ANALYSIS OF PROPOSED PSPRS PENSION REFORM

Prepared by:
Reason Foundation
Pension Integrity Project
January 29, 2016
THE PROBLEM

Why PSPRS needs pension reform
PSPRS Challenges

1. PSPRS pension plan has seen a massive reduction in funded status and increase in unfunded liabilities over last decade.

2. Employer costs are skyrocketing for state agencies and local governments
   - Cities like Bisbee, Prescott are facing massive unfunded liabilities that threaten services, budgets.

3. Some previous legislative reforms have been struck down by the courts, and others are under litigation.
PSPRS Degrading Solvency

Unfunded Liability

Funded Ratio

$6.6B
FY'15

Millions

$7,000

$6,000

$5,000

$4,000

$3,000

$2,000

$1,000

$0

$0 B
FY'03

0%

10%

20%

30%

40%

50%

60%

70%

80%

90%

100%

Causes of PSPRS Problems

1. Permanent Benefit Increases (PBI) have undermined plan’s solvency by skimming assets
   - For retirees before 2011, 50% of “excess” returns over 9% diverted to separate PBI fund
   - Diverted funds cannot be used to reduce unfunded liabilities, plan assets grow slower with part of the funds not allowed to earn interest over time
   - PBI benefit has not been pre-funded like a traditional pension COLA
   - For retirees after 2011, returns need to exceed 10.5% and no PBI unless funded ratio >60%
   - Until 2015, PBI had been paid out annually at 4% for over 20 years despite the continuing decline in funded status

2. PBI benefits are not distributed equitably, not tied to inflation, not paid each year

3. Underperforming investment returns, unrealistic expected rate of return
Causes of Problems With PSPRS:
PSPRS Actual Investment Returns, 1993-2015

- Actuarially valued returns have been consistently below the expected rate of return since 2002.

Causes of Problems With PSPRS:

PSPRS’ Expected Rate of Return is Unrealistic

• Based on the historic trend, PSPRS is using an unrealistically high expected rate of return at 7.5%
  • Actuarially valued returns have been 5% or less since 2002, nearly fifteen years
  • We estimate the likelihood of achieving a 7.5% return over the next 30 years is just 45%
• If the pattern of 5% average actuarial return continues, unfunded liabilities and normal cost will increase dramatically in the coming years

• Consider the following two figures:
  • the first shows forecasted employer contributions assuming no change to the plan and the 7.5% expected return;
  • the second shows the increase in forecasted employer contributions assuming the actuarial returns continue at 5%. 

Proposed Pension Reform Analysis
January 29, 2016
PSPRS Baseline
Employer Contribution as % of Payroll

Baseline Total Employer Contribution Rate

UAAL Payment

Normal Cost

Graph showing the employer contribution rate from 2017 to 2042, with separate bars for Employer DB Normal Cost, Employer DC Normal Cost, UAAL Amortization Payment, and Baseline.
The light blue bars above the yellow line represent $5.47 billion in additional pension debt payments for taxpayers if returns are just 5.0% instead of the expected 7.5%.

A 5% average return (FY2017-2038) would require $5.5 billion additional employer contributions (Inflation adjusted).
The Risks of Inaction

1. Rising employer contribution rates result in more money to pensions, crowding out other public services
2. Inability to hire new public safety workers
3. Inability to raise public safety wages
4. New tax & debt proposals
   • (e.g., failed Prescott PSPRS tax, pension obligation bonds)
5. Service-level insolvency
6. Municipal bankruptcy
THE PROCESS

A collaborative approach to develop a proposed reform for PSPRS
Goals of Pension Reform

Establish a retirement system that is affordable, sustainable, and secure:

1. Provide retirement security for all members (current and future) and retirees
2. Reduce taxpayer and pension system exposure to financial risk and market risk
3. Reduce long-term costs for employer/taxpayers and employees
4. Stabilize contribution rates
5. Ensure ability to recruit 21st century employees
6. Improve governance & transparency
The Reform Development Process

• Collaborative stakeholder working groups
  • Public safety associations, led by Professional Fire Fighters of Arizona, the Arizona Fraternal Order of Police (state lodge), Phoenix Law Enforcement Association
  • Legislative pension workgroup, led by Sen. Lesko & Rep. Olson
  • League of Cities & Towns pension reform task force

• Reason Foundation provided education, policy options, and actuarial support for all stakeholders, and facilitated consensus amongst stakeholders on conceptual design and reform framework
  • Separate negotiation tracks focused the fiscal elements of the reform, and the governance elements of the reform
THE SOLUTION

Fixing broken PBI design
Stable, affordable normal cost
Reduces taxpayer risk exposure by more than half
Minimizes contribution rate volatility
The Proposed Reform

1. Improvements for Current Members & Retirees

- Replace uncertain, inequitable, unsustainable PBI with pre-funded COLA that provides certainty and equity for retirees.
  - Requires constitutional amendment
  - An exchange of benefit with greater value for retirees
  - Serves public interest by correcting broken PBI that has been a major cause of increased unfunded liabilities
  - Compounding COLA based on regional CPI, capped at 2% max—provides certainty
  - Pre-paid—actuarially accounted for in advance as part of normal cost determination

- New "Catch-Up" Defined- Contribution Plan for Non-Social Security Tier 2 Participants Hired On or After January 1, 2012
The Proposed Reform

2. Changes for New Hires After July 1, 2017

- Option of electing to participate in either a new:
  1. Defined Contribution Only Plan, or
  2. Defined Benefit Hybrid Plan.

```
Does Employer participate in Social Security?

Yes

Employee Choice of:

Yes

Employee Choice of:

No

Employee Choice of:

- DB Only Plus SS Benefit at 65yrs
- DC Only (9%-9%) Plus SS Benefit at 65yrs
- DB/DC Hybrid DB + DC (3%-3%)
- DC Only 9%-9%
```
The Proposed Reform: New Hire Changes

A. **Tier 3 Defined Contribution Only Plan Option**

- Employees provided with a professionally-managed defined contribution plan, with contributions consisting of:
  - A required employer contribution of 9% of the employee’s regular compensation; and
  - A required contribution by the employee of a minimum of 9% of that employee’s regular compensation.
- Employees may elect to increase the employee’s contribution up to the annual limits established by the IRS.
- 10-year vesting of employer contributions (immediate in event of disability retirement).
- Reasonable safeguards to ensure adequate long-term financial security, such as:
  - Prohibitions on borrowing against assets
  - Limited pool of funds to invest in, with options available for target-date funds and risk-based funds
  - Annuitzation options
  - Member education and advice
The Proposed Reform: New Hire Changes

B. Tier 3 Hybrid Plan – Defined Benefit Element

• Stepped multiplier based on years of credited service:
  • 1.50% for 15.00-16.99 years of credited service
  • 1.75% for 17.00-18.99 years of credited service
  • 2.00% for 19.00-21.99 years of credited service
  • 2.25% for 22.00-24.99 years of credited service
  • 2.50% for 25+ years of credited service (same as current)

• 50/50 Cost Sharing:
  • All costs for Tier 3 D Hybrid Plan benefits are split 50/50 between employers and Tier 3 Hybrid Plan employees, including normal costs, future Tier 3 unfunded liability amortization costs, and administrative costs.
  • No caps on employer or employee contribution rates.
  • Tier 3 Hybrid Plan members will only contribute to any future unfunded liabilities on the obligations of the participants in the Tier 3 Hybrid Plan and no other PSPRS tier.
The Proposed Reform: New Hire Changes

B. Tier 3 Hybrid Plan – Defined Benefit Element

- Adopts sustainable COLA structure:
  - Compounding COLA based on regional CPI with cap of 2.0% max, unless the funded ratio of the plan falls below 90%.
    - If funded ratio of the plan is between 80-89.99%, cap reduced to 1.5%
    - If funded ratio of the plan is between 70-79.99%, cap reduced to 1.0%
  - No COLA will be issued in any year in which the funded ratio of the plan is below 70%
  - Pre-funded, actuarially accounted for in advance as part of normal cost determination
  - COLAs begin the first calendar year after the retiree reaches the 7th anniversary of their retirement date (or at age 60 regardless of whether the 7 year delay was met)
The Proposed Reform: New Hire Changes

B. Tier 3 Hybrid Plan – Defined Benefit Element

• Limits pension “spiking”
  • Reduces cap on pensionable compensation from $265,000 to $110,000
    • Cap adjusted every three years to account for real pay growth, as determined by a weighted average of actual changes in Arizona public safety pay scales
  • Final average salary = highest 5-year average
  • Maximum annual pension = 80% of final average salary (subject to pensionable compensation cap)

• Increases minimum benefit eligibility age from 52.5 years old to 55 years old.
  • Actuarially equivalent benefit available at age 52.5
The Proposed Reform: New Hire Changes

B. Tier 3 Hybrid Plan – Defined Contribution Element

• Tier 3 Hybrid Plan members not enrolled in Social Security provided with a defined-contribution plan with contributions consisting of:
  • A required employer contribution of 3% of the member’s regular pay; and
  • A required contribution by the member of a minimum of 3% of that member’s regular pay.
• Upon initial employment, employees may elect to increase the employee’s contribution up to the annual limits established by the IRS. (Required by IRS Code)
The Proposed Reform

3. Governance and Other Reforms

• Composition of PSPRS Board of Trustees will be modified to reflect the 50/50 sharing of costs and risks of the Tier 3 retirement formula.

• New unfunded liabilities associated with any future benefit increase required to be fully paid in the year of enactment and cannot be amortized over any period of years.

• At no time will any employer’s or employee's annual payment to PSPRS be less than their share of actuarially determined normal cost. No credits against normal cost shall be factored in to annual employer or employee contributions.

• Incorporating comprehensive fiduciary standards in statute

• Ongoing discussions to determine the potential benefits of using risk pools or liability sharing amongst agencies
THE SOLUTION:
FISCAL & RISK ANALYSIS
Employer Cost Forecast, as a % of Payroll
Baseline v. Proposed Reform

[Bar chart showing the forecast of employer costs as a percentage of payroll from 2017 to 2042, with different cost components represented by different colors: Employer DB Normal Cost (dark blue), Employer DC Normal Cost (purple), UAAL Amortization Payment (light blue), and Baseline (yellow)].

January 29, 2016
New Hire Cost Projection, Year 1 (2017-18)  
Tier 2 v. Tier 3

<table>
<thead>
<tr>
<th></th>
<th>Reason Forecast</th>
<th>GRS Forecast (as of 12/23/15)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tier 2</td>
<td>Tier 3</td>
</tr>
<tr>
<td><strong>DB Multiplier</strong></td>
<td>2.5%</td>
<td>2.5%*</td>
</tr>
<tr>
<td><strong>Employer DC Rate</strong></td>
<td>0%</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Employee DC Rate</strong></td>
<td>0%</td>
<td>3%</td>
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<td>0%</td>
<td>3%</td>
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</tbody>
</table>

**Figures below in % of new hire payroll**

| Total DB Normal Cost | 21.1%          | 14.6%                        | 20.85%          | 15.06%                        |
| Total DC Normal Cost | 0%             | 4.8%                         | 0%             | 4.6%                         |
| (Hybrid DC + DC Only Plans) | 6% Hybrid DC + 18% DC Only | 6% Hybrid DC + 18% DC Only |
| Total New Hire Normal Cost | 21.1% | Blended Rate: 19.4%          | 20.85%          |
|                            |               | Social Security: 14.6%       | Social Security: 15.06% |
|                            |               | Non-Social Security: 20.6%   | Non-Social Security: 21.06% |
|                            |               | DC Only: 18%                | DC Only: 18%    |
| Employer Normal Cost Contribution | 13.45% | Social Security: 7.3%       | Social Security: 7.53%   |
|                                |               | Non-Social Security: 10.3%  | Non-Social Security: 10.53% |
|                                |               | DC Only: 9.0%               | DC Only: 9.0%     |
| Employee Normal Cost Contribution*** | 7.65% + 4% UAAL Contribution | Social Security: 7.3%       | Social Security: 7.53%   |
|                                   |               | Non-Social Security: 10.3%  | Non-Social Security: 10.53% |
|                                   |               | DC Only: 9.0%               | DC Only: 9.0%     |

Note: All normal cost figures include the cost of providing the new 2% Max COLA. All figures are irrespective of whether SB1609 is reversed. Forecast assumes 65% of members are with employers who do not participate in Social Security, 30% are with employers that do participate in Social Security, and that 5% of new hires select the DC Only option. // "Rate adjusted down for those with less than 25 service years. // GRS reports the "ultimate" Tier 3 employee cost is 9.8% blended; since Tier 3 is a 50/50 cost split we interpret this to mean a 19.8% "ultimate" blended normal cost // ***Total Employee Contribution for Tier 2 is 11.65%; Normal Cost portion is 7.65%, plus 4% "Maintenance of Effort" contribution for the plan's unfunded liability.
### Total Plan Cost Projection, Year 25 (2042-43)

**Baseline Total System v. Proposed Total System**

<table>
<thead>
<tr>
<th>Reason Forecast</th>
<th>GRS Forecast (as of 12/23/15)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline Total System</td>
</tr>
<tr>
<td><strong>DB Multiplier</strong></td>
<td>2.5%</td>
</tr>
<tr>
<td><strong>Employer DC Rate</strong></td>
<td>0%</td>
</tr>
<tr>
<td><strong>Employee DC Rate</strong></td>
<td>0%</td>
</tr>
</tbody>
</table>

*Figures below in % of new hire payroll*

<table>
<thead>
<tr>
<th>Employer DB Normal Cost</th>
<th>14.9%</th>
<th>7.6%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employer DC Normal Cost</td>
<td>0%</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plan’s Blended Employer Contribution Rate**</th>
<th>14.9%</th>
<th>9.9%</th>
<th>13.2%</th>
<th>9.8%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Employee Contribution Rates</strong>*</td>
<td>Tier 1: 7.65%</td>
<td>Tier 1: 7.65%</td>
<td>Tier 1: 7.65%</td>
<td>Tier 1: 7.65%</td>
</tr>
<tr>
<td></td>
<td>Tier 2: 11.65%</td>
<td>Tier 2: 11.65%</td>
<td>Tier 2: 11.65%</td>
<td>Tier 2: 11.65%</td>
</tr>
<tr>
<td></td>
<td>Tier 3: 7.3% or 10.3%</td>
<td>Variable by Tier, Unstated</td>
<td>Variable by Tier, Unstated</td>
<td>Variable by Tier, Unstated</td>
</tr>
</tbody>
</table>

Note: All normal cost figures include the cost of providing a PBI (Baseline) or COLA (Proposed). All figures are irrespective of whether SB1609 is reversed. Forecast assumes 65% of members are with employers who do not participate in Social Security, 30% are with employers that do participate in Social Security, and that 5% of new hires select the DC Only option. // *Rate adjusted down for those with less than 25 service years. // **Individual employer rates will vary based on participating in Social Security. Both “baseline” forecasts are statistically similar and within a reasonable margin of error for a 25 year forecast, the same is true for both “proposed” forecasts. The important analytical conclusion is that both forecasts show around a 30% reduction in costs. // ***Assumes 4% maintenance of effort contribution for Tier 2.
## Employer Cost/Savings Forecast, 2017-2046
Baseline v. Proposed Reform (Inflation Adjusted)

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Baseline</th>
<th>Proposed Reform</th>
<th>Savings from Proposed Reform</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017-2021</td>
<td>$3.31 billion</td>
<td>$3.25 billion</td>
<td>$0.055 billion</td>
</tr>
<tr>
<td>2022-2026</td>
<td>$3.42 billion</td>
<td>$3.29 billion</td>
<td>$0.132 billion</td>
</tr>
<tr>
<td>2027-2031</td>
<td>$3.41 billion</td>
<td>$3.19 billion</td>
<td>$0.217 billion</td>
</tr>
<tr>
<td>2032-2036</td>
<td>$3.14 billion</td>
<td>$2.84 billion</td>
<td>$0.296 billion</td>
</tr>
<tr>
<td>2037-2046</td>
<td>$2.51 billion</td>
<td>$1.68 billion</td>
<td>$0.826 billion</td>
</tr>
<tr>
<td>2017-2046</td>
<td>$15.8 billion</td>
<td>$14.3 billion</td>
<td>$1.5 billion</td>
</tr>
</tbody>
</table>
Accrued Liabilities Forecast
Change in Growth of Promised Pension Benefits, Baseline v. Proposed Reform

Proposed Reform: 36% Reduction in Liabilities by 2046

Baseline Pension Liabilities
Proposed Reform Pension Liabilities
Employer Cost Forecast: Underperforming Assets

Additional in Employer Amortization Payments for New Hire Unfunded Liabilities

Assuming a 6.5% Actual Rate of Return, Baseline v. Proposed Reform
Employer Cost Forecast: Underperforming Assets

Additional in Employer Amortization Payments for New Hire Unfunded Liabilities

Assuming a 5.0% Actual Rate of Return, Baseline v. Proposed Reform

Employer’s Contribution to New Hire Unfunded Liability Amortization Payment

- Baseline
- Proposed Reform (with 50/50 Split of Normal Cost and New Hire UAAL)

Baseline: New Hire Volatility Forecast
Employer Contribution Rate, as a % of New Hire Payroll

Average Return Possibilities Over the Next 20 Years
- 4.75% to 6.00% Rate of Return
- 6.00% to 6.75% Rate of Return
- 6.75% to 8.00% Rate of Return
- 8.00% to 8.75% Rate of Return
- 8.75% to 10.00% Rate of Return

7.5% Return (Assumed Rate)
(45% Likelihood of Achieving This Rate Over Next 30 Years)
Proposed Reform: New Hire Volatility Forecast
Employer Contribution Rate, as a % of New Hire Payroll

Average Return Possibilities Over the Next 20 Years
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- 7.5% Return (Assumed Rate) (45% Likelihood of Achieving This Rate Over Next 30 Years)
Comparing New Hire Volatility Forecasts
Proposed Reform (Foreground) v. Baseline (Transparent)
Employer Contribution Rate, as a % of New Hire Payroll

Average Return Possibilities Over the Next 20 Years
- 4.75% to 6.00% Rate of Return
- 6.00% to 6.75% Rate of Return
- 6.75% to 8.00% Rate of Return
- 8.00% to 8.75% Rate of Return
- 8.75% to 10.00% Rate of Return
- 7.5% Return (Assumed Rate)

(45% Likelihood of Achieving This Rate Over Next 30 Years)
Comparing New Hire Volatility Forecasts
Proposed Reform v. Baseline Employer Contribution Rate if 5% Rate of Return Continues (as a % of New Hire Payroll)

Average Return Possibilities Over the Next 20 Years
- 4.75% to 6.00% Rate of Return
- 6.00% to 6.75% Rate of Return
- 6.75% to 8.00% Rate of Return
- 8.00% to 8.75% Rate of Return
- 8.75% to 10.00% Rate of Return
- 7.5% Return (Assumed Rate)
- Baseline 5% Rate of Return
CONCLUSION

Summarizing how the proposed reform will address the problems and challenges of PSPRS
# How Well Proposals Meet Objectives

<table>
<thead>
<tr>
<th>Element</th>
<th>Baseline</th>
<th>Proposed Reform</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Provide Retirement Security for Members &amp; Retirees</td>
<td><strong>UNCERTAIN</strong></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td></td>
<td><em>Broken PBI design &amp; unfunded liabilities threaten plan solvency</em></td>
<td><em>Certain COLA and properly funded, future potential unfunded liability payments reduced</em></td>
</tr>
<tr>
<td>(2) Reduce Costs for Employer/Taxpayers and Employees</td>
<td><strong>NO</strong></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>New COLA design, equal cost sharing, stepped-multiplier based on years of service</em></td>
</tr>
<tr>
<td>(3) Stabilize Contribution Rates for the Long-term</td>
<td><strong>NO</strong></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Employer/employee equal cost sharing</em></td>
</tr>
<tr>
<td>(4) Reduce Taxpayer and Pension System Exposure to Financial and Market Risk</td>
<td><strong>NO</strong></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>36% Reduction in Accrued Liabilities by 2046, 50% Reduction in Potential New Hire Unfunded Liability Costs for Taxpayers</em></td>
</tr>
<tr>
<td>(5) Ensure Ability to Recruit 21st Century Employees</td>
<td><strong>SOME</strong></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>New hires offered choice of hybrid or portable DC plan, new DB stepped-multiplier incentivizes retention</em></td>
</tr>
<tr>
<td>(6) Improve Governance &amp; Transparency</td>
<td><strong>NO</strong></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Significant commitment by all stakeholders to substantive change to governance; details to be determined.</em></td>
</tr>
</tbody>
</table>
Conclusion

• **Employee** Benefits of Proposed Pension Reform
  • Pay lower annual employee contributions (effective pay raise for new tier employees)
  • Choice between retirement plan designs (Hybrid DB/DC or Full DC)
  • Employees without social security will have:
    • A portable element of retirement benefits (the DC account) with ability to customize investment strategy based on personal retirement goals
    • Professional DC plan management and retirement planning education and assistance

• **Employer / Taxpayer** Benefits of Proposed Pension Reform
  • Minimize volatility of annual employer contributions
  • Employees equally share costs and investment risk with taxpayers
  • Reduces overall risks, slows growth of unfunded liabilities
Questions?

Reason Foundation Pension Integrity Project

**Pete Constant, Director of Pension Integrity Project**
Former San Jose City Councilman, Retired Police Officer, and Pension Board Trustee

 pete.constant@reason.org

**Len Gilroy, Director of Government Reform**
Based in Arizona

 leonard.gilroy@reason.org

**Anthony Randazzo, Director of Economic Research**

 anthony.randazzo@reason.org