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## The State of Indiana Public Employ ees' Retirement Fund

Public Employees' Retirement Fund

Actuarial Valuation as of J une 30, 2010

## PWC

April 20, 2011
Board of Trustees
The State of Indiana Public Employees' Retirement Fund
1 North Capitol, Suite 001
Indianapolis, IN 46204

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

## Dear Board of Trustees:

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

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

## Financing Objectives and Funding Policy

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

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

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

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

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

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

## Progress Toward Realization of Financing Objectives

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

## Benefit Provisions

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

## Assets and Member Data

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

## Actuarial Assumptions and Methods

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

## Certification

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

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

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

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

Respectfully submitted,


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Enrolled Actuary (No. 11-06229)


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## HIGHLIGHTS OF THE ACTUARY'S REPORT

This report presents the results of the actuarial valuation of the Public Employees' Retirement Fund ("PERF") and has been prepared to present the current funded status of the Plan, contribution requirements for fiscal year 2012 (J uly 1, 2011 through J une 30, 2012 for State and J anuary 1, 2012 through December 31, 2012 for Political Subdivisions), and certain financial statement disclosure information. The valuation was performed using census data for plan members as of as of J une 30, 2010 provided by Indiana PERF, asset information as of J une 30, 2010 provided by Indiana PERF, the actuarial assumptions and methods approved by the Board and summarized in Section V, and the plan provisions effective J une 30, 2010 as summarized in Section VI.

## Contribution Rates

The State employer contribution rate, after reflecting the contribution smoothing rules, increased from $7.0 \%$ to $8.6 \%$. This contribution rate is equal to the prior year Actual Rate (after smoothing), plus a portion of the increase (or less a portion of the decrease) between the current year True Rate (prior to smoothing) and the prior year's Actual Rate, rounded to the nearest tenth of a percent. The contribution rate determined by the J une 30, 2010 valuation becomes effective on J uly 1, 2011. Therefore, the actual dollar amount of employer cost will depend on the actual payroll during fiscal year 2012.

The Political Subdivisions employer contribution rate, after reflecting the contribution smoothing rules and aggregating over all participating Political Subdivisions, increased from $7.9 \%$ to $8.8 \%$. The contribution rate for each Political Subdivision is smoothed based on its respective size. The Political Subdivisions contribution rates determined by the J une 30, 2010 valuation become effective on J anuary 1, 2012. Therefore, the actual dollar amount of employer cost will depend on the actual payroll during calendar year 2012.

In addition to the smoothing rules stated above, an additional rule was implemented such that the current year Actual Rate cannot be less than the prior year Actual Rate. This additional smoothing rule applied for this year as the contribution rates for certain Political Subdivisions would have decreased this year without this additional requirement.

Employees of the State and participating Political Subdivisions contribute 3\% of their compensation to an Annuity Savings Account. Employers may "pick up" the employee contributions. The accumulated balance in each member's Annuity Savings Account can be withdrawn as a lump sum upon termination or can be converted to an annuity and added to the benefit that is funded by the employer contributions upon retirement.

## Funded Status

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

Using the Actuarial Value of Assets ("AVA"), an asset value that smoothes the market gains and losses over four (4) years, the PERF AAL funded ratio decreased from 93.1\% at June 30, 2009 to $85.2 \%$ at J une 30, 2010. The decrease is primarily due to a loss on the AVA from smoothing investment losses that occurred in 2008 and 2009 , as well as the net effect of changes to the discount rate, cost-of-living, and mortality assumptions, which increased the AAL.

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

## Investment Experience

On a Market Value basis, from J une 30, 2009 to J une 30, 2010, PERF experienced an approximate investment return of $13.5 \%$. However, on an Actuarial Value basis over the same time period, PERF experienced an approximate investment return of ( $0.7 \%$ ). The negative investment return on the AVA can be attributed to the smoothing of prior losses that more than offset the gain on Market Value from J une 30, 2009 to J une 30, 2010.

## Cost-of-Living Adjustment

Cost-of-living increases for retired members have historically been granted on an "ad hoc" basis. No increase in monthly benefits was provided to retired members, disabled members, or beneficiaries at J uly 1, 2010. Instead a "13th check" was paid to each member in pay status during September 2010. The amount of the 13th check varied based on the years of creditable service the member had earned prior to retirement.

## Changes in Actuarial Assumptions

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

- The interest rate (net of administrative and investment expenses) was lowered from 7.25\% to 7.0\%.
- The cost-of-living increase assumption changed from $1.5 \%$ compounded annually to $1.0 \%$ compounded annually. No increase is assumed to be applied to annuitized ASA balances.
- The mortality assumption was changed from rates based on PERF experience from 1995-2000 to the IRS 2008 Static Mortality Table projected forward five (5) years with Scale AA


## Changes in Plan Provisions

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

## Changes in Actuarial Methods

For the J une 30, 2010 valuation, the Board approved the following method change:

- The AVA was changed from 75\% of the expected Actuarial Value, plus 25\% of the actual Market Value to a four-year smoothing of gains and losses on the MVA, with a $20 \%$ corridor, where the AVA cannot be more than $120 \%$ or less than $80 \%$ of the Market Value of Assets ("MVA") after the four-year smoothing of gains and losses is applied. This change was made to be consistent with the other PERF plans and to ensure convergence of the AVA and MVA.

HISTORICAL SUMMARY
Total PERF - 4 Year History of Funded Status ${ }^{1}$

${ }^{1}$ Valuation results prior to J une 30, 2010 were calculated by the prior actuary.

## SECTIONI - EXECUTIVE SUMMARY

## HISTORICAL SUMMARY (CONTINUED)

## Total PERF - Summary of Valuation Results ${ }^{1}$

Employer Contributions - Before Smoothing
Normal Cost (Beginning of Year)
Amortization of Unfunded Actuarial Accrued Liability
Total Contribution Amount
Contribution Rate

| J une 30, 2007 |  | June 30, 2008 |  | June 30, 2009 |  | June 30, 2010 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 267,642,927 | \$ | 279,655,104 | \$ | 298,159,870 | \$ | 320,524,189 |
|  | 17,041,115 |  | 25,269,003 |  | 72,839,046 |  | 163,318,289 |
| \$ | 284,684,042 | \$ | 304,924,107 | \$ | 370,998,916 | \$ | 483,842,478 |
|  | 6.7\% |  | 6.9\% |  | 7.8\% |  | 9.9\% |
| \$ | 290,622,068 | \$ | 310,571,401 | \$ | 360,183,300 | \$ | 428,086,297 |
|  | 6.6\% |  | 6.8\% |  | 7.3\% |  | 8.7\% |

[^0]
## SECTIONI - EXECUTIVE SUMMARY

## HISTORICAL SUMMARY (CONTINUED)

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



## SECTIONI - EXECUTIVE SUMMARY

## HISTORICAL SUMMARY (CONTINUED)

## Total PERF - Summary of Valuation Results ${ }^{1}$

Census Information

Active
Number
State
Political Subdivisions
Total
Average Age
Average Years of Service
Covered Payroll of Actives State

Political Subdivisions Total

Inactive - Vested
Number
Average Age
Average Years of Service

| 45,465 | 45,713 | 46,749 | 48,220 |
| ---: | ---: | ---: | ---: | ---: |
| 93,398 | 94,433 | 101,043 | 101,657 |
|  | 130,146 | 147,792 | 477 |
| 437.8 | 47.8 | 47.3 | 47.5 |
| 11.4 | 11.6 | 10.9 | 11.2 |


|  | 1,573,566,285 |  | 1,661,248,319 |  | 1,749,780,803 |  | 1,730,479,696 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2,812,109,584 |  | 2,939,105,575 |  | 3,181,642,137 |  | 3,165,532,884 |
| \$ | 4,385,675,869 | \$ | 4,600,353,894 | \$ | 4,931,422,940 | \$ | 4,896,012,580 |

14,789
15,450
10,670
14,759
nactive- Non-Vested
Number 88,234

Retiree/ Beneficiary/ Disabled
Number
Average Age
Annual Benefits Payable


[^1]
## HISTORICAL SUMMARY (CONTINUED)

Total PERF - Summary of Valuation Results (Continued) ${ }^{1}$

|  | J une 30, 2007 |  | J une 30, 2008 |  | J une 30, 2009 |  | June 30, 2010 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuarial Accrued Liability (AAL) |  |  |  |  |  |  |  |  |
| ASA Account Balance |  |  | \$ | 2,694,331,410 | \$ | 2,669,318,240 | \$ | 2,780,570,388 |
| ASA Annuities - Retiree/ Beneficiary/ Disabled |  |  |  |  |  |  |  | 710,683,223 |
| Pension - Retiree/Beneficiary/ Disabled |  |  |  | 4,227,365,567 |  | 4,611,256,619 |  | 4,220,908,907 |
| Pension-Active and Inactive |  |  |  |  |  |  |  |  |
| State |  |  |  | 2,513,791,279 |  | 2,443,039,325 |  | 2,678,030,588 |
| Political Subdivisions |  |  |  | 3,667,732,921 |  | 3,782,666,167 |  | 4,115,859,095 |
| Total |  |  | \$ | 6,181,524,200 | \$ | 6,225,705,492 | \$ | 6,793,889,683 |
| Total | \$ | 12,439,798,183 | \$ | 13,103,221,177 | \$ | 13,506,280,351 | \$ | 14,506,052,201 |
| Actuarial Value of Assets (AVA) |  |  |  |  |  |  |  |  |
| ASA Account Balance |  |  | \$ | 2,694,331,410 | \$ | 2,669,318,240 | \$ | 2,780,570,388 |
| ASA Annuities - Retiree/ Beneficiary/ Disabled |  |  |  |  |  |  |  | 710,683,223 |
| Pension - Retiree/Beneficiary/ Disabled |  |  |  | 4,227,365,567 |  | 4,611,256,619 |  | 4,220,908,907 |
| Pension-Active and Inactive |  |  |  | 5,858,419,075 |  | 5,288,761,052 |  | 4,645,036,496 |
| Total | \$ | 12,220,934,214 | \$ | 12,780,116,052 | \$ | 12,569,335,911 | \$ | 12,357,199,014 |
| Market Value of Assets (MVA) |  |  |  |  |  |  |  |  |
| ASA Account Balance |  |  | \$ | 2,694,331,410 | \$ | 2,669,318,240 | \$ | 2,780,570,388 |
| ASA Annuities - Retiree/ Beneficiary/ Disabled |  |  |  |  |  |  |  | 710,683,223 |
| Pension - Retiree/Beneficiary/Disabled |  |  |  | 4,227,365,567 |  | 4,611,256,619 |  | 4,220,908,907 |
| Pension - Active and Inactive |  |  |  | 5,151,772,961 |  | 2,161,760,681 |  | 2,869,156,895 |
| Total | \$ | 13,262,413,477 | \$ | 12,073,469,938 | \$ | 9,442,335,540 | \$ | 10,581,319,413 |
| Unfunded Actuarial Accrued Liability: AAL - AVA |  |  |  |  |  |  |  |  |
| ASA Account Balance |  |  | \$ | - | \$ | - | \$ | - |
| ASA Annuities - Retiree/ Beneficiary/ Disabled |  |  |  |  |  |  |  | - |
| Pension - Retiree/Beneficiary/ Disabled |  |  |  | - |  | - |  | - |
| Pension - Active and Inactive |  |  |  | 323,105,125 |  | 936,944,440 |  | 2,148,853,187 |
| Total | \$ | 218,863,969 | \$ | 323,105,125 | \$ | 936,944,440 | \$ | 2,148,853,187 |
| Funded Percentage: AVA / AAL |  |  |  |  |  |  |  |  |
| ASA Account Balance |  |  |  | 100.0\% |  | 100.0\% |  | 100.0\% |
| ASA Annuities - Retiree/Beneficiary/ Disabled |  |  |  |  |  |  |  | 100.0\% |
| Pension - Retiree/ Beneficiary/ Disabled |  |  |  | 100.0\% |  | 100.0\% |  | 100.0\% |
| Pension - Active and Inactive |  |  |  | 94.8\% |  | 85.0\% |  | 68.4\% |
| Total |  | 98.2\% |  | 97.5\% |  | 93.1\% |  | 85.2\% |
| Summary of Assumptions |  |  |  |  |  |  |  |  |
| Valuation Interest Rate |  | 7.25\% |  | 7.25\% |  | 7.25\% |  | 7.0\% |
| Salary Scale |  | 4.0\% |  | 4.0\% |  | 4.0\% |  | 4.0\% |
| Cost-of-Living Assumption |  | 2.75\% |  | 2.75\% |  | 1.5\% |  | 1.0\% |
| ${ }^{1}$ Valuation results prior to J une 30, 2010 were calculated by the prior actuary. |  |  |  |  |  |  |  |  |
|  |  |  |  | 7 |  |  |  |  |

## FUNDING

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## A. Development of Funded Status ${ }^{1}$

1. Actuarial Accrued Liability
a. Annuity Savings Account
b. ASA Annuities
c. Retirees, Beneficiaries, and Disabled
d. Active and Inactive
e. Total: $(1)(a)+(1)(b)+(1)(c)+(1)(d)$
2. Actuarial Value of Assets
a. Annuity Savings Account
b. ASA Annuities
c. Retirees, Beneficiaries, and Disabled
d. Active and Inactive
e. Total: $(2)(a)+(2)(b)+(2)(c)+(2)(d)$
3. Unfunded Actuarial Accrued Liability
a. Annuity Savings Account
b. ASA Annuities
c. Retirees, Beneficiaries, and Disabled
d. Active and Inactive
e. Total: (1)(e) - (2)(e)
4. Funded Status
a. Annuity Savings Account
b. ASA Annuities
c. Retirees, Beneficiaries, and Disabled
d. Active and Inactive
e. Total: (2)(e) / (1)(e)

| June 30, 2009 |  | J une 30, 2010 |  |
| :---: | :---: | :---: | :---: |
| \$ | 2,669,318,240 | \$ | 2,780,570,388 |
|  |  |  | 710,683,223 |
|  | 4,611,256,619 |  | 4,220,908,907 |
|  | 6,225,705,492 |  | 6,793,889,683 |
| \$ | 13,506,280,351 | \$ | 14,506,052,201 |
| \$ | 2,669,318,240 | \$ | 2,780,570,388 |
|  |  |  | 710,683,223 |
|  | 4,611,256,619 |  | 4,220,908,907 |
|  | 5,288,761,052 |  | 4,645,036,496 |
| \$ | 12,569,335,911 | \$ | 12,357,199,014 |
| \$ | - | \$ |  |
|  | - |  | - |
|  | 936,944,440 |  | 2,148,853,187 |
| \$ | 936,944,440 | \$ | 2,148,853,187 |


| $100.0 \%$ | $100.0 \%$ |
| ---: | ---: |
|  | $100.0 \%$ |
| $100.0 \%$ | $100.0 \%$ |
| $85.0 \%$ | $68.4 \%$ |
|  | $85.2 \%$ |

[^2]
## SECTIONII - FUNDING

## B. Unfunded Actuarial Accrued Liability Reconciliation ${ }^{1}$

1. Unfunded Actuarial Accrued Liability, Prior Year
2. Changes in Unfunded Actuarial Accrued Liability
a. Actuarial Value of Assets Experience (Gain)/ Loss
b. Actuarial Accrued Liability Experience (Gain)/ Loss
c. Additional Liability Due to Transition from Prior Actuary
d. Additional Liability Due to Changes in Actuarial Assumptions
e. Additional Liability Due to Changes in Plan Provisions
f. Total New Amortization Bases
(2)(a) +(2)(b) +(2)(c) +2(d) +(2)(e)
g. Amortization of Existing Bases
h. Change in Unfunded Actuarial Accrued Liability:

$$
(2)(\mathrm{f})+(2)(\mathrm{g})
$$

3. Unfunded Actuarial Accrued Liability, Current Year: (1) +(2)(h)

| June 30, 2009 |  | J une 30, 2010 |  |
| :---: | :---: | :---: | :---: |
| \$ | 323,105,125 | \$ | 936,944,440 |
| \$ | 1,042,333,456 | \$ | 879,515,662 |
|  | $(424,818,257)$ |  | 10,544,338 |
|  | - |  | 87,125,871 |
|  | - |  | 244,914,281 |
|  | - |  |  |
|  | N/ A | \$ | 1,222,100,152 |
|  | $(3,675,884)$ |  | $(10,191,405)$ |
| \$ | 613,839,315 | \$ | 1,211,908,747 |
| \$ | 936,944,440 | \$ | 2,148,853,187 |

[^3]
## C. Actuarial Accrued Liability Reconciliation

1. J une 30, 2009 Actuarial Accrued Liability ${ }^{1}$
2. Normal Cost ${ }^{1}$
3. Actual Benefit Payments
4. Interest of $7.25 \%$ on (1) $+(2)-(3) / 2$
5. Expected J une 30, 2010 Actuarial Accrued Liability:

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

6. (Gain)/Loss Components
a. Transition from Prior Actuary
b. Census
c. Mortality Assumption Change
d. Cost-of-living Assumption (COLA) Change
e. Discount Rate Assumption Change
f. Total: $(6)(\mathrm{a})+(6)(\mathrm{b})+(6)(\mathrm{c})+(6)(\mathrm{d})+(6)(e)$
7. Actual June 30, 2010 Actuarial Accrued Liability: (5) +(6)(f)

\$ 14,506,052,201
[^4]
## D. Reconciliation of Market Value of Assets

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

| June 30, 2009 |  | June 30, 2010 |  |
| :---: | :---: | :---: | :---: |
| \$ | 12,073,469,938 | \$ | 9,442,335,540 |
| \$ | 323,151,092 | \$ | 331,089,590 |
|  | 160,033,862 |  | 158,089,692 |
|  | (2,517,954,977) |  | 1,290,841,251 |
|  | - |  | 6,701,978 |
|  | 3,147,867 |  | 2,339,098 |
|  | - |  | 61,417 |
| \$ | (2,031,622,156) | \$ | 1,789,123,026 |
| \$ | 536,783,325 | \$ | 579,710,876 |
|  | 36,098,593 |  | 39,632,358 |
|  | 21,497,782 |  | 24,958,702 |
|  | 5,132,542 |  | 5,837,217 |
|  | - |  | - |
| \$ | 599,512,242 | \$ | 650,139,153 |
| \$ | 9,442,335,540 | \$ | 10,581,319,413 |
|  | (21.1\%) |  | 13.5\% |

## E. Reconciliation of Actuarial Value of Assets

1. Market Value of Assets, J une 30, 2009\$
9,442,335,540
2. Market Value of Assets, J une 30, 2010
3. Expected Earnings/ Expenses
a. Expected Investment Earnings at 7.25\% on J une 30, 2009 Market Value
b. Expected Receipts and Investment Earnings at 7.25\%
c. Expected Disbursements and Investment Expenses at 7.25\% ..... 509,399,5654. Expected Assets, J une 30, 2010: (1) + (3)(a) +(3)(b) +(3)(c)\$ $9,988,461,190$
4. 2009-2010 Gain/(Loss): (2) - (4)
5. Smoothing of Gain/ (Loss)

|  | Year |  | Gain/(Loss) |  | \% Unrecognized |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | $2009-2010$ |  | $\$$ | $592,858,223$ |  |
| a. | $2008-2009$ |  | $(3,411,455,871)$ |  | $75 \%$ |
| b. |  |  | $50 \%$ |  |  |
| c. | $2007-2008$ |  | $(2,059,181,327)$ |  | $25 \%$ |

7. Preliminary Actuarial Value of Assets, June 30, 2010: (2) - (6)(a) - (6)(b) - (6)(c)\$ 12,357,199,014
8. Corridor
a. $120 \%$ of Market Value ..... 12,697,583,296
b. $80 \%$ ..... 8,465,055,530
9. Actuarial Value of Assets, J une 30, 2010
\$ 12,357,199,014
116.8\%
10. Actuarial Value of Assets as a Percent of Market Value: (9) / (2)(0.7\%)

## F. Allocation of Assets

1. Total Assets Available for Benefit
a. Market Value of Assets
b. Actuarial Value of Assets
2. Annuity Savings Accounts
3. Assets for Retirees, Beneficiaries, and Disabled Members, including ASA Annuities
a. Retirees, Beneficiaries, and Disabled
b. ASA Annuities
c. Total
4. Total Non-Retired Assets
a. Market Value of Assets: (1)(a) - (2) - (3)(c)
b. Actuarial Value of Assets: (1)(b) - (2) - (3)(c)
5. Total Ledger Assets
a. State Amount
b. State Percent
c. Political Subdivisions Amount
d. Political Subdivisions Percent
6. State Allocation
a. Market Value of Assets: (4)(a) $x$ (5)(b)
b. Actuarial Value of Assets: (4)(b) $\mathrm{x}(5)(\mathrm{b})$
7. Political Subdivisions Allocation
a. Market Value of Assets: (4)(a) x (5)(d)
b. Actuarial Value of Assets: (4)(b) x (5)(d)

| June 30, 2009 |  | J une 30, 2010 |  |
| :---: | :---: | :---: | :---: |
| \$ | 9,442,335,540 | \$ | 10,581,319,413 |
|  | 12,569,335,911 |  | 12,357,199,014 |
|  | 2,669,318,240 |  | 2,780,570,388 |


| \$ | $4,611,256,619$ |  | $\$$ | $4,220,908,907$ |
| :---: | ---: | :---: | :---: | ---: |
|  |  |  | $710,683,223$ |  |
|  | \$ | $4,611,256,619$ |  | $\$$ |
| $4,931,592,130$ |  |  |  |  |


| $\$$ | $2,161,760,681$ | $\$$ | $2,869,156,895$ |
| ---: | ---: | ---: | ---: |
| $\$$ | $5,288,761,052$ | $\$$ | $4,645,036,496$ |
|  |  |  |  |
| $\$$ | $2,353,380,818$ | $\$$ | $3,100,604,632$ |
| $\$$ | $944,042,551$ | $\$$ | $1,203,962,341$ |
|  | $40.1 \%$ |  | $38.8 \%$ |
|  |  |  | $\$$ |
|  | $1,409,338,267$ | $\$$ | $1,896,642,291$ |
|  | $59.9 \%$ |  | $61.2 \%$ |


| \$ | $867,175,446$ | $\$$ | $1,114,091,367$ |
| :--- | ---: | ---: | ---: |
| \$ | $2,121,550,162$ | $\$$ | $1,803,664,020$ |

## SECTION II - FUNDING

## G. State - Contribution Rate

1. Current Payroll

|  | June 30, 2010 |  |
| :---: | :---: | :---: |
|  | $\$$ |  |

2. Normal Cost (Beginning of Year)

110,142,867
6.37\%
3. Unfunded Actuarial Accrued Liability (UAAL) Amortizations
a. UAAL Balance 874,366,568
b. Annual Amortization

66,147,093
3.82\%
4. Employer Contributions - True Rate (Before Smoothing): (2) +(3)(b)

176,289,960
10.19\%
5. Prior Year Actual Rate
6. Difference between True Rate and Prior Year Actual Rate: (4) - (5)
7. If increase, one-half of difference in (6); if decrease, excess of (6) over 1.00\%; rounded up the nearest tenth percent
8. Employer Contributions - Actual Rate (After Smoothing): [(5) +(7), not less than (5)]

148,821,254
8.60\%

[^5]
## H. Political Subdivisions - Aggregate Contribution Rate

1. Current Payroll
2. Normal Cost (Beginning of Year)

210,381,322
6.65\%
3. Unfunded Actuarial Accrued Liability (UAAL) Amortizations
a. UAAL Balance
b. Annual Amortization

1,274,486,619
97,171,196
3.07\%
4. Employer Contributions - True Rate (Before Smoothing): (2) +(3)(b)

307,552,518
9.72\%
5. Prior Year Actual Rate
7.88\%
6. Difference between True Rate and Prior Year Actual Rate: (4) - (5)
1.84\%
7. Employer Contributions - Actual Rate (After Smoothing)

279,265,043 ${ }^{1}$
8.82\% ${ }^{2}$
${ }^{1}$ The Employer Cntributions are based on the Political Subdivision payroll as of J une 30, 2010. Since the contribution rates determined by the J une 30,2010 valuation become effective on J anuary 1, 2012, the actual dollar amount of employer cost will depend on the actual payroll during calendar year 2012. The amount shown is meant to illustrate the impact of contribution rate smoothing.
${ }^{2}$ Contribution rate smoothing is applied to each individual Political Subdivision. The employer rate shown is the weighted average of those smoothed rates.

## SECTIONII - FUNDING

## Unfunded Actuarial Accrued Liability Amortization Schedule ${ }^{1}$

I. State

|  | Date Base <br> Established | Reason | Remaining Unfunded |  | Remaining Period | Amortization Amount |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 6/30/2008 | Fresh Start | \$ | 43,429,316 | 28 | \$ | 3,344,136 |
| 2. | 6/30/2009 | Actuarial Experience Loss |  | 274,769,410 | 29 |  | 20,915,512 |
| 3. | 6/30/2010 | Actuarial Experience Loss and Change in Actuarial Assumptions |  | 556,167,842 | 30 |  | 41,887,445 |
| 4. | Total |  | \$ | 874,366,568 |  | \$ | 66,147,093 |

## J. Political Subdivisions

|  | Date Base Established | Reason | Remaining Unfunded |  | Remaining Period | Amortization Amount |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 6/30/2006 | Fresh Start | \$ | 221,728,089 | 26 | \$ | 17,522,949 |
| 2. | 6/30/2007 | Actuarial Experience Gain and Change in Actuarial Assumptions |  | 4,434,969 | 27 |  | 345,786 |
| 3. | 6/30/2008 | Actuarial Experience Loss |  | 45,894,481 | 28 |  | 3,533,958 |
| 4. | 6/30/2009 | Actuarial Experience Loss |  | 336,496,770 | 29 |  | 25,614,213 |
| 5. | 6/30/2010 | Actuarial Experience Loss and Change in Actuarial Assumptions |  | 665,932,310 | 30 |  | 50,154,290 |
| 6. | Total |  | \$ | 1,274,486,619 |  | \$ | 97,171,196 |

[^6]K. History of Employer Contribution Rates ${ }^{1,2}$

| 1. | 2. <br> State |  | 3.Political Subdivisions |  | 4. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation Date | Effective Date | Contribution Rate | Effective Date | Contribution Rate | Weighted Average |
| June 30, 2001 | July 1, 2002 | 5.2\% | J anuary 1, 2003 | 5.0\% | 5.1\% |
| June 30, 2002 | July 1, 2003 | 5.6\% | J anuary 1, 2004 | 6.2\% | 5.9\% |
| June 30, 2003 | July 1, 2004 | 3.8\% | J anuary 1, 2005 | 4.7\% | 4.4\% |
| June 30, 2004 | July 1, 2005 | 4.5\% | J anuary 1, 2006 | 5.3\% | 5.0\% |
| June 30, 2005 | July 1, 2006 | 5.5\% | J anuary 1, 2007 | 6.3\% | 6.0\% |
| June 30, 2006 | July 1, 2007 | 6.3\% | J anuary 1, 2008 | 6.9\% | 6.7\% |
| J une 30, 2007 | July 1, 2008 | 6.3\% | J anuary 1, 2009 | 6.9\% | 6.6\% |
| J une 30, 2008 | July 1, 2009 | 6.5\% | J anuary 1, 2010 | 7.1\% | 6.8\% |
| June 30, 2009 | July 1, 2010 | 7.0\% | J anuary 1, 2011 | 7.9\% | 7.6\% |
| June 30, 2010 | July 1, 2011 | 8.6\% | J anuary 1, 2012 | 8.8\% | 8.8\% |

[^7]
## L. Historical Investment Experience

| 1. | 2. <br> Approximate An | 3. <br> estment Return | 4. <br> Actuarial Assumed Interest Rate |
| :---: | :---: | :---: | :---: |
| Year Ending J une 30 | Actuarial Basis | Market Basis |  |
| 2001 | 5.8\% | (2.1\%) | 7.25\% |
| 2002 | 3.1\% | (4.9\%) | 7.25\% |
| 2003 | 4.2\% | 3.5\% | 7.25\% |
| 2004 | 6.3\% | 16.2\% | 7.25\% |
| 2005 | 7.0\% | 9.2\% | 7.25\% |
| 2006 | 7.9\% | 10.4\% | 7.25\% |
| 2007 | 10.4\% | 17.7\% | 7.25\% |
| 2008 | 5.3\% | (8.3\%) | 7.25\% |
| 2009 | (0.9\%) | (21.1\%) | 7.25\% |
| 2010 | (0.7\%) | 13.5\% | 7.25\% |

## ACCOUNTING

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

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

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

Valuation Date
Actuarial Cost Method
Amortization Method
Amortization Period
Actuarial Value of Assets
Actuarial Assumptions:
Investment Rate of Return
Future Salary Increases
Cost-of-Living Increases

June 30, 2010
Entry Age Actuarial Cost Method
Level Dollar
30 Years
4-Year Smoothed Market Value with 20\% Corridor
$7.0 \%$ (changed from $7.25 \%$ as of J une 30, 2009)
4.0\% (includes $3.0 \%$ wage inflation)
$1.0 \%$ compounded annually on employer funded pension (changed from $1.5 \%$ as of J une 30, 2009)

## B. Membership Data

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

| Retired members, beneficiaries and disabled members receiving benefits: | 67,166 |
| :--- | ---: |
| Terminated vested plan members entitled to but not yet receiving benefits: | 14,759 |
| Terminated non-vested plan members entitled to a refund of ASA balance: | 88,234 |
| Active Plan Members: | 149,877 |
| Total membership: | 320,036 |

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

## C. Total PERF - Statement of Plan Net Assets

1. Assets
Cash and Cash Equivalents

| \$ | $954,061,011$ |
| :---: | ---: |
|  | $1,849,736,546$ |
| \$ | $98,301,351$ |
|  | $33,639,666$ |
|  | $761,559,493$ |
|  | - |
|  | 387,234 |
|  | 166,998 |
|  | $24,309,761$ |
| \$ | $918,364,503$ |
|  | $3,008,153,768$ |
| \$ | $3,613,563,684$ |
|  | $997,402,635$ |
|  | $1,969,994,919$ |
| \$ | $9,589,115,006$ |
|  | $7,993,077$ |
| $\$$ | $13,319,270,143$ |

2. Liabilities
a. Accounts Payable

| \$ | $12,743,135$ |
| :--- | ---: |
|  | 932,176 |
|  | $872,792,811$ |
|  | $1,849,736,546$ |
|  | $1,370,570$ |
|  | 45,523 |
| $\$$ | $2,737,620,761$ |
|  | 329,969 |
| $\$$ | $2,737,950,730$ |

3. Net Assets Held in Trust for Pension Benefits: (1)(f) - (2)(i)
\$ 10,581,319,413

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

## D. Total PERF - Statement of Changes in Plan Net Assets

1. Net Assets as of J une 30, 2009
2. Revenue (Additions)
a. Contributions
i. Member Contributions
ii. Employer Contributions
iii. Other Contributions
iv. Total Contributions
b. Investment Income/ Loss
i. Investment Income/ Loss
ii. Securities Lending Income
iii. Securities Lending Expenses
iv. Other Investment Expenses
v. Net Investment Income
c. Other Additions
i. Intergovernmental Transfers
ii. Miscellaneous Income
iii. Total Other Additions
d. Total Revenue (Additions): (2)(a)(iv) +(2)(b)(v) +(2)(c)(iii)
3. Expenses (Deductions)
a. Pension and Disability Benefits
b. Death, Survivor, and Funeral Benefits
c. Distributions of Contributions and Interest
d. Intergovernmental Transfers
e. Pensions Relief Distributions
f. Local Unit Withdrawals
g. Administrative Expenses
h. Total Expenses (Deductions): (3)(a) +(3)(b) +(3)(c)+(3)(d)+(3)(e)+(3)(f)+(3)(g) (0) (3)
4. Changes in Net Assets Held in Trust for Pension Benefits: (2)(d) - (3)(h)
5. Net Assets as of J une 30, 2010: (1) +(4)
\$ 9,442,335,540

| \$ | $158,089,692$ |
| :--- | ---: |
|  | $331,089,590$ |
|  | - |
| $\$$ | $489,179,282$ |
|  |  |
| $\$$ | $1,344,183,406$ |
|  | $9,600,601$ |
|  | $(2,898,624)$ |
|  | $(53,342,155)$ |
| $\$$ | $1,297,543,228$ |
|  | $2,339,099$ |
|  | 61,417 |
| $\$$ | $2,400,516$ |
|  | $1,789,123,026$ |

\$ 579,710,876
39,632,358

5,837,217

|  | $24,958,702$ |
| ---: | ---: |
| $\$ \quad 650,139,153$ |  |

\$ 1,138,983,873
\$ 10,581,319,413

REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB \#25 AND \#27 (CONTINUED)
E. Total PERF - Schedule of Funding Progress ${ }^{\mathbf{1}}$

| 1. | 2. | 3. |
| :---: | :---: | :---: |


| Actuarial <br> Valuation <br> DateJune 30 | Actuarial Value of Assets |  | Actuarial Accrued <br> Liability (AAL) |  | Unfunded Actuarial Accrued Liability (UAAL) |  | Funded <br> Ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | (3) - (2) |  | (2) / (3) |
| 2005 | \$ | 10,471,937 | \$ | 10,858,322 | \$ | 386,385 | 96.4\% |
| 2006 |  | 11,177,971 |  | 11,450,928 |  | 272,957 | 97.6\% |
| 2007 |  | 12,220,934 |  | 12,439,798 |  | 218,864 | 98.2\% |
| 2008 |  | 12,780,116 |  | 13,103,221 |  | 323,105 | 97.5\% |
| 2009 |  | 12,569,336 |  | 13,506,280 |  | 936,944 | 93.1\% |
| 2010 |  | 12,357,199 |  | 14,506,052 |  | 2,148,853 | 85.2\% |

F. State - Schedule of Funding Progress ${ }^{1,2}$
(\$ in Thousands)

| 1. |  |  |
| :---: | :---: | :---: |
| 1. <br> Actuarial <br> Valuation <br> DateJ une 30 |  | 2. <br> Non-Retired <br> Actuarial |
|  |  | Value of Assets |
| 2005 |  | \$ |
| 2006 |  | $2,145,805$ |
| 2007 |  | $2,350,619$ |
| 2008 |  | $2,469,432$ |
| 2009 |  | $2,121,550$ |
| 2010 |  | $1,803,664$ |


| 3. |
| :---: |
| Non-Retired |
| Actuarial Accrued |
| Liability (AAL) |
|  |
| $\$ \quad 2,189,337$ |
| $2,210,377$ |
| $2,335,082$ |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
| $2,513,791$ |
| $2,678,039$ |


| 4. |  | 5. |
| :---: | :---: | :---: |
|  |  | Non-Retired |
| Unfunded Actuarial Accrued Liability (UAAL) |  | AAL Funded |
|  |  | Ratio |
| (3) - (2) |  | (2) / (3) |
| \$ | 43,532 | 98.0\% |
|  | 40,757 | 98.2\% |
|  | $(15,570)$ | 100.7\% |
|  | 44,360 | 98.2\% |
|  | 321,489 | 86.8\% |
|  | 874,367 | 67.4\% |


| 6. <br> Annual |  | 7. |
| :---: | :---: | :---: |
|  |  |  |
| Anticipated |  | UAAL as a |
| Payroll |  | \% of Payroll |
|  |  | (4) / (6) |
| \$ | 1,645,248 | 2.6\% |
|  | 1,592,207 | 2.6\% |
|  | 1,573,566 | (1.0\%) |
|  | 1,661,248 | 2.7\% |
|  | 1,749,781 | 18.4\% |
|  | 1,730,480 | 50.5\% |

G. Political Subdivisions - Schedule of Funding Progress ${ }^{\mathbf{1 , 2}}$


| (\$ in Thousands) |  |  |
| :---: | :---: | :---: |
| 4. |  | 5. |
|  |  | Non-Retired |
| Unfunded Actuarial Accrued Liability (UAAL) |  | AAL Funded |
|  |  | Ratio |
| (3) - (2) |  | (2) / (3) |
| \$ | 234,434 | 93.1\% |
|  | 278,745 | 92.4\% |
|  | 615,455 | 83.7\% |
|  | 1,274,487 | 69.0\% |


| 6. <br> Annual Anticipated Payroll |  | 7. |
| :---: | :---: | :---: |
|  |  |  |
|  |  | UAAL as a \% of Payroll |
|  |  |  |
|  |  | (4) / (6) |
| \$ | 2,812,110 | 8.3\% |
|  | 2,939,106 | 9.5\% |
|  | 3,181,642 | 19.3\% |
|  | 3,165,533 | 40.3\% |

[^8]
## SECTION III - ACCOUNTING

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

| 1. |
| :---: |
| Plan Year Ending <br> June 30 |
|  |
| 2005 |
| 2006 |
| 2007 |
| 2008 |
| 2009 |
| 2010 |


| 2. <br> Annual Required <br> Contribution (ARC) |
| :---: |
|  |
| $\$$ |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
| 248,658 |
| 295,120 |
| 31,397 |
| 360,183 |


|  |  | (\$ in Thousands) |
| :---: | :---: | :---: |
|  |  | 4. |
| Actual |  |  |
| Employer Contribution |  | \% of ARC |
|  |  | (3) / (2) |
| \$ | 206,323 | 97.0\% |
|  | 230,357 | 92.8\% |
|  | 260,150 | 94.5\% |
|  | 303,877 | 104.3\% |
|  | 323,151 | 102.2\% |
|  | 331,090 | 91.9\% |

I. State - Schedule of Employer Contributions ${ }^{1}$
(\$ in Thousands)
3.
( $\$$ in Thousa
4.
Actual

| Plan Year Ending <br> June 30 |
| :---: |
|  |
| 2005 |
| 2006 |
| 2007 |
| 2008 |
| 2009 |
| 2010 |

(\$ in Thousands)
4.

Actual

| Actual <br> Employer Contribution |  |  | \% of ARC |  |
| :---: | ---: | :--- | ---: | :---: |
|  |  |  | (3) / (2) |  |
| $\$$ | 62,760 |  | $90.1 \%$ |  |
| 72,890 |  | $82.9 \%$ |  |  |
| 89,801 |  | $93.1 \%$ |  |  |
| 106,867 |  | $107.8 \%$ |  |  |
|  |  | 111,214 |  |  |
| 111,555 |  | $94.4 \%$ |  |  |

## H. Total PERF - Schedule of Employer Contributions ${ }^{1}$

J. Political Subdivisions - Schedule of Employer Contributions ${ }^{1}$


[^9]
## REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB \#25 AND \#27 (CONTINUED)

K. State - Development of Net Pension Obligation (NPO) ${ }^{\mathbf{1}}$

## (\$ in Thousands)



[^10]
## REQUIRED SUPPLEMENTARY INFORMATION UNDER GASB \#25 AND \#27 (CONTINUED)

M. State - Three-Year Trend Information ${ }^{1}$
(\$ in Thousands)

| 1. |
| :---: |
| Plan Year |
| Ending |
| June 30 |
|  |
| 2008 |
| 2009 |
| 2010 |


|  | 2. |
| :---: | ---: |
|  | Net Pension |
|  | Cost (NPC) |
| $\$$ | 99,675 |
| $\$$ | 108,594 |
|  | 118,839 |



## N. Political Subdivisions - Three-Year Trend Information ${ }^{1}$

(\$ in Thousands)

| 1. | 2. |  |  | 3. | 4. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Plan Year |  |  | Actual |  |  |
| Ending | Net Pension |  |  | ployer |  |
| June 30 | Cost (NPC) |  | Contribution |  | \% of NPC |
|  |  |  |  |  | (3) / (2) |
| 2008 | \$ | 193,392 | \$ | 197,010 | 101.9\% |
| 2009 |  | 209,191 |  | 211,937 | 101.3\% |
| 2010 |  | 243,091 |  | 219,535 | 90.3\% |

[^11]O. Solvency Test ${ }^{1}$

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

| 1. | 2. |  | 3. |  | 4. |  | 5. <br> Total Actuarial |  | 6. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| As of June 30 | ASA <br> Balances |  | Retired and Beneficiaries |  | Members (Employer Financed Portion) |  | Accrued <br> Liabilities |  | Actuarial Value of Assets |  |
| 2005 | \$ | $\begin{array}{r} \hline 2,382,280 \\ 100.0 \% \end{array}$ | \$ | $\begin{array}{r} \hline 3,301,265 \\ 100.0 \% \end{array}$ | \$ | $\begin{array}{r} \hline 5,174,777 \\ 92.5 \% \end{array}$ | \$ | $\begin{array}{r} \hline 10,858,322 \\ 96.4 \% \end{array}$ | \$ | 10,471,937 |
| 2006 |  | $\begin{array}{r} 2,515,984 \\ 100.0 \% \end{array}$ |  | $\begin{array}{r} 3,648,764 \\ 100.0 \% \end{array}$ |  | $\begin{array}{r} 5,286,181 \\ 94.8 \% \end{array}$ |  | $\begin{array}{r} 11,450,929 \\ 97.6 \% \end{array}$ |  | 11,177,971 |
| 2007 |  | $\begin{array}{r} 2,707,176 \\ 100.0 \% \end{array}$ |  | $\begin{array}{r} 4,007,389 \\ 100.0 \% \end{array}$ |  | $\begin{array}{r} 5,725,233 \\ 96.2 \% \end{array}$ |  | $\begin{array}{r} 12,439,798 \\ 98.2 \% \end{array}$ |  | 12,220,934 |
| 2008 |  | $\begin{array}{r} 2,694,331 \\ 100.0 \% \end{array}$ |  | $\begin{array}{r} 4,227,366 \\ 100.0 \% \end{array}$ |  | $\begin{array}{r} 6,181,524 \\ 94.8 \% \end{array}$ |  | $\begin{array}{r} 13,103,221 \\ 97.5 \% \end{array}$ |  | 12,780,116 |
| 2009 |  | $\begin{array}{r} 2,669,318 \\ 100.0 \% \end{array}$ |  | $\begin{gathered} 4,611,257 \\ 100.0 \% \end{gathered}$ |  | $\begin{array}{r} 6,225,705 \\ 85.0 \% \end{array}$ |  | $\begin{array}{r} 13,506,280 \\ 93.1 \% \end{array}$ |  | 12,569,336 |
| 2010 |  | $\begin{array}{r} 2,780,570 \\ 100.0 \% \end{array}$ |  | $\begin{array}{r} 4,931,592 \\ 100.0 \% \end{array}$ |  | $\begin{array}{r} 6,793,890 \\ 68.4 \% \end{array}$ |  | $\begin{array}{r} 14,506,052 \\ 85.2 \% \end{array}$ |  | 12,357,199 |

[^12]
## CENSUS DATA

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G. Distribution of Retired Members, Beneficiaries, and Disabled Members by Age and Number of Years Retired ..... 33

## SECTION IV - CENSUS DATA

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

|  | Actives | Inactive Non-Ves ASA Balance | Inactive Vested | Disabled | Retired | Beneficiary | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Prior Actuary Total as of J une 30, 2009 | 147,792 | Not Valued | 10,670 | 4,359 | 52,669 | 8,071 | Not Valued |
| Adjustment | 179 | Not Valued | - | - | (51) | - | 128 |
| PwC Total as of J une 30, 2009 | 147,971 | 85,381 | 10,670 | 4,359 | 52,618 | 8,071 | 309,070 |
| New Entrants | 9,711 | - | - | - | - | - | 9,711 |
| Rehires | 550 | (2) | (428) | (22) | (613) | - | (515) |
| Non-Vested Terminations | $(3,964)$ | 4,305 | - | - | - | - | 341 |
| Vested Terminations | $(1,633)$ | - | 1,638 | (5) | - | - | 0 |
| Retirements | $(2,351)$ | (9) | $(1,252)$ | (36) | 4,127 | - | 479 |
| Disablements | (171) | (1) | (135) | 363 | - | - | 56 |
| Death with Beneficiary | (52) | (64) | (65) | (49) | (470) | 681 | (19) |
| Death without Beneficiary | - | - | (425) | (128) | $(1,520)$ | (420) | $(2,493)$ |
| Refunds | $(3,136)$ | $(1,376)$ | - | - | - | - | $(4,512)$ |
| Data Adjustments ${ }^{2}$ | 2,952 | - | 4,756 | (1) | 175 | 36 | 7,918 |
| Total as of June 30, 2010 | 149,877 | 88,234 | 14,759 | 4,481 | 54,317 | 8,368 | 320,036 |

[^13]
## B. Census Information ${ }^{1,2}$

1. Active
a. Number
i. State
ii. Political Subdivisions
iii. Total
b. Average Age

June 30, $2009 \quad$ June 30, 2010
c. Average Years of Service
d. Covered Payroll of Actives
i. State
ii. Political Subdivisions
iii. Total

|  | 1,749,780,803 |  | 1,730,479,696 |
| :---: | :---: | :---: | :---: |
|  | 3,181,642,137 |  | 3,165,532,884 |
| \$ | 4,931,422,940 | \$ | 4,896,012,580 |

2. Inactive- Vested
a. Number
10,670
14,759
b Average Age
53.9
c. Average Years of Service
3. Inactive- Non-Vested
a. Number
4. Retiree/Beneficiary/Disabled

| a. | Number | 65,099 | 67,166 |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: |
| b. | Average Age |  |  | 72.6 |  |
| c. | Annual Benefits Payable | $\$$ | $477,552,507$ | $\$$ | $498,199,312$ |

[^14]
## SECTIONIV - CENSUSDATA

C. Schedule of Active Member Valuation Data ${ }^{1,2}$
(\$ in Thousands)

| 1. | 2. |  | 3. | 4. | 5. <br> Annual |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Annual |  |  |
| As of | Active | Payroll <br> (\$ in Thousands) |  | Average | Percent <br> Increase |
| June 30 | Members |  |  | Pay |  |
|  |  |  |  | (3) / (2) |  |
| 2005 | 141,428 | \$ | 4,318,450 | 30,535 | 3.5\% |
| 2006 | 140,563 |  | 4,322,180 | 30,749 | 0.7\% |
| 2007 | 138,863 |  | 4,385,676 | 31,583 | 2.7\% |
| 2008 | 140,146 |  | 4,600,354 | 32,825 | 3.9\% |
| 2009 | 147,792 |  | 4,931,423 | 33,367 | 1.7\% |
| 2010 | 149,877 |  | 4,896,013 | 32,667 | (2.1\%) |

[^15]D. Schedule of Retirees, Beneficiaries, and Disabled Members ${ }^{1,2}$
(\$ in Thousands)

| 1. | 2. 3. |  |  | 4. $\quad$ Removed 5. |  |  | 6. |  | 7. | 8. | 9. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | End of Year |  |  |  |
|  |  |  | nual |  |  |  | Annual |  |  | Number | Annual |  | \% Increase in <br> Annual <br> Allowances | Average |  |
| Year Beginning |  | Allowances |  | Number | Allowances (\$ in Thousands) |  | $\begin{gathered} \text { Allowances } \\ \text { (\$ in Thousands) }^{3} \end{gathered}$ |  | AnnualAllowances |  |  |
| J une 30 | Number |  | housands) |  |  |  |  |  |  |  |  |  |
| 2004 | 4,499 | \$ | 35,845 | 1,732 | \$ | 8,358 | 57,121 | \$ | 354,285 |  | 8.8\% | \$ | 6,202 |
| 2005 | 3,403 |  | 29,572 | 2,241 |  | 14,440 | 58,283 |  | 377,611 | 6.6\% |  | 6,479 |  |
| 2006 | 4,633 |  | 42,653 | 2,584 |  | 15,229 | 60,332 |  | 412,745 | 9.3\% |  | 6,841 |  |
| 2007 | 5,376 |  | 43,915 | 3,284 |  | 18,022 | 62,424 |  | 436,749 | 5.8\% |  | 6,996 |  |
| 2008 | 6,047 |  | 55,726 | 3,372 |  | 19,103 | 65,099 |  | 477,553 | 9.3\% |  | 7,336 |  |
| 2009 | 4,827 |  | 39,214 | 2,760 |  | 19,022 | 67,166 |  | 498,199 | 4.3\% |  | 7,417 |  |

[^16]
## SECTION IV - CENSUS DATA

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

| Attained | Distribution of Active Members by Age and Service as of J une 30, 2010 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Under 1 year | 1 to 4 years | 5 to 9 years | 10 to 14 years | 15 to 19 years | 20 to 24 years | 25 to 29 years | 30 to 34 years | 35 to 39 years | Over 40 years | Total |
| $<25$ | 1,656 | 2,585 | 87 | 9 |  |  |  |  |  |  | 4,337 |
| 25-29 | 1,665 | 7,544 | 1,930 | 84 |  |  |  |  |  |  | 11,223 |
| 30-34 | 1,037 | 5,339 | 3,941 | 1,477 | 33 | 1 |  |  |  |  | 11,828 |
| 35-39 | 981 | 5,047 | 3,858 | 3,092 | 1,004 | 55 |  |  |  |  | 14,037 |
| 40-44 | 970 | 5,111 | 4,224 | 3,232 | 2,301 | 1,139 | 50 |  |  |  | 17,027 |
| 45-49 | 908 | 5,049 | 4,947 | 4,456 | 2,772 | 2,539 | 1,319 | 199 | 1 | 1 | 22,191 |
| 50-54 | 743 | 4,250 | 4,521 | 4,832 | 3,478 | 3,034 | 2,084 | 1,911 | 157 | 2 | 25,012 |
| 55-59 | 581 | 3,323 | 3,607 | 3,877 | 3,332 | 3,296 | 1,881 | 1,865 | 938 | 72 | 22,772 |
| 60-64 | 290 | 2,142 | 2,497 | 2,486 | 2,090 | 2,272 | 1,279 | 1,084 | 668 | 245 | 15,053 |
| 65-69 | 105 | 630 | 942 | 838 | 615 | 612 | 347 | 347 | 161 | 98 | 4,695 |
| 70\&Up | 48 | 336 | 393 | 353 | 303 | 113 | 56 | 51 | 26 | 23 | 1,702 |
| Total | 8,984 | 41,356 | 30,947 | 24,736 | 15,928 | 13,061 | 7,016 | 5,457 | 1,951 | 441 | 149,877 |

${ }^{1}$ Headcounts reflect the record counts used in the valuation, which may include duplicate records for members (e.g. member may be a retiree and a beneficiary).

## SECTION IV - CENSUS DATA

F. Distribution of Inactive Vested Members by Age and Service ${ }^{1}$

| Attained Age | Distribution of Inactive Vested Members by Age and Service as of J une 30, 2010 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under 5 years | 5 to 9 years | 10 to 14 years | 15 to 19 years | 20 to 24 years | 25 to 29 years | Over 30 years | Total |
| $<25$ |  |  | 1 |  |  |  |  | 1 |
| 25-29 |  |  | 2 |  |  |  |  | 2 |
| 30-34 |  |  | 124 |  |  |  |  | 124 |
| 35-39 |  |  | 565 | 46 | 1 |  |  | 612 |
| 40-44 |  |  | 974 | 251 | 35 |  |  | 1,260 |
| 45-49 |  |  | 1,462 | 621 | 236 | 42 | 1 | 2,362 |
| 50-54 |  |  | 1,798 | 941 | 401 | 193 | 63 | 3,396 |
| 55-59 |  |  | 1,936 | 1,083 | 541 | 208 | 54 | 3,822 |
| 60-64 |  |  | 1,720 | 457 | 200 | 64 | 42 | 2,483 |
| 65-69 |  |  | 279 | 112 | 46 | 23 | 27 | 487 |
| 70\&Up |  |  | 92 | 55 | 29 | 21 | 13 | 210 |
| Total |  |  | 8,953 | 3,566 | 1,489 | 551 | 200 | 14,759 |

[^17]
## SECTION IV - CENSUS DATA

G. Distribution of Retired Members, Beneficiaries, and Disabled Members by Age and Number of Years Retired ${ }^{1}$

| Attained Age | Distribution of Retired Members, Beneficiaries, and Disabled Members by Age and Number of Years Retired as of J une 30, 2010 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under 5 years | 5 to 9 years | 10 to 14 years | 15 to 19 years | 20 to 24 years | 25 to 29 years | Over 30 years | Total |
| $<40$ | 21 | 11 | 1 |  |  |  |  | 33 |
| 40-44 | 36 | 37 | 14 | 4 |  |  |  | 91 |
| 45-49 | 93 | 84 | 44 | 20 |  |  |  | 241 |
| 50-54 | 649 | 221 | 117 | 86 | 5 |  |  | 1,078 |
| 55-59 | 2,541 | 881 | 200 | 130 | 26 | 5 | 1 | 3,784 |
| 60-64 | 5,537 | 2,209 | 800 | 160 | 38 | 9 | 4 | 8,757 |
| 65-69 | 6,802 | 4,039 | 1,604 | 555 | 66 | 18 | 8 | 13,092 |
| 70-74 | 2,613 | 5,247 | 3,317 | 1,141 | 360 | 35 | 24 | 12,737 |
| 75-79 | 542 | 1,669 | 4,710 | 2,363 | 705 | 221 | 34 | 10,244 |
| 80-84 | 172 | 522 | 1,289 | 3,872 | 1,808 | 426 | 208 | 8,297 |
| 85-89 | 34 | 149 | 359 | 867 | 2,849 | 1,033 | 338 | 5,629 |
| 90\&Up | 17 | 24 | 50 | 150 | 461 | 1,528 | 953 | 3,183 |
| Total | 19,057 | 15,093 | 12,505 | 9,348 | 6,318 | 3,275 | 1,570 | 67,166 |

[^18]
## ACTUARIAL ASSUMPTIONS AND METHODS

PageA. Actuarial Assumptions ..... 34
B. Actuarial Methods ..... 38

## A. Actuarial Assumptions

The actuarial methods used in this valuation were selected and approved by the Board. In general, the methods provide orderly funding of all benefits being accrued, as well as unfunded past-service benefit liabilities, over a period of thirty years. However, the smoothing methods employed in determining the Actuarial Value of Assets and contribution rates (i.e. the Actual Rate) may accelerate or lengthen the effective funding period, depending on whether gains or losses are experienced. In our opinion, the actuarial methods are reasonable for the purposes of this valuation, though we recommend periodic review of the contribution rate smoothing rules to ensure that funding of the benefits is not unreasonably deferred.

Interest Rate/ Investment Return 7.0\% (net of administrative and investment expenses)
Interest on Member ASA Balances $7.0 \%$ per year
Future Salary Increases

Inflation

Cost of Living Increase

Mortality (Healthy and Disabled)
2008 IRS Static Mortality projected five (5) years with Scale AA

Disability
Based on 2000-2005 experience for males and 1995-2000 experience for females. For females, 20002005 experience was consistent with 1995-2000 experience. Illustrative rates shown below:

| Age |  | Male |  | Female |
| :---: | :---: | :---: | :---: | :---: |
| 20 |  | $0.0067 \%$ |  | $0.0050 \%$ |
| 30 |  | $0.0208 \%$ |  | $0.0158 \%$ |
| 40 |  | $0.0646 \%$ |  | $0.0496 \%$ |
| 50 |  | $0.2005 \%$ |  | $0.1556 \%$ |
| 60 |  | $0.6220 \%$ |  | $0.4881 \%$ |
| 70 |  | $0.1000 \%$ |  | $0.1000 \%$ |
| 80 |  | $0.0000 \%$ |  | $0.0000 \%$ |

## A. Actuarial Assumptions (continued)

Termination

State (Male)
State (Female)

| Political Subdivisions (Male) |  |
| :---: | :---: |
| Age |  |
| 20 |  |
| 30 |  |
|  | 40 |
|  | 50 |
| 60 |  |
|  | $70+$ |
|  |  |



Service

| Age | Service |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 3 | 4 | 5+ |
| 20 | 32.0\% | 15.0\% | 5.0\% | 3.0\% | 3.0\% | 2.0\% |
| 30 | 27.0\% | 10.0\% | 5.0\% | 3.0\% | 3.0\% | 2.0\% |
| 40 | 22.0\% | 7.0\% | 5.0\% | 3.0\% | 3.0\% | 2.0\% |
| 50 | 22.0\% | 7.0\% | 5.0\% | 3.0\% | 3.0\% | 2.0\% |
| 60 | 23.0\% | 7.0\% | 5.0\% | 3.0\% | 3.0\% | 2.0\% |
| 70+ | 27.5\% | 16.0\% | 5.0\% | 3.0\% | 3.0\% | 2.0\% |


| Age | Service |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 3 | 4 | 5+ |
| 20 | 33.0\% | 14.0\% | 5.0\% | 4.0\% | 3.0\% | 2.0\% |
| 30 | 23.0\% | 11.5\% | 5.0\% | 4.0\% | 3.0\% | 2.0\% |
| 40 | 21.0\% | 9.0\% | 5.0\% | 4.0\% | 3.0\% | 2.0\% |
| 50 | 21.0\% | 9.0\% | 5.0\% | 4.0\% | 3.0\% | 2.0\% |
| 60 | 23.0\% | 9.0\% | 5.0\% | 4.0\% | 3.0\% | 2.0\% |
| 70+ | 27.5\% | 9.0\% | 5.0\% | 4.0\% | 3.0\% | 2.0\% |

Political Subdivisions (Female)

| Age | Service |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 3 | 4 | 5+ |
| 20 | 27.0\% | 15.0\% | 5.0\% | 4.0\% | 3.0\% | 2.0\% |
| 30 | 17.0\% | 10.0\% | 5.0\% | 4.0\% | 3.0\% | 2.0\% |
| 40 | 17.0\% | 8.0\% | 5.0\% | 4.0\% | 3.0\% | 2.0\% |
| 50 | 17.0\% | 8.0\% | 5.0\% | 4.0\% | 3.0\% | 2.0\% |
| 60 | 17.0\% | 8.0\% | 5.0\% | 4.0\% | 3.0\% | 2.0\% |
| 70+ | 17.0\% | 8.0\% | 5.0\% | 4.0\% | 3.0\% | 2.0\% |

## SECTIONV - ACTUARIAL ASSUMPTIONS AND METHODS

Retirement

Decrement Timing

Spouse/ Beneficiary

ASA Withdrawal

Data Assumptions

## A. Actuarial Assumptions (continued)

Based on PERF experience 2000-2005. Illustrative rates shown below:

| Age | Service |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 10 | 15 | 20 | 30 | 40 | 45 |
| 50 | 0.0\% | 2.6\% | 2.6\% | 2.6\% | 2.6\% | 2.6\% |
| 55 | 0.0\% | 6.5\% | 6.5\% | 24.0\% | 24.0\% | 24.0\% |
| 60 | 0.0\% | 13.0\% | 13.0\% | 13.5\% | 17.0\% | 17.0\% |
| 65 | 42.9\% | 42.9\% | 42.9\% | 42.9\% | 42.9\% | 42.9\% |
| 70 | 39.0\% | 39.0\% | 39.0\% | 39.0\% | 39.0\% | 39.0\% |
| 75+ | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |

Decrements are assumed to occur at the beginning of the year.
$90 \%$ of members are assumed to be married or to have a dependent beneficiary. Males are assumed to be three (3) years older than their spouses.
$50 \%$ of active members are assumed to withdraw their ASA balance upon termination or retirement. 100\% of inactive members are assumed to withdraw their ASA balance. The assumptions used to annuitize ASA balances are different than the valuation assumptions and create a small cost to the plan.

Actives with either no date of birth and/ or no gender are assumed to be age $47 \mathrm{and} /$ or male. Inactives with either no date of birth and/ or no gender are assumed to be age 46 and/ or male. Spouse gender is assumed to be the opposite gender of the member.

Retirees and disabled members that are not married and do not have a retirement option listed are assumed to elect 5-year certain and life annuities. Retirees and disabled members that are married and do not have a retirement option listed are assumed to elect a $100 \%$ joint and survivor annuity. Beneficiaries that do not have a retirement option listed are assumed to receive monthly payments for life.

## SECTIONV - ACTUARIAL ASSUMPTIONS AND METHODS

## A. Actuarial Assumptions (continued)

Changes in Assumptions
For the J une 30, 2010 valuation, the Board approved the following assumption changes:

- The interest rate (net of administrative and investment expenses) was lowered from $7.25 \%$ to $7.0 \%$.
- The cost-of-living increase assumption changed from 1.5\% compounded annually to $1.0 \%$ compounded annually. No increase is assumed to be applied to annuitized ASA balances.
- The mortality assumption was changed from rates based on PERF experience from 1995-2000 to the IRS 2008 Static Mortality Table projected forward five (5) years with Scale AA.


## SECTIONV - ACTUARIAL ASSUMPTIONS AND METHODS

## B. Actuarial Methods

The actuarial methods used in this valuation were selected and approved by the Board. In general, the methods provide orderly funding of all benefits being accrued, as well as unfunded past-service benefit liabilities, over a period of thirty years. However, the smoothing methods employed in determining the Actuarial Value of Assets and contribution rates (i.e. the Actual Rate) may accelerate or lengthen the effective funding period, depending on whether gains or losses are experienced. In our opinion, the actuarial methods are reasonable for the purposes of this valuation, though we recommend periodic review of the contribution rate smoothing rules to ensure that funding of the benefits is not unreasonably deferred.

1. Actuarial Cost Method

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

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

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

## 2. Asset Valuation Method

Actuarial Value of Assets is equal to a four-year smoothing of gains and losses on the Market Value of Assets subject to a 20\% corridor.
3. Employer Contribution Rate Smoothing Methods

The State employer contribution rate is equal to the prior year Actual Rate, plus a portion of the increase (or less a portion of the decrease) between the current year True Rate and the prior year Actual Rate, rounded to the nearest tenth of a percent.

The contribution rate for each Political Subdivision is smoothed and rounded based on the number of active members in the respective Political Subdivision. The Board has approved various resolutions that detail the smoothing methods.

## B. Actuarial Methods (continued)

4. Method for Allocation of Actuarial Accrued Liability and Normal Cost

The Actuarial Accrued Liability ("AAL") for members with multiple current and/ or historical employers is allocated pro rata to each respective employer based on the service the member accrued at each employer. In the event service at each employer is not included in the data, the AAL is allocated evenly amongst all respective employers.

The Normal Cost for members with multiple current employers is allocated to each respective employer based on the salary the member earned at each employer. In the event salary at each employer is not included in the data, the Normal Cost is allocated evenly amongst all respective current employers.

## 5. Changes in Actuarial Methods

For the J une 30, 2010 valuation, the Board approved the following method change:

- The AVA was changed from $75 \%$ of the expected Actuarial Value, plus $25 \%$ of the actual Market Value to a four-year smoothing of gains and losses on the MVA, with a $20 \%$ corridor, where the AVA cannot be more than $120 \%$ or less than $80 \%$ of the Market Value of Assets ("MVA") after the four-year smoothing of gains and losses is applied. This change was made to be consistent with the other PERF plans and to ensure convergence of the AVA and MVA.


## SUMMARY OF PLAN PROVISIONS

A. Summary of Plan Provisions40
## A. Summary of Plan Provisions

The benefit provisions for PERF are set forth in IC 5-10.2 and 5-10.3. A summary of those defined pension benefit provisions is presented below:
Participation All full time employees of the State of Indiana and all full time employees of Political Subdivisions which have adopted the plan become members of PERF upon date of hire.

Eligibility for Defined Pension Benefits
a. Normal Retirement Earliest of:

- Age 65 with 10 or more years of creditable service
- Age 60 with 15 or more years of creditable service
- Age 55 with sum of age and creditable service equal to 85 or more
b. Early Retirement Age 50 with 15 or more years of creditable service
c. Late Retirement Subject to continued employment after normal retirement
d. Disability Retirement 5 or more years of creditable service and qualified for Social Security disability benefits or federal Civil Service disability benefits
e. Termination 10 or more years of creditable service and no longer active (i.e. vested inactive)
f. Pre-Retirement Death 15 or more years of creditable service if death occurs in service. If death occurs after separating from service, age 50 with 15 or more years of creditable service


## A. Summary of Plan Provisions (continued)

## Amount of Benefits

a. Normal Retirement The normal retirement benefit is a pension payable for life with 60 months guaranteed and is equal to $1.1 \%$ of average monthly earnings ${ }^{1}$ multiplied by years of creditable service earned.
b. Early Retirement The early retirement benefit is the accrued retirement benefit determined as of the early retirement date and payable commencing at the normal retirement date. A member may elect to have the benefit commence prior to normal retirement provided the benefit is reduced by $1 / 10 \%$ for each of the first 60 months and by $5 / 12 \%$ for each of the next 120 months that the benefit commencement date precedes the normal retirement date.
c. Late Retirement The late retirement benefit is calculated in the same manner as the normal retirement benefit. Creditable service and earnings earned after normal retirement is included in the computation.
d. Disability Retirement The disability retirement benefit is the accrued retirement benefit determined as of the disability date and payable commencing the month following disability date without reduction for early commencement.
e. Termination The termination benefit is the accrued retirement benefit determined as of the termination date and payable commencing at age 65. If the member has 15 or more years of creditable service, then the member may elect to receive a reduced early retirement benefit prior to age 65 .
f. Pre-Retirement Death The spouse or dependent beneficiary is entitled to receive the monthly life benefit under the assumption that the member retired on the later of age 50 or the date before the date of death and elected the joint and full survivor option.
${ }^{1}$ Average monthly earnings is the monthly average of earnings during 20 quarters (in groups of 4 consecutive contribution quarters) preceding retirement that produce the highest such average. Earnings include basic salary, the member's 3\% mandatory contribution paid by the employer, the member's salary reduction agreement under Section $125,430(\mathrm{~b})$, or 457 of the Internal Revenue Code, and up to $\$ 2,000$ of additional compensation received from the employer in anticipation of the member's termination or retirement.

## SECTIONVI - SUMMARY OF PLAN PROVISIONS

## A. Summary of Plan Provisions (continued)

Member Contributions
Each member is required to contribute to an Annuity Savings Account at the rate of 3\% of pay (unless the employer has opted to make the contribution for the employee). These contributions are kept on deposit and credited with interest based on the investment elections of each member until such time as they are refunded or used to provide the annuity benefit at retirement.

The benefits provided by the Annuity Savings Account are in addition to the benefits provided by employer contributions.

Optional Forms of Payment
a. 5-Year Guaranteed Beneficiary Benefit (Option 10)

Member will receive a monthly benefit for the rest of their life. If the member dies before receiving benefits for 5 years, the beneficiary will receive that monthly benefit for the remainder of those 5 years or a lump sum distribution equal to the present value of those payments. After 5 years, there are no payments available to the beneficiary.
b. Benefit with No Guarantee (Option 20)

Member will receive a monthly benefit for life, but there are no monthly payments to anyone after death. However, the balance of the Annuity Savings Account will be distributed to the beneficiary or estate if it is larger than the payments previously made to the member.
c. J oint with Full Survivor Member will be paid a monthly benefit for life. After death, the same monthly benefit will be paid to the Benefits (Option 30) beneficiary for their lifetime.
d. J oint with Two-Thirds Member will be paid a monthly benefit for life. After death, two-thirds (2/3) of the benefit will be paid to the Survivor Benefits beneficiary for their lifetime.
(Option 40)
e. J oint with One-Half Member will be paid a monthly benefit for life. After death, one-half (1/2) of the benefit will be paid to the Survivor Benefits beneficiary for their lifetime.
(Option 50)

## A. Summary of Plan Provisions (continued)

Optional Forms of Payment (Continued)
f. Integration with Social A member who retires between ages 50 and 62 may integrate the PERF monthly pension benefit with the Security (Option 61) member's estimated Social Security benefits. This does not affect the amount of the benefit received from the Social Security Administration.

Before age 62, the member's benefits will equal the sum of the member's Social Security estimate, multiplied by actuarial factors, and the member's early retirement benefit. This will result in the member receiving a larger monthly benefit payment before age 62. After age 62, the member's benefit will equal the difference between the member's Social Security estimate, multiplied by actuarial factors, and the member's pre-62 monthly pension benefit. Depending upon the member's estimated Social Security disbursement, benefit payments may be greatly reduced or terminated at age 62.
g. 5-Year Guaranteed In order to select this option, the member must choose to combine at least a portion of their ASA with their Beneficiary Benefit lifetime monthly pension benefit. If selected, the member will receive a monthly benefit for the rest of their life. If with ASA Cash Refund (Option 71) the member dies before receiving payments for 5 years, the beneficiary will receive the pension portion of their monthly benefit for the remainder of those 5 years or a lump sum equal to the present value of those remaining payments. Also, upon death (whether death occurs before or after receiving 5 years of benefits), the beneficiary may receive any remaining balance of the Annuity Savings Account.

Annuity Savings Account ("ASA") Payment Forms
a. Leave ASA Invested Members may choose to leave their ASA invested with PERF. According to IRS regulations, the member must with PERF begin distribution at age $701 / 2$. Until the member elects to receive funds, they will remain invested according to member direction.
b. Combine ASA with Lifetime Pension Benefit

The member may choose to receive, as part of their monthly benefit, the total amount of their ASA. The member will not receive any other distribution from the ASA other than this monthly payment.

## A. Summary of Plan Provisions (continued)

Annuity Savings Account ("ASA") Payment Forms (continued)
c. Withdraw Entire ASA The member withdraws their entire ASA by means of either a direct rollover, complete withdrawal, or partial rollover to a qualified plan for the Taxable Portion of their ASA and, if it applicable, one of these choices for the 1986 Tax Basis Portion.
d. Withdraw 1986 Tax Basis Portion of ASA and Combine Taxable Portion with Pension Benefit

Cost-of-Living Adjustments

Changes in Provisions No changes since prior valuation.

## Definitions of Technical Terms

A. Definitions of Technical Terms45| Actual Rate | The contribution rate expressed as a percentage of covered payroll on an annual basis (not less than $0.0 \%$ ) <br> that is the result of applying applicable smoothing rules to the prior year Actual Rate and current year <br> True Rate. |
| :--- | :--- |
| Actuarial Accrued Liability |  |
| (AAL) | That portion, as determined by a particular Actuarial Cost Method, of the Present Value of Future Benefits <br> (PVFB) and expenses which is not provided for by future Normal Costs. Generally this means the portion <br> of the PVFB attributable to past service. |
| Actuarial Assumptions | Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, <br> disablement and retirement; changes in compensation and Government provided pension benefits; rates <br> of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial <br> Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and other <br> relevant items. |
| Actuarial Cost Method | A procedure for determining an actuarially equivalent allocation of the Present Value of Future Benefits to <br> time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability. |
| Actuarially Equivalent | A method of making the actuarial present value of two series of payments equal as of a given date using the <br> same assumptions. |
| Actuarial Gain/ (Loss) | The difference between actual unfunded Actuarial Accrued Liability and anticipated unfunded Actuarial <br> Accrued Liability - during the period between two valuation dates. It is a measurement of the difference <br> 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 <br> discounting future payments at predetermined rates of interest and by probabilities of payment. |
| Actuarial Valuation | The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value <br> of Assets, and related Actuarial Present Values for a pension plan. |

## SECTION VII - DEFINITIONS OF TECHNICAL TERMS

## A. Definitions of Technical Terms (continued)

Actuarial Valuation Date

Amortization

Annual Required Contribution of the Employer (ARC)

Creditable Service

Funding Policy

Level Dollar Amortization Method

Normal Cost (NC)

Plan Assets

The date as of which an actuarial valuation is performed.
The payment of a present value financial obligation on an installment basis over a future number of years.
The employer's periodic required contributions to a defined benefit pension plan, calculated in accordance with the plan provisions, actuarial assumptions, actuarial cost method and other actuarial method prescribed by Governmental Accounting Standards No. 25 and No. 27.

Service credited under the system that was rendered before the date of the actuarial valuation.
The program for the amounts and timing of contributions to be made by plan members, employer, and other contributing entities (for example, state government contributions to a local government plan) to provide the benefits specified by a pension plan.

The amount to be amortized is divided into equal dollar amounts to be paid over a given number of years; part of each payment is interest and part is principal (similar to a mortgage payment on a building). Because payroll can be expected to increase as a result of inflation, level dollar payments generally represent a decreasing percentage of payroll; in dollars adjusted for inflation, the payments can be expected to decrease over time.

That portion of the present value of future benefits which is allocated to a valuation year by the Actuarial Cost Method. The normal cost is specific to the cost method used.

Resources, usually in the form of stocks, bonds, and other classes of investments, that have been segregated and restricted in a trust, or equivalent arrangement, in which (a) employer contributions to the plan are irrevocable, (b) assets are dedicated to providing benefits to retirees and their beneficiaries, and (c) assets are legally protected from creditors of the employer(s) or plan administrator, for the payment of benefits in accordance with the terms of the plan.

## SECTION VII - DEFINITIONS OF TECHNICAL TERMS

## A. Definitions of Technical Terms (continued)

Plan Members
Present Value of Future
Benefits (PVFB)

True Rate

The individuals covered by the terms of a pension plan. The plan membership generally includes employees in active service, terminated employees who have accumulated benefits but are not yet receiving them, and retired employees and beneficiaries currently receiving benefits.

Projected benefits estimated to be payable to plan members (retirees and beneficiaries, terminated employees entitled to benefits but not yet receiving them, and current active members upon retirement) as a result of their service through the valuation date and their expected future service. The actuarial present value of projected future benefits as of the valuation date is the present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment (taking into account mortality, turnover, probability of participating in plan retirement, etc.). Alternatively, it is the amount that would have to be invested on the valuation date so that the amount invested plus investment earnings will provide sufficient assets to pay the projected benefits when due.

The precise actuarial contribution rate (not less than 0.0\%) determined by summing the Normal Cost and amortization of unfunded Actuarial Accrued Liability and dividing by anticipated payroll.


[^0]:    ${ }^{1}$ Valuation results prior to J une 30, 2010 were calculated by the prior actuary. Contribution rates prior to J une 30, 2010 reflect a half-year of interest.
    ${ }^{2}$ The Employer Contributions are based on the aggregate of the State and Political Subdivisions' contribution amounts based on payroll as of J une 30, 2010. Since the contribution rates determined by the J une 30, 2010 valuation become effective J uly 1, 2011 for the State rate and J anuary 1, 2012 for the Political Subdivisions' rates, the actual dollar amount of employer cost will depend on the actual payroll during fiscal year 2012 for the State and calendar year 2012 for the Political Subdivisions. The amount shown is meant to illustrate the impact of the contribution rate smoothing

[^1]:    ${ }^{1}$ Valuation results prior to J une 30, 2010 were calculated by the prior actuary.

[^2]:    ${ }^{1}$ Valuation results prior to J une 30, 2010 were calculated by the prior actuary.

[^3]:    ${ }^{1}$ Valuation results prior to J une 30, 2010 were calculated by the prior actuary.

[^4]:    ${ }^{1}$ Valuation results prior to J une 30, 2010 were calculated by the prior actuary.

[^5]:    ${ }^{1}$ The Employer Contributions are based on the State payroll as of J une 30, 2010. Since the State contribution rate determined by the J une 30, 2010 valuation becomes effective on July 1, 2011, the actual dollar amount of employer cost will depend on the actual payroll during fiscal year 2012. The amount shown is meant to illustrate the impact of contribution rate smoothing.

[^6]:    ${ }^{1}$ Valuation results prior to J une 30, 2010 were calculated by the prior actuary.

[^7]:    ${ }^{1}$ Valuation results prior to J une 30, 2010 were calculated by the prior actuary.
    ${ }^{2}$ Rates shown reflect application of the contribution rate smoothing.

[^8]:    ${ }^{1}$ Valuation results prior to J une 30, 2010 were calculated by the prior actuary.
    ${ }^{2}$ Excludes assets and actuarial accrued liabilities attributable to member ASA balances and members in pay status.

[^9]:    ${ }^{1}$ Valuation results prior to J une 30,2010 were calculated by the prior actuary.

[^10]:    ${ }^{1}$ Results were calculated by the prior actuary.
    ${ }^{2}$ Individual Political Subdivisions can withdraw from the plan or merge with other Political Subdivisions which prevents the NPO from reconciling year over year.

[^11]:    ${ }^{1}$ Results were calculated by the prior actuary.

[^12]:    ${ }^{1}$ Valuation results prior to J une 30, 2010 were calculated by the prior actuary.

[^13]:    ${ }^{1}$ Headcounts reflect the record counts used in the valuation, which may include duplicate records for members (e.g. member may be a retiree and a beneficiary).
    ${ }^{2}$ Most data adjustments are member records that were not included in the J une 30, 2009 valuation date file provided by the prior actuary, but were included in the J une 30,2010 data received from Indiana PERF

[^14]:    ${ }^{1}$ Headcounts reflect the record counts used in the valuation, which may include duplicate records for members (e.g. member may be a retiree and a beneficiary).
    ${ }^{2}$ Valuation results prior to J une 30, 2010 were calculated by the prior actuary.

[^15]:    ${ }^{1}$ Headcounts reflect the record counts used in the valuation, which may include duplicate records for members (e.g. member may be a retiree and a beneficiary)
    ${ }^{2}$ Valuation results prior to J une 30, 2010 were calculated by the prior actuary.

[^16]:    ${ }^{1}$ Headcounts reflect the record counts used in the valuation, which may include duplicate records for members (e.g. member may be a retiree and a beneficiary).
    ${ }^{2}$ Valuation results prior to J une 30, 2010 were calculated by the prior actuary.
    ${ }^{3}$ End of year annual allowances are not equal to the prior end of year annual allowances plus addition and less removals because of data changes and cost-of-living increases.

[^17]:    ${ }^{1}$ Headcounts reflect the record counts used in the valuation, which may include duplicate records for members (e.g. member may be a retiree and a beneficiary).

[^18]:    ${ }^{1}$ Headcounts reflect the record counts used in the valuation, which may include duplicate records for members (e.g. member may be a retiree and a beneficiary).

