Webinar | Public Pension Resource Guide

Case Studies of State Pension Plans that Switched to Defined Contribution Plans

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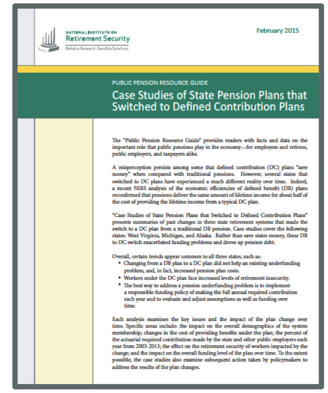
Why We Did this Study

- A misperception exists that DC plans “save money” when compared with traditional DB pensions.
- However, NIRS’ *Still a Better Bang for the Buck* report shows that DB plans are more economically efficient than DC plans, due to economies of scale.
- A few states have made the switch to DC -- most recently, Alaska in 2006.
- Enough time has passed since making these changes to assess what each state has experienced.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February 2015

PUBLIC PENSION RESOURCE GUIDE

Case Studies of State Pension Plans that Switched to Defined Contribution Plans

The “Public Pension Resource Guide” provides readers with facts and data on the important role that public pensions play in the economy—for employees and retirees, public employers, and taxpayers alike.

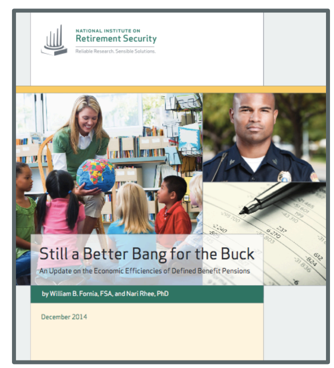
A misperception persists among some that defined contribution (DC) plans “save money” when compared with traditional pensions. However, several states that switched to DC plans have experienced a much different reality over time. Indeed, a recent NIRS analysis of the economic efficiencies of defined benefit (DB) plans reconfirmed that pensions deliver the same amount of lifetime income for about half of the cost of providing the lifetime income from a typical DC plan.

“Case Studies of State Pension Plans that Switched to Defined Contribution Plans” presents summaries of past changes in three state retirement systems that made the switch to a DC plan from a traditional DB pension. Case studies cover the following states: West Virginia, Michigan, and Alaska. Rather than save states money, these DB to DC switch exacerbated funding problems and drove up pension debt.

Overall, certain trends appear common to all three states, such as:

- Changing from a DB plan to a DC plan did not help an existing underfunding problem, and, in fact, increased pension plan costs.
- Workers under the DC plan face increased levels of retirement insecurity.
- The best way to address a pension underfunding problem is to implement a responsible funding policy of making the full annual required contribution each year and to evaluate and adjust assumptions as well as funding over time.

Each analysis examines the key issues and the impact of the plan change over time. Specific areas include: the impact on the overall demographics of the system membership; changes in the cost of providing benefits under the plan; the percent of the actuarial required contribution made by the state and other public employers each year from 2003-2013; the effect on the retirement security of workers impacted by the change; and the impact on the overall funding level of the plan over time. To the extent possible, the case studies also examine subsequent action taken by policymakers to address the results of the plan changes.



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What We Did

- Case studies of three states: **West Virginia, Michigan, and Alaska.**

- Examined the issues in play and impact of plan changes over time. Specifically:
  - Impact of overall demographic changes on system membership;
  - Changes in the cost of providing benefits;
  - Percent of actuarially required contribution (ARC) made over time;
  - Effect on retirement security of workers impacted by the change;
  - Impact on overall funding level of the plan.

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Key Findings

Overall, certain trends appear common to all three states:

1. Changing from a DB plan to a DC plan did not help an existing underfunding problem, and, in fact, increased pension plan costs.

2. Workers in the DC plan face increased levels of retirement insecurity.

3. The best way to address a pension underfunding problem is to implement a responsible funding policy of making the full annual required contribution each year, and to evaluate and adjust assumptions and funding over time, as appropriate.

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1991 | West Virginia Moves to DC Plan

- In 1991, DB plan closed to new teachers due to a persistent underfunding.
- Underfunding was result of years of the state and school boards failing to make adequate contributions to the pension fund.
- New teachers given DC plan only; current teachers given a one-time choice to move to the DC plan.

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DB Plan Sees Financial Challenges, DC Plan Found Inadequate

- By 2005, in the DB plan:
  - The pension paid benefits to 27,000 retirees, versus just 18,000 active teachers in the plan.
  - The DB plan was funded at just 25%.

- By 2005, in the DC plan:
  - The average account balance was less than $42,000.
  - Of 1,767 teachers over age 60, only 105 had balances over $100,000.

- DB plan challenge: The direct result of the “soft freeze” of the pension.

- DC plan challenge: Largely the result of poor investment returns as compared to the DB plan (1.6% difference.)

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Moving to a DC Plan Changes Plan Demographics, Can Increase Costs

Generally, when new participants are frozen out of the DB plan and moved to a DC plan:

- The active population in the DB plan continues to age, so they will amass a higher average liability as their wages grow.
- At the same time, the number of active members will fall, as individuals retire.
- This means that the loss of new members to the DC plan makes it more difficult to finance the unfunded obligations in the DB plan.

West Virginia Moves New Hires Back to DB Plan

- In 2003, a study found that providing equivalent benefits would be less expensive in the DB than in the DC plan.
- Legislation was passed that, starting in 2005, all new hires would be put back into the DB plan.
- The state also became more disciplined about funding. On top of the required contribution:
  - Additional contributions of $290 million and $324 million were made in 2006 and 2007.
  - An additional $807 million was contributed from a tobacco bond securitization.

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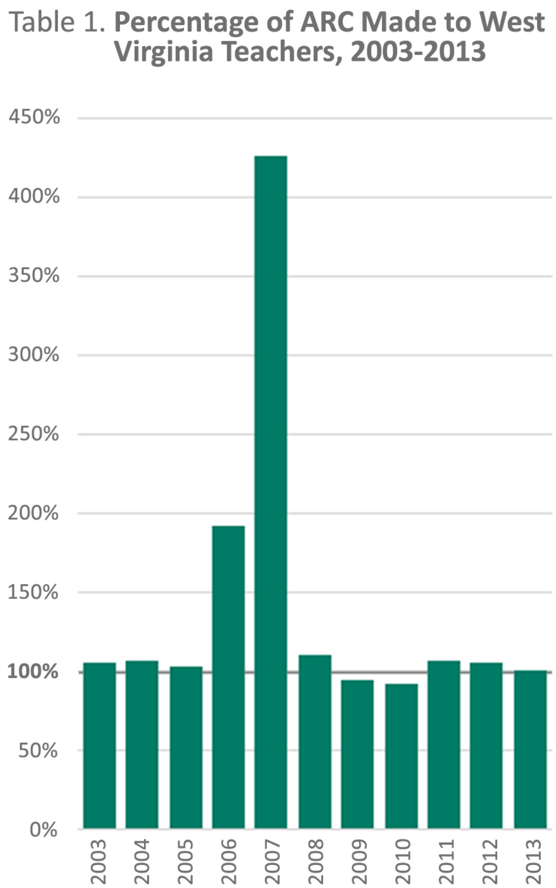
West Virginia Becomes More Disciplined about Funding



- 2006-2007: Additional contributions and tobacco bond contribution
- Most years from 2003-2013 have made the full ARC (100%)

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West Virginia Allows Current Teachers to Opt Back into DB Plan

- In 2008, teachers in DC plan given choice to opt back into DB plan.

- 78.6% (nearly 15,000) chose to switch, including 76% of those under 40 years old:

Age	Percent Transferred
Under 40	76%
45-64	81%
65-69	69%
70+	50%

- Because more younger teachers than expected opted for the switch, state saved more money than anticipated: **$1.2 billion in savings projected in the first 30 years.**

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West Virginia Today: On Its Way to Full Funding

Today....

- The West Virginia Teachers pension plan continues to improve financially:
  - 58% funded as of July 1, 2013. The funding gap has narrowed by more than half since reopening the pension.
  - Recommended contributions are much more stable: in 2013, the recommended contribution was lower than in 2010.
  - The plan is expected to reach full funding by 2034.

- West Virginia teachers in the DB plan have a much greater opportunity for retirement security than they would have had under the DC plan.

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Michigan Moves to DC Plan in 1997

- 1997, Michigan state employees pension closed to new hires who were put in a DC plan.
- Current employees given a one-time choice to opt into DC plan.
- DB pension plan was overfunded at 109%.
- State thought it would “save money” by providing a maximum contribution of 7% of pay into the DC plan, whereas the accrual cost in the DB plan was 9.1% of pay.
- However, any cost savings was due to a drastic benefit reduction in the DC plan.

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Employees in the DC Plan See a Lower Benefit....

- By 2013, 33,000 current employees were in the DC plan (2/3 of active workers).
- Average DC account balance in 2011 was $50,000.
- For those close to retirement, the average balance was $123,000. This would provide an annuity of just **$8,200 per year.**
- By contrast, the average DB benefit for people currently retiring is over **$20,000 per year.**

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....And It Comes At a Higher Cost

- Assuming a “best case” DC scenario, in which the employee contributes enough to receive maximum employer contribution.

- After 25 years of service.....

	DC Plan	DB Plan
Projected benefit	**$1,600 per month** ($288,000 at current annuity rates)	**$2,050 per month**
Total cost	**10% of pay** (7% employer + 3% employee)	**8% of pay** (DB plan normal cost)
Assume starting wage of $40,000, 2% annual wage increases and 6% net investment DC returns per year.		

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Michigan DB Costs Continue to Increase Due to Freeze

- Since freezing the plan in 1997, the plan has amassed significant unfunded liability due to:
  - Demographic shifts.
  - Two large financial market downturns.
  - Many years in which the state did not make its full contribution.

	1997	2012
Funded level	109%	60.3%
Unfunded liability	None. (*Excess* assets of $734 million)	$6.2 billion
Annual required contribution	$230 million	$611 million

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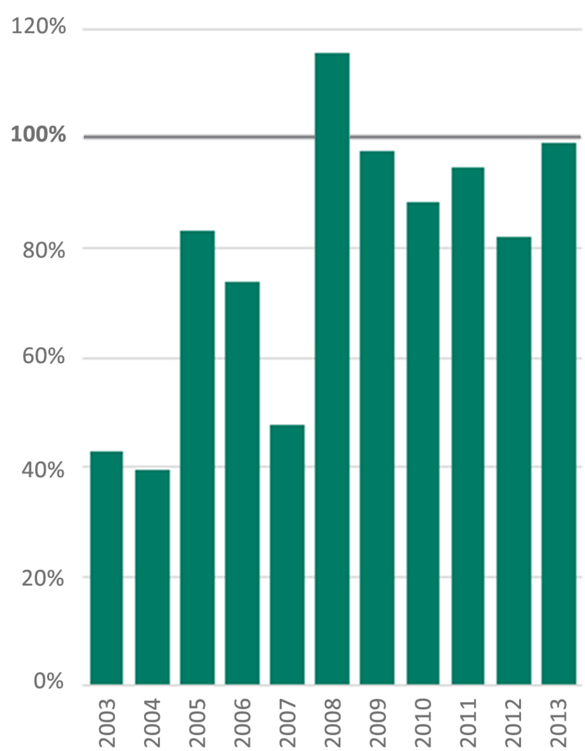
Michigan Becomes More Disciplined about Funding

Table 1. **Percentage of ARC Made to Michigan SERS, 2003-2013**



- From 2008 onward, the state has been more disciplined about funding.
- Over 80% of ARC paid each year from 2008 - 2013.
- While the state is more disciplined about funding, and the DB still provides a higher benefit at a lower cost than the DC, the state has not proposed a switch back, like West Virginia.

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Alaska Moves to DC Plan in 2006

- In 2005, Alaska adopted legislation that moved all employees hired after July 1, 2006 into a DC plan.
- The state faced a combined unfunded liability of $5.7 billion in its two pension plans and health care trust.
- The unfunded liability was the result of:
  - Failure to adequately fund pensions over time
  - Stock market declines
  - Actuarial errors, which accounted for some $2.5 billion of the unfunded liability. (The state won a $500 million settlement after suing actuarial firm.)
- The DC switch was sold as a way to slow down increasing unfunded liability.

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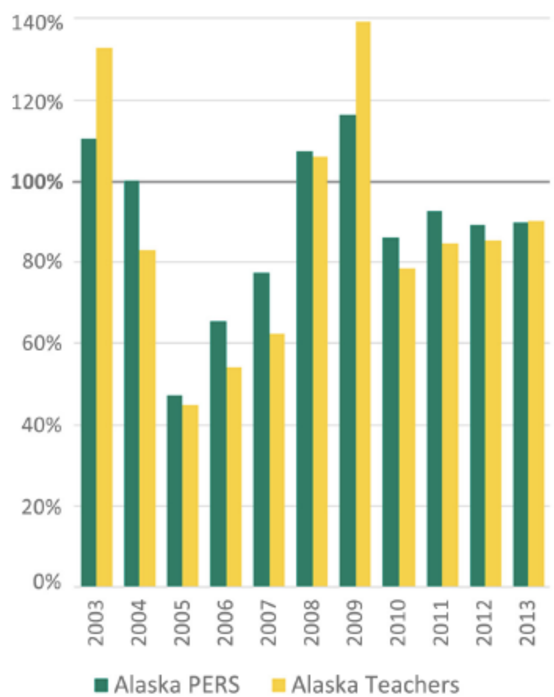
Alaska Continued to Make Inadequate Contributions

Table 1. **Percentage of ARC Made to Alaska PERS and Teachers, 2003-2013**



- The state contributed just 47% and 45% of the ARC to PERS and TRS in 2005.
- At end of 2006, the total unfunded liability increased to $6.9 billion.
- The state failed to make the full contribution in 6 of 8 years from 2006-2013.

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Alaska DB Costs Continue to Increase After the Freeze

	2006	2014
PERS Prior Service Cost	12.4% of pay	24.2% of pay
TRS Prior Service Cost	24.6% of pay	43.5% of pay
Total Unfunded Liability (PERS, TRS, and health trust)	$5.7 billion	$12.4 billion

The unfunded liability has more than doubled since making the DC switch in 2006.

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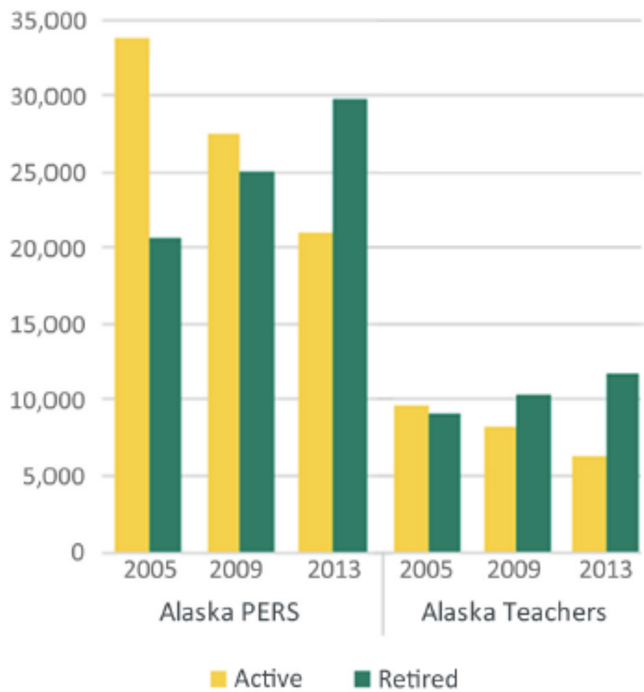
Alaska Demographics Continue to Worsen

Table 2. **Alaska Retirement System Membership Status**



- In 2005, both pensions had more active members than retired beneficiaries.
- By 2013, those trends had flipped: TRS had 1.8 retirees for every active, and PERS had 1.4.
- As the demographics worsen, plan underfunding increases as a percent of a declining payroll.

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Alaska Infuses More Cash Into Pension

- In 2014, the state made an additional $3 billion in contributions to reduce the underfunding.
- The law also included a longer amortization period (30 years) and shifted more pension cost to municipalities.
- Bills have been introduced to move back to a DB plan, but nothing has moved forward.

> “I very much was concerned when we closed our retirement systems and went to a defined contribution that by closing those systems we were going to find ourselves in the position we are in today, which was ultimately having to step in with a significant financial bailout.”
>
> -- Representative Mike Hawker (Anchorage), 2014

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Conclusions

In West Virginia, Michigan, and Alaska:

- Changing from a DB plan to a DC plan did not help an existing underfunding problem; opposite effect of **increasing** pension plan costs.
- Employees under the DC plan **face increased levels of retirement insecurity**.
- Best way to address a pension underfunding is to **implement a responsible funding policy of making the full annual required contribution** each year, and to **evaluate** and **adjust** assumptions and funding as appropriate.
- Case studies important tool for policymakers considering changes to public retirement system.

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