Creating a New Public Pension System

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Introduction

State and local budgets across the nation are facing enormous distress. Although part of this hardship can be attributed to the worldwide financial crisis and the recession that followed, a significant portion has been caused by widespread, unsound budgetary practices. By and large, the financial crisis merely uncovered deep, veiled structural flaws. Chief among these flaws is the perpetual underfunding of public employee benefits. Failing to address the public pension crisis promptly would be economically catastrophic, triggering bankruptcies of cities, school systems and potentially even entire state governments.

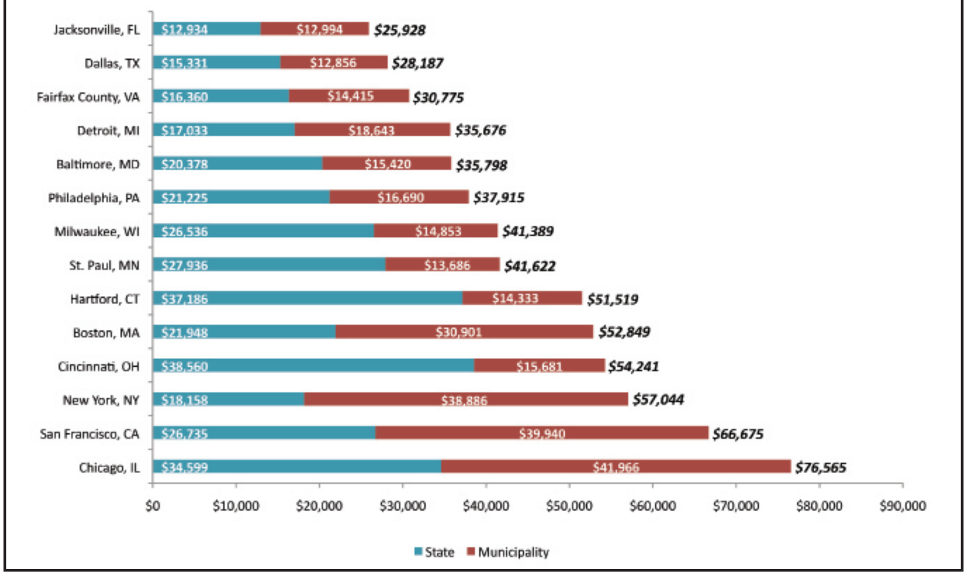


Figure 1: Unfunded Liability per Household

Source: Novy-Marx, Rauh (2011a) and (2011b). Liabilities discounted at the Treasury rate.

The states' own estimates of the unfunded liability due to their retirement benefit promises grew to $1.26 trillion in fiscal year 2009, up from $1 trillion just one year earlier.[1] Pension promises make up over half ($660 billion) of the unfunded liability while retiree health care and other benefits constitute the remainder. However, using standard private sector accounting rules, the pension liability estimate increases to over $3 trillion, a sum that represents roughly one-fifth of the United States' gross domestic product.[2] This leaves a pension shortfall of around $1.3 trillion. In other words, the assets that states have set aside to pay for employee pension benefits fall short of what they owe for those benefits by approximately $1.3 trillion. As a comparison, the 2009 federal stimulus bill cost taxpayers an estimated $787 billion, or less than two-thirds of the current unfunded liability due to state-run pensions.

The size of the public pension debt per household is overwhelming in many areas, and the economic and social costs of this crisis are potentially crippling to our nation. Figure 1 highlights the unfunded liability per household in selected jurisdictions. As shown above, the average family living in Chicago today is burdened with $34,599 in liability due to underfunding at the state level, and an additional $41,966 at the municipal level for a total debt burden of $76,565.

Because of this shortfall, states, municipalities and school districts will soon be forced to take drastic measures to pay for their pension obligations. They will pass the burden on to the public either in the form of increased taxes or, more realistically, cuts to services that are critical to society, such as education. Without significant changes to the current systems, public pension payments will quickly begin to crowd out other discretionary spending.

The Laura and John Arnold Foundation (LJAF) seeks to remedy this untenable financial situation by educating policymakers and the public about the nature of the pension problem and developing structural reforms that are comprehensive, sustainable and fair. Sound pension reform

1) PEW Center on the States (2010) and (2011).

2) Novy-Marx and Rauh (2011a). Liabilities discounted at the taxable municipal rate.

meets four general criteria: (1) establish transparency with respect to the true cost of the benefits promised to public employees; (2) mandate that the pension plan sponsor pay the full cost of accrued benefits each year; (3) mandate that the pension plan sponsor pay down the unfunded accrued liability over a reasonable time horizon and (4) improve the generational equity, portability and security of benefits for public employees.

Structural Problems with the Current System

Overview of Defined Benefit Plans

Most public pension systems use the traditional Defined Benefit (DB) structure. Under a DB plan, an employee's retirement benefit is "defined" based on a formula that includes variables such as the employee's age, service and salary. The typical DB plan provides the employee with an annuity that is equal to a percentage of the employee's average salary over a specified number of years at the end of the employee's career.

Traditional DB plans are pre-funded systems. As such, each year the employer (in this case, the state or municipality) together with employees set aside enough money to pay for the benefits that were accrued in that year. This is distinct from a "pay-as-you-go" system like Social Security, where contributions today are used to pay for retiree benefits today.[3] The annual contributions to the DB pension plan are placed in a trust that is managed and invested by the state. The funds in that trust (that is, the funds that will be used to satisfy pension obligations) come from three sources: the employee contributions, the employer contributions and investment earnings. When an employee reaches retirement, her benefit should be fully funded by pension wealth accrued from these three sources. Unless there is severe underfunding and therefore a cash-flow problem, the contributions of new and current employees are not needed to supplement benefit payments to retirees.

One of the primary drivers of the current pension crisis is the systems' accumulation of unfunded liabilities or debt. This begs the question: How do traditional DB pension systems become underfunded? There are three reasons:

(1) ***Lower than expected investment returns:*** Pension fund sponsors have assumed historically that they will make above-market returns on their pension investments, between 7 and 8 percent on average. Using an overly optimistic prediction allows them to contribute less now to fund future benefits, but when the funds do not meet expectations, taxpayers are left making up the difference;

(2) ***Insufficient contributions:*** Pension fund sponsors often neglect making their full annual required contribution to the pension fund so that they might spend that money 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; and

(3) ***Prediction error:*** Successfully estimating the cost of future benefits requires a significant number of accurate predictions (*e.g.*, employee tenure, wage growth and life expectancy). Any error in the pension plan sponsor's prediction will have numerous implications for future cost.

The structure of the traditional DB pension system creates these three sources of underfunding, and in fact, provides a significant political incentive to underfund employee benefits.

There are three primary structural problems that must be addressed in order to create a sound, sustainable and fair retirement savings system for public employees: (1) Unpredictable Costs, (2) Incentive to Underfund and (3) Labor Market Distortions. All three of these structural flaws stem from the way that retirement benefits are promised in a traditional DB system. Solving these three problems would eliminate future pension underfunding and would increase the security and utility of benefits for public employees.

Unpredictable Costs

Because DB plans are pre-funded, pension plan sponsors must make what amounts to an educated guess as to how much money to set aside today to satisfy future benefit obligations. They are forced to make highly subjective determinations with respect to many variables that influence the true benefit liability, including employees' tenure, wages

3) Social Security is not a pure "pay-as-you-go" system because it does accumulate excess revenue in a trust fund. However, Social Security's outflows have reached a point where they exceed contributions. If current funding and benefits levels remain constant, Social Security will reach pure "pay-as-you-go" status in the relatively near future.

and life expectancy. This is an inherently difficult task that is prone to estimation inaccuracies.

Even if employers were able to calculate accurately the future costs of the benefits they have promised, a high level of uncertainty would remain due to the variability of the funds' investment returns. Most government-sponsored pension plans assume investment returns of somewhere between 7 percent and 8 percent annually. This becomes problematic when these often overly optimistic return assumptions are incorporated into the calculation of the funds' liabilities and into the amount that must be set aside today to pay for benefits in the future. The basis of this uncertainty is twofold. First, even though the historic returns of a fund have reached the predicted level, there is no guarantee that future returns will match that performance. Economic shocks may make achieving the funds' predicted return exceedingly difficult over a long period of time. Second, investment returns are often treated asymmetrically. That is, when funds experience a period of returns that beat their prediction, the surplus is often spent on benefits enhancement instead of being saved for downturns.

It is important to recognize that the bulk of employees' benefits is funded through investment returns earned over the course of their careers. If the sponsor misses their investment target by even a small amount, there will be a significant funding gap between the benefits that were promised and the assets available to pay for those benefits. For example, the California Public Employees' Retirement System (CalPERS), one of the largest public pension funds with more than $200 billion under management, assumes a 7.75 percent rate of return on its investments. Over the past five years, however, the fund's return was 3.41 percent. In the last ten years the fund's return was 5.36 percent, and over the past fifteen years it was 6.97 percent. One has to look at a twenty-year horizon, a period that includes the boom of the 1990s, before the plan beats its assumed rate of return.[4] The consequences of these less-than-expected returns could be devastating. If CalPERS misses its investment target by half a percentage point over the next 30 years, the result would be an unfunded liability of nearly $300 billion. If the fund misses its target by a full percentage point over that same period, the resulting funding gap would balloon to more than $540 billion.[5] This is not a problem that is particular to California's public employee plan; according to recently published data, over the past ten years, state pension funds' median investment return was only 3.9 percent.[6]

Incentive to Underfund

Because the typical DB is pre-funded, there is a substantial 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 have to pay long after those elected officials have left office. 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. Politicians find this type of borrowing attractive because it keeps the debt off of the plan sponsor's official books; however, the 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. In 2009, only 22 states paid the full cost of their pension promises. The remaining 28 states made the choice to borrow from their pension funds and underfund employee benefits.[7] Figure 2 illustrates the funding shortfall in selected key states.

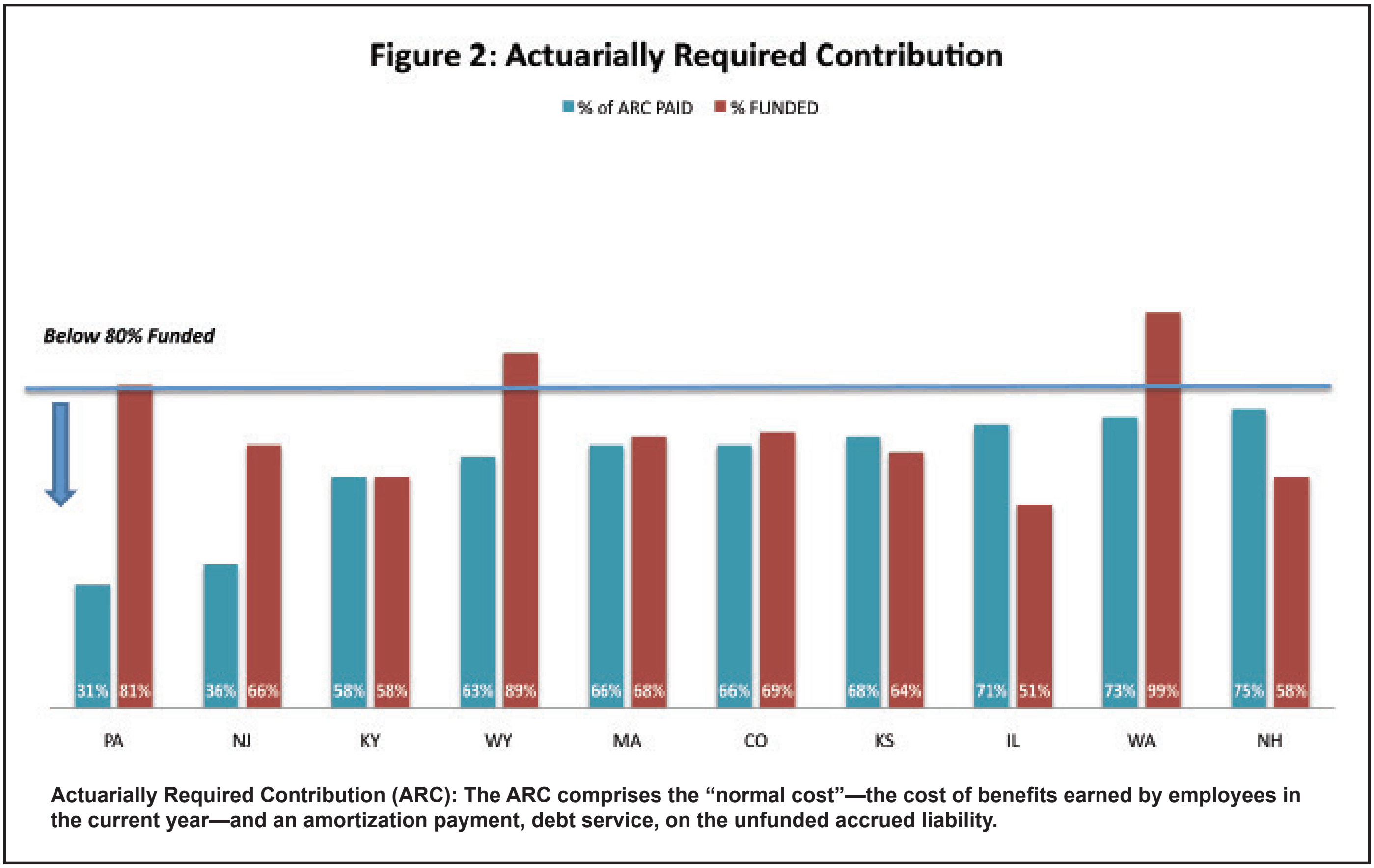
In addition, the current framework creates a political incentive to make additional promises to employees (*e.g.*, increasing pension benefits) to gain their political support without due regard for the full cost of those promises. These promises will be paid out in the distant future by the next generation of taxpayers and politicians. This current political incentive creates pressure to make additional benefit promises in both good and bad times. When a pension fund experiences a period of returns that beat predictions, there is considerable pressure to "spend" those returns on benefit enhancements instead of saving them for downturns. However, in hard times when budgets are tight, plan sponsors are often willing to promise additional benefits in exchange for a short-term reduction in the pension payment. An often-cited example of this is San Diego. In 2002, the City increased employee benefits twice, while simultaneously decreasing its payment into

4) Marois (2011) and Marois and Fu (2011).

5) CalPERS asset base was $237.5 billion as of June 30, 2011.

6) PEW Center on the States (2011).

7) PEW Center on the States (2011).



Source: Pew Center on the States (2011).

the pension system.[8] Although this eased San Diego's short-term budget problem, it created substantial pension underfunding that still plagues the City today.

Labor Market Distortions

The third deficiency of the traditional DB structure lies in its effect on the labor market. Traditional DB plans are usually "back-loaded," meaning that employees do not accrue significant benefits until late in their careers, at which point the benefits escalate significantly. This accrual structure has three undesirable consequences. First, public employees have a strong incentive to work for a certain number of years and then to retire. This is true regardless of their individual, professional or geographic preferences as well as life circumstances. Second, DB plans restrict mobility at early levels of an employee's career. An employee who changes jobs or who moves across state or municipal lines is often left with very little retirement wealth, and those who work for a short time are placed on a savings path that will not provide a secure retirement. Finally, the disproportionate focus on salary at the end of an employee's career creates strong incentives for employees to alter their behavior in the short term to acquire higher benefit levels for the remainder of their life (*e.g.*, working overtime and accruing vacation and sick time).

In sum, traditional DB pension plans promise benefits in a way that limits the plan sponsors' capacity to predict and control costs and sanctions policymaking by individuals who are not accountable for the outcome. The result has been underfunding on a massive scale. Additionally, the DB pension plan structure does not fit today's labor market, where workers are more mobile, both geographically and among industries, than ever before. Moreover, recent research suggests that public employees, especially those just entering the workforce, do not value deferred compensation at par with its cost; this indicates that state and local governments are allocating too many of their limited resources to deferred compensation.[9]

8) Lowenstein (2008).

9) Fitzpatrick (2011), Ettema (2011) and DeArmond and Goldhaber (2010).

Given the immediacy of the budgetary crisis, the ambiguity and unpredictability inherent in a DB system and the adverse long-term effects of these practices on our work force, now is the time for policymakers to revamp our public employee retirement systems.

Proposed Solutions

The fundamental problem of the current DB system stems from the way benefit promises are made. The system promises an employee a specific benefit without regard to, and without a full understanding of, what it will ultimately cost the state or municipality to provide that benefit.

The way to create a sound, sustainable and fair retirement savings program is to move away from a defined benefit model based on final average salary and, instead, adopt a model where workers are promised an adequate savings rate, some level of investment protection and easy conversion to lifetime income (annuities) upon retirement.[10] This would mean that instead of committing to a fixed percentage of final average salary after a specified number of years of service, the employer would instead commit to contributing a fixed percentage of salary for every year worked. This would eliminate cost uncertainty by making benefits a constant percentage of earnings and by linking benefit promises directly to employer contributions. Under this approach, employers can be as generous as they desire with employees without the danger of underfunding. Additionally, employers can adopt and offer to employees a variety of investment strategies for the retirement funds, minimizing costs, creating choices for workers, and limiting market exposure for both the employee and taxpayers.

Promising a savings rate as opposed to a defined benefit also addresses the labor market problem by smoothing pension wealth accrual. Employees would earn a fixed percentage of salary per year for retirement, which would eliminate the back-loading of benefits and thereby solve the portability and equity issues of a typical DB plan.

A shift toward promising a savings rate instantly fixes the structural problems created by the current system and can be implemented in a way that maintains all of the protections for workers that are hailed as the primary benefits of the current system (*e.g.*, easy annuitization, managed investments, employer-employee risk sharing). There is a range of specific options for making this shift. Recent reform efforts have shown that implementation of new systems is very flexible and certainly not "one size fits all." Below is a summary of the most frequently discussed alternatives, each of which would move plan sponsors toward a financially sound system:

Solution #1: Defined Contribution

In a defined contribution (DC) plan, the employer promises each employee a fixed percentage of salary. These contributions are placed in an account that is managed by the employee. The employee has the flexibility to choose her investment allocation and to make individual choices about the timing and structure of her retirement. The market risk of these choices is borne solely by the employee. Michigan has had a DC in place for state employees since the 1990s, and higher education and many private sector firms have used the DC structure successfully for decades.

Solution #2: Cash Balance

Cash balance plans have features that are commonly associated with both DB and DC plans. A cash balance plan is a DB plan, but unlike the traditional DB plan, benefits are defined as a lump sum or "cash balance" in an employee's account. Under a cash balance plan, much like in a DC plan, the employer promises a fixed percentage of salary and contributes that amount to an account for the employee. However, unlike a DC plan, the employee does not manage her account. Instead, the retirement system manages the funds for the employee and promises an average investment return. When an employee reaches retirement age, the employer may offer the employee an annuity based on the size of her retirement account and/or the ability to take all or a portion of the account as a lump sum. Nebraska and many private sector firms use the cash balance structure.

Solution #3: Side-by-Side Hybrid

In a side-by-side hybrid, the sponsor maintains both a DB and DC plan and allows employees to choose between the plans. When implemented correctly, the sponsor institutes strict accounting controls to keep the problems created by the DB structure in check. Utah and Florida operate DB and DC systems side-by-side, allowing employees to choose between the two structures.

10) This sentence has been modified to better reflect LJAF's longstanding view that all workers deserve to be part of a fiscally sound, responsibly managed retirement savings system that provides a path to secure retirement. The sentence that was included in a previous version of this paper had been used out of context to mischaracterize LJAF's position.

Solution #4: Stacked Hybrid

In a stacked hybrid system, employees are offered a small DB, meant to provide a minimum amount of retirement security, with a DC stacked on top. The federal employee retirement system and the recently adopted reforms in Rhode Island use a stacked hybrid approach.

Solution #5: Cap on Employer Contributions with Explicit Cost Sharing

This approach is agnostic about the specific plan structure and seeks only to eliminate cost uncertainty and provide a political incentive to keep future cost increases controlled. A proposed ballot initiative in California takes this approach. The proposed initiative caps employer cost at a specific percentage of earnings and specifies that the cost of all benefits will be divided equally between employee and employer.

LJAF as a Strategic Resource

The Laura and John Arnold Foundation actively seeks opportunities to invest in states and municipalities where leaders have a sincere interest in implementing strong, fundamental reforms that fully address the cost, incentive and labor market problems created by the current public pension system. LJAF seeks fundamental changes that not only yield immediate gains, but also repair broken systems for future generations. The solutions detailed above can be tailored to fit the needs of individual communities. Ultimately, pension reform should be comprehensive, sustainable and fair. LJAF welcomes the opportunity to be a resource to those that share this goal.

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About The Laura And John Arnold Foundation (LJAF)

The Laura and John Arnold Foundation is a private foundation with offices in Houston and New York City.

Our Mission

Our core objective is to produce substantial, widespread and lasting reforms that will maximize opportunities and minimize injustice in our society. To do this, we identify challenges and address their root causes through innovative, multi-disciplinary solutions. We aim to foster a culture in which individuals have the best chance to succeed and prosper, while encouraging a sense of responsibility, compassion and reinvestment toward their communities and society as a whole.

Our Strategy

Our strategy is to systematically examine areas of society in which underperformance, inefficiency, concentrated power, lack of information, lack of accountability, lack of transparency, lack of balance among interests or other barriers to human progress and achievement exist. We then apply a rigorous and comprehensive entrepreneurial problem-solving approach to these areas, considering all possible strategies, tactics, and resource allocations to affect solutions.

Our approach is not limited to what has been tried, or even what has been proposed, in the past. Instead we seek to incentivize and motivate bold new creative thinking and effort, with the goal of igniting a renaissance of new ideas and approaches applied to persistent problems.

Our Current Focus

Our focus is on improving three main areas in American society: 1) the criminal justice system, 2) the education system, and 3) public accountability.

1) *The Criminal Justice System*

We believe that our criminal justice system should fairly, effectively and efficiently protect the public while fostering individual responsibility and respect for each person's dignity. A fair criminal justice system should respect victims, safeguard each individual's constitutional rights and ensure that everyone is treated equally at all stages of the criminal justice process. An effective and efficient criminal justice system should increase public

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safety, reduce recidivism and optimize the use of public dollars. Our strategy is to initiate and support innovative, substantial and lasting reforms that propel the creation of such a system.

2) *The Education System*

The Foundation works for transformational change in K-12 public education. We seek to create effective systems of high-performing schools that maximize the human potential and career opportunities of all students, particularly those in underserved communities.

Our work currently focuses on four major levers for change:

- Efficient Markets: Transforming the existing landscape of public education from a monopoly into a dynamic system providing diverse, high-quality options for families.
- Human Capital: Recruiting, training, measuring, supporting and providing incentives that encourage educators to flourish in a competitive environment dedicated to delivering a superior education product effectively.
- Learning Systems: Developing and implementing innovative approaches to learning, including competency-based, digitized curricula with built-in assessments to permit students to learn anytime, anywhere and at any pace.
- Performance Management: Shifting the focus of accountability systems from compliance to performance; creating clear standards and transparent, accessible data to measure performance; and developing incentive and human resources structures that use this data to drive decision-making and improve quality.

3) *Public Accountability*

The primary aim of the Public Accountability area is to improve the efficiency and efficacy of the public sector. Although government can and often does play a positive role in society, the diseconomies of scale associated with immense bureaucracies often impede its ability to deliver high quality, cost-effective services. We promote substantial, lasting change on a national, state, county and municipal scale that empowers citizens to hold their leaders accountable, engage more fully in their communities and provide effective oversight of the use of public funds.

Our first initiative in this area is public employee benefits reform. State and local budgets across the nation are facing considerable financial distress. The cost of public employee benefits in most states and communities is unsustainable. Realistic estimates place the unfunded liabilities due to pension commitments at roughly $3 trillion, and that is just for state run plans. Many cities are facing an even more acute problem. The economic and social costs of this looming crisis are potentially crippling to our nation.

We seek to remedy this untenable situation by promoting transparency and concrete solutions that address the problem in a manner that is comprehensive, lasting, and fair to all parties.