>1,268,891</u>	<u>1,048,254</u>
Total Deductions	\$ 135,353,000	\$ 116,475,464
Net Increase/(Decrease) in Net Position	\$ 189,670,712	\$ 755,764,985
Net Position Restricted for Pensions		
Beginning of Year	\$ 5,189,442,330	\$ 4,433,677,345
End of Year	\$ 5,379,113,042	\$ 5,189,442,330

Schedule of Changes in Net Pension Liability and Related Ratios

	June 30, 2015	June 30, 2014	June 30, 2013
Total Pension Liability			
Total Pension Liability, beginning of year	\$ 5,236,993,169	\$ 4,748,148,931	\$ 4,338,309,018
Annuity Savings Account (ASA), beginning of year	1,120,728,729	990,704,762	899,338,904
Excluding ASA, beginning of year	4,116,264,440	3,757,444,169	3,438,970,114
Service Cost	\$ 170,892,424	\$ 155,314,388	\$ 147,336,605
Interest Cost	287,264,315	262,263,149	240,281,897
Experience (Gains)/Losses	(40,857,253)	504,077	(15,994,636)
Assumption Changes	263,991,050	0	0
Plan Amendments	0	(4,504,201)	0
Benefit Payments	(90,266,941)	(77,253,362)	(68,792,905)
ASA Annuitizations	22,574,841	15,151,081	11,621,194
Net Member Reassignments	4,889,464	6,922,378	0
Other	24,170	422,761	4,021,900
Net Change in Total Pension Liability, Excluding ASA	\$ 618,512,070	\$ 358,820,271	\$ 318,474,055
Net Change in Total Pension Liability, ASA	50,185,794	130,023,967	91,365,858
Net Change in Total Pension Liability	668,697,864	488,844,238	409,839,913
Total Pension Liability, Excluding ASA, end of year	\$ 4,734,776,510	\$ 4,116,264,440	\$ 3,757,444,169
Total Pension Liability, ASA, end of year	1,170,914,523	1,120,728,729	990,704,762
Total Pension Liability, end of year	5,905,691,033	5,236,993,169	4,748,148,931
Fiduciary Net Position			
Fiduciary Net Position, beginning of year	\$ 5,189,442,330	\$ 4,433,677,345	\$ 4,018,148,837
Employer Contributions	205,763,142	194,750,861	180,714,567
Nonemployer contributing entities contributions	0	0	0
Member Contributions	86,515,294	81,801,667	77,532,304
Net investment income	25,587,176	586,783,647	258,111,000
Benefit Payments	(127,898,876)	(108,719,624)	(97,157,000)
Net Member Reassignments	5,865,039	7,835,271	2,806,000
Administrative and Project Expenses	(6,185,233)	(6,707,586)	(6,482,000)
Other	24,170	20,749	3,637
Net Change in Fiduciary Net Position	\$ 189,670,712	\$ 755,764,985	\$ 415,528,508
Fiduciary Net Position, end of year	\$ 5,379,113,042	\$ 5,189,442,330	\$ 4,433,677,345
Net Pension Liability and Related Ratios			
Net Pension Liability, beginning of year	\$ 47,550,839	\$ 314,471,586	\$ 320,160,181
Net Pension Liability, end of year	\$ 526,577,991	\$ 47,550,839	\$ 314,471,586
Plan's Fiduciary Net Position as a			
Percentage of the Total Pension Liability	91.1%	99.1%	93.4%
Covered Employee Payroll (Actual)	\$ 2,742,186,608	\$ 2,598,115,000	\$ 2,442,496,000
Net Pension Liability as a Percentage of			
Covered Employee Payroll	19.2%	1.8%	12.9%

Required Supplementary Information under GASB No. 68

	June 30, 2015	June 30, 2014	June 30, 2013
Schedule of Contributions			
Actuarially Determined Contribution	\$ 178,260,000	\$ 177,711,000	\$ 167,311,000
Contributions in Relation to the Actuarially Determined Contributions	<u>205,525,842*</u>	<u>194,750,861</u>	<u>180,714,567</u>
Contribution Deficiency/(Excess)	\$ (27,265,842)	\$ (17,039,861)	\$ (16,314,567)
Covered Employee Payroll	\$ 2,742,186,608	\$ 2,598,115,000	\$ 2,442,496,000
Contributions as a Percentage of Covered Employee Payroll	7.5%	7.5%	7.4%
Schedule of Investment Returns			
Annual Money-Weighted Rate of Return, Net of Investment Expense	0.57%	12.71%	5.11%

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the TRF Pre-1996 Account calculated using the discount rate of 6.75%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1% lower (5.75%) or 1% higher (7.75%) than the current rate:

	1% Decrease 5.75%	Current Rate 6.75%	1% Increase 7.75%
Net Pension Liability	\$ 1,408,000,000	\$ 526,577,991	\$ (172,300,000)

* Excludes \$237,300 attributable to member service credit purchases.

Pension Expense

	June 30, 2015	June 30, 2014
Service Cost	\$ 170,892,424	\$ 155,314,388
Interest on Total Pension Liability	287,264,315	262,263,149
Projected Earnings on Pension Plan Investments	(279,255,149)	(236,899,056)
Changes of Benefit Terms	0	(4,504,201)
Pension Plan Administrative Expenses	6,068,861*	6,707,586
Other Changes	0	0
 Current Period Recognition of Deferred		
Outflows/(Inflows) of resources:		
Differences between Expected and Actual Experience in Measurement of the Total Pension Liability	(2,879,600)	38,775
Changes of Assumptions	18,856,504	0
Differences between Projected and Actual Earnings on Pension Plan Investments	<u>4,202,769</u>	<u>(51,111,166)</u>
Total	\$ 205,150,124	\$ 131,809,475

* Administrative expenses are net of \$116,372 in INPRS contributions to the plan.

**Deferred Outflows of Resources and Deferred Inflows of Resources
 Related to Pensions**

	Initial Balance	Initial Amortization Period	Annual Recognition	June 30, 2015 Balance
Difference between Expected and Actual Experience in Measurement of the Total Pension Liability				
Base for Year ending June 30, 2015	\$ (40,857,253)	14	\$ (2,918,375)	\$ (37,938,878)
Base for Year ending June 30, 2014	504,077	13	38,775	426,527
Base for Year ending June 30, 2013	0		0	0
Change of Assumptions				
Base for Year ending June 30, 2015	\$ 263,991,050	14	\$ 18,856,504	\$ 245,134,546
Base for Year ending June 30, 2014	0		0	0
Base for Year ending June 30, 2013	0		0	0
Differences between Projected and Actual Earnings on Pension Plan Investments				
Base for Year ending June 30, 2015	\$ 276,569,674	5	\$ 55,313,935	\$ 221,255,739
Base for Year ending June 30, 2014	(255,555,829)	5	(51,111,166)	(153,333,497)
Base for Year ending June 30, 2013	0		0	0
Changes in State's Proportion and Differences between Actual State Contributions and State's Proportionate Share of Contributions				
Base for Year ending June 30, 2015	\$ 0		\$ 0	\$ 0
Base for Year ending June 30, 2014	0		0	0
Base for Year ending June 30, 2013	0		0	0
Total			\$ 20,179,673	\$ 275,544,437

The balances as of June 30, 2015 of the deferred outflows/(inflows) of resources will be recognized in pension expense as follows:

<u>Year Ended June 30,</u>	
2016	\$ 20,179,673
2017	\$ 20,179,673
2018	\$ 20,179,674
2019	\$ 71,290,838
2020	\$ 15,976,904
Thereafter	\$ 127,737,675

Member Data

The tables below summarize the member data used in the valuation. The June 30, 2015 valuation is based on June 30, 2014 census data, with liabilities rolled-forward to the June 30, 2015 measurement date. The data summarized in this section is as of the June 30, 2014 census collection date. The pages that follow show various distributions of the member groups.

	Males	Females	Total
Number of Actives	13,862	38,562	52,424
Average Age	39.5	39.3	39.4
Average Service	10.6	9.9	10.0
Average Pay	\$ 59,357	\$ 51,981	\$ 53,932
Number of Inactive Vesteds	1,080	3,052	4,132
Average Age	49.4	51.0	50.6
Average Service	16.1	15.0	15.3
Number of Inactive Nonvesteds	2,790	9,502	12,292
Number of Retirees and Beneficiaries	1,407	2,729	4,136
Average Age	67.2	66.6	66.8
Average Years Retired	7.1	6.0	6.4
Average Monthly Annuity	\$ 206	\$ 144	\$ 165
Average Monthly Pension	\$ 1,689	\$ 1,191	\$ 1,360
Total Number of Members	19,139	53,845	72,984

Active Members

By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date						Total
	<10	10-14	15-19	20-24	25-29	30+	
15-19							
20-24	1,505						1,505
25-29	7,979	1					7,980
30-34	8,261	1,748	4				10,013
35-39	3,498	5,022	1,354	3			9,877
40-44	2,348	1,855	3,704	404	3		8,314
45-49	1,590	1,195	1,517	864	165	5	5,336
50-54	1,097	885	1,007	468	460	111	4,028
55-59	683	635	908	368	233	279	3,106
60-64	312	355	522	236	147	212	1,784
65-69	110	79	97	49	36	28	399
70-74	28	12	7	1	2	1	51
75-79	15	3	2				20
80 & Over	9	1		1			11
Total	27,435	11,791	9,122	2,394	1,046	636	52,424

Average Age: 39.4
 Average Service: 10.0

Inactive Vested Members

By Attained Age and Years of Service

Attained Age	Years of Service at Termination						Total
	<10	10-14	15-19	20-24	25-29	30+	
30-34		60					60
35-39		480	40	1			521
40-44		485	235	13			733
45-49		315	188	71	6	1	581
50-54		333	169	92	37	10	641
55-59		320	216	100	54	41	731
60-64		304	155	80	43	55	637
65-69		101	49	23	11	21	205
70-74		12	4	1	2	2	21
75-79		1	1				2
80 & Over							
Total		2,411	1,057	381	153	130	4,132

Average Age: 50.6
 Average Service: 15.3

Retired Members

By Attained Age and Completed Years of Retirement

Attained Age	Years of Retirement						Total
	<10	10-14	15-19	20-24	25-29	30+	
Under 40	6						6
40-44	5	1					6
45-49	10	6					16
50-54	49	5					54
55-59	255	9					264
60-64	1,072	38	1	1	1		1,113
65-69	1,209	275	17				1,501
70-74	401	280	84	1			766
75-79	58	107	76	26	4		271
80-84	10	19	34	30	5	1	99
85-89	2	3	5	12	9		31
90 & Over		1	1	1	5	1	9
Total	3,077	744	218	71	24	2	4,136

Average Age: 66.8
 Average Years Retired: 6.4

Retired Members

By Year of Retirement

Year of Retirement As of June 30	Number	Monthly Pension	
		Total	Average
1981	1	\$ 259	\$ 259
1982	1	936	936
1986	2	1,562	781
1987	5	3,335	667
1988	3	1,050	350
1989	5	3,767	753
1990	11	10,617	965
1991	12	10,707	892
1992	11	12,590	1,145
1993	8	7,935	992
1994	17	22,921	1,348
1995	27	31,393	1,163
1996	33	42,329	1,283
1997	31	38,656	1,247
1998	43	52,434	1,219
1999	50	66,228	1,325
2000	79	101,519	1,285
2001	107	140,484	1,313
2002	138	196,229	1,422
2003	167	230,598	1,381
2004	192	262,306	1,366
2005	168	245,730	1,463
2006	168	228,869	1,362
2007	193	246,129	1,275
2008	250	352,219	1,409
2009	235	332,014	1,413
2010	286	396,725	1,387
2011	409	596,201	1,458
2012	510	685,227	1,344
2013	619	812,639	1,313
2014	355	493,409	1,390
Total	4,136	\$ 5,627,020	\$ 1,360

Retired Members

Reconciliation of Benefit Recipients, July 1, 2013 to July 1, 2014

	Number of Members	Sum of Annual Allowances*
Beginning of Year Rolls	3,665	\$ 67,169,376
Added to Rolls	499	9,100,772
Removed from Rolls	(28)	(353,092)
Benefit Changes		(203,524)
End of Year Rolls	4,136	\$ 75,713,532
Percentage Increase in Annual Allowances		12.72%
Average Annual Allowances		\$ 18,306

* Pension and ASA annuity

Retired Members

Number of Benefit Recipients by Benefit Option

Amount of Monthly Benefit¹	Option A-1	Option A-2	Option A-3	Option B-1	Option B-2	Option B-3	Survivors	Disability	Total
\$1-\$500	188	122	19	129	21	37	22	59	597
\$501-\$1,000	311	258	51	280	63	96	24	55	1,138
\$1,001-\$1,500	231	202	43	229	72	75	3	13	868
\$1,501-\$2,000	161	153	23	184	52	87	4	7	671
\$2,001-\$3,000	117	131	20	233	61	94	4	5	665
Over \$3,000	38	49	1	57	26	25	1	0	197
Total	1,046	915	157	1,112	295	414	58	139	4,136

Summary of Benefit Options

- A-1 - Provides a monthly benefit for retiree's life. In the event the retiree dies before receiving five years of payments, the beneficiary receives the remainder of the five years (60 months) of guaranteed Defined Benefit pension payments in a lump sum.
- A-2 - Provides a monthly benefit for retiree's life. The benefit ceases upon the death of the retiree.
- A-3 - Provides a monthly benefit for retiree's life, including monthly annuitization of member's Annuity Savings Account (ASA). In the event the retiree dies before receiving five years of payments, the beneficiary will receive the remainder of the five years of guaranteed pension payments. The ASA is reduced with each monthly benefit paid; if the retiree dies before reducing the balance to \$0.00, the beneficiary will receive a single payment of the amount remaining.
- B-1 - Provides a monthly benefit for retiree's life. Upon the death of the retiree, the qualified designated survivor receives 100% of the member's Defined Benefit for the remainder of the survivor's life.
- B-2 - Provides a monthly benefit for retiree's life. Upon the death of the retiree, the qualified designated survivor receives 66-2/3% of the member's Defined Benefit for the remainder of the survivor's life.
- B-3 - Provides a monthly benefit for retiree's life. Upon the death of the retiree, the qualified designated survivor receives 50% of the member's Defined Benefit for the remainder of the survivor's life.
- Survivors* - Provides a monthly benefit for the surviving spouse's or dependent's life. The benefit ceases upon death of the survivor.
- Disability** - Available to members with five (5) or more years of creditable service who become disabled as determined by the Social Security Administration while teaching in Indiana.

* (of members who die while in service)

** Includes Classroom Disability – Provides a benefit of \$125 per month plus \$5 for each additional year of TRF-covered service over five years

Retired Members

Schedule of Average Benefit Payments by Service at Retirement

	Years of Service at Retirement						Total
	<10	10-14	15-19	20-24	25-29	30+	
Avg. Monthly Defined Benefit Pension	\$437	\$467	\$740	\$1,085	\$1,458	\$2,225	\$1,360
Avg. Monthly Annuity	\$80	\$74	\$102	\$130	\$214	\$240	\$165
Avg. Final Avg. Salary at Retirement	\$35,509	\$45,483	\$52,501	\$58,946	\$62,883	\$72,912	\$60,815
Number of Benefit Recipients	45	499	998	614	570	1,410	4,136

Reconciliation of Participant Data

	Active	Inactive Vested	Inactive Nonvested	Survivor	Disabled	Retired	Beneficiary	Total
6/30/2013 Census	51,204	3,103	11,147	59	126	3,417	63	69,119
Disabled	(12)	(7)			19			0
Retired	(223)	(238)				461		0
Terminated with Vested Benefit	(1,113)	1,113						0
Terminated, due a Refund	(2,626)		2,626					0
Died with Survivor	(2)	(1)		2	(3)	(19)	23	0
Died, no Survivor*	(1)			(3)	(9)	(15)	(1)	(29)
Refunded*	(199)	(13)	(969)					(1,181)
Forfeited*		(1)	(409)					(410)
Dropped from Database			(4)					(4)
Rehired	720	(146)	(574)					0
Status Corrections		97	(101)		2	2		0
Data Corrections		224	193		4	8		429
Moved to Pre-1996 Account	(3)							(3)
Moved from Pre-1996 Account	6	1	4					11
New Hires	4,673		379					5,052
6/30/2014 Census	52,424	4,132	12,292	58	139	3,854	85	72,984

* No remaining benefit obligation in the plan.

Summary of Benefit Provisions

Changes in Plan Provisions since June 30, 2014

None

Regular Retirement

Eligibility

Age 65 with ten years of service, or age 60 with 15 years of service, or if age is at least 55 and the sum of age plus credited service is at least 85.

Annual Amount

State pension equal to total service times 1.1% of Average Annual Compensation.

Early Retirement

Eligibility

Age 50 with 15 years of service.

Annual Amount

State pension is computed as regular retirement benefit, but reduced for each month between age at early retirement and attainment of age 65. The age reduction factor is calculated as the sum of the following:

- 1/10 of 1% for each month from age 60 to 65.
- 5/12 of 1% for each month from age at early retirement to 60.

Deferred Retirement

Eligibility

Ten years of service. Benefit commences at regular or early retirement eligibility.

Annual Amount

Computed as a regular retirement benefit with state pension based on service and Average Annual Compensation at termination.

Disability Retirement

Regular Disability Benefit:

Eligibility

Five years of service.

Annual Amount

\$125 per month plus \$5 per month for each year of service credit over five years.

Disability Retirement Benefit:

Eligibility

Five years of service and determined to be disabled by the Social Security Administration. Annual verification of Social Security disability is required.

Annual Amount

Computed as a regular retirement benefit using creditable service to the date of disability and without reduction for early retirement. The minimum benefit is \$180 per month

Summary of Benefit Provisions

Death Before Retirement

Eligibility

15 years of service. Spouse to whom member had been married for two or more years is automatically eligible, or a dependent may be designated as beneficiary.

Annual Amount

Computed as regular retirement benefit but reduced in accordance with a 100% joint and survivor election.

Benefit Increases After Retirement

No automatic increases after retirement are provided. Periodically, unscheduled increases have been made. In September 2015, retirees were paid a service-related lump sum ranging from \$150 to \$450.

Average Annual Compensation

Average of highest five years of compensation. Years do not need to be consecutive.

Member Contributions

All Fund members are required by state law to contribute 3% of salary contributions to their Annuity Savings Account. These 3% contributions are generally "picked up" by the employer and contributed on a pre-tax basis on behalf of the employee. Extra voluntary contributions by the member are also possible, but on a post-tax basis. At retirement, there are six alternatives for receiving the proceeds of this account, including lump sums, full and partial rollovers, full and partial annuitization of the balance, and deferred distribution.

Forms of Benefit Payment (Pension)

The normal form of benefit payment (Option A-1) is a single life annuity with a five-year certain period. There are five optional forms of payment available, as listed below. Additionally, members retiring between ages 50 and 62 may integrate their pension benefit with their Social Security benefit by choosing Social Security Integration (Option A-4) in conjunction with the normal form or any other optional form selected. Optional forms of payment are calculated on an actuarially equivalent basis.

Option A-2: Straight Life benefit with no certain period

Option A-3: Modified Cash Refund Annuity (operates in conjunction with the Annuity Savings Account)

Option B-1: 100% Survivorship

Option B-2: 66 2/3% Survivorship

Option B-3: 50% Survivorship

State law provides for actuarially-adjusted and re-calculated benefits based on a new optional form election in the event of the death of the member's spouse after retirement.

Optional forms of benefit are calculated based on 6.75% interest with a 50% unisex blend of the IRS 2018 combined mortality basis.

Summary of Actuarial Assumptions and Methods

The assumptions used in this valuation reflect the study of experience covering the period July 1, 2011 through June 30, 2014.

Measurement Date	June 30, 2015
Valuation Date	
Assets	June 30, 2015
Liabilities	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.
Interest Rate / Investment Return	6.75% per year, compounded annually (net of administrative and investment expenses).
Pay Increase Assumption	Sample increases are shown in a table on the following pages. The assumption for each year of service consists of a merit and/or seniority increase and 2.25% for price inflation.
Total Active Member Payroll	Assumed to increase 9% from Fiscal 2015 to Fiscal 2016, and 7% from Fiscal 2016 to Fiscal 2017 for the 1996 Account for purposes of calculating the projected contribution for the 2016 and 2017 fiscal years.
Price Inflation	2.25% per year. Price inflation is not directly tied to benefits; however, it is a component of the economic model used to determine total wage inflation.
Mortality	
Healthy	RP-2014 White Collar Mortality Table with Social Security Administration generational projection scale from 2006.
Disabled	RP-2014 White Collar Mortality Table with Social Security Administration generational projection scale from 2006.
Retirement	Probabilities are shown in tables on the following pages.
Withdrawal	Sample probabilities are shown in tables on the following pages.
Disability	Sample probabilities are shown in a table on the following pages.
Actuarial Cost Method	Entry Age Normal (level percent of pay) method, with a 30-year, closed, level dollar amortization of the Unfunded Accrued Liability arising from all sources including actuarial gains and losses. The weighted average amortization period on 6/30/2015 is 26 years.
Asset Valuation Method	The Actuarial Value of Assets recognizes investment gains and losses in equal installments over four years. However, the Actuarial Value is limited to no more than 20% greater than or 20% less than the Market Value of Assets. Investment experience on ASA account balances is not smoothed.

Summary of Actuarial Assumptions and Methods

Marriage Assumption	100% of members are assumed to be married for purposes of valuing death-in-service benefits. Male spouses are assumed to be three years older than female spouses.
Pay Increase Timing	Beginning of (fiscal) year. Payroll amounts stated in the valuation data are amounts projected to be paid during the current year.
Decrement Timing	Decrements are assumed to occur at the beginning of the year.
Other	Disability and withdrawal decrements do not operate after member reaches retirement eligibility. Only the withdrawal and death decrements operate during the first ten years of service.
Miscellaneous Adjustments	The calculated liabilities and normal costs were increased by 1% to account for the inclusion of unused sick leave in the calculation of Average Annual Compensation.
Actuarial Equivalence Basis for Optional Forms of Payment	6.75% interest with a 50% unisex blend of the 2018 IRS combined mortality basis.
Explicit Expense Load	None.
COLA Assumption	1.0% compounded annually on pension portion, with the first COLA credited on January 1, 2017. The January 1, 2016 assumed 1.0% COLA was replaced by a service-related lump sum (a "13 th check") ranging from \$150 to \$450 in September, 2015.
Cost for ASA Conversions	ASA conversions between 10/1/2014 and 9/30/2015 will be based on a 5.75% conversion rate. Conversions between 1/1/2015 and 12/31/2016 will be based on a 4.50% conversion rate. After 1/1/2017, ASA annuity conversions will occur outside of the plan.
ASA Annuitization	50% of ASA balances are assumed to be converted to annuities at retirement prior to 1/1/2017, 0% thereafter.
Employee Census and Asset Data	The member census data and the asset information for this valuation were furnished by the Chief Financial Officer and Staff. We did not audit the information provided, but we did review it thoroughly for reasonableness and compared it with the prior year's submission for consistency.

The actuarial valuation computations were made under the supervision of a Member of the American Academy of Actuaries (MAAA).

Summary of Actuarial Assumptions and Methods

Probabilities of Age and Service Retirement

Regular Retirement		Rule of 85 Retirement		Early Retirement	
Age	Probability	Age	Probability	Age	Probability
				50-53	0.020
				54	0.050
		55	0.150	55	0.050
		56	0.150	56	0.050
		57	0.150	57	0.065
		58	0.150	58	0.080
		59	0.200	59	0.120
60	0.200	60	0.200		
61	0.250	61	0.250		
62	0.300	62	0.300		
63	0.350	63	0.350		
64	0.400	64	0.400		
65	0.450	65	0.450		
66	0.450	66	0.450		
67	0.450	67	0.450		
68	0.450	68	0.450		
69	0.450	69	0.450		
70	1.0000	70	1.0000		

Probabilities of Disability

Attained Age	Age-Based	
	Male	Female
25	0.0001	0.0001
30	0.0001	0.0001
35	0.0001	0.0001
40	0.0001	0.0001
45	0.0002	0.0002
50	0.0005	0.0005
55	0.0009	0.0009
60	0.0010	0.0010

Summary of Actuarial Assumptions and Methods

Probabilities of Withdrawal

Years of Service	Service-Based	
	Male	Female
0	0.3500	0.3500
1	0.1400	0.1400
2	0.1100	0.1100
3	0.0900	0.0900
4	0.0800	0.0800
5	0.0700	0.0700
6	0.0600	0.0600
7	0.0500	0.0550
8	0.0450	0.0500
9	0.0450	0.0450

Attained Age	Age-Based*	
	Male	Female
30	0.0225	0.0300
35	0.0225	0.0300
40	0.0225	0.0200
45	0.0225	0.0200
50	0.0225	0.0200
55	0.0225	0.0200
60	0.0225	0.0200

**Age-Based rates apply only if 10 or more years of service.*

Summary of Actuarial Assumptions and Methods

Pay Increase Assumption

Years of Service	Merit & Seniority	Inflation	Total
1	10.25%	2.25%	12.50%
5	2.75%	2.25%	5.00%
10	2.75%	2.25%	5.00%
15	1.50%	2.25%	3.75%
20	0.25%	2.25%	2.50%
25	0.25%	2.25%	2.50%
30	0.25%	2.25%	2.50%
35	0.25%	2.25%	2.50%
40	0.25%	2.25%	2.50%

Definitions of Technical Terms

Accrued Service	Service credited under the system that was rendered before the date of the actuarial valuation.
Accrued Liability	The difference between the actuarial present value of future benefit payments and the actuarial present value of future normal costs. Also referred to as “actuarial accrued liability” or “past service liability”.
Actuarial Assumptions	Estimates of expected future experience with respect to rates of mortality, disability, turnover, retirement, rate of investment return, and pay increases. Decrement assumptions (rates of mortality, disability, turnover, and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (pay increases and investment return) consist of the underlying rates in an inflation-free environment plus a provision for a long-term average rate of inflation.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future benefit payments” between future normal costs and actuarial accrued liabilities. Sometimes referred to as the “actuarial funding method”.
Actuarial Equivalent	One series of payments is said to be actuarially equivalent to another series of payments if the two series have the same actuarial present value.
Actuarial Gain / (Loss)	The difference between actual unfunded actuarial accrued liability and anticipated unfunded actuarial accrued liability — during the period between two valuation dates. It is a measurement of the difference between actual and expected experience.
Actuarial Present Value	The single amount now that is equal to a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest and by probabilities of payment.
Amortization	Paying off a present value with periodic payments.
Normal Cost	The portion of the actuarial present value of future benefits that is assigned to the current year by the actuarial cost method. Sometimes referred to as “current cost”.
Unfunded Accrued Liability	The difference between the accrued liability and the actuarial value of assets. Sometimes referred to as “unfunded past service liability” or “unfunded actuarial accrued liability” or simply as “unfunded liability”.

The Actuarial Valuation Process

The **actuarial valuation** is the mathematical process by which a contribution rate is determined. The flow of activity constituting the valuation may be summarized as follows:

Covered Person Data: Furnished by the Plan Administrator

Retired Members and Beneficiaries Now Receiving Benefits
Former Employees with Vested Benefits Not Yet Payable
Active Members

+ **Asset Data (Cash and Investments):** Furnished by the Plan Administrator

+ **Estimates of Future Experience (Actuarial Assumptions):** Established by the Board of Trustees after Consulting with the Actuary

+ **Funding Method:** The Allocation of Employer Costs to Past Service, Current Service, and Future Service

+ **Mathematically Combining the Assumptions, the Funding Method, and the Data**

= **Determination of:**

Plan Funded Status and Employer Contribution Rate

Active Member Data: Total Fund

June 30	Number	Valuation Payroll (\$000s)	Average			
			Age	Service	Pay	Pay Increase %
1975	63,932	\$ 749,200	38.7	10.9	\$ 11,719	
1980	66,575	1,107,699	39.7	11.9	16,638	
1985	62,932	1,519,887	41.5	14.2	24,151	
1987	64,157	1,751,709	42.0	14.5	27,303	
1989	65,986	2,044,797	42.6	14.9	30,988	
1991	63,373	2,278,715	43.0	15.4	35,957	
1992	63,980	2,416,263	43.8	16.0	37,766	5.0%
1993	64,594	2,536,165	44.0	16.1	39,263	4.0
1994	65,209	2,614,915	44.1	16.2	40,101	2.1
1995	66,542	2,728,811	44.2	16.2	41,009	2.3
1996	78,866	2,878,329	42.9	14.1	36,497	(11.0)
1997	84,206	2,984,604	42.4	13.2	35,444	(2.9)
1998	84,664	3,094,941	42.5	13.2	36,556	3.1
1999	77,745	3,294,326	44.1	15.1	42,374	15.9
2000	77,870	3,192,605	44.4	15.2	40,999	(3.2)
2001	75,648	3,318,877	44.6	15.7	43,872	7.0
2002	75,383	3,609,471	44.7	15.8	47,884	9.1
2003	73,641	3,585,135	44.5	15.5	48,684	1.7
2004	73,510	3,651,653	44.5	15.5	49,676	2.0
2005	73,923	3,734,330	44.4	15.4	50,516	1.7
2006	73,350	3,802,721	44.5	15.4	51,844	2.6
2007	75,833	4,267,995	44.9	15.5	56,281	8.6
2008	76,256	4,348,535	44.6	15.6	57,025	1.3
2009	74,343	4,339,032	44.4	15.3	58,365	2.3
2010	72,872	4,312,611	44.2	15.2	59,181	1.4
2011	71,343	4,269,944	44.5	15.5	59,851	1.1
2012	70,573	4,232,018	44.4	15.4	59,967	0.2
2013	70,414	4,124,368	43.5	14.6	58,573	(2.3)
2014*	70,414	4,124,368	43.5	14.6	58,573	(2.3)
2015*	68,734	4,006,157	43.0	14.1	58,285	(0.5)

* Valuations on and after June 30, 2014 are based on census data collected at the prior measurement date.

Member Data: Total Fund

The tables below summarize the member data used in the valuation. The June 30, 2015 valuation is based on June 30, 2014 census data, with liabilities rolled-forward to the June 30, 2015 measurement date. The data summarized in this section is as of the June 30, 2014 census collection date. The pages that follow show various distributions of the member groups.

	Males	Females	Total
Number of Actives	18,025	50,709	68,734
Average Age	43.0	43.0	43.0
Average Service	14.7	13.9	14.1
Average Pay	\$ 63,630	\$ 56,385	\$ 58,285
Number of Inactive Vesteds	2,159	6,518	8,677
Average Age	54.0	55.0	54.8
Average Service	21.1	19.7	20.1
Number of Inactive Nonvesteds	2,869	9,831	12,700
Number of Retirees and Beneficiaries	18,052	36,298	54,350
Average Age	72.3	72.1	72.2
Average Years Retired	12.6	12.3	12.4
Average Monthly Annuity	\$ 224	\$ 177	\$ 192
Average Monthly Pension	\$ 1,632	\$ 1,379	\$ 1,463
Total Number of Members	41,105	103,356	144,461

Active Members: Total Fund

By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date						Total
	<10	10-14	15-19	20-24	25-29	30+	
15-19							
20-24	1,505						1,505
25-29	7,979	1					7,980
30-34	8,261	1,748	4				10,013
35-39	3,499	5,022	1,354	3			9,878
40-44	2,476	1,907	4,084	947	6		9,420
45-49	1,710	1,311	1,761	2,620	770	8	8,180
50-54	1,156	942	1,149	1,253	2,575	850	7,925
55-59	731	684	1,025	1,045	1,279	2,692	7,456
60-64	350	384	611	689	698	2,397	5,129
65-69	135	89	115	127	134	476	1,076
70-74	33	17	11	10	12	47	130
75-79	20	5	2			3	30
80 & Over	9	1		1		1	12
Total	27,864	12,111	10,116	6,695	5,474	6,474	68,734

Average Age: 43.0
Average Service: 14.1

Inactive Vested Members: Total Fund

By Attained Age and Years of Service

Attained Age	Years of Service at Termination						Total
	0-9	10-14	15-19	20-24	25-29	30+	
20-24							
25-29							
30-34		60					60
35-39		480	40	1			521
40-44		545	283	25			853
45-49		471	289	143	31	2	936
50-54		546	323	205	151	27	1,252
55-59		536	398	269	261	404	1,868
60-64		646	291	258	216	875	2,286
65-69		232	88	76	85	312	793
70-74		25	14	7	5	23	74
75-79		3	3			4	10
80 & Over		10	6	3	5		24
Total		3,554	1,735	987	754	1,647	8,677

Average Age: 54.8
Average Service: 20.1

Retired Members: Total Fund

By Attained Age and Completed Years of Retirement

Attained Age	Years of Retirement						Total
	0-9	10-14	15-19	20-24	25-29	30+	
Under 40	16	10	7	5	5	1	44
40-44	14	4	8	3		1	30
45-49	30	14	9	8	1		62
50-54	137	32	18	12	2	2	203
55-59	1,536	53	32	23	10	6	1,660
60-64	8,240	244	70	53	35	14	8,656
65-69	10,412	3,559	279	92	38	16	14,396
70-74	3,648	4,174	2,386	291	67	31	10,597
75-79	524	1,715	3,162	1,347	288	70	7,106
80-84	47	319	1,548	2,306	776	265	5,261
85-89	15	63	221	1,294	1,589	651	3,833
90-94	7	4	22	149	727	813	1,722
95-99	2	2	4	10	68	577	663
100 & Over					1	116	117
Total	24,628	10,193	7,766	5,593	3,607	2,563	54,350

Average Age: 72.2
Average Years Retired: 12.4

Retired Members: Total Fund

By Year of Retirement

Year of Retirement As of June 30	Number	Monthly Pension	
		Total	Average
Before 1978	507	\$213,733	\$422
1978	146	71,853	492
1979	177	93,082	526
1980	235	142,291	605
1981	244	139,703	573
1982	240	139,082	580
1983	339	207,971	613
1984	396	251,411	635
1985	579	404,555	699
1986	535	384,696	719
1987	649	500,973	772
1988	766	629,646	822
1989	651	566,924	871
1990	1,015	1,025,749	1,011
1991	1,024	1,122,755	1,096
1992	955	1,070,414	1,121
1993	1,007	1,208,165	1,200
1994	1,156	1,418,158	1,227
1995	1,513	1,925,593	1,273
1996	1,521	1,984,455	1,305
1997	1,325	1,719,292	1,298
1998	1,679	2,170,943	1,293
1999	1,577	2,160,267	1,370
2000	1,860	2,622,537	1,410
2001	1,863	2,699,585	1,449
2002	2,207	3,192,118	1,446
2003	1,991	2,937,835	1,476
2004	2,329	3,477,752	1,493
2005	2,213	3,471,776	1,569
2006	2,396	3,808,580	1,590
2007	2,316	3,616,245	1,561
2008	2,789	4,627,312	1,659
2009	2,098	3,623,289	1,727
2010	2,371	4,214,916	1,778
2011	3,240	5,916,985	1,826
2012	3,607	6,674,399	1,850
2013	3,226	6,046,865	1,874
2014	1,608	3,029,405	1,884
Total	54,350	\$79,511,307	\$1,463

Retired Members: Total Fund

Number of Benefit Recipients by Benefit Option

Amount of Monthly Benefit¹	Option A-1	Option A-2	Option A-3	Option B-1	Option B-2	Option B-3	Survivors	Disability	Total
\$1-\$500	1,836	948	222	1,225	256	454	480	137	5,558
\$501-\$1,000	2,316	1,649	346	2,189	740	1,028	357	226	8,851
\$1,001-\$1,500	3,340	2,660	470	4,154	1,263	1,421	144	236	13,688
\$1,501-\$2,000	3,206	3,096	372	4,484	1,465	1,772	134	119	14,648
\$2,001-\$3,000	2,275	2,726	289	2,753	1,042	1,291	57	32	10,465
Over \$3,000	264	305	20	297	125	128	1	0	1,140
Total	13,237	11,384	1,719	15,102	4,891	6,094	1,173	750	54,350

¹Pension only

Summary of Benefit Options

- A-1 - Provides a monthly benefit for retiree's life. In the event the retiree dies before receiving five years of payments, the beneficiary receives the remainder of the five years (60 months) of guaranteed Defined Benefit pension payments in a lump sum.
- A-2 - Provides a monthly benefit for retiree's life. The benefit ceases upon the death of the retiree.
- A-3 - Provides a monthly benefit for retiree's life, including monthly annuitization of member's Annuity Savings Account (ASA). In the event the retiree dies before receiving five years of payments, the beneficiary will receive the remainder of the five years of guaranteed pension payments. The ASA is reduced with each monthly benefit paid; if the retiree dies before reducing the balance to \$0.00, the beneficiary will receive a single payment of the amount remaining.
- B-1 - Provides a monthly benefit for retiree's life. Upon the death of the retiree, the qualified designated survivor receives 100% of the member's Defined Benefit for the remainder of the survivor's life.
- B-2 - Provides a monthly benefit for retiree's life. Upon the death of the retiree, the qualified designated survivor receives 66-2/3% of the member's Defined Benefit for the remainder of the survivor's life.
- B-3 - Provides a monthly benefit for retiree's life. Upon the death of the retiree, the qualified designated survivor receives 50% of the member's Defined Benefit for the remainder of the survivor's life.
- Survivors* - Provides a monthly benefit for the surviving spouse's or dependent's life. The benefit ceases upon death of the survivor.
- Disability** - Available to members with five (5) or more years of creditable service who become disabled as determined by the Social Security Administration while teaching in Indiana.

* (of members who die while in service)

** Includes Classroom Disability – Provides a benefit of \$125 per month plus \$5 for each additional year of TRF-covered service over five years

Retired Members: Total Fund

Schedule of Average Benefit Payments by Service at Retirement

	Years of Service at Retirement						Total
	<10	10-14	15-19	20-24	25-29	30+	
Avg. Monthly Defined Benefit Pension	\$443	\$322	\$574	\$877	\$1,229	\$1,829	\$1,463
Avg. Monthly Annuity	\$77	\$101	\$105	\$133	\$166	\$229	\$192
Avg. Final Avg. Salary at Retirement	\$36,708	\$29,761	\$40,461	\$46,607	\$51,252	\$57,625	\$52,905
Number of Benefit Recipients	87	1,737	4,777	6,224	8,745	32,780	54,350

Reconciliation of Participant Data: Total Fund

	Active	Inactive Vested	Inactive Nonvested	Survivor	Disabled	Retired	Beneficiary	Total
6/30/2013 Census	70,414	6,417	11,693	1,205	741	47,373	3,691	141,534
Disabled	(22)	(16)			38			0
Retired	(1,198)	(1,074)				2,272		0
Terminated with Vested Benefit	(3,082)	3,082						0
Terminated, due a Refund	(2,680)		2,680					0
Died with Survivor	(16)	(3)		8	(13)	(382)	406	0
Died, no Survivor*	(2)	(2)		(39)	(31)	(789)	(185)	(1,048)
Refunded*	(210)	(36)	(1,043)					(1,289)
Forfeited*		(2)	(468)					(470)
Dropped from Database			(17)					(17)
Rehired	776	(186)	(590)					0
Status Corrections		128	(134)	(3)	(1)	10		0
Data Corrections		369	198	2	12	22	13	616
New Hires	4,754		381					5,135
6/30/2014 Census	68,734	8,677	12,700	1,173	746	48,506	3,925	144,461

* No remaining benefit obligation in the plan.

nyhart

***Indiana State Teachers'
Retirement Fund
Pre-1996 Account***

***Annual Actuarial Valuation
June 30, 2015***

**Indiana State Teachers' Retirement Fund
Pre-1996 Account**

Annual Actuarial Valuation as of June 30, 2015

Nyhart

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November 1, 2015

November 1, 2015

***The Board of Trustees
Indiana Public Retirement System
Indianapolis, IN***

Dear Board Members:

An actuarial valuation is prepared annually for the Indiana State Teachers' Retirement Fund Pre-1996 Account. Submitted in this report are the results of the June 30, 2015 actuarial valuation.

Census Data and Asset Information

The member census data and the asset information for this valuation were furnished by the Chief Financial Officer and Staff. Their efforts and cooperation in furnishing these materials are acknowledged with appreciation. We did not audit the information provided, but we did review it thoroughly for reasonableness and compared it with the prior year's submission for consistency.

Assumptions and Methods

The majority of the actuarial assumptions used in the June 30, 2015 valuation were adopted by the Board pursuant to the Experience Study completed in April 2015, which reflects the experience period from July 1, 2011 to June 30, 2014. The Board also adopted a change to the mortality basis effective with the June 30, 2015 valuation, and confirmed the 6.75% interest rate in use since 2012. Assumptions are summarized in the Assumptions and Methods section of this report. These assumptions and methods have been used to develop the Actuarially Determined Contribution and are consistent with the accounting requirements detailed in GASB Statements No. 67 and No. 68.

Benefit obligations in the June 30, 2015 valuation are determined using June 30, 2014 census data and rolled-forward to the June 30, 2015 measurement date at the valuation interest rate, using actual distributions and ASA account returns during that period. We are not aware of any material events that would require additional adjustments to the benefit obligations for changes to the population not anticipated in the demographic assumptions used in the valuation.

Funding Objective

The Indiana State Teachers' Retirement Fund Pre-1996 Account is funded on a pay-as-you-go basis from the State of Indiana.

Fund Structure

The Indiana State Teachers' Retirement Fund (TRF) is one fund comprised of a two-account structure in compliance with Indiana Code Section 5-10.4-2-2. The Pre-1996 Account consists of members who were hired prior to July 1, 1995, and who have maintained continuous employment with the same school corporation or covered institution since that date.

Characteristics of the Pre-1996 Account

1. Active membership in the Pre-1996 Account continues to decline as members quit, become disabled, die, or retire.
2. The Defined Benefits from the Pre-1996 Account are funded by State appropriations (including contributions of some revenue from the State Lottery). At the time of retirement, Annuity Savings Account (ASA) benefits payable from the Pre-1996 Account are funded by the annuitization of Pre-1996 Account member contributions.

Funding Arrangements

Prior to the legislation that established the two-account structure of TRF, the Defined Benefits of the Indiana State Teachers' Retirement Fund were funded with a pay-as-you-go method. Under this arrangement, amounts were appropriated to meet the current year's pension payment requirements. Defined Benefits payable from the Pre-1996 Account continue to be funded on this basis.

Progress Towards Realization of Financing Objectives

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a Plan's funded status. In the absence of benefit improvements, it should increase over time, until it reaches 100%. The funded ratio of the Pre-1996 Account (pay-as-you-go) decreased to 30.4% from 32.8% for the preceding year. Based on the actuarial assumptions, it is anticipated that the Pre-1996 Account will attain 100% funded status on 6/30/2039.

Certification

We have included several schedules and exhibits in this report, including the following:

Financial Section

- Note 1 – Tables of Plan Membership
- Note 8 – Net Pension Liability and Actuarial Information – Defined Benefit Plans
- Schedule of Changes in Net Pension Liability and Net Pension Liability
- Schedule of Contributions (Actuarially Determined Contribution)
- Schedule of Notes to Required Supplementary Information

Actuarial Section

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

Statistical Section

- Membership Data Summary
- Ratio of Active Members to Annuitants
- Schedule of Benefit Recipients by Type of Benefit Option
- Schedule of Average Benefit Payments

To the best of our knowledge, this report presents a fair position of the funded status of the plan in accordance with the Actuarial Standards of Practice as described by the American Academy of Actuaries. In addition, information has been prepared in accordance with applicable government standards of financial reporting for defined benefit pension plans.

The actuarial valuation is prepared using information which has been reconciled and reviewed for reasonableness. We are not aware of any material inadequacy in employee census or asset values. The census information and the asset information have been provided to us by the Chief Financial Officer and Staff. We have not audited the information at the source, and therefore do not accept responsibility for the accuracy or the completeness of the data on which the information is based.

In our opinion, the actuarial assumptions and methods are individually reasonable and in combination represent our best estimate of anticipated experience of the plan.

Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report.

The undersigned are compliant with the continuing education requirements of the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States.

Respectfully submitted,



Michael Zurek, EA, MAAA



Matt Sherertz, ASA, EA



Tayt V. Odom, FSA, EA, MAAA

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Comments

Contribution Rates

The Calculated Contribution Rate section shows the calculated contribution rate for the Pre-1996 Account. Since the Pre-1996 Account is funded on a pay-as-you-go basis, the expected benefit payments are also shown in the Calculated Contribution Rate section.

Plan Provisions

There is no ad-hoc COLA on January 1, 2016. Instead, retirees were paid a service-related lump sum (i.e., referred to as 13th check) in September 2015. These changes are reflected in the June 30, 2015 valuation. Any future COLA is estimated by an ongoing assumption of 1.0% annual increases in all pension payments beginning January 1, 2017.

ASA annuitizations are scheduled to be based on a 5.75% conversion rate for the period from October 1, 2014 through September 30, 2015, and at a 4.50% conversion rate for the period from October 1, 2015 through December 31, 2016. After January 1, 2017, annuity conversions will occur outside of the plan. Benefit obligations in the June 30, 2015 valuation have been adjusted for the anticipated gains through December 31, 2016 for conversions at interest rates lower than the valuation interest rate of 6.75%.

We are not aware of any other material changes in the plan provisions since the June 30, 2014 actuarial valuation.

Census Data

Census data for the valuation was provided by INPRS. We have thoroughly examined the data for reasonableness and consistency with prior years, but we did not otherwise audit it.

Assumptions and Methods

The actuarial assumptions used in the June 30, 2015 valuation are based on plan experience from July 1, 2011 to June 30, 2014. The Board adopted a change to the mortality basis effective with the June 30, 2015 valuation and confirmed the 6.75% interest rate assumption in use since 2012.

Benefit obligations in the June 30, 2015 valuation are determined using June 30, 2014 census data and rolled-forward to the June 30, 2015 measurement date at the valuation interest rate, using actual distributions and ASA account returns during that period. We are not aware of any material events that would require additional adjustments to the benefit obligations for changes to the population not anticipated in the demographic assumptions used in the valuation.

Investment Experience

The investment return for the year ended June 30, 2015 was lower than the assumed 6.75% return. The assets of the TRF Pre-1996 Account are commingled with the assets of other funds administered by INPRS. The TRF money-weighted return was 0.57% during fiscal 2015. Under the asset valuation method, market gains and losses are spread over a four-year period. The Market Value of Assets is currently \$72 million lower than the Actuarial Value of Assets, meaning the plan is currently in a position of having net deferred investment losses to be recognized in future years.

Challenges

A significant funding challenge will be for the State to meet the projected pay-as-you-go obligations as shown in the Payout Projections section for the Pre-1996 Account.

Summary of Key Valuation Results

	June 30, 2015	June 30, 2014	June 30, 2013	June 30, 2012
Member Information				
Number				
Active Members	16,310	19,210	19,210	22,688
Inactive Vested Members	4,545	3,314	3,314	3,382
Inactive Nonvested Members	408	546	546	794
Retired Members and Beneficiaries	50,214	49,345	49,345	47,000
Total	71,477	72,415	72,415	73,864
Valuation Payroll	\$ 1,178,845,758	\$ 1,383,241,991	\$ 1,383,428,013	\$ 1,637,066,246
Projected Payroll	\$ 1,098,600,000	\$ 1,275,600,000		
Annual Benefit Payments				
Annuity	\$ 117,298,548	\$ 113,356,896	\$ 113,356,896	\$ 105,506,100
Pension	886,611,432	860,278,572	860,278,572	792,499,560
Total	\$ 1,003,909,980	\$ 973,635,468	\$ 973,635,468	\$ 898,005,660
Assets and Liabilities				
Accrued Liability				
ASA Account Balance	\$ 1,421,455,452	\$ 1,715,340,174	\$ 1,812,829,927	\$ 1,974,075,962
ASA Annuities	1,238,798,290	1,105,546,776	1,082,701,767	1,003,211,894
Pension: Retirees	9,249,267,624	8,580,843,864	8,996,399,426	8,256,856,617
Pension: Non-retirees	5,108,224,963	4,953,485,217	4,570,447,617	5,287,870,046
Total	\$ 17,017,746,329	\$ 16,355,216,031	\$ 16,462,378,737	\$ 16,522,014,519
Market Value of Assets				
ASA Account Balance	\$ 1,421,455,452	\$ 1,715,340,174	\$ 1,812,829,927	\$ 1,974,075,962
ASA Annuities	1,238,798,290	1,105,546,776	1,082,701,767	1,003,211,894
Pension: Retirees	2,439,655,728	2,680,979,925	2,319,660,883	2,081,622,532
Pension: Non-retirees	0	0	0	0
Total	\$ 5,099,909,470	\$ 5,501,866,875	\$ 5,215,192,577	\$ 5,058,910,388
Actuarial Value of Assets				
ASA Account Balance	\$ 1,421,455,452	\$ 1,715,340,174	\$ 1,812,829,927	\$ 1,974,075,962
ASA Annuities	1,238,798,290	1,105,546,776	1,082,701,767	1,003,211,894
Pension: Retirees	2,511,385,118	2,537,464,437	2,339,572,220	2,000,818,682
Pension: Non-retirees	0	0	0	0
Total	\$ 5,171,638,860	\$ 5,358,351,387	\$ 5,235,103,914	\$ 4,978,106,538
Unfunded Accrued Liability				
ASA Account Balance	\$ 0	\$ 0	\$ 0	\$ 0
ASA Annuities	0	0	0	0
Pension: Retirees	6,737,882,506	6,043,379,427	6,656,827,206	6,256,037,935
Pension: Non-retirees	5,108,224,963	4,953,485,217	4,570,447,617	5,287,870,046
Total	\$ 11,846,107,469	\$ 10,996,864,644	\$ 11,227,274,823	\$ 11,543,907,981
Funded Percentage				
ASA Account Balance	100.0%	100.0%	100.0%	100.0%
ASA Annuities	100.0%	100.0%	100.0%	100.0%
Pension: Retirees	27.2%	29.6%	26.0%	24.2%
Pension: Non-retirees	0.0%	0.0%	0.0%	0.0%
Total	30.4%	32.8%	31.8%	30.1%
Pension Normal Cost	\$ 46,787,226	\$ 57,750,841	\$ 68,860,011	\$ 81,343,107
Annual Costs				
	Fiscal 2017	Fiscal 2016	Fiscal 2015	Fiscal 2014
Actuarially Determined Contribution (ADC)	\$ 873,400,000	\$ 869,500,000	\$ 851,426,892	\$ 831,941,502
Expected Pension Benefit Payments	\$ 1,014,500,000	\$ 960,100,000	\$ 934,300,000	\$ 885,000,000
Expected Pension Contributions	\$ 873,400,000	\$ 869,500,000	\$ 851,426,892	\$ 831,941,502

Valuations on and after June 30, 2014 are based on census data collected at the prior measurement date.

The plan is funded on a pay-as-you-go basis and the annual contribution is appropriated by state statute. The Actuarially Determined Contribution is equal to the state appropriation to fund the plan.

Unfunded Accrued Liability

\$Millions				
June 30	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Percentage
1975	\$ 1,570	\$ 312	\$ 1,258	19.9%
1980	2,843	539	2,304	19.0%
1985	4,023	1,073	2,950	26.7%
1991	7,182	2,161	5,021	30.1%
1992	7,949	2,376	5,573	29.9%
1993	8,508	2,592	5,916	30.5%
1994	9,087	2,809	6,278	30.9%
1995	9,675	2,984	6,691	30.8%
1996	10,283	3,242	7,041	31.5%
1997	10,868	3,678	7,190	33.8%
1998	11,481	4,130	7,351	36.0%
1999	12,173	4,731	7,442	38.9%
2000	12,409	5,210	7,199	42.0%
2001	12,696	5,363	7,333	42.2%
2002	13,498	5,555	7,943	41.2%
2003	13,355	5,728	7,627	42.9%
2004	13,549	5,765	7,784	42.5%
2005	14,254	5,797	8,457	40.7%
2006	15,003	5,478	9,525	36.5%
2007	15,988	5,764	10,224	36.1%
2008	15,792	5,954	9,838	37.7%
2009	16,027	5,109	10,918	31.9%
2010	16,282	5,382	10,900	33.1%
2011	16,318	5,227	11,091	32.0%
2012	16,522	4,978	11,544	30.1%
2013	16,462	5,235	11,227	31.8%
2014	16,355	5,358	10,997	32.8%
2015	17,018	5,172	11,846	30.4%

Active Member Data

June 30	Number	Valuation Payroll (\$000s)	Average			
			Age	Service	Pay	Pay Increase %
1975	63,932	\$ 749,200	38.7	10.9	\$ 11,719	
1980	66,575	1,107,699	39.7	11.9	16,638	
1985	62,932	1,519,887	41.5	14.2	24,151	
1987	64,157	1,751,709	42.0	14.5	27,303	
1989	65,986	2,044,797	42.6	14.9	30,988	
1991	63,373	2,278,715	43.0	15.4	35,957	
1992	63,980	2,416,263	43.8	16.0	37,766	5.0%
1993	64,594	2,536,165	44.0	16.1	39,263	4.0
1994	65,209	2,614,915	44.1	16.2	40,101	2.1
1995	66,542	2,728,811	44.2	16.2	41,009	2.3
1996	70,183	2,805,823	44.2	15.7	39,979	(2.5)
1997	63,520	2,739,436	45.4	16.9	43,127	7.9
1998	59,030	2,699,183	46.4	18.0	45,726	6.0
1999	56,560	2,755,489	47.4	19.3	48,718	6.5
2000	52,920	2,561,533	48.2	20.1	48,404	(0.6)
2001	50,802	2,564,451	48.7	20.7	50,479	4.3
2002	47,510	2,604,956	49.4	21.5	54,830	8.6
2003	43,705	2,448,271	49.6	21.7	56,018	2.2
2004	41,510	2,384,480	50.1	22.2	57,444	2.5
2005	39,097	2,305,726	50.6	22.7	58,974	2.7
2006	36,994	2,237,380	51.1	23.2	60,480	2.6
2007	36,526	2,376,390	52.1	23.8	65,060	7.6
2008	34,628	2,295,816	52.5	24.6	66,299	1.9
2009	29,297	2,030,484	53.7	26.0	69,307	4.5
2010	26,439	1,865,102	53.9	26.3	70,544	1.8
2011	24,710	1,762,750	54.5	26.9	71,338	1.1
2012	22,688	1,637,066	54.9	27.4	72,156	1.1
2013	19,210	1,383,428	54.7	27.2	72,016	(0.2)
2014*	19,210	1,383,428	54.7	27.2	72,016	(0.2)
2015*	16,310	1,178,846	54.6	27.2	72,277	0.4

* Valuations on and after June 30, 2014 are based on census data collected at the prior measurement date.

Reconciliation of Market Value of Assets

	June 30, 2014 thru June 30, 2015	June 30, 2013 thru June 30, 2014
Market Value, beginning of year	\$ 5,501,866,875	\$ 5,215,192,577
Member Contributions	\$ 41,740,139	\$ 46,783,844
Employer Contributions	5,810,942	6,325,502
Non-Employer Contributing Entity Contributions	845,615,950	825,616,000
Benefit Payments	(1,328,854,709)	(1,229,300,965)
Net Transfers	<u>3,375,277</u>	<u>(3,330,156)</u>
Non-Investment Net Cash Flow	\$ (432,312,401)	\$ (353,905,775)
Administrative and Project Expenses	\$ (6,530,516)	\$ (7,010,723)
Investment Return	<u>36,885,512</u>	<u>647,590,796</u>
Net Investment Return	\$ 30,354,996	\$ 640,580,073
Market Value, end of year	\$ 5,099,909,470	\$ 5,501,866,875
Market Value of Assets Approximate Time-Weighted Annual Rate of Return ¹	0.6%	12.7%

¹ Consolidated pension and ASA account return, net of investment and administrative expenses, assumes cash flows occur at mid-year.

Development of the Actuarial Value of Assets

	June 30, 2014 thru June 30, 2015	June 30, 2013 thru June 30, 2014
1. Total Actuarial Value, beginning of year	\$10,393,582,888	\$ 9,688,931,998
2. Total ASA Account Balance, beginning of year	<u>\$ 2,836,068,903</u>	<u>\$ 2,804,754,433</u>
3. Total Actuarial Value, Net of ASA Account Balance, beginning of year [(1) – (2)]	\$ 7,557,513,985	\$ 6,884,177,565
4. Total Market Value, Net of ASA Account Balance, beginning of year	\$ 7,855,240,302	\$ 6,844,124,317
5. Total Market Value, Net of ASA Account Balance, end of year	\$ 7,886,652,537	\$ 7,855,240,302
6. Total Non-Investment Net Cash Flow	40,489,264	27,814,880
7. Total Net Investment Return		
a. Expected [.0675 x ((4)+0.5*(6))]	531,595,233	462,917,144
b. Actual [(5) - (4) - (6)]	(9,077,029)	983,301,105
8. Total Current Year Market Value Gain/(Loss) [(7b) - (7a)]	\$ (540,672,262)	\$ 520,383,961
9. Total Deferred Recognition of Investment Gain/(Loss)		
a. Current Fiscal Year (75% of (8))	\$ (405,504,197)	\$ 390,287,971
b. Current Fiscal Year - 1 (50%)	260,191,981	(16,953,030)
c. Current Fiscal Year - 2 (25%)	(8,476,515)	(75,608,624)
d. Total [(a) + (b) + (c)]	\$ (153,788,731)	\$ 297,726,317
10. Total Preliminary Actuarial Value, end of year [(5) - (9d)]	\$ 8,040,441,268	\$ 7,557,513,985
a. 80% of Market Value, end of year [80% of (5)]	6,309,322,030	6,284,192,242
b. 120% of Market Value, end of year [120% of (5)]	9,463,983,044	9,426,288,362
11. Total Actuarial Value, end of year [(10), but not Greater than (10b), nor Less than (10a)]	\$ 8,040,441,268	\$ 7,557,513,985
12. Total Actuarial Value as a % of Market Value [(11) / (5)]	101.9499874%	96.2098382%
13. Total Net Investment Return on Actuarial Value [(11) - (3) - (6)]	\$ 442,438,019	\$ 645,521,540
14. Total Actuarial Value Net Rate of Return [(13) / ((3) + 0.5*(6))]	5.84%	9.36%
15. Pre-1996 Market Value, Net of ASA Account Balance, end of year	\$ 3,678,454,018	\$ 3,786,526,701
16. Pre-1996 Actuarial Value, Net of ASA Account Balance, end of year [(12) x (15)]	\$ 3,750,183,408	\$ 3,643,011,213
17. Pre-1996 ASA Account Balance, end of year	\$ 1,421,455,452	\$ 1,715,340,174
18. Pre-1996 Actuarial Value, end of year [(16) + (17)]	\$ 5,171,638,860	\$ 5,358,351,387

The Actuarial Value of Assets is determined in total for TRF Pre-1996 and 1996 Accounts (lines 1 - 14) and applied on a plan basis (lines 15 – 18.)

Accrued Liability Reconciliation

	June 30, 2014 thru June 30, 2015	June 30, 2013 thru June 30, 2014
Total Accrued Liability, beginning of year	\$ 16,355,216,031	\$ 16,462,378,737
ASA Account Balance, beginning of year	\$ 1,715,340,174	\$ 1,812,829,927
Accrued Liability, Net of ASA Account Balance, beginning of year	\$ 14,639,875,857	\$ 14,649,548,810
Normal Cost	57,750,841	68,860,011
Actual Benefit Payments	(1,100,434,461)	(1,034,563,166)
Transfers	146,512,157	90,442,825
Expected Interest	<u>959,894,924</u>	<u>961,628,534</u>
Expected Accrued Liability, end of year	\$ 14,703,599,318	\$ 14,735,917,014
Sources of Change:		
New Entrants	20,755,214	0
Experience (Gain) or Loss	(89,606,920)	4,682,649
Mortality Change ¹	939,690,298	0
Other Assumption Changes ²	93,467,075	0
Additional Liability due to Cost-of-Living Adjustment ³	(71,614,108)	(75,200,000)
Plan Provision Change ⁴	<u>0</u>	<u>(25,523,806)</u>
Accrued Liability, Net of ASA Account Balance, end of year	\$ 15,596,290,877	\$ 14,639,875,857
ASA Account Balance, end of year	\$ 1,421,455,452	\$ 1,715,340,174
Total Accrued Liability, end of year	\$ 17,017,746,329	\$ 16,355,216,031

¹ The June 30, 2015 mortality assumption was updated to the RP-2014 White Collar mortality table with Social Security Administration improvement scale applied from 2006.

² Assumption changes other than mortality adopted on June 30, 2015 pursuant to the 2015 experience study.

³ 13th check to retirees in lieu of the assumed 2016 and 2015 1.0% COLAs.

⁴ Recognition of cost of future ASA account conversions to annuities from October 1, 2014 through December 31, 2016 at conversion interest rates lower than the valuation interest rate of 6.75%.

Asset and Liability Allocation¹

	June 30, 2015		
	Non-Retired	Retired	Total
Accrued Liability (AL)			
ASA Balance	\$ 1,303,468,191	\$ 117,987,261	\$ 1,421,455,452
ASA Annuities	0	1,238,798,290	1,238,798,290
Pension: Retirees	0	9,249,267,624	9,249,267,624
Pension: Non-Retirees	5,108,224,963	0	5,108,224,963
Total	\$ 6,411,693,154	\$10,606,053,175	\$ 17,017,746,329
Market Assets			
ASA Balance	\$ 1,303,468,191	\$ 117,987,261	\$ 1,421,455,452
ASA Annuities	0	1,238,798,290	1,238,798,290
Pension: Retirees	0	2,439,655,728	2,439,655,728
Pension: Non-Retirees	0	0	0
Total	\$ 1,303,468,191	\$3,796,441,279	\$ 5,099,909,470
Actuarial Assets			
ASA Balance	\$ 1,303,468,191	\$ 117,987,261	\$ 1,421,455,452
ASA Annuities	0	1,238,798,290	1,238,798,290
Pension: Retirees	0	2,511,385,118	2,511,385,118
Pension: Non-Retirees	0	0	0
Total	\$ 1,303,468,191	\$3,868,170,669	\$ 5,171,638,860
Unfunded AL			
ASA Balance	\$ 0	\$ 0	\$ 0
ASA Annuities	0	0	0
Pension: Retirees	0	6,737,882,506	6,737,882,506
Pension: Non-Retirees	5,108,224,963	0	5,108,224,963
Total	\$ 5,108,224,963	\$ 6,737,882,506	\$ 11,846,107,469

	June 30, 2014		
	Non-Retired	Retired	Total
Accrued Liability (AL)			
ASA Balance	\$ 1,525,191,799	\$ 190,148,375	\$ 1,715,340,174
ASA Annuities	0	1,105,546,776	1,105,546,776
Pension: Retirees	0	8,580,843,864	8,580,843,864
Pension: Non-Retirees	4,953,485,217	0	4,953,485,217
Total	\$ 6,478,677,016	\$9,876,539,015	\$ 16,355,216,031
Market Assets			
ASA Balance	\$ 1,525,191,799	\$ 190,148,375	\$ 1,715,340,174
ASA Annuities	0	1,105,546,776	1,105,546,776
Pension: Retirees	0	2,680,979,925	2,680,979,925
Pension: Non-Retirees	0	0	0
Total	\$ 1,525,191,799	\$3,976,675,076	\$ 5,501,866,875
Actuarial Assets			
ASA Balance	\$ 1,525,191,799	\$ 190,148,375	\$ 1,715,340,174
ASA Annuities	0	1,105,546,776	1,105,546,776
Pension: Retirees	0	2,537,464,437	2,537,464,437
Pension: Non-Retirees	0	0	0
Total	\$ 1,525,191,799	\$ 3,833,159,588	\$ 5,358,351,387
Unfunded AL			
ASA Balance	\$ 0	\$ 0	\$ 0
ASA Annuities	0	0	0
Pension: Retirees	0	6,043,379,427	6,043,379,427
Pension: Non-Retirees	4,953,485,217	0	4,953,485,217
Total	\$ 4,953,485,217	\$ 6,043,379,427	\$ 10,996,864,644

¹ Assets are allocated first to member ASA account liabilities, then to ASA annuity liabilities, then to Pension: Retirees liabilities, and finally to Pension: Non-Retirees liabilities to determine unfunded accrued liabilities.

Solvency Test

\$Thousands

Year Ended June 30	Accrued Liability				Portion of Accrued Liability Covered by Assets				
	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total	Actuarial Value of Assets	Active Member Contribs.	Retirees and Bfcys	Active Member (Employer Financed Portion)	Total
2005	\$2,925,367	\$5,653,502	\$5,675,278	\$14,254,147	\$5,796,724	100.0%	50.8%	0.0%	40.7%
2006	\$2,898,891	\$6,238,115	\$5,865,465	\$15,002,471	\$5,477,221	100.0%	41.3%	0.0%	36.5%
2007	\$3,016,052	\$7,063,889	\$5,908,318	\$15,988,259	\$5,763,508	100.0%	38.9%	0.0%	36.1%
2008	\$2,613,138	\$7,244,422	\$5,934,745	\$15,792,305	\$5,953,991	100.0%	46.1%	0.0%	37.7%
2009	\$2,389,886	\$7,891,346	\$5,745,861	\$16,027,093	\$5,109,086	100.0%	34.5%	0.0%	31.9%
2010	\$2,353,715	\$8,153,240	\$5,775,111	\$16,282,066	\$5,382,410	100.0%	37.1%	0.0%	33.1%
2011	\$2,015,580	\$8,776,916	\$5,525,908	\$16,318,404	\$5,227,402	100.0%	36.6%	0.0%	32.0%
2012	\$1,782,353	\$9,451,792	\$5,287,870	\$16,522,015	\$4,978,107	100.0%	33.8%	0.0%	30.1%
2013	\$1,636,978	\$10,254,953	\$4,570,448	\$16,462,379	\$5,235,104	100.0%	35.1%	0.0%	31.8%
2014	\$1,525,192	\$9,876,539	\$4,953,485	\$16,355,216	\$5,358,351	100.0%	38.8%	0.0%	32.8%
2015	\$1,303,468	\$10,606,053	\$5,108,225	\$17,017,746	\$5,171,639	100.0%	36.5%	0.0%	30.4%

Analysis of Financial Experience¹

\$Thousands	June 30, 2014 thru June 30, 2015	June 30, 2013 thru June 30, 2014
Unfunded Accrued Liability, beginning of year	\$ 10,996,865	\$ 11,227,275
(Gain) / Loss:		
Actuarial Value of Assets	\$ 32,776	\$ (105,699)
Actuarial Accrued Liabilities	(68,852)	4,682
Amortization of Existing Bases	(76,225)	(28,669)
Mortality Change ²	939,690	0
Other Assumption Changes ³	93,467	0
Additional Liability due to Cost-of-Living Adjustment ⁴	(71,614)	(75,200)
Plan Provision Change ⁵	<u>0</u>	<u>(25,524)</u>
Net Change	\$ 849,242	\$ (230,410)
Unfunded Accrued Liability, end of year	\$ 11,846,107	\$ 10,996,865

¹ Based on pension and ASA annuities only, i.e. net of ASA account balances.

² The June 30, 2015 mortality assumption was updated to the RP-2014 White Collar mortality table with Social Security Administration improvement scale applied from 2006.

³ Assumption changes other than mortality adopted on June 30, 2015 pursuant to the 2015 experience study.

⁴ 13th check to retirees in lieu of the assumed 2016 and 2015 1.0% COLAs.

⁵ Recognition of cost of future ASA account conversions to annuities from October 1, 2014 through December 31, 2016 at conversion interest rates lower than the valuation interest rate of 6.75%.

Sensitivity to Changes in Assumed Investment Return / Interest Rate

\$Millions	Assumed Investment Return / Interest Rate				
	5.75%	6.00%	6.25%	6.50%	6.75%
Funded Status					
Actuarial Accrued Liability	\$ 18,622.8	\$ 18,207.7	\$ 17,801.9	\$ 17,405.4	\$ 17,017.7
Actuarial Value of Assets	<u>5,171.6</u>	<u>5,171.6</u>	<u>5,171.6</u>	<u>5,171.6</u>	<u>5,171.6</u>
Unfunded Accrued Liability	\$ 13,451.2	\$ 13,036.1	\$ 12,630.3	\$ 12,233.8	\$ 11,846.1
Funded Ratio	27.8%	28.4%	29.1%	29.7%	30.4%
Actuarially Determined Contribution Rate					
Normal Cost %	5.77%	5.35%	4.96%	4.59%	4.26%
UAL Amortization %	<u>88.28%</u>	<u>87.62%</u>	<u>86.91%</u>	<u>86.15%</u>	<u>85.34%</u>
Actuarially Determined Contribution %	94.05%	92.97%	91.87%	90.74%	89.60%

\$Millions	Assumed Investment Return / Interest Rate				
	7.00%	7.25%	7.50%	7.75%	8.00%
Funded Status					
Actuarial Accrued Liability	\$ 16,668.4	\$ 16,326.3	\$ 15,991.3	\$ 15,663.3	\$ 15,342.1
Actuarial Value of Assets	<u>5,171.6</u>	<u>5,171.6</u>	<u>5,171.6</u>	<u>5,171.6</u>	<u>5,171.6</u>
Unfunded Accrued Liability	\$ 11,496.8	\$ 11,154.7	\$ 10,819.7	\$ 10,491.7	\$ 10,170.5
Funded Ratio	31.0%	31.7%	32.3%	33.0%	33.7%
Actuarially Determined Contribution Rate					
Normal Cost %	3.95%	3.67%	3.41%	3.16%	2.93%
UAL Amortization %	<u>84.67%</u>	<u>83.96%</u>	<u>83.20%</u>	<u>82.40%</u>	<u>81.55%</u>
Actuarially Determined Contribution %	88.62%	87.63%	86.61%	85.56%	84.48%

Calculated Employer Contribution Rate

	June 30, 2015	% of Projected Payroll for Fiscal 2016
Normal Cost	\$ 46,787,226	4.26%
Amortization of Unfunded Accrued Liability		
Unfunded Accrued Liability (UAL) ¹	\$ 11,846,107,469	
Unamortized UAL from Prior Years	10,819,063,009	
Net Unamortized UAL	\$ 1,027,044,460	
Amortization Factor (30-years, level dollar)	13.5862	
Current Year Amortization Payment	\$ 75,594,681	
Payments Established in Prior Years	861,911,006	
Total Amortization Payments	\$ 937,505,687	85.34%
Calculated Employer Contribution Rate	\$ 984,292,913	89.60%
	<u>Fiscal 2016</u>	<u>Fiscal 2017</u>
Expected Pension Benefit Payments ²	\$ 1,004,400,000	\$ 1,014,500,000
Expected Pension Contributions	\$ 869,500,000	\$ 873,400,000

The Pre-1996 Account is funded on a pay-as-you-go basis. The figures shown above reflect the expected defined benefit pension payments (excluding ASA annuities) and contributions to be made during fiscal year 2016 and fiscal year 2017.

¹ Pension and ASA annuity only

² Fiscal 2016 expected pension benefit payments are based on 6/30/2014 census data used in the 6/30/2015 valuation and will not necessarily match the entry on page 2, which is based on 6/30/2013 census data used in the 6/30/2014 valuation.

Statement of Fiduciary Net Position

	June 30, 2015	June 30, 2014
Assets		
Cash and Cash Equivalents	\$ 479,403	\$ 449,838
Receivables		
Contributions	\$ 2,797,643	\$ 84,209
Miscellaneous	253,148	81,023
Investments	77,640,404	83,743,213
Foreign Exchange Contracts	906,640,727	648,323,850
Accrued Interest and Dividends	15,153,413	16,089,173
Due from Other Funds	<u>538,345</u>	<u>910,235</u>
Total Receivables	\$ 1,003,023,680	\$ 749,231,703
Investments		
Short Term	\$ 21,025,563	\$ 24,313,716
Pooled Unit Trust Assets		
Repurchase Agreements	\$ 0	\$ 0
Short Term Investments	208,731,187	215,687,288
Fixed Income	2,115,466,032	2,401,241,371
Equities	1,397,754,361	1,559,370,354
Alternatives	1,471,880,722	1,438,578,099
Derivatives	687,795	4,449,350
Securities Lending Collateral	<u>188,768,617</u>	<u>340,946,906</u>
Total Investments	\$ 5,404,314,277	\$ 5,984,587,084
Net Capitalized Assets	<u>\$ 788,317</u>	<u>1,184,460</u>
Total Assets	\$ 6,408,605,677	\$ 6,735,453,085
Liabilities		
Accounts Payable	\$ 246,280	\$ 564,039
Retirement Benefits Payable	110,840,618	84,653,905
Salaries and Benefits Payable	0	0
Investments Payable	69,205,640	118,008,263
Foreign Exchange Contracts	909,778,255	651,532,659
Securities Lending Obligations	188,768,616	340,946,906
Securities Sold Under Agreement to Repurchase	28,695,436	35,530,239
Due to Other Funds	<u>1,161,362</u>	<u>2,350,199</u>
Total Liabilities	\$ 1,308,696,207	\$ 1,233,586,210
Net Position Restricted for Pensions	\$ 5,099,909,470	\$ 5,501,866,875

Statement of Changes in Fiduciary Net Position

	June 30, 2015	June 30, 2014
Additions		
Contributions		
Member Contributions	\$ 41,740,139	\$ 47,027,857
Employer Contributions	5,810,942	6,325,502
Nonemployer Contributing Entity Contributions	845,615,950	825,616,000
Other Contributions	<u>0</u>	<u>0</u>
Total Contributions	\$ 893,167,031	\$ 878,969,359
Investment Income/(Loss)		
Net Appreciation/(Depreciation)		
Fair Value of Investments	\$ (4,437,202)	\$ 596,763,079
Other Net Investment Income	737,013	804,833
Net Interest and Dividends Income	71,769,372	81,045,765
Miscellaneous Income	0	0
Securities Lending Income	<u>673,451</u>	<u>658,727</u>
Total Investment Income/(Loss)	\$ 68,742,634	\$ 679,272,404
Less Direct Investment Expenses		
Investment Management Fees	\$ (29,162,593)	\$ (29,212,783)
Securities Lending Fees	(109,098)	(91,302)
Other Direct Investment Expenses	<u>(2,585,432)</u>	<u>(2,386,352)</u>
Total Direct Investment Expenses	\$ (31,857,123)	\$ (31,690,437)
Net Investment Income/(Loss)	\$ 36,885,511	\$ 647,581,967
Other Additions		
Miscellaneous	\$ 21,387	\$ 18,898
Interfund Transfers	<u>6,272,693</u>	<u>3,250,459</u>
Total Other Additions	\$ 6,294,080	3,269,357
Total Additions	\$ 936,346,622	\$ 1,529,820,683
Deductions		
Pension and Disability Benefits	\$ 1,321,709,860	\$ 1,220,865,922
Special Death Benefits	0	0
Distributions of Contributions and Interest	7,144,849	8,435,043
Pension Relief Distributions	0	0
Local Unit Withdrawals	0	0
Administrative Expenses	5,919,903	5,585,416
Project Expenses	610,613	1,425,307
Interfund Transfers	<u>2,918,802</u>	<u>6,843,525</u>
Total Deductions	\$ 1,338,304,027	\$ 1,243,155,213
Net Increase/(Decrease) in Net Position	\$ (401,957,405)	\$ 286,665,470
Net Position Restricted for Pensions		
Beginning of Year	\$ 5,501,866,875	\$ 5,215,201,405
End of Year	\$ 5,099,909,470	\$ 5,501,866,875

Schedule of Changes in Net Pension Liability and Related Ratios

	June 30, 2015	June 30, 2014	June 30, 2013
Total Pension Liability			
Total Pension Liability, beginning of year	\$ 16,355,216,031	\$ 16,463,598,481	\$ 16,522,014,519
Annuity Savings Account (ASA), beginning of year	1,715,340,174	1,814,049,671	1,974,075,962
Excluding ASA, beginning of year	14,639,875,857	14,649,548,810	14,547,938,557
Service Cost	\$ 57,750,841	\$ 68,860,011	\$ 81,343,107
Interest Cost	959,894,924	961,628,534	957,228,337
Experience (Gains)/Losses	(140,465,814)	(70,517,351)	(40,718,985)
Assumption Changes	1,033,157,373	0	0
Plan Amendments	0	(25,523,806)	0
Benefit Payments	(1,100,434,461)	(1,034,563,166)	(988,335,242)
ASA Annuitizations	143,225,034	93,981,713	86,941,060
Net Member Reassignments	3,265,736	(3,801,799)	0
Other	21,387	262,911	5,151,976
Net Change in Total Pension Liability, Excluding ASA	\$ 956,415,020	\$ (9,672,953)	\$ 101,610,253
Net Change in Total Pension Liability, ASA	(293,884,722)	(98,709,497)	(160,026,291)
Net Change in Total Pension Liability	662,530,298	(108,382,450)	(58,416,038)
Total Pension Liability, Excluding ASA, end of year	\$ 15,596,290,877	\$ 14,639,875,857	\$ 14,649,548,810
Total Pension Liability, ASA, end of year	1,421,455,452	1,715,340,174	1,814,049,671
Total Pension Liability, end of year	17,017,746,329	16,355,216,031	16,463,598,481
Fiduciary Net Position			
Fiduciary Net Position, beginning of year	\$ 5,501,866,875	\$ 5,215,201,405	\$ 5,058,910,388
Employer Contributions	5,810,942	6,325,502	9,483,547
Nonemployer contributing entities contributions	845,615,950	825,616,000	1,003,596,233
Member Contributions	41,740,139	47,027,857	45,420,617
Net investment income	36,885,511	647,581,967	315,598,000
Benefit Payments	(1,328,854,709)	(1,229,300,965)	(1,212,945,000)
Net Member Reassignments	3,353,891	(3,593,066)	3,059,000
Administrative and Project Expenses	(6,530,516)	(7,010,723)	(7,926,000)
Other	21,387	18,898	4,620
Net Change in Fiduciary Net Position	\$ (401,957,405)	\$ 286,665,470	\$ 156,291,017
Fiduciary Net Position, end of year	\$ 5,099,909,470	\$ 5,501,866,875	\$ 5,215,201,405
Net Pension Liability and Related Ratios			
Net Pension Liability, beginning of year	\$ 10,853,349,156	\$ 11,248,397,076	\$ 11,463,104,131
Net Pension Liability, end of year	\$ 11,917,836,859	\$ 10,853,349,156	\$ 11,248,397,076
Plan's Fiduciary Net Position as a Percentage of the Total Pension Liability	30.0%	33.6%	31.7%
Covered Employee Payroll (Actual)	\$ 1,074,826,991	\$ 1,262,828,000	\$ 1,383,428,000
Net Pension Liability as a Percentage of Covered Employee Payroll	1108.8%	859.4%	813.1%

Required Supplementary Information under GASB No. 68

	June 30, 2015	June 30, 2014	June 30, 2013
Schedule of Contributions			
Actuarially Determined Contribution*	\$ 851,426,892	\$ 831,941,502	\$ 1,013,079,780
Contributions in Relation to the Actuarially Determined Contributions	<u>851,426,892</u>	<u>831,941,502</u>	<u>1,013,079,780</u>
Contribution Deficiency/(Excess)	\$ 0	\$ 0	\$ 0
Covered Employee Payroll	\$ 1,074,826,991	\$ 1,262,828,000	\$ 1,383,428,000
Contributions as a Percentage of Covered Employee Payroll	79.2%	65.9%	73.2%
Schedule of Investment Returns			
Annual Money-Weighted Rate of Return, Net of Investment Expense	0.57%	12.71%	5.11%

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the TRF Pre-1996 Account calculated using the discount rate of 6.75%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1% lower (5.75%) or 1% higher (7.75%) than the current rate:

	1% Decrease 5.75%	Current Rate 6.75%	1% Increase 7.75%
Net Pension Liability	\$13,522,900,000	\$11,917,836,859	\$10,563,400,000

**The plan is funded on a pay-as-you-go basis and the annual contribution is appropriated by state statute. The Actuarially Determined Contribution is equal to the state appropriation to fund the plan.*

Pension Expense

	June 30, 2015	June 30, 2014
Service Cost	\$ 57,750,841	\$ 68,860,011
Interest on Total Pension Liability	959,894,924	961,628,534
Projected Earnings on Pension Plan Investments	(251,910,927)	(225,555,094)
Changes of Benefit Terms	0	(25,523,806)
Pension Plan Administrative Expenses	6,530,516	7,010,723
Other Changes	0	0
 Current Period Recognition of Deferred		
Outflows/(Inflows) of resources:		
Differences between Expected and Actual Experience in Measurement of the Total Pension Liability	(175,724,489)	(35,258,676)
Changes of Assumptions	1,033,157,373	0
Differences between Projected and Actual Earnings on Pension Plan Investments	<u>(5,610,351)</u>	<u>(55,801,887)</u>
Total	\$ 1,624,087,887	\$ 695,359,805

**Deferred Outflows of Resources and Deferred Inflows of Resources
Related to Pensions**

	Initial Balance	Initial Amortization Period	Annual Recognition	June 30, 2015 Balance
Difference between Expected and Actual Experience in Measurement of the Total Pension Liability				
Base for Year ending June 30, 2015	\$ (140,465,814)	1	\$ (140,465,814)	\$ 0
Base for Year ending June 30, 2014	(70,517,351)	2	(35,258,675)	0
Base for Year ending June 30, 2013	0		0	0
Change of Assumptions				
Base for Year ending June 30, 2015	\$1,033,157,373	1	\$1,033,157,373	\$ 0
Base for Year ending June 30, 2014	0		0	0
Base for Year ending June 30, 2013	0		0	0
Differences between Projected and Actual Earnings on Pension Plan Investments				
Base for Year ending June 30, 2015	\$ 250,957,682	5	\$ 50,191,536	\$ 200,766,146
Base for Year ending June 30, 2014	(279,009,435)	5	(55,801,887)	(167,405,661)
Base for Year ending June 30, 2013	0		0	0
Changes in State's Proportion and Differences between Actual State Contributions and State's Proportionate Share of Contributions				
Base for Year ending June 30, 2015	\$ 0		\$ 0	\$ 0
Base for Year ending June 30, 2014	0		0	0
Base for Year ending June 30, 2013	0		0	0
Total			\$ 851,822,533	\$ 33,360,485

The balances as of June 30, 2015 of the deferred outflows/(inflows) of resources will be recognized in pension expense as follows:

Year Ended June 30,	
2016	\$ (5,610,351)
2017	\$ (5,610,351)
2018	\$ (5,610,351)
2019	\$ 50,191,538
2020	\$ 0
Thereafter	\$ 0

Member Data

The tables below summarize the member data used in the valuation. The June 30, 2015 valuation is based on June 30, 2014 census data, with liabilities rolled-forward to the June 30, 2015 measurement date. The data summarized in this section is as of the June 30, 2014 census collection date. The pages that follow show various distributions of the member groups.

	Males	Females	Total
Number of Actives	4,163	12,147	16,310
Average Age	54.8	54.5	54.6
Average Service	28.5	26.8	27.2
Average Pay	\$ 77,859	\$ 70,365	\$ 72,277
Number of Inactive Vesteds	1,079	3,466	4,545
Average Age	58.6	58.6	58.6
Average Service	26.1	23.9	24.4
Number of Inactive Nonvesteds	79	329	408
Number of Retirees and Beneficiaries	16,645	33,569	50,214
Average Age	72.7	72.6	72.6
Average Years Retired	13.1	12.8	12.9
Average Monthly Annuity	\$ 225	\$ 180	\$ 195
Average Monthly Pension	\$ 1,627	\$ 1,394	\$ 1,471
Total Number of Members	21,966	49,511	71,477

Active Members

By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date						Total
	<10	10-14	15-19	20-24	25-29	30+	
15-19							
20-24							
25-29							
30-34							
35-39	1						1
40-44	128	52	380	543	3		1,106
45-49	120	116	244	1,756	605	3	2,844
50-54	59	57	142	785	2,115	739	3,897
55-59	48	49	117	677	1,046	2,413	4,350
60-64	38	29	89	453	551	2,185	3,345
65-69	25	10	18	78	98	448	677
70-74	5	5	4	9	10	46	79
75-79	5	2				3	10
80 & Over						1	1
Total	429	320	994	4,301	4,428	5,838	16,310

Average Age: 54.6
 Average Service: 27.2

Inactive Vested Members

By Attained Age and Years of Service

Attained Age	Years of Service at Termination						Total
	<10	10-14	15-19	20-24	25-29	30+	
35-39							
40-44		60	48	12			120
45-49		156	101	72	25	1	355
50-54		213	154	113	114	17	611
55-59		216	182	169	207	363	1,137
60-64		342	136	178	173	820	1,649
65-69		131	39	53	74	291	588
70-74		13	10	6	3	21	53
75-79		2	2			4	8
80 & Over		10	6	3	5		24
Total		1,143	678	606	601	1,517	4,545

Average Age: 58.6
 Average Service: 24.4

Retired Members

By Attained Age and Completed Years of Retirement

Attained Age	Years of Retirement						Total
	<10	10-14	15-19	20-24	25-29	30+	
Under 40	10	10	7	5	5	1	38
40-44	9	3	8	3		1	24
45-49	20	8	9	8	1		46
50-54	88	27	18	12	2	2	149
55-59	1,281	44	32	23	10	6	1,396
60-64	7,168	206	69	52	34	14	7,543
65-69	9,203	3,284	262	92	38	16	12,895
70-74	3,247	3,894	2,302	290	67	31	9,831
75-79	466	1,608	3,086	1,321	284	70	6,835
80-84	37	300	1,514	2,276	771	264	5,162
85-89	13	60	216	1,282	1,580	651	3,802
90-94	7	3	21	148	722	812	1,713
95-99	2	2	4	10	68	577	663
100 & Over					1	116	117
Total	21,551	9,449	7,548	5,522	3,583	2,561	50,214

Average Age: 72.6
 Average Years Retired: 12.9

Retired Members

By Year of Retirement

Year of Retirement As of June 30	Number	Monthly Pension	
		Total	Average
Before 1978	507	\$ 213,733	\$ 422
1978	146	71,853	492
1979	177	93,082	526
1980	235	142,291	605
1981	243	139,444	574
1982	239	138,146	578
1983	339	207,971	613
1984	396	251,411	635
1985	579	404,555	699
1986	533	383,134	719
1987	644	497,638	773
1988	763	628,596	824
1989	646	563,157	872
1990	1,004	1,015,132	1,011
1991	1,012	1,112,047	1,099
1992	944	1,057,824	1,121
1993	999	1,200,230	1,201
1994	1,139	1,395,238	1,225
1995	1,486	1,894,200	1,275
1996	1,488	1,942,126	1,305
1997	1,294	1,680,636	1,299
1998	1,636	2,118,508	1,295
1999	1,527	2,094,039	1,371
2000	1,781	2,521,019	1,416
2001	1,756	2,559,101	1,457
2002	2,069	2,995,888	1,448
2003	1,824	2,707,237	1,484
2004	2,137	3,215,446	1,505
2005	2,045	3,226,045	1,578
2006	2,228	3,579,711	1,607
2007	2,123	3,370,115	1,587
2008	2,539	4,275,093	1,684
2009	1,863	3,291,274	1,767
2010	2,085	3,818,191	1,831
2011	2,831	5,320,784	1,879
2012	3,097	5,989,172	1,934
2013	2,607	5,234,226	2,008
2014	1,253	2,535,996	2,024
Total	50,214	\$ 73,884,286	\$ 1,471

Retired Members

Reconciliation of Benefit Recipients, July 1, 2013 to July 1, 2014

	Number of Members	Sum of Annual Allowances*
Beginning of Year Rolls	49,345	\$ 973,635,468
Added to Rolls	1,886	50,261,127
Removed from Rolls	(1,017)	(14,292,559)
Benefit Changes		(5,694,056)
End of Year Rolls	50,214	\$ 1,003,909,980
Percentage Increase in Annual Allowances		3.11%
Average Annual Allowances		\$ 19,993

* Pension and ASA annuity

Retired Members

Number of Benefit Recipients by Benefit Option

Amount of Monthly Benefit ¹	Option A-1	Option A-2	Option A-3	Option B-1	Option B-2	Option B-3	Survivors	Disability	Total
\$1-\$500	1,648	826	203	1,096	235	417	458	78	4,961
\$501-\$1,000	2,005	1,391	295	1,909	677	932	333	171	7,713
\$1,001-\$1,500	3,109	2,458	427	3,925	1,191	1,346	141	223	12,820
\$1,501-\$2,000	3,045	2,943	349	4,300	1,413	1,685	130	112	13,977
\$2,001-\$3,000	2,158	2,595	269	2,520	981	1,197	53	27	9,800
Over \$3,000	226	256	19	240	99	103	0	0	943
Total	12,191	10,469	1,562	13,990	4,596	5,680	1,115	611	50,214

¹Pension only

Summary of Benefit Options

- A-1 - Provides a monthly benefit for retiree's life. In the event the retiree dies before receiving five years of payments, the beneficiary receives the remainder of the five years (60 months) of guaranteed Defined Benefit pension payments in a lump sum.
- A-2 - Provides a monthly benefit for retiree's life. The benefit ceases upon the death of the retiree.
- A-3 - Provides a monthly benefit for retiree's life, including monthly annuitization of member's Annuity Savings Account (ASA). In the event the retiree dies before receiving five years of payments, the beneficiary will receive the remainder of the five years of guaranteed pension payments. The ASA is reduced with each monthly benefit paid; if the retiree dies before reducing the balance to \$0.00, the beneficiary will receive a single payment of the amount remaining.
- B-1 - Provides a monthly benefit for retiree's life. Upon the death of the retiree, the qualified designated survivor receives 100% of the member's Defined Benefit for the remainder of the survivor's life.
- B-2 - Provides a monthly benefit for retiree's life. Upon the death of the retiree, the qualified designated survivor receives 66-2/3% of the member's Defined Benefit for the remainder of the survivor's life.
- B-3 - Provides a monthly benefit for retiree's life. Upon the death of the retiree, the qualified designated survivor receives 50% of the member's Defined Benefit for the remainder of the survivor's life.
- Survivors* - Provides a monthly benefit for the surviving spouse's or dependent's life. The benefit ceases upon death of the survivor.
- Disability** - Available to members with five (5) or more years of creditable service who become disabled as determined by the Social Security Administration while teaching in Indiana.

* (of members who die while in service)

** Includes Classroom Disability – Provides a benefit of \$125 per month plus \$5 for each additional year of TRF-covered service over five years

Retired Members

Schedule of Average Benefit Payments by Service at Retirement

	Years of Service at Retirement						Total
	<10	10-14	15-19	20-24	25-29	30+	
Avg. Monthly Defined Benefit Pension	\$449	\$263	\$530	\$854	\$1,214	\$1,811	\$1,471
Avg. Monthly Annuity	\$73	\$113	\$106	\$133	\$163	\$228	\$195
Avg. Final Avg. Salary at Retirement	\$37,993	\$23,424	\$37,281	\$45,256	\$50,441	\$56,938	\$52,253
Number of Benefit Recipients	42	1,238	3,779	5,610	8,175	31,370	50,214

Reconciliation of Participant Data

	Active	Inactive Vested	Inactive Nonvested	Survivor	Disabled	Retired	Beneficiary	Total
6/30/2013 Census	19,210	3,314	546	1,146	615	43,956	3,628	72,415
Disabled	(10)	(9)			19			0
Retired	(975)	(836)				1,811		0
Terminated with Vested Benefit	(1,969)	1,969						0
Terminated, due a Refund	(53)		53					0
Died with Survivor	(14)	(2)		6	(10)	(363)	383	0
Died, no Survivor*	(1)	(2)		(36)	(22)	(774)	(184)	(1,019)
Refunded*	(11)	(23)	(74)					(108)
Forfeited*		(1)	(59)					(60)
Dropped from Database			(13)					(13)
Rehired	56	(40)	(16)					0
Status Corrections		30	(32)	(3)	(3)	8		0
Data Corrections		145	5	2	8	14	13	187
Moved to 1996 Account	(6)		(5)					(11)
Moved from 1996 Account	2		1					3
New Hires	81		2					83
6/30/2014 Census	16,310	4,545	408	1,115	607	44,652	3,840	71,477

* No remaining benefit obligation in the plan.

Summary of Benefit Provisions

Changes in Plan Provisions since June 30, 2014

None

Regular Retirement

Eligibility

Age 65 with ten years of service, or age 60 with 15 years of service, or if age is at least 55 and the sum of age plus credited service is at least 85.

Annual Amount

State pension equal to total service times 1.1% of Average Annual Compensation.

Early Retirement

Eligibility

Age 50 with 15 years of service.

Annual Amount

State pension is computed as regular retirement benefit, but reduced for each month between age at early retirement and attainment of age 65. The age reduction factor is calculated as the sum of the following:

- 1/10 of 1% for each month from age 60 to 65.
- 5/12 of 1% for each month from age at early retirement to 60.

Deferred Retirement

Eligibility

Ten years of service. Benefit commences at regular or early retirement eligibility.

Annual Amount

Computed as a regular retirement benefit with state pension based on service and Average Annual Compensation at termination.

Disability Retirement

Regular Disability Benefit:

Eligibility

Five years of service.

Annual Amount

\$125 per month plus \$5 per month for each year of service credit over five years.

Disability Retirement Benefit:

Eligibility

Five years of service and determined to be disabled by the Social Security Administration. Annual verification of Social Security disability is required.

Annual Amount

Computed as a regular retirement benefit using creditable service to the date of disability and without reduction for early retirement. The minimum benefit is \$180 per month

Summary of Benefit Provisions

Death Before Retirement

Eligibility

15 years of service. Spouse to whom member had been married for two or more years is automatically eligible, or a dependent may be designated as beneficiary.

Annual Amount

Computed as regular retirement benefit but reduced in accordance with a 100% joint and survivor election.

Benefit Increases After Retirement

No automatic increases after retirement are provided. Periodically, unscheduled increases have been made. In September 2015, retirees were paid a service-related lump sum ranging from \$150 to \$450.

Average Annual Compensation

Average of highest five years of compensation. Years do not need to be consecutive.

Member Contributions

All Fund members are required by state law to contribute 3% of salary contributions to their Annuity Savings Account. These 3% contributions are generally “picked up” by the employer and contributed on a pre-tax basis on behalf of the employee. Extra voluntary contributions by the member are also possible, but on a post-tax basis. At retirement, there are six alternatives for receiving the proceeds of this account, including lump sums, full and partial rollovers, full and partial annuitization of the balance, and deferred distribution.

Forms of Benefit Payment (Pension)

The normal form of benefit payment (Option A-1) is a single life annuity with a five-year certain period. There are five optional forms of payment available, as listed below. Additionally, members retiring between ages 50 and 62 may integrate their pension benefit with their Social Security benefit by choosing Social Security Integration (Option A-4) in conjunction with the normal form or any other optional form selected. Optional forms of payment are calculated on an actuarially equivalent basis.

Option A-2: Straight Life benefit with no certain period

Option A-3: Modified Cash Refund Annuity (operates in conjunction with the Annuity Savings Account)

Option B-1: 100% Survivorship

Option B-2: 66 2/3% Survivorship

Option B-3: 50% Survivorship

State law provides for actuarially-adjusted and re-calculated benefits based on a new optional form election in the event of the death of the member’s spouse after retirement.

Optional forms of benefit are calculated based on 6.75% interest with a 50% unisex blend of the IRS 2018 combined mortality basis.

Summary of Actuarial Assumptions and Methods

The assumptions used in this valuation reflect the study of experience covering the period July 1, 2011 through June 30, 2014.

Measurement Date	June 30, 2015
Valuation Date	
Assets	June 30, 2015
Liabilities	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.
Interest Rate / Investment Return	6.75% per year, compounded annually (net of administrative and investment expenses).
Pay Increase Assumption	Sample increases are shown in a table on the following pages. The assumption for each year of service consists of a merit and/or seniority increase and 2.25% for price inflation.
Total Active Member Payroll	Assumed to decrease based on a demographic projection for the Pre-1996 Account for purposes of calculating the projected contribution for the 2016 and 2017 fiscal years.
Price Inflation	2.25% per year. Price inflation is not directly tied to benefits; however, it is a component of the economic model used to determine total wage inflation.
Mortality	
Healthy	RP-2014 White Collar Mortality Table with Social Security Administration generational improvement scale from 2006.
Disabled	RP-2014 White Collar Mortality Table with Social Security Administration generational improvement scale from 2006.
Retirement	Probabilities are shown in tables on the following pages.
Withdrawal	Sample probabilities are shown in tables on the following pages.
Disability	Sample probabilities are shown in a table on the following pages.
Actuarial Cost Method	Entry Age Normal (level percent of pay) method, with a 30-year, closed, level dollar amortization of the Unfunded Accrued Liability arising from all sources including actuarial gains and losses. The weighted average amortization period on 6/30/2015 is 25 years.
Asset Valuation Method	The Actuarial Value of Assets recognizes investment gains and losses in equal installments over four years. However, the Actuarial Value is limited to no more than 20% greater than or 20% less than the Market Value of Assets. Investment experience on ASA account balances is not smoothed.

Summary of Actuarial Assumptions and Methods

Marriage Assumption	100% of members are assumed to be married for purposes of valuing death-in-service benefits. Male spouses are assumed to be three years older than female spouses.
Pay Increase Timing	Beginning of (fiscal) year. Payroll amounts stated in the valuation data are amounts projected to be paid during the current year.
Decrement Timing	Decrements are assumed to occur at the beginning of the year.
Other	Disability and withdrawal decrements do not operate after member reaches retirement eligibility. Only the withdrawal and death decrements operate during the first ten years of service.
Miscellaneous Adjustments	The calculated liabilities and normal costs were increased by 1% to account for the inclusion of unused sick leave in the calculation of Average Annual Compensation.
Actuarial Equivalence Basis for Optional Forms of Payment	6.75% interest with a 50% unisex blend of the 2018 IRS combined mortality bass.
Explicit Expense Load	None.
COLA Assumption	1.0% compounded annually on pension portion, with the first COLA credited on January 1, 2017. The January 1, 2016 assumed 1.0% COLA was replaced by a service-related lump sum (a "13 th check") ranging from \$150 to \$450 in September, 2015.
Cost for ASA Conversions	ASA conversions between 10/1/2014 and 9/30/2015 will be based on a 5.75% conversion rate. Conversions between 1/1/2015 and 12/31/2016 will be based on a 4.50% conversion rate. After 1/1/2017, ASA annuity conversions will occur outside of the plan.
ASA Annuitization	50% of ASA balances are assumed to be converted to annuities at retirement prior to 1/1/2017, 0% thereafter.
Employee Census and Asset Data	The member census data and the asset information for this valuation were furnished by the Chief Financial Officer and Staff. We did not audit the information provided, but we did review it thoroughly for reasonableness and compared it with the prior year's submission for consistency.

The actuarial valuation computations were made under the supervision of a Member of the American Academy of Actuaries (MAAA).

Summary of Actuarial Assumptions and Methods

Probabilities of Age and Service Retirement

Regular Retirement		Rule of 85 Retirement		Early Retirement	
Age	Probability	Age	Probability	Age	Probability
				50-53	0.020
				54	0.050
		55	0.150	55	0.050
		56	0.150	56	0.050
		57	0.150	57	0.065
		58	0.150	58	0.080
		59	0.200	59	0.120
60	0.200	60	0.200		
61	0.250	61	0.250		
62	0.300	62	0.300		
63	0.350	63	0.350		
64	0.400	64	0.400		
65	0.450	65	0.450		
66	0.450	66	0.450		
67	0.450	67	0.450		
68	0.450	68	0.450		
69	0.450	69	0.450		
70	1.0000	70	1.0000		

Probabilities of Disability

Attained Age	Age-Based	
	Male	Female
25	0.0001	0.0001
30	0.0001	0.0001
35	0.0001	0.0001
40	0.0001	0.0001
45	0.0002	0.0002
50	0.0005	0.0005
55	0.0009	0.0009
60	0.0010	0.0010

Summary of Actuarial Assumptions and Methods

Probabilities of Withdrawal

Years of Service	Service-Based	
	Male	Female
0	0.3500	0.3500
1	0.1400	0.1400
2	0.1100	0.1100
3	0.0900	0.0900
4	0.0800	0.0800
5	0.0700	0.0700
6	0.0600	0.0600
7	0.0500	0.0550
8	0.0450	0.0500
9	0.0450	0.0450

Attained Age	Age-Based*	
	Male	Female
30	0.0225	0.0300
35	0.0225	0.0300
40	0.0225	0.0200
45	0.0225	0.0200
50	0.0225	0.0200
55	0.0225	0.0200
60	0.0225	0.0200

**Age-Based rates apply only if 10 or more years of service.*

Summary of Actuarial Assumptions and Methods

Pay Increase Assumption

Years of Service	Merit & Seniority	Inflation	Total
1	10.25%	2.25%	12.50%
5	2.75%	2.25%	5.00%
10	2.75%	2.25%	5.00%
15	1.50%	2.25%	3.75%
20	0.25%	2.25%	2.50%
25	0.25%	2.25%	2.50%
30	0.25%	2.25%	2.50%
35	0.25%	2.25%	2.50%
40	0.25%	2.25%	2.50%

Definitions of Technical Terms

Accrued Service	Service credited under the system that was rendered before the date of the actuarial valuation.
Accrued Liability	The difference between the actuarial present value of future benefit payments and the actuarial present value of future normal costs. Also referred to as “actuarial accrued liability” or “past service liability”.
Actuarial Assumptions	Estimates of expected future experience with respect to rates of mortality, disability, turnover, retirement, rate of investment return, and pay increases. Decrement assumptions (rates of mortality, disability, turnover, and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (pay increases and investment return) consist of the underlying rates in an inflation-free environment plus a provision for a long-term average rate of inflation.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future benefit payments” between future normal costs and actuarial accrued liabilities. Sometimes referred to as the “actuarial funding method”.
Actuarial Equivalent	One series of payments is said to be actuarially equivalent to another series of payments if the two series have the same actuarial present value.
Actuarial Gain / (Loss)	The difference between actual unfunded actuarial accrued liability and anticipated unfunded actuarial accrued liability — during the period between two valuation dates. It is a measurement of the difference between actual and expected experience.
Actuarial Present Value	The single amount now that is equal to a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest and by probabilities of payment.
Amortization	Paying off a present value with periodic payments.
Normal Cost	The portion of the actuarial present value of future benefits that is assigned to the current year by the actuarial cost method. Sometimes referred to as “current cost”.
Unfunded Accrued Liability	The difference between the accrued liability and the actuarial value of assets. Sometimes referred to as “unfunded past service liability” or “unfunded actuarial accrued liability” or simply as “unfunded liability”.

The Actuarial Valuation Process

The **actuarial valuation** is the mathematical process by which a contribution rate is determined. The flow of activity constituting the valuation may be summarized as follows:

Covered Person Data: Furnished by the Plan Administrator

Retired Members and Beneficiaries Now Receiving Benefits
Former Employees with Vested Benefits Not Yet Payable
Active Members

+ **Asset Data (Cash and Investments):** Furnished by the Plan Administrator

+ **Estimates of Future Experience (Actuarial Assumptions):** Established by the Board of Trustees after Consulting with the Actuary

+ **Funding Method:** The Allocation of Employer Costs to Past Service, Current Service, and Future Service

+ **Mathematically Combining the Assumptions, the Funding Method, and the Data**

= **Determination of:**

Plan Funded Status and Employer Contribution Rate

Active Member Data: Total Fund

June 30	Number	Valuation Payroll (\$000s)	Average			
			Age	Service	Pay	Pay Increase %
1975	63,932	\$ 749,200	38.7	10.9	\$ 11,719	
1980	66,575	1,107,699	39.7	11.9	16,638	
1985	62,932	1,519,887	41.5	14.2	24,151	
1987	64,157	1,751,709	42.0	14.5	27,303	
1989	65,986	2,044,797	42.6	14.9	30,988	
1991	63,373	2,278,715	43.0	15.4	35,957	
1992	63,980	2,416,263	43.8	16.0	37,766	5.0%
1993	64,594	2,536,165	44.0	16.1	39,263	4.0
1994	65,209	2,614,915	44.1	16.2	40,101	2.1
1995	66,542	2,728,811	44.2	16.2	41,009	2.3
1996	78,866	2,878,329	42.9	14.1	36,497	(11.0)
1997	84,206	2,984,604	42.4	13.2	35,444	(2.9)
1998	84,664	3,094,941	42.5	13.2	36,556	3.1
1999	77,745	3,294,326	44.1	15.1	42,374	15.9
2000	77,870	3,192,605	44.4	15.2	40,999	(3.2)
2001	75,648	3,318,877	44.6	15.7	43,872	7.0
2002	75,383	3,609,471	44.7	15.8	47,884	9.1
2003	73,641	3,585,135	44.5	15.5	48,684	1.7
2004	73,510	3,651,653	44.5	15.5	49,676	2.0
2005	73,923	3,734,330	44.4	15.4	50,516	1.7
2006	73,350	3,802,721	44.5	15.4	51,844	2.6
2007	75,833	4,267,995	44.9	15.5	56,281	8.6
2008	76,256	4,348,535	44.6	15.6	57,025	1.3
2009	74,343	4,339,032	44.4	15.3	58,365	2.3
2010	72,872	4,312,611	44.2	15.2	59,181	1.4
2011	71,343	4,269,944	44.5	15.5	59,851	1.1
2012	70,573	4,232,018	44.4	15.4	59,967	0.2
2013	70,414	4,124,368	43.5	14.6	58,573	(2.3)
2014*	70,414	4,124,368	43.5	14.6	58,573	(2.3)
2015*	68,734	4,006,157	43.0	14.1	58,285	(0.5)

* Valuations on and after June 30, 2014 are based on census data collected at the prior measurement date.

Member Data: Total Fund

The tables below summarize the member data used in the valuation. The June 30, 2015 valuation is based on June 30, 2014 census data, with liabilities rolled-forward to the June 30, 2015 measurement date. The data summarized in this section is as of the June 30, 2014 census collection date. The pages that follow show various distributions of the member groups.

	Males	Females	Total
Number of Actives	18,025	50,709	68,734
Average Age	43.0	43.0	43.0
Average Service	14.7	13.9	14.1
Average Pay	\$ 63,630	\$ 56,385	\$ 58,285
Number of Inactive Vesteds	2,159	6,518	8,677
Average Age	54.0	55.0	54.8
Average Service	21.1	19.7	20.1
Number of Inactive Nonvesteds	2,869	9,831	12,700
Number of Retirees and Beneficiaries	18,052	36,298	54,350
Average Age	72.3	72.1	72.2
Average Years Retired	12.6	12.3	12.4
Average Monthly Annuity	\$ 224	\$ 177	\$ 192
Average Monthly Pension	\$ 1,632	\$ 1,379	\$ 1,463
Total Number of Members	41,105	103,356	144,461

Active Members: Total Fund

By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date						Total
	<10	10-14	15-19	20-24	25-29	30+	
15-19							
20-24	1,505						1,505
25-29	7,979	1					7,980
30-34	8,261	1,748	4				10,013
35-39	3,499	5,022	1,354	3			9,878
40-44	2,476	1,907	4,084	947	6		9,420
45-49	1,710	1,311	1,761	2,620	770	8	8,180
50-54	1,156	942	1,149	1,253	2,575	850	7,925
55-59	731	684	1,025	1,045	1,279	2,692	7,456
60-64	350	384	611	689	698	2,397	5,129
65-69	135	89	115	127	134	476	1,076
70-74	33	17	11	10	12	47	130
75-79	20	5	2			3	30
80 & Over	9	1		1		1	12
Total	27,864	12,111	10,116	6,695	5,474	6,474	68,734

Average Age: 43.0
 Average Service: 14.1

Inactive Vested Members: Total Fund

By Attained Age and Years of Service

Attained Age	Years of Service at Termination						Total
	0-9	10-14	15-19	20-24	25-29	30+	
20-24							
25-29							
30-34		60					60
35-39		480	40	1			521
40-44		545	283	25			853
45-49		471	289	143	31	2	936
50-54		546	323	205	151	27	1,252
55-59		536	398	269	261	404	1,868
60-64		646	291	258	216	875	2,286
65-69		232	88	76	85	312	793
70-74		25	14	7	5	23	74
75-79		3	3			4	10
80 & Over		10	6	3	5		24
Total		3,554	1,735	987	754	1,647	8,677

Average Age: 54.8
 Average Service: 20.1

Retired Members: Total Fund

By Attained Age and Completed Years of Retirement

Attained Age	Years of Retirement						Total
	0-9	10-14	15-19	20-24	25-29	30+	
Under 40	16	10	7	5	5	1	44
40-44	14	4	8	3		1	30
45-49	30	14	9	8	1		62
50-54	137	32	18	12	2	2	203
55-59	1,536	53	32	23	10	6	1,660
60-64	8,240	244	70	53	35	14	8,656
65-69	10,412	3,559	279	92	38	16	14,396
70-74	3,648	4,174	2,386	291	67	31	10,597
75-79	524	1,715	3,162	1,347	288	70	7,106
80-84	47	319	1,548	2,306	776	265	5,261
85-89	15	63	221	1,294	1,589	651	3,833
90-94	7	4	22	149	727	813	1,722
95-99	2	2	4	10	68	577	663
100 & Over					1	116	117
Total	24,628	10,193	7,766	5,593	3,607	2,563	54,350

Average Age: 72.2
Average Years Retired: 12.4

Retired Members: Total Fund

By Year of Retirement

Year of Retirement As of June 30	Number	Monthly Pension	
		Total	Average
Before 1978	507	\$213,733	\$422
1978	146	71,853	492
1979	177	93,082	526
1980	235	142,291	605
1981	244	139,703	573
1982	240	139,082	580
1983	339	207,971	613
1984	396	251,411	635
1985	579	404,555	699
1986	535	384,696	719
1987	649	500,973	772
1988	766	629,646	822
1989	651	566,924	871
1990	1,015	1,025,749	1,011
1991	1,024	1,122,755	1,096
1992	955	1,070,414	1,121
1993	1,007	1,208,165	1,200
1994	1,156	1,418,158	1,227
1995	1,513	1,925,593	1,273
1996	1,521	1,984,455	1,305
1997	1,325	1,719,292	1,298
1998	1,679	2,170,943	1,293
1999	1,577	2,160,267	1,370
2000	1,860	2,622,537	1,410
2001	1,863	2,699,585	1,449
2002	2,207	3,192,118	1,446
2003	1,991	2,937,835	1,476
2004	2,329	3,477,752	1,493
2005	2,213	3,471,776	1,569
2006	2,396	3,808,580	1,590
2007	2,316	3,616,245	1,561
2008	2,789	4,627,312	1,659
2009	2,098	3,623,289	1,727
2010	2,371	4,214,916	1,778
2011	3,240	5,916,985	1,826
2012	3,607	6,674,399	1,850
2013	3,226	6,046,865	1,874
2014	1,608	3,029,405	1,884
Total	54,350	\$79,511,307	\$1,463

Retired Members: Total Fund

Number of Benefit Recipients by Benefit Option

Amount of Monthly Benefit¹	Option A-1	Option A-2	Option A-3	Option B-1	Option B-2	Option B-3	Survivors	Disability	Total
\$1-\$500	1,836	948	222	1,225	256	454	480	137	5,558
\$501-\$1,000	2,316	1,649	346	2,189	740	1,028	357	226	8,851
\$1,001-\$1,500	3,340	2,660	470	4,154	1,263	1,421	144	236	13,688
\$1,501-\$2,000	3,206	3,096	372	4,484	1,465	1,772	134	119	14,648
\$2,001-\$3,000	2,275	2,726	289	2,753	1,042	1,291	57	32	10,465
Over \$3,000	264	305	20	297	125	128	1	0	1,140
Total	13,237	11,384	1,719	15,102	4,891	6,094	1,173	750	54,350

¹Pension only

Summary of Benefit Options

- A-1 - Provides a monthly benefit for retiree's life. In the event the retiree dies before receiving five years of payments, the beneficiary receives the remainder of the five years (60 months) of guaranteed Defined Benefit pension payments in a lump sum.
- A-2 - Provides a monthly benefit for retiree's life. The benefit ceases upon the death of the retiree.
- A-3 - Provides a monthly benefit for retiree's life, including monthly annuitization of member's Annuity Savings Account (ASA). In the event the retiree dies before receiving five years of payments, the beneficiary will receive the remainder of the five years of guaranteed pension payments. The ASA is reduced with each monthly benefit paid; if the retiree dies before reducing the balance to \$0.00, the beneficiary will receive a single payment of the amount remaining.
- B-1 - Provides a monthly benefit for retiree's life. Upon the death of the retiree, the qualified designated survivor receives 100% of the member's Defined Benefit for the remainder of the survivor's life.
- B-2 - Provides a monthly benefit for retiree's life. Upon the death of the retiree, the qualified designated survivor receives 66-2/3% of the member's Defined Benefit for the remainder of the survivor's life.
- B-3 - Provides a monthly benefit for retiree's life. Upon the death of the retiree, the qualified designated survivor receives 50% of the member's Defined Benefit for the remainder of the survivor's life.
- Survivors* - Provides a monthly benefit for the surviving spouse's or dependent's life. The benefit ceases upon death of the survivor.
- Disability** - Available to members with five (5) or more years of creditable service who become disabled as determined by the Social Security Administration while teaching in Indiana.

* (of members who die while in service)

** Includes Classroom Disability – Provides a benefit of \$125 per month plus \$5 for each additional year of TRF-covered service over five years

Retired Members: Total Fund

Schedule of Average Benefit Payments by Service at Retirement

	Years of Service at Retirement						Total
	<10	10-14	15-19	20-24	25-29	30+	
Avg. Monthly Defined Benefit Pension	\$443	\$322	\$574	\$877	\$1,229	\$1,829	\$1,463
Avg. Monthly Annuity	\$77	\$101	\$105	\$133	\$166	\$229	\$192
Avg. Final Avg. Salary at Retirement	\$36,708	\$29,761	\$40,461	\$46,607	\$51,252	\$57,625	\$52,905
Number of Benefit Recipients	87	1,737	4,777	6,224	8,745	32,780	54,350

Reconciliation of Participant Data: Total Fund

	Active	Inactive Vested	Inactive Nonvested	Survivor	Disabled	Retired	Beneficiary	Total
6/30/2013 Census	70,414	6,417	11,693	1,205	741	47,373	3,691	141,534
Disabled	(22)	(16)			38			0
Retired	(1,198)	(1,074)				2,272		0
Terminated with Vested Benefit	(3,082)	3,082						0
Terminated, due a Refund	(2,680)		2,680					0
Died with Survivor	(16)	(3)		8	(13)	(382)	406	0
Died, no Survivor*	(2)	(2)		(39)	(31)	(789)	(185)	(1,048)
Refunded*	(210)	(36)	(1,043)					(1,289)
Forfeited*		(2)	(468)					(470)
Dropped from Database			(17)					(17)
Rehired	776	(186)	(590)					0
Status Corrections		128	(134)	(3)	(1)	10		0
Data Corrections		369	198	2	12	22	13	616
New Hires	4,754		381					5,135
6/30/2014 Census	68,734	8,677	12,700	1,173	746	48,506	3,925	144,461

* No remaining benefit obligation in the plan.