

# Pension Reform Studies <br> Variation of HB 3411 

May 1, 2013

## Reform Studies Opening Comments

- This report contains one scenario (variation of HB 3411)
- Effective date of July 1, 2014
- Tier 1 benefit changes
- Increase in Tier 1 employee contribution rates of $2 \%$ of pay (additional contributions carved out of money purchase and portable plan benefits)
- Decrease in interest crediting rate for all purposes (assumed ERI decreases from $7.75 \%$ to $4.00 \%$ )
- Change in COLA from $3 \%$ compound to $1 / 2$ of CPI compound (assumed COLA decreases from $3 \%$ to $1.375 \%$ compound)
- Establishes a Tier 3 stacked hybrid plan for new hires and Tier 2 employees (if they elect to opt in)
- Self Managed Plan (SMP) closes to new hires at effective date
- Establishes employer contributions (currently employers do not contribute) for 65 SURS employers for all benefits
- Changes State's funding policy to net normal cost (net of employee and employer contributions) plus 30 -year closed period level dollar amortization of the unfunded liability ( $100 \%$ funded in 2044)
- Establishes State and Employer Funding Enforcement


## Reform Studies Proposed Changes

- Tier 1 benefit changes
- Increase in employee contribution rate of $0.5 \%$ of payroll per year beginning in FY 2015 through FY 2018. Members will contribute $2 \%$ of pay additional beginning in FY 2018.
- Increased employee contributions are "carved out" of the money purchase benefit and Portable Plan lump sum calculations
- Interest crediting on employee contributions for all purposes (Effective Rate of Interest) equal to the interest rate paid on 30year treasury bonds plus 75 basis points.
- Automatic Annual Increases (AAI) in Annuity
- Impacts both current and future retirees
- Members with an annuity receive compounded AAI equal to $1 / 2 \mathrm{CPI}$ (but not less than $0.00 \%$ )


## Reform Studies Proposed Changes

- Tier 2
- No Changes
- Tier 3 (Stacked hybrid plan)
- Defined Benefit
- $1.5 \%$ Benefit Multiplier, $80 \%$ maximum benefit
- $2 / 3$ of total $8 \%$ employee contribution to the DB plan (5.33\% employee contribution, $6.33 \%$ for Police and Firefighters)
- Pensionable pay capped at SSTWB (\$113,700 in 2013)
- Compound AAI equal to $1 / 2$ CPI, minimum of $0.0 \%$, beginning at the later of age 67 and one year after retirement
- Retirement eligibility conditions and other provisions the same as the current Tier 2
- Defined Contribution
- $1 / 3$ of total $8 \%$ employee contribution to the DB plan ( $2.67 \%$ employee contribution, $3.17 \%$ for Police and Firefighters)
- Employer contribution of $1 \%$ of pay (additional optional contributions may be made)
- $20 \%$ vested in employer contributions at 2 years, additional $20 \%$ vesting for each year of service
- Contributions based on pensionable pay (capped at the SSTWB)
- Tier 2 members may opt in
- New hires must enter Tier 3 hybrid Plan, Self Managed Plan closed to new hires


## Reform Studies HB 3411 Changes

- Employer Funding Requirement
- Employers begin to contribute to the System in fiscal year 2015 (currently employers do not make contributions)
- 65 current SURS employers
- Employers will phase into contributing employer normal up to $6.2 \%$ of pay over a 12 year period for the defined benefit costs
- Phase in begins FY 2015
- Employer contributions increase by an additional $0.5 \%$ of pay each year in the first 11 years and $0.7 \%$ of pay in the $12^{\text {th }}$ year
- Employers contribute the full contribution to the DC plan (at least $1 \%$ of pay)


## Reform Studies Opening Comments

- Plan design changes apply to all Tier 1 members. Changes to Tier 1 benefits apply to all years of service. This is not an endorsement for or against changing benefits for current members. This is also not a comment on the contractual or constitutional implications of changing benefits for current members. It is for illustrative purposes only.
- Changes in interest crediting applicable prospectively only. No retroactive changes to current member account balances.


## Reform Studies Opening Comments

- The results are compared against the baseline, where the baseline represents the 6/30/2012 actuarial valuation results.
- The items developed for comparison are all based on projected amounts through 2045, and include:

1. The total statutory contribution (excluding SMP contributions and any debt service);
2. The unfunded accrued liability;
3. The funded ratio;
4. The actuarial value of assets;
5. The actuarial accrued liability;
6. The employer normal cost;
7. The payment toward amortization of the unfunded accrued liability.

## Reform Studies Key Results

- Key results
- A portion of the total cost is shifted from the State to the employers.
- Employers contribute about 2\% of the total (State plus employer) contribution in fiscal year 2015
- Employers contribute about 26\% of the total contribution in fiscal year 2044
- Compared to the baseline, there is a decrease in the total statutory contributions of about $\$ 28$ billion through 2045 and an increase in the funded ratio in 2044 from 86\% to 100\%.
- State contributions decrease by $\$ 36$ billion
- Employer contributions increase by $\$ 8$ billion
- Projected decrease of $\$ 5.6$ billion in the unfunded liability from $\$ 20.2$ billion to $\$ 14.6$ billion in fiscal year 2013


## Reform Studies Key Results

- Key results
- The level of benefits provided under Tier 3 will depend on the level of employer contributions into the DC plan. We have not performed benefit illustrations comparing Tier 2 and Tier 3 benefits as part of this study.
- Establishing a contribution requirement for the employers may create a Governmental Accounting Standards Board (GASB) liability under Statements 67 and 68 for the individual employers


## Reform Studies Key Assumptions

- Key assumptions (used in the baseline under current provisions and/or Scenario 1)
- CPI increase of 2.75\% (Tier 2 COLA and Scenario 1 COLA of 1.375\%)
- Social Security Taxable Wage Base increases at 3.75\% annually
- Total payroll increases at $3.75 \%$ annually
- Investment return assumption of 7.75\%
- Assumed Effective Rate of Interest (ERI) 7.75\% under the baseline scenario and $4.00 \%$ under Scenario 1
- Same retirement, mortality, termination, disability and salary increase assumptions used in the actuarial valuation as of June 30, 2012 unless otherwise noted
- Contributions and benefits are based on pensionable (capped) payroll
- No payroll cap for Tier 1 members
- Payroll cap is $\$ 108,883$ in 2012 for Tier 2 members (assumed to increase by $1.375 \%-1 / 2 \mathrm{CPI}$ )
- Payroll cap is $\$ 113,700$ in 2013 for Tier 3 members (assumed to increase by $3.75 \%$ )


## Reform Studies Key Assumptions

- Key assumptions (used for Tier 3)
- $100 \%$ of Current Tier 2 members transfer to Tier 3
- Defined contribution plan employer contribution of $1.00 \%$
- Forfeitures for non-vested terminations have not been assumed to reduce the employer contributions


## Scenario 1

| Year | (\$ in Millions) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total Statutory Contribution <br> (State and Employer) <br> (excluding Tier 3 DC, SMP and debt service) |  |  |  |  |  | Unfunded Accrued Liability |  |  |  |  |  | Funded Ratio |  |  |
|  | Baseline |  | Impact |  | Change |  | Baseline |  | Impact |  | Change |  | Baseline | Impact | Change |
| 2013 | \$ | 1,399 | \$ | 1,403 | \$ | 4 | \$ | 20,230 | \$ | 14,623 | \$ | $(5,607)$ | 41.2\% | 49.4\% | 8.1\% |
| 2014 | \$ | 1,504 | \$ | 1,504 | \$ | - | \$ | 20,338 | \$ | 14,124 | \$ | $(6,214)$ | 43.0\% | 52.2\% | 9.2\% |
| 2015 | \$ | 1,577 | \$ | 1,460 | \$ | (117) | \$ | 20,542 | \$ | 13,837 | \$ | $(6,704)$ | 44.4\% | 54.3\% | 10.0\% |
| 2016 | \$ | 1,587 | \$ | 1,429 | \$ | (158) | \$ | 21,130 | \$ | 13,930 | \$ | $(7,200)$ | 44.6\% | 55.1\% | 10.5\% |
| 2017 | \$ | 1,613 | \$ | 1,431 | \$ | (182) | \$ | 21,495 | \$ | 13,777 | \$ | $(7,718)$ | 45.3\% | 56.5\% | 11.2\% |
| 2018 | \$ | 1,671 | \$ | 1,416 | \$ | (256) | \$ | 21,819 | \$ | 13,612 | \$ | $(8,207)$ | 46.0\% | 57.8\% | 11.8\% |
| 2019 | \$ | 1,713 | \$ | 1,413 | \$ | (299) | \$ | 22,116 | \$ | 13,433 | \$ | $(8,683)$ | 46.7\% | 59.1\% | 12.4\% |
| 2020 | \$ | 1,756 | \$ | 1,411 | \$ | (344) | \$ | 22,383 | \$ | 13,240 | \$ | $(9,142)$ | 47.4\% | 60.4\% | 13.0\% |
| 2025 | \$ | 1,980 | \$ | 1,408 | \$ | (571) | \$ | 23,164 | \$ | 12,021 | \$ | $(11,143)$ | 50.4\% | 66.1\% | 15.7\% |
| 2030 | \$ | 2,221 | \$ | 1,413 | \$ | (808) | \$ | 22,719 | \$ | 10,247 | \$ | $(12,472)$ | 54.3\% | 72.2\% | 18.0\% |
| 2035 | \$ | 2,521 | \$ | 1,419 | \$ | $(1,102)$ | \$ | 20,369 | \$ | 7,686 | \$ | $(12,683)$ | 60.4\% | 79.7\% | 19.3\% |
| 2040 | \$ | 2,818 | \$ | 1,424 | \$ | $(1,394)$ | \$ | 15,016 | \$ | 4,003 | \$ | $(11,013)$ | 71.3\% | 89.7\% | 18.4\% |
| 2041 | \$ | 2,883 | \$ | 1,426 | \$ | $(1,457)$ | \$ | 13,479 | \$ | 3,095 | \$ | $(10,384)$ | 74.3\% | 92.1\% | 17.7\% |
| 2042 | \$ | 2,951 | \$ | 1,428 | \$ | $(1,523)$ | \$ | 11,756 | \$ | 2,122 | \$ | $(9,635)$ | 77.7\% | 94.6\% | 16.9\% |
| 2043 | \$ | 3,021 | \$ | 1,429 | \$ | $(1,592)$ | \$ | 9,835 | \$ | 1,082 | \$ | $(8,753)$ | 81.4\% | 97.3\% | 15.9\% |
| 2044 | \$ | 3,092 | \$ | 1,422 | \$ | $(1,671)$ | \$ | 7,699 | \$ | (19) | \$ | $(7,718)$ | 85.5\% | 100.0\% | 14.6\% |
| 2045 | \$ | 3,164 | \$ | 308 | \$ | $(2,857)$ | \$ | 5,331 | \$ | (38) | \$ | $(5,369)$ | 90.0\% | 100.1\% | 10.1\% |
| Total Cont. Through 2045 | \$ | 73,457 | \$ | 45,769 | \$ | $(27,688)$ |  |  |  |  |  |  |  |  |  |
| Present Value of Total Cont. | \$ | 22,523 | \$ | 16,719 | \$ | $(5,803)$ |  |  |  |  |  |  |  |  |  |

Excludes contributions for Tier 3 defined contribution plan.

## Scenario 1

| Year | (\$ in Millions) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total Net Normal Cost |  |  |  |  |  | Portion to Amortize the UAL |  |  |  |  |  | Total Statutory Contribution <br> (State and Employer) <br> (excluding Tier3 DC, SMP and debt service) |  |  |  |  |  |
|  | Baseline |  | Impact |  | Change |  | Baseline |  | Impact |  | Change |  | Baseline |  | Impact |  | Change |  |
| 2013 | \$ | 416 | \$ | 416 | \$ | - | \$ | 983 | \$ | 987 | \$ | 4 | \$ | 1,399 | \$ | 1,403 | \$ | 4 |
| 2014 | \$ | 409 | \$ | 275 | \$ | (133) | \$ | 1,095 | \$ | 1,228 | \$ | 133 | \$ | 1,504 | \$ | 1,504 | \$ | - |
| 2015 | \$ | 401 | \$ | 277 | \$ | (124) | \$ | 1,177 | \$ | 1,184 | \$ | 7 | \$ | 1,577 | \$ | 1,460 | \$ | (117) |
| 2016 | \$ | 392 | \$ | 258 | \$ | (134) | \$ | 1,194 | \$ | 1,170 | \$ | (24) | \$ | 1,587 | \$ | 1,429 | \$ | (158) |
| 2017 | \$ | 383 | \$ | 241 | \$ | (142) | \$ | 1,230 | \$ | 1,190 | \$ | (40) | \$ | 1,613 | \$ | 1,431 | \$ | (182) |
| 2018 | \$ | 375 | \$ | 225 | \$ | (150) | \$ | 1,296 | \$ | 1,190 | \$ | (106) | \$ | 1,671 | \$ | 1,416 | \$ | (256) |
| 2019 | \$ | 367 | \$ | 223 | \$ | (144) | \$ | 1,345 | \$ | 1,190 | \$ | (155) | \$ | 1,713 | \$ | 1,413 | \$ | (299) |
| 2020 | \$ | 360 | \$ | 221 | \$ | (139) | \$ | 1,396 | \$ | 1,190 | \$ | (206) | \$ | 1,756 | \$ | 1,411 | \$ | (344) |
| 2025 | \$ | 332 | \$ | 220 | \$ | (112) | \$ | 1,647 | \$ | 1,188 | \$ | (459) | \$ | 1,980 | \$ | 1,408 | \$ | (571) |
| 2030 | \$ | 316 | \$ | 229 | \$ | (87) | \$ | 1,905 | \$ | 1,185 | \$ | (721) | \$ | 2,221 | \$ | 1,413 | \$ | (808) |
| 2035 | \$ | 302 | \$ | 241 | \$ | (62) | \$ | 2,219 | \$ | 1,178 | \$ | $(1,041)$ | \$ | 2,521 | \$ | 1,419 | \$ | $(1,102)$ |
| 2040 | \$ | 296 | \$ | 259 | \$ | (38) | \$ | 2,521 | \$ | 1,166 | \$ | $(1,356)$ | \$ | 2,818 | \$ | 1,424 | \$ | $(1,394)$ |
| 2041 | \$ | 299 | \$ | 265 | \$ | (34) | \$ | 2,585 | \$ | 1,161 | \$ | $(1,423)$ | \$ | 2,883 | \$ | 1,426 | \$ | $(1,457)$ |
| 2042 | \$ | 304 | \$ | 273 | \$ | (31) | \$ | 2,647 | \$ | 1,155 | \$ | $(1,492)$ | \$ | 2,951 | \$ | 1,428 | \$ | $(1,523)$ |
| 2043 | \$ | 312 | \$ | 283 | \$ | (28) | \$ | 2,709 | \$ | 1,146 | \$ | $(1,564)$ | \$ | 3,021 | \$ | 1,429 | \$ | $(1,592)$ |
| 2044 | \$ | 321 | \$ | 295 | \$ | (26) | \$ | 2,772 | \$ | 1,127 | \$ | $(1,645)$ | \$ | 3,092 | \$ | 1,422 | \$ | $(1,671)$ |
| 2045 | \$ | 331 | \$ | 308 | \$ | (23) | \$ | 2,834 | \$ | - | \$ | $(2,834)$ | \$ | 3,164 | \$ | 308 | \$ | $(2,857)$ |
| Total Through 2045 | \$ | 11,013 | \$ | 8,213 | \$ | $(2,800)$ | \$ | 62,445 | \$ | 37,556 | \$ | $(24,888)$ | \$ | 73,457 | \$ | 45,769 | \$ | $(27,688)$ |
| Present Value of Total | \$ | 4,211 | \$ | 2,996 | \$ | $(1,215)$ | \$ | 18,312 | \$ | 13,724 | \$ | $(4,588)$ | \$ | 22,523 | \$ | 16,719 | \$ | $(5,803)$ |

Excludes contributions for Tier 3 defined contribution plan.

## Scenario 1

| Year | (\$ in Millions) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actuarial Value of Assets |  |  |  |  |  | Actuarial Accrued Liability |  |  |  |  |  | Unfunded Accrued Liability |  |  |  |  |  |
|  | Baseline |  | Impact |  | Change |  | Baseline |  | Impact |  | Change |  | Baseline |  | Impact |  | Change |  |
| 2013 | \$ | 14,200 | \$ | 14,200 | \$ | - | \$ | 34,430 | \$ | 28,823 | \$ | $(5,607)$ | \$ | 20,230 | \$ | 14,623 | \$ | $(5,607)$ |
| 2014 | \$ | 15,346 | \$ | 15,444 | \$ | 99 | \$ | 35,684 | \$ | 29,569 | \$ | $(6,115)$ | \$ | 20,338 | \$ | 14,124 | \$ | $(6,214)$ |
| 2015 | \$ | 16,380 | \$ | 16,458 | \$ | 78 | \$ | 36,921 | \$ | 30,295 | \$ | $(6,626)$ | \$ | 20,542 | \$ | 13,837 | \$ | $(6,704)$ |
| 2016 | \$ | 16,999 | \$ | 17,063 | \$ | 64 | \$ | 38,130 | \$ | 30,993 | \$ | $(7,137)$ | \$ | 21,130 | \$ | 13,930 | \$ | $(7,200)$ |
| 2017 | \$ | 17,806 | \$ | 17,881 | \$ | 75 | \$ | 39,302 | \$ | 31,658 | \$ | $(7,643)$ | \$ | 21,495 | \$ | 13,777 | \$ | $(7,718)$ |
| 2018 | \$ | 18,608 | \$ | 18,672 | \$ | 64 | \$ | 40,427 | \$ | 32,284 | \$ | $(8,143)$ | \$ | 21,819 | \$ | 13,612 | \$ | $(8,207)$ |
| 2019 | \$ | 19,386 | \$ | 19,435 | \$ | 49 | \$ | 41,502 | \$ | 32,868 | \$ | $(8,634)$ | \$ | 22,116 | \$ | 13,433 | \$ | $(8,683)$ |
| 2020 | \$ | 20,137 | \$ | 20,168 | \$ | 31 | \$ | 42,519 | \$ | 33,408 | \$ | $(9,111)$ | \$ | 22,383 | \$ | 13,240 | \$ | $(9,142)$ |
| 2025 | \$ | 23,565 | \$ | 23,471 | \$ | (94) | \$ | 46,729 | \$ | 35,491 | \$ | $(11,238)$ | \$ | 23,164 | \$ | 12,021 | \$ | $(11,143)$ |
| 2030 | \$ | 26,949 | \$ | 26,634 | \$ | (315) | \$ | 49,668 | \$ | 36,881 | \$ | $(12,787)$ | \$ | 22,719 | \$ | 10,247 | \$ | $(12,472)$ |
| 2035 | \$ | 31,101 | \$ | 30,203 | \$ | (898) | \$ | 51,470 | \$ | 37,889 | \$ | $(13,581)$ | \$ | 20,369 | \$ | 7,686 | \$ | $(12,683)$ |
| 2040 | \$ | 37,366 | \$ | 34,840 | \$ | $(2,526)$ | \$ | 52,382 | \$ | 38,842 | \$ | $(13,540)$ | \$ | 15,016 | \$ | 4,003 | \$ | $(11,013)$ |
| 2041 | \$ | 39,037 | \$ | 35,982 | \$ | $(3,055)$ | \$ | 52,516 | \$ | 39,077 | \$ | $(13,439)$ | \$ | 13,479 | \$ | 3,095 | \$ | $(10,384)$ |
| 2042 | \$ | 40,907 | \$ | 37,230 | \$ | $(3,677)$ | \$ | 52,663 | \$ | 39,352 | \$ | $(13,312)$ | \$ | 11,756 | \$ | 2,122 | \$ | $(9,635)$ |
| 2043 | \$ | 43,004 | \$ | 38,597 | \$ | $(4,407)$ | \$ | 52,838 | \$ | 39,679 | \$ | $(13,159)$ | \$ | 9,835 | \$ | 1,082 | \$ | $(8,753)$ |
| 2044 | \$ | 45,353 | \$ | 40,089 | \$ | $(5,264)$ | \$ | 53,052 | \$ | 40,070 | \$ | $(12,982)$ | \$ | 7,699 | \$ | (19) | \$ | $(7,718)$ |
| 2045 | \$ | 47,981 | \$ | 40,569 | \$ | $(7,412)$ | \$ | 53,312 | \$ | 40,532 | \$ | $(12,781)$ | \$ | 5,331 | \$ | (38) | \$ | $(5,369)$ |

## Scenario 1



## Scenario 1



## Assumptions and Additional Commentary

- Plan design changes apply to all Tier 1 members. Changes to Tier 1 benefits apply to all years of service. This is not an endorsement for or against changing benefits for current members. This is also not a comment on the contractual or constitutional implications of changing benefits for current members. It is for illustrative purposes only.
- All calculations are based on the June 30, 2012 actuarial valuation results including the provisions of SURS and actuarial assumptions in effect on June 30, 2012.
- CPI is assumed to increase at $2.75 \%$.
- All present value calculations are as of June 30, 2012.
- Previous asset gains and losses are phased-in to each projection.
- No future gains or losses are assumed
- All contributions are determined as a percent of capped payroll.
- $15 \%$ of new hires are assumed to participate in the Self Managed Plan (SMP) under the baseline and SMP is assumed to be closed to new hires under the proposed changes.
- No additional administrative expenses were assumed in this analysis.


## Disclosures

- Circular 230 Notice: Pursuant to regulations issued by the IRS, to the extent this presentation concerns tax matters, it is not intended or written to be used, and cannot be used, for the purpose of (i) avoiding tax-related penalties under the Internal Revenue Code or (ii) marketing or recommending to another party any tax-related matter addressed within. Each taxpayer should seek advice based on the individual's circumstances from an independent tax advisor.
- This presentation shall not be construed to provide tax advice, legal advice or investment advice.
- The actuaries submitting this presentation (Leslie Thompson, Amy Williams and Lance Weiss) are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.
- The results summarized in this report involve actuarial calculations that require assumptions about future events. The major actuarial assumptions used in this analysis were provided by and are the responsibility of SURS. We are unable to judge the reasonableness of some of these assumptions without performing a substantial amount of additional work beyond the scope of the assignment.


## Disclosures

- Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.
- Additional information regarding actuarial assumptions and methods, and important additional disclosures are provided in the full actuarial valuation report of SURS as of June 30, 2012.
- If you need additional information to make an informed decision about the contents of this presentation, or if anything appears to be missing or incomplete, please contact us before relying on this presentation.


## Cliff Notes (\$ in Millions)

| Study <br> Number | Description | Total Contributions through 2045 | (Savings)/Cost compared to Baseline | (Savings)/Cost compared to Baseline (PV) | Comments and Observations |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Baseline | No Changes | \$76,078 |  |  | Total Contribution is made by the State and there are no benefit changes |
| 1 | State Portion of Contribution | \$40,092 | $(\$ 35,986)$ | $(\$ 7,835)$ | The total State Contribution decreases as a result of shifting normal cost and DC contributions to employers and benefit changes including an increase in employee contributions for Tier 1 members. |
|  | Employer Portion of Contribution | \$8,130 | \$8,130 | \$1,994 | Employers begin to make contributions in fiscal year 2015 |
|  | Total State Plus Employer | \$48,221 | $(\$ 27,856)$ | (\$5,841) | Total contributions from the State and Employer decrease compared to the baseline. The funded ratio is $100 \%$ in 2044 compared to a funded ratio of $90 \%$ in 2045 under the baseline. |

