

Pension Reform: What's the big problem, and how do we fix it?

Based on the LJAF Solution Paper:
[Creating a New Public Pension System](#)

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Means and Ends

- **Presentation Outline**

- Review of the Public Pension Problem
- Key Component of Reform
- Solution Set
- Accounting Standards

- **Takeaways**

- The current Defined Benefit pension structure has three primary problems.
- Governments can solve these problems by moving away from promising a benefit and instead promise an accrual or savings rate.
- There are several established options for doing this.
- Accounting standards must be tightened where Defined Benefit plans remain.



Underfunding

- Public pension underfunding is a significant problem.
 - States and municipalities are facing budgetary stress.
 - Taxpayers are facing the prospect of increased taxes and/or reduced services.
 - Public workers are facing reduced benefits and lower wages.
- How big is the problem, really?
 - The states' own estimates of the unfunded liability due to their pension benefit promises grew to \$1.26 trillion in fiscal year 2009, up from \$1 trillion the year before.

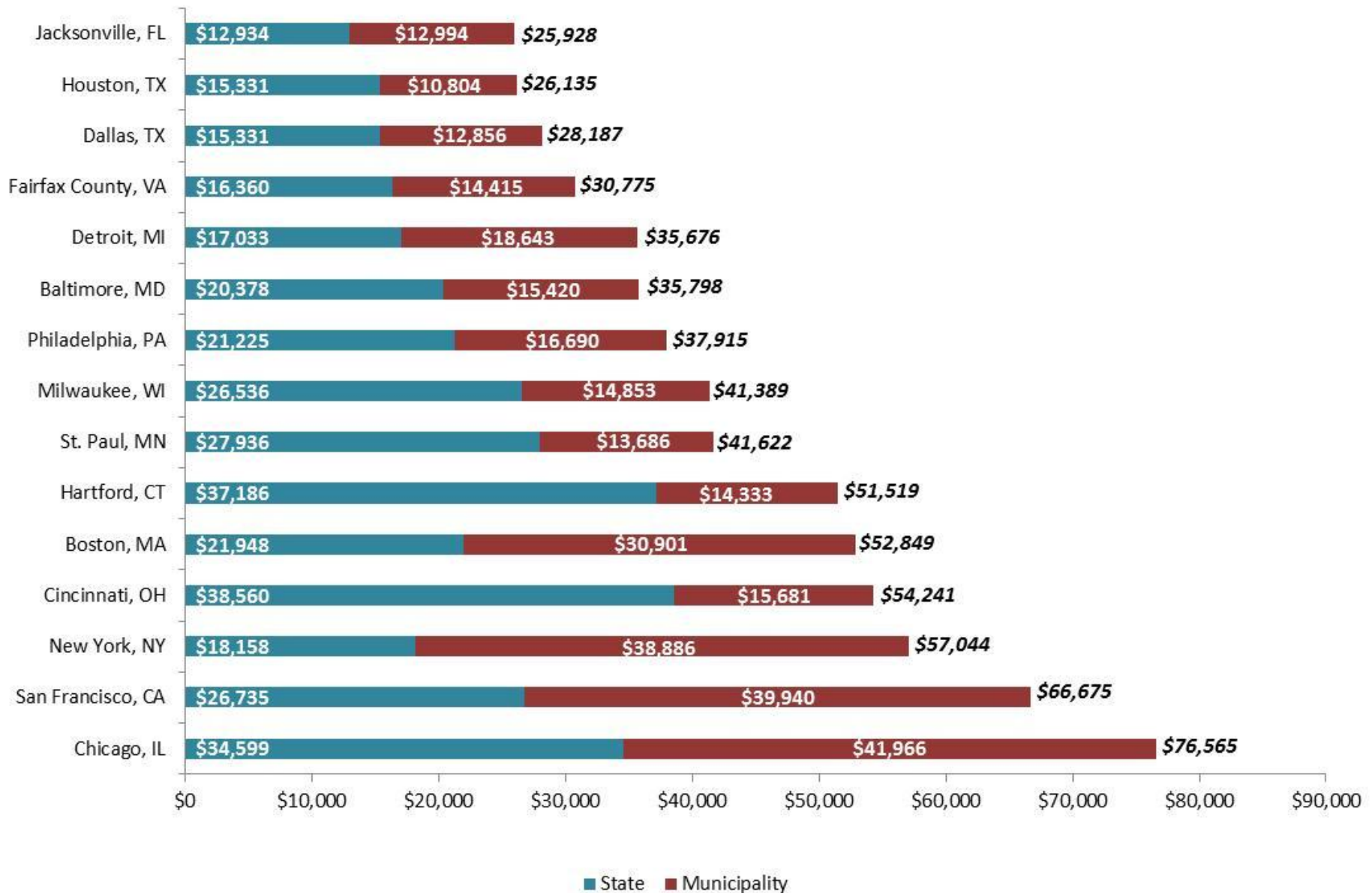


Underfunding

- If private sector accounting standards were used the state level unfunded liability would be roughly \$3 trillion.
- This sum represents about one-fifth of the United States' gross domestic product.
- The Stimulus Bill cost taxpayers an estimated \$787 billion, or less than one-third of the current unfunded liability due to state-run pensions.
- The problem is even more acute in many municipalities.



Unfunded Liability per Household



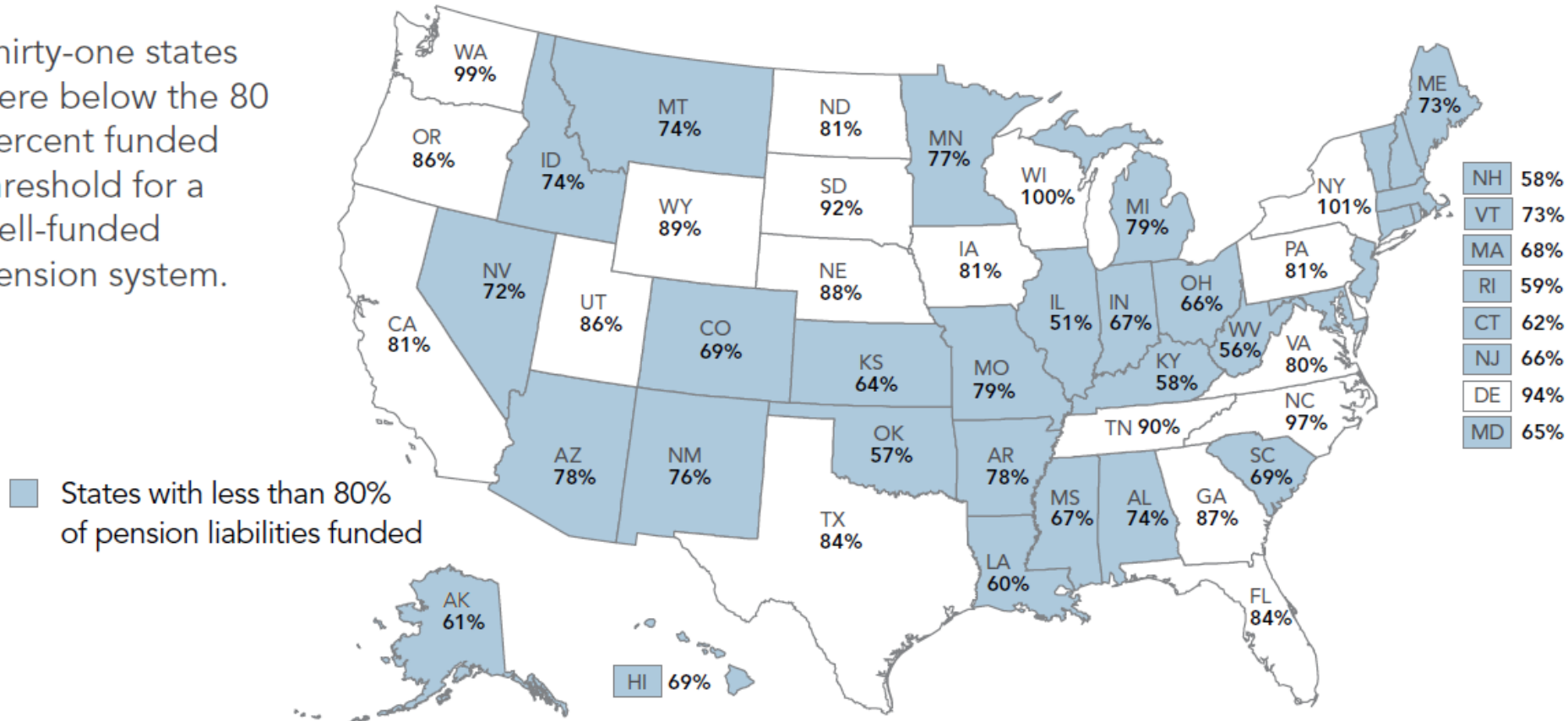
Novy-Marx, R., Rauh, J. (2011a). [Public Pension Liabilities: How Big Are They and What Are They Worth?](#)

Novy-Marx, R., Rauh, J. (2011b). [The Crisis in Local Government Pensions in the United States.](#)

Underfunding

States' Public Sector Pensions 78% Funded in FY09

Thirty-one states were below the 80 percent funded threshold for a well-funded pension system.



Graphic created by Pew Center on the States.

Pew Center on the States. (2011). [The Trillion Dollar Gap Grows Wider.](#)

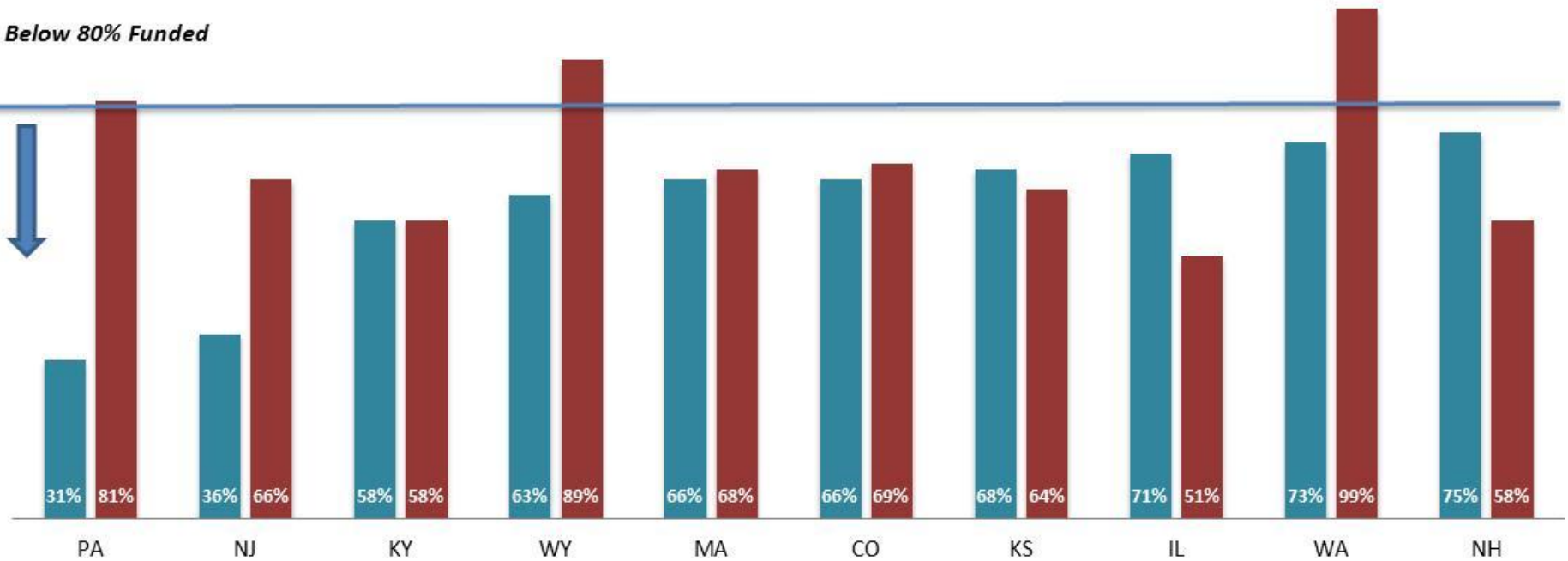
Pew Center on the States. (2010). [The Trillion Dollar Gap.](#)



Actuarially Required Contribution

■ % of ARC PAID ■ % FUNDED

Below 80% Funded



Underfunding

- Only 22 states made their full ARC payment in FY09.
- Texas paid 99% in 2009, but only 82% in 2010.
- Houston hasn't paid the full ARC to the Police or Municipal Employees pension systems since 2000.
- The City's 2012 budget includes across the board cuts in the City's pension payments at a time when the ARC is rising.
- The total year-over-year reduction in the City's total 2012 contribution is more than 17%.

Underfunding

- The funding situation will get worse over the coming years.
 - Because of smoothing, investment losses continue to be phased in. (all three Houston plans smooth over 5yrs)
 - Accounting rules allow for back loading of payments.
 - New GASB accounting standards will use a lower blended discount rate.
- States and municipalities will be forced to take measures to pay for their pension obligations.
- They have only three options:
 - Raise Taxes,
 - Reduce Services, and
 - Reduce Benefits.



Underfunding

- This begs the question: How did we get into this predicament?
- Traditional DB pension systems are underfunded for three reasons:
 - *lower than expected investment returns*
 - States have historically assumed that they will make above-market returns on their pension investments, between 7 and 8 percent on average.
 - Using a high investment return assumption allows plan sponsors to contribute less now to fund future benefits. But when the funds do not meet expectations, it is future generations of politicians and taxpayers that are left to make up the difference.



Underfunding

– insufficient contributions

- States often neglect making their full annual required contribution to the pension fund so that they might avoid reducing spending on other public services.
- This practice is equivalent to borrowing from the pension fund, the result being an intergenerational transfer of wealth from one generation of taxpayers to another.
- This debt has an effective interest rate roughly equal to the retirement system's investment return assumption. In most cases this will be significantly higher than the sponsor's bond rate; thus, they are borrowing at above market rates.



Underfunding

– prediction error

- Estimating the cost of future benefits requires a significant number of predictions (*e.g.*, employee tenure, wage growth and employee life expectancy).
- Any error in the state's prediction will have significant implications for future cost.



Underfunding

- The structure of the traditional Defined Benefit pension system creates these sources of underfunding, and in fact, provides a significant political incentive to underfund employee benefits.
- This is an untenable situation for both taxpayers and public employees.
- The traditional DB structure has three structural problems:
 - Unpredictable Cost,
 - Incentive to Underfund, and
 - Labor Market Distortions.



Three Fundamental Problems

1. Unpredictable Cost

- Because DB plans are pre-funded, states and municipalities must make what amounts to an educated guess as to how much money to set aside to satisfy future benefit obligations.
- They are forced to make highly subjective determinations with respect to many variables that influence the true benefit cost including:
 - employee's tenure with the employer,
 - her wages during that entire period, and
 - her life expectancy.



Three Fundamental Problems

1. Unpredictable Cost

- Investment returns create additional cost uncertainty.
- Most government-sponsored pension plans assume investment returns of somewhere between 7% and 8% annually.
- This becomes problematic when these return assumptions are incorporated into the calculation of the fund's liabilities and the amount that must be set aside now to pay for benefits in the future.
- A plans benefit promises are largely predicated on meeting their investment target.



Three Fundamental Problems

1. Unpredictable Cost

- The bulk of employees' benefits are funded through investment returns earned over the course of their careers.
- Small misses can lead to a significant funding gap between the benefits that were promised and the assets available to pay for those benefits.
- CalPERS, one of the largest public pension funds, with more than \$200 billion under management, assumes a 7.75% return.
- Five-year return was 3.41%, ten-year return was 5.36%, and fifteen-year return was 6.97%.
- The median ten-year return for state plans was only 3.9%.

Marois, M. (2011, July 18). [California Pension Funds, Nation's Largest, Gain Most in Decade.](#)

Marois, M., Fu, S. (2011, September 9). [Calpers Chief Says 7.75 percent Return Tough to Meet.](#)

Pew Center on the States. (2011). [The Trillion Dollar Gap Grows Wider.](#)



Three Fundamental Problems

2. Incentive to Underfund

- There is an extraordinarily lengthy time period between the time that the state funds the benefit and the time that the state pays those benefits to the employee.
- This creates a dynamic where politicians and government officials today are making financial commitments and promises that others will pay tomorrow.
- In light of the time lapse between funding and payment, it becomes convenient for politicians who face tight budgets to stop making the full annual payments to the pension fund; this is indistinguishable from borrowing from the fund.
- In 2009, only twenty-two states paid the full cost of their pension promises.



Three Fundamental Problems

2. Incentive to Underfund

- This dynamic also creates a political incentive to make additional promises to employees (*e.g.*, increasing pension benefits) without due regard for the full cost, which will be paid in the distant future by the next generation of taxpayers and politicians.
- San Diego is the most often-cited example.
- In 2002, the City twice increased employee benefits, and at the same time decreased its payment into the pension system.
- Although this eased San Diego's short-term budget problem, it created substantial pension underfunding that still plagues the City today.

Lowenstein, R. (2008). [While America Aged: How Pension Debts Ruined General Motors, Stopped the NYC Subways, Bankrupted San Diego, and Loomed as the Next Financial Crisis.](#)



Three Fundamental Problems

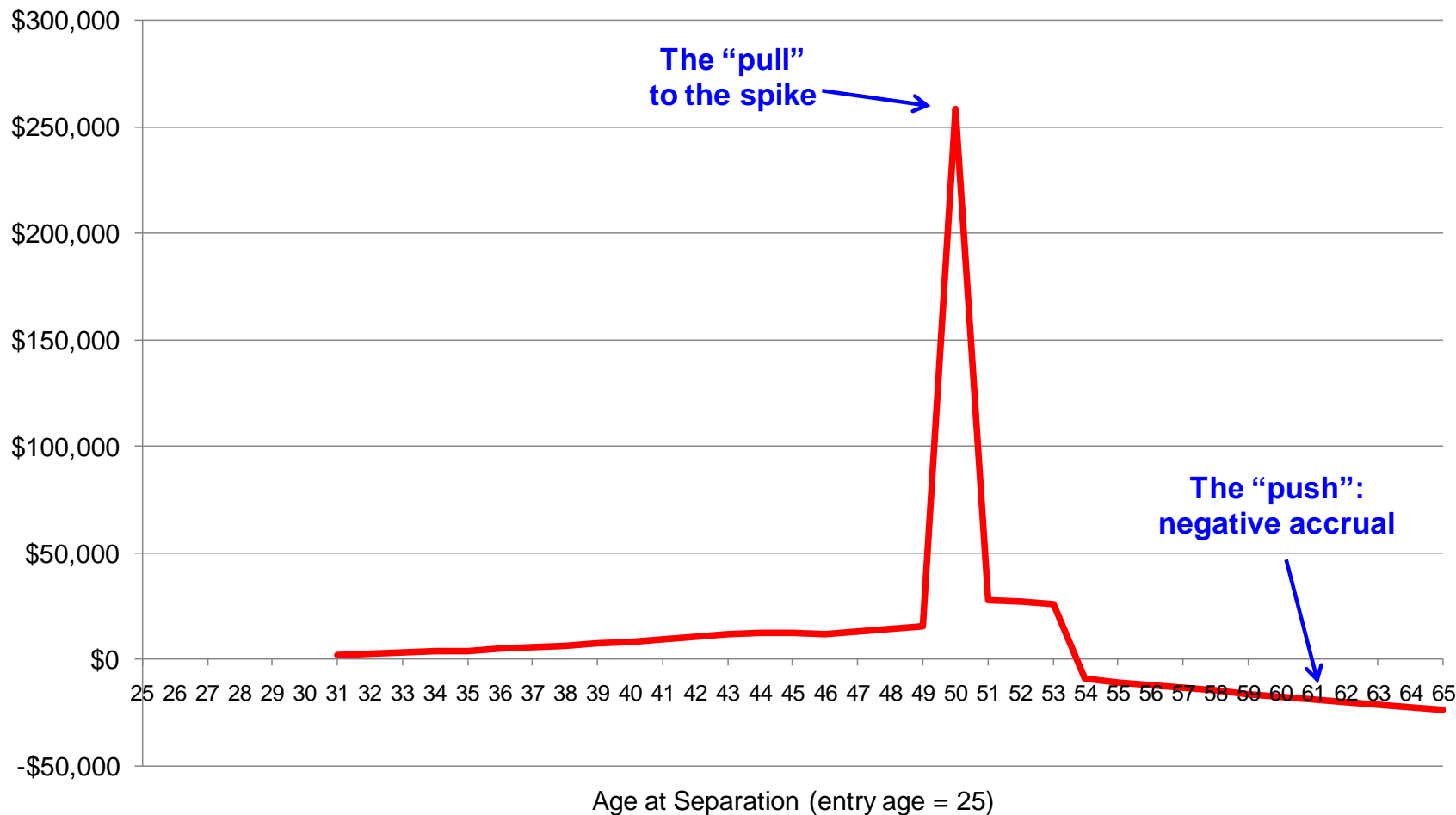
3. Labor Market Distortion

- Pension wealth accrual is uneven across an employee's career.
- Uneven accrual pattern creates strong incentives to work until a certain point and then to retire.
- These incentives may or, more likely, may not align with the preferences of the employee or employer.
- DB pensions are not equitable or portable because they are back-loaded.
 - Short term employees do not accrue much pension wealth.
 - The workforce is more mobile than ever both geographically and among industries.



Pension Wealth Accrual AR Teachers

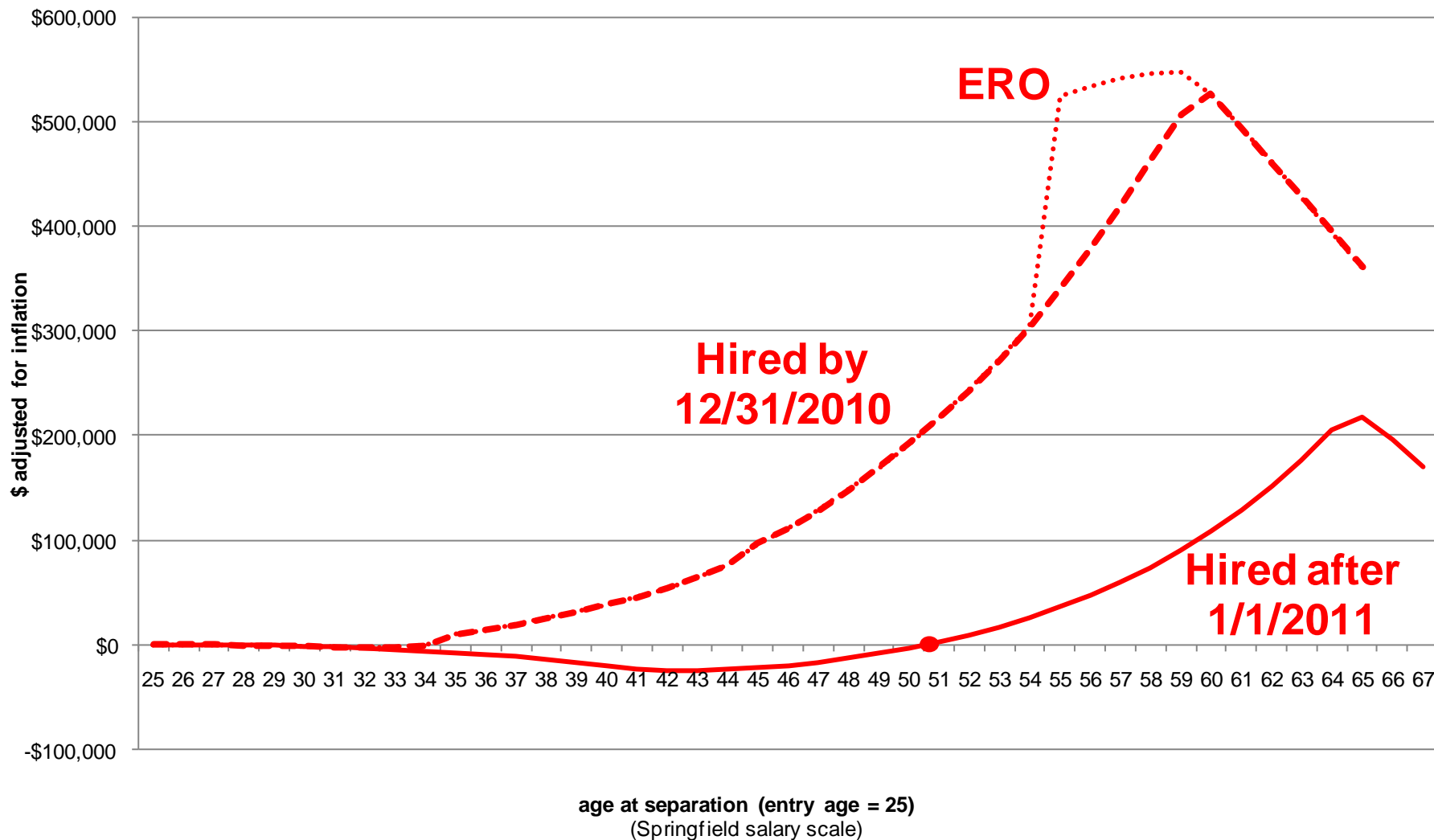
Figure 3. One-Year Accrual of Pension Wealth
(net of interest and employee contributions; adjusted for inflation)



Costrell, R., McGee J. (2010). [Teacher Pension Incentives, Retirement Behavior, and the Potential for Reform in Arkansas.](#)

Pension Wealth Accrual IL Tier I vs. Tier II

(assuming employee pays member contribution)



Total Compensation

- It is important to keep in mind that deferred compensation is just one piece of total compensation.
- Workers likely prefer more in current compensation vs. deferred compensation.
- The current structure for promising benefits makes it difficult to fully understand their cost at the negotiating table.

Key Component of Reform

- Moving away from promising a benefit and instead promising an accrual or savings rate solves all three structural problems.
- This can be accomplished while still maintaining protections for workers including:
 - Professional Money Management,
 - Pooled Assets,
 - Risk Sharing, and
 - Easy Annuitization.



Key Component of Reform

- Switching structures would also provide additional flexibility for workers including the ability:
 - to retire earlier or later without a huge financial penalty and/or
 - to take part of their retirement wealth as a lump sum.

1. Unpredictable Cost

- Costs are known. Calculating the cost would only require multiplication.
- Allows the employer to be as generous as they desire with zero uncertainty about cost.
- Investment earnings are removed from the cost calculation.



Key Component of Reform

2. Incentive to Underfund

- Costs are incurred in the period in which the benefit is accrued.
- Makes it difficult to skimp on payments or give away benefits without paying for them.

3. Labor Market Distortion

- Smooths pension wealth accrual making it a constant percentage of earnings.
- Smoothing accrual improves the portability and equity of benefits.
- A new structure could allow employees to optimize their retirement decisions based on their preferences.



Solution Set

- Defined Contribution - Higher ED and Michigan Public Employees.
- Cash Balance - Nebraska and many private sector firms.
- Side-by-Side Hybrid (both DB and DC with plan choice) - Utah and Florida.
- Stacked Hybrid (small DB with DC on top) - federal employee retirement system and the recently adopted reforms in Rhode Island.
- Cap employer contributions with explicit cost sharing arrangement between employee and employer - California Ballot Initiative.



Solution Set

- Both DC and Cash Balance promise an accrual rate.
- The key difference is that DC places the portfolio risk on the employee while Cash Balance allows for portfolio risk sharing between the employee and employer.
- Cash Balance
 - The employer makes an annual contribution to a notional account for the employee.
 - The employer manages the investment of the employee's money.
 - The employer promises an average annual return.
 - The employer provides the employee with the ability to annuitize either part or all of their account balance.



Efficiency

- What about claims that the traditional DB structure is the most efficient?
1. The traditional DB system is simply a way of promising retirement savings. You can change the way you make promises to workers while maintaining all of the often-cited positive aspects of DB.



Efficiency

2. Efficiency arguments rely on incorrect comparisons and faulty assumptions.
 - They usually compare public DB plans to the universe of DC plans. A better comparison would be to managed plans in Higher ED. Regardless, this comparison says nothing about the efficiency of other structures like Cash Balance.
 - The efficiency argument rests on assumptions about life expectancy, portfolio allocation, money management, annuitization, etc. that make DB look more favorable.

Accounting Practices

- Better accounting practices should be instituted where the traditional DB structure remains.
- [Public Employee Pension Transparency Act](#)
- [Unmasking Hidden Cost: Best Practices For Public Pension Transparency](#) by Josh Barro
- Discounting
 - In calculating their pension liabilities and funded status, pension funds should use a market-value discount rate.
 - The disclosure of the sum this method produces would accompany the existing disclosure, which rests on a discount rate based on expected returns on assets.



Accounting Practices

- Smoothing
 - Funds should use a standardized "smoothing" period of five years to calculate asset values.
 - Funds should also report funded status on the basis of a market value of assets with no smoothing.
- Accrual method
 - Funds should continue to use Entry Age Normal as a standard accrual method for calculating funded status when applying the standards stated above.



Accounting Practices

- Projections
 - Funds should issue annual five-year projections of contribution rates required of participating governments.
- Normal cost
 - Funds should calculate and report the normal cost of pension benefits using the market-value discount rate they use to calculate pension liabilities and funded status.



This is the End

- **Takeaways**

- The current Defined Benefit pension structure has three primary problems.
- Governments can solve these problems by moving away from promising a benefit and instead promise a savings or accrual rate.
- There are several established options for doing this.
- Accounting standards must be tightened where Defined Benefit plans remain.

