Impacts of Closing the Hybrid Plan

Office of Retirement Services

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MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET

Agenda

This presentation will focus on:

- What is the Hybrid Plan?
- Sources of increased cost by closing the Hybrid Plan.
- Reduced benefit adequacy of Defined Contribution plans.
- Public policy questions.

What is the Hybrid Plan?

- The Hybrid Plan was created in 2010 when the Michigan Public School Employees Retirement System's (MPSERS) legacy defined benefit (DB) plan was closed to new members.
- Unlike the legacy DB plan, the Hybrid Plan shares risk between the employer and the employee rather than placing all of the risk on one party.
- The Hybrid Plan is considered **1/3** less risky than the legacy DB plans.

What is the Hybrid Plan?

Below is a summary highlighting some of the key between the legacy DB plan and the Hybrid Plan:

	Legacy DB Plans	Hybrid Plan
Open to new members?	No	Yes
Unfunded Actuarial Accrued Liability (UAAL)	$26.7B	$0
Funded Ratio	60.5%	100%
Assumed Rate of Return on Investments	8%	7%
Cost of Living Adjustments Offered?	Yes	No
Portable?	Somewhat	Yes

Three Sources of Increased Costs

If the Hybrid Plan is closed, there are three sources of increased costs that will be incurred:

- Increased UAAL created.
- Accelerated Unfunded Accrued Actuarial Liability (UAAL) amortization costs required.
- Higher Normal Cost of providing an adequate benefit in a replacement Defined Contribution (DC) Plan compared to the Hybrid Plan.

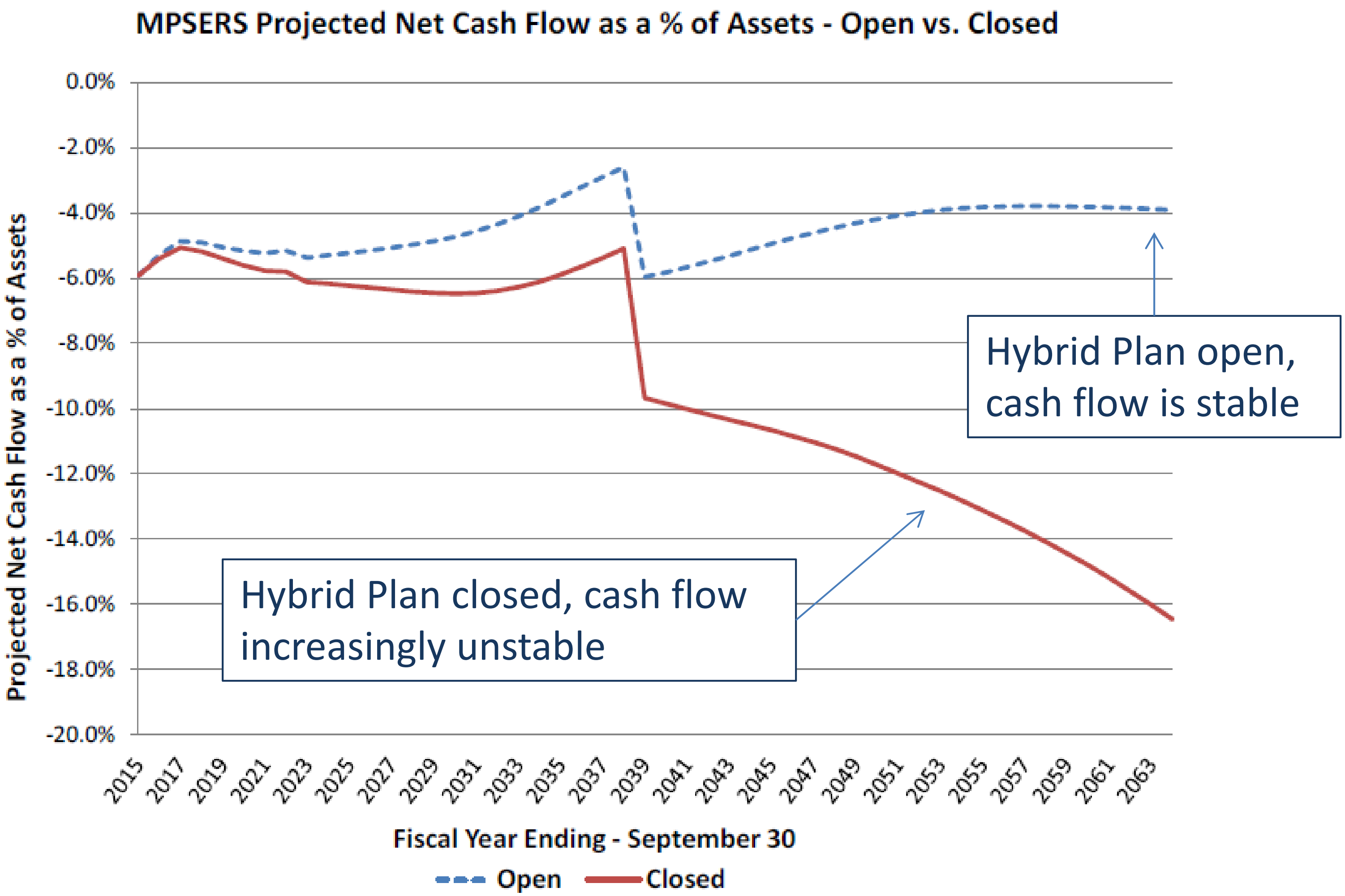
Increased UAAL Created by Closing the Hybrid Plan

- If future investment income is reduced, contributions must increase today to avoid running out of money.
- While UAAL contributions are being made, from a cash flow perspective, benefit payments come largely out of contributions into the plan.
- If the plan were closed, we would need to deplete the pension fund to pay for accrued obligations in 2039 and beyond (when the UAAL is paid off) because there would be less cash flow coming into the plan.

Increased UAAL Created by Closing the Hybrid Plan

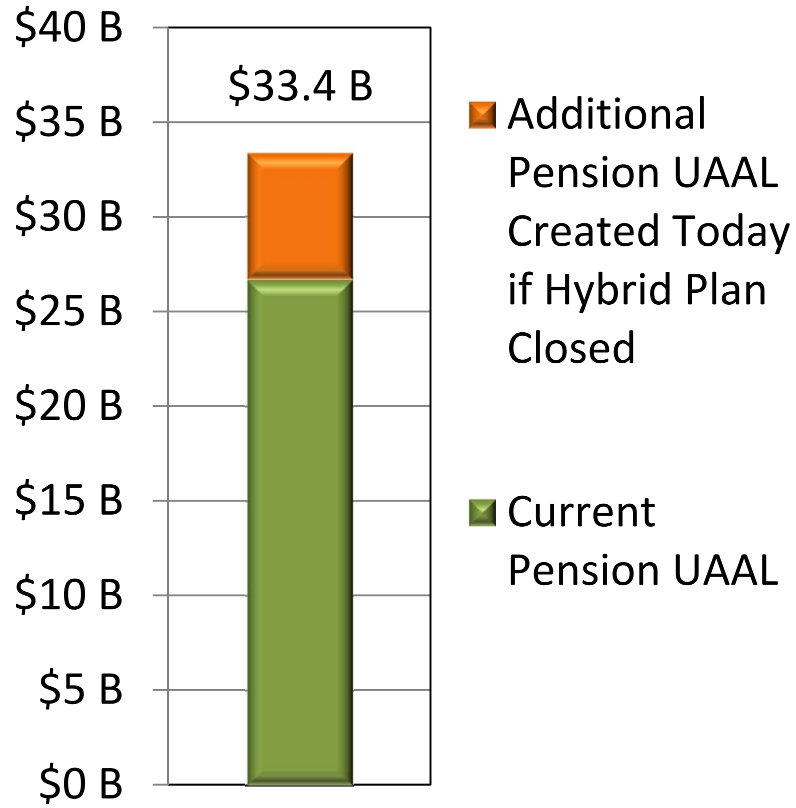
- The investment strategy of a closed plan must become more concerned with preserving principal in order to meet the accrued obligations after the amortization period.
- The actuarial best practice would be to reduce the assumed rate of investment return after 2038.
- These additional costs are completely avoided by keeping the plan open.

Increased UAAL Created by Closing the Hybrid Plan



Increased UAAL Created by Closing the Hybrid Plan

- If the Hybrid Plan is closed, an **additional $6.7 billion** in pension UAAL will be created today.
- This would bring today's total pension UAAL to $33.4 billion, a **25% increase**.



Increased UAAL Created by Closing the Hybrid Plan

Present Value of Estimated Increased UAAL if the Plan Was Closed to New Hires	Estimated UAAL Contribution Rate Increase (as a % of Payroll)	Estimated Additional UAAL Payment Beginning Fiscal Year 2017
$6.7 Billion	6.1%	$550 Million

The additional $6.7 billion in UAAL equates to an **increase of 6.1%** in the contribution rate, and will cost **$550 million extra** in the first year alone.

Increased UAAL Created by Closing the Hybrid Plan

Fiscal Year	Increased UAAL If Hybrid Plan Is Closed
2017	$550 Million
2018	$569
2019	$589
2020	$610
2021	$631
5-Year Total	$2,949
30-Year Total	$17,781

Accelerated UAAL Costs

- With a closed plan, assets accumulating for future employees cannot be used to help cover the cash flow needs of the closed plan. The unfunded liabilities need to be funded more rapidly.
- In the first year after closing the plan, the accelerated UAAL payment would be **an additional $613 million**.
- Over five years, the total accelerated UAAL amortization costs will be **an additional $2.1 billion**.

Accelerated UAAL Costs

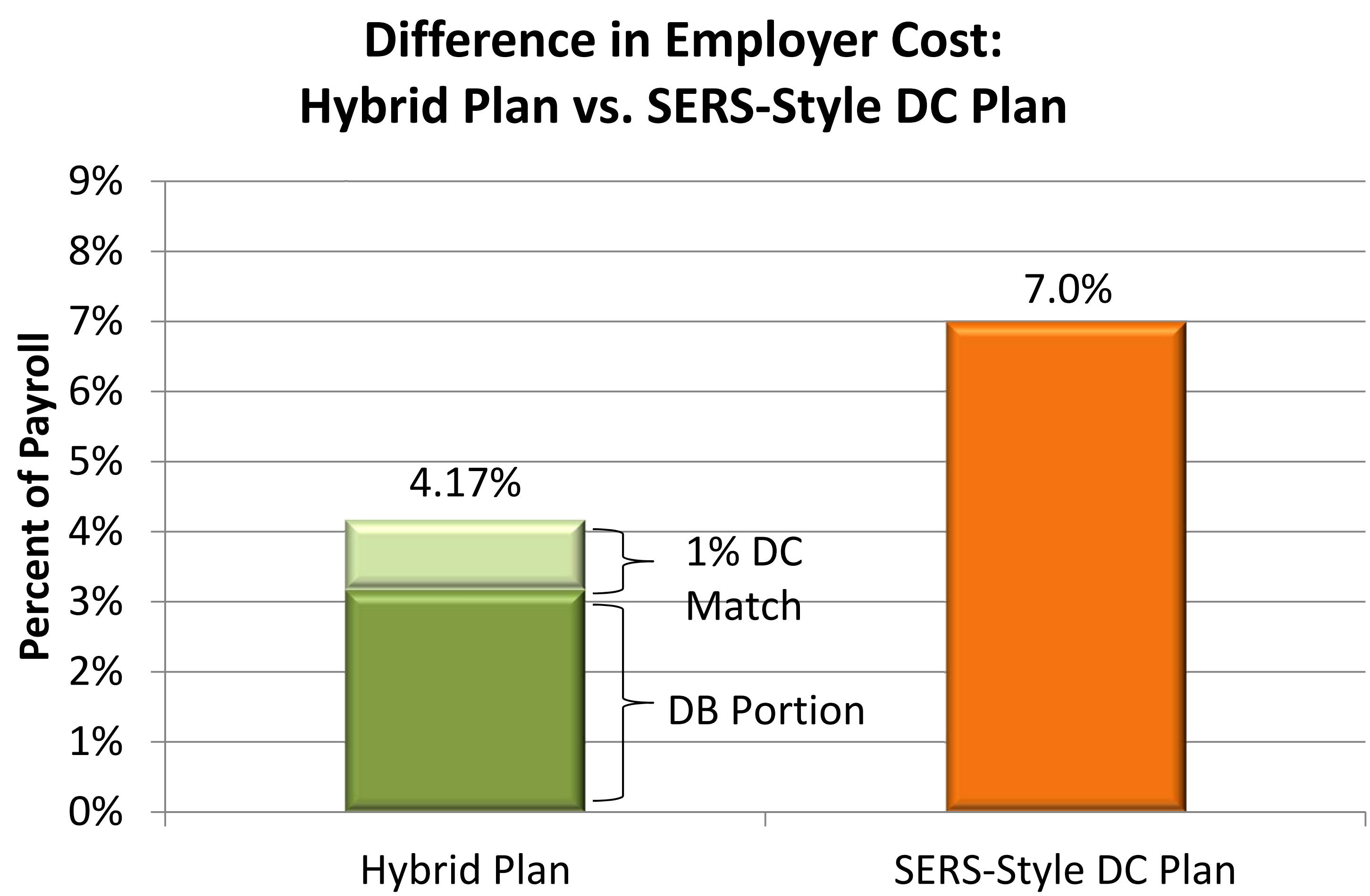
Fiscal Year	Increased UAAL If Hybrid Plan Is Closed	Accelerated UAAL Payment If Hybrid Plan Is Closed
2017	$550 Million	$613 Million
2018	$569	$520
2019	$589	$417
2020	$610	$327
2021	$631	$248
5-Year Total	$2,949	$2,125
30-Year Total	$17,781	($5,246)

Increased Normal Cost

The employer Normal Cost of a potentially adequate DC Plan would be **67% higher** than the Hybrid Plan.

	SERS-Style DC Plan	Hybrid Plan
Employer Mandatory Contribution	4%	3.17%
Employer Matching Contribution	3%	1%
Normal Cost	**7%**	**4.17%**

Increased Normal Cost



Increased Normal Cost

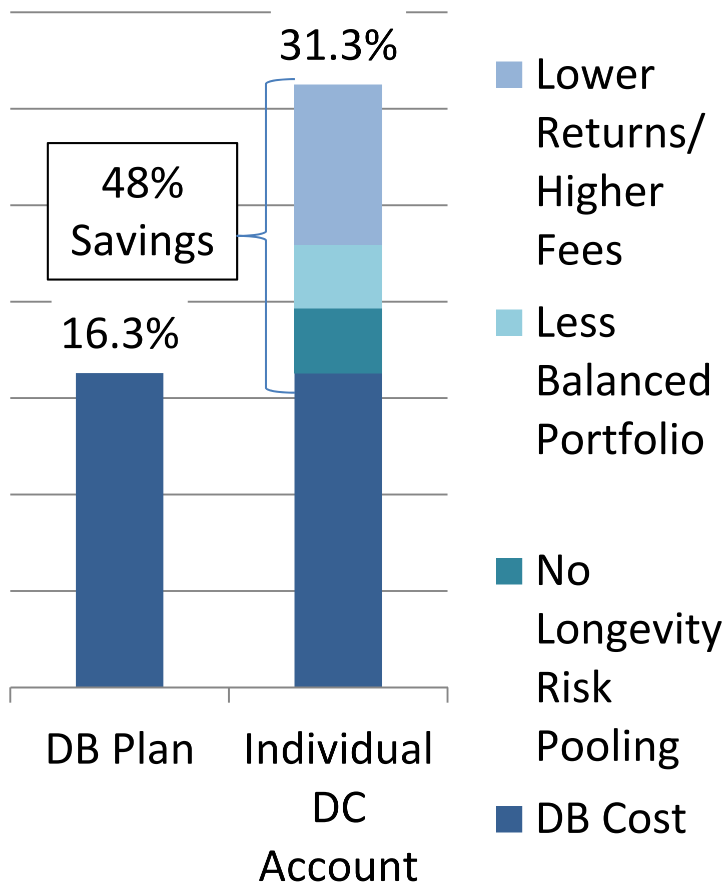
This cost differential is not unique to retirement plans in Michigan.

A study by the National Institute on Retirement Security found that in order to match the same level of income provided by a DB plan, **it costs 48% more** in a DC plan.

Beth Almeida and William B. Fornia*, 2014. Still A Better Bang for the Buck.* National Institute on Retirement Security.

Increased Normal Cost

- Longevity risk pooling in a DB plan saves 10%.
- Ability to maintain a portfolio with more equities during the retirement years in a DB plan saves 11%.
- A DB plan's superior investment returns save 27%.
  - Professional investment management.
  - Lower than average fees.



Beth Almeida and William B. Fornia, *2014. Still A Better Bang for the Buck.* National Institute on Retirement Security.

Total Additional Costs of Closing the Hybrid Plan

Fiscal Year	Increased UAAL If Hybrid Plan Is Closed	Accelerated UAAL Payment If Hybrid Plan Is Closed	Additional Normal Cost of a SERS-Style DC Plan	Total Additional Cost If Hybrid Plan Is Closed
2017	$550 Million	$613 Million	$46 Million	$1,209 Million
2018	$569	$520	$56	$1,145
2019	$589	$417	$69	$1,075
2020	$610	$327	$85	$1,022
2021	$631	$248	$101	$980
5-Year Total	$2,949	$2,125	$357	$5,431
30-Year Total	$17,781	($5,246)	$11,591	$24,126

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Pension Obligation Bonds

Some might think that issuing pension obligation bonds would be a possible solution to finance the costs of closing the Hybrid Plan. However:

- Pension obligation bonds **increase risk** rather than decrease it, and are **not a best practice** for funding a retirement system.
- Whether or not to issue pension obligation bonds is an **investment decision**.
- The Government Finance Officers Association recommends that state and local governments DO NOT issue pension obligation bonds as the **risks far outweigh the potential gains**.*

*Government Finance Officers Association, *GFOA Advisory: Pension Obligation Bonds* (2015), http://www.gfoa.org/pension-obligation-bonds.

Pension Obligation Bonds

Financial Considerations

- Issuance costs.
- The bonds would be taxable; taxable bonds have a higher cost of borrowing.
- Who would be the bondholder? Public schools? The state?
  - The bondholder carries the liability on their balance sheet.

Pension Obligation Bonds

Financial Risk

- Issuing a bond increases risk for the bondholder.
- If market performance is weak, could potentially lose bond principal and still have to pay all of the additional costs of closing the plan.
- If you lose bond principal, then the plan is no longer 100% funded.
  - Bondholder is on the hook for the bond payments.
  - Schools are on the hook for the new UAAL amortization payments.

Pension Obligation Bonds

Historical Example

Oakland, California

- Issued a **tax-free** pension obligation bond in 1985.
- Invested the proceeds at a slightly higher rate and benefitted from the positive arbitrage.
- Michigan could not issue a tax-free pension obligation bond today because of Federal law changes (Tax Reform Act of 1986).

Pension Obligation Bonds

Historical Example

Illinois

- On June 12, 2003, issued largest pension obligation bond in U.S. history at $10 Billion, **less than half of current MPSERS UAAL**.
- Illinois' failure to make required pension contributions and the investment losses on the pension bond have resulted in the UAAL growing from $45 Billion in 2003 to $112 Billion in 2015.

Benefit Adequacy

The previous slides presented the significant increased costs to public school districts and the state if the Hybrid Plan is closed. Now we will turn our attention to the negative impacts this decision would have on our public school members.

Where Defined Contribution plans exist nationwide, there is a focus on benefit adequacy.

Benefit Adequacy

Households with income of $50,000 or more will need **80% of preretirement income** to maintain their standard of living in retirement.

Alicia H . Munnell, Anothony Webb, and Francesca N. Golub-Sass, *How Much to Save for a Secure Retirement* (Center for Retirement Research at Boston College, 2011), http://crr.bc.edu.

Benefit Adequacy

Experts recommend individuals without a pension **save at least 15%** of pay over their entire career.

Nari Rhee, PhD., *The Retirement Savings Crisis: Is It Worse Than We Think?* (National Institute on Retirement Security, 2013), http:// www.nirsonline.org.

Benefit Adequacy

In 2012, the Michigan Legislature commissioned an independent actuarial study of the public school Hybrid Plan, the optional public school DC Plan, and the DC plan offered to current state employees (SERS-style DC Plan).

The study found:

Plan	Meets 80% Adequacy Standard?*		Employer Cost
	7% Investment Return	6% Investment Return	
Hybrid Plan	Meets	Meets	Low Cost
Optional MPSERS DC Plan	Fail	Fail	Low Cost
SERS-Style DC Plan	Fail (79%)	Fail	67% more than Hybrid Plan

*Includes Social Security estimates

Benefit Adequacy

How prepared for retirement are State of Michigan employees in the DC Plan?

- **1997**. Year the State of Michigan DC Plan began.
- **$124,000**. Average balance for state employees age 60+ with at least 15 years in the DC Plan.
- **$36,000**. Median account balance for state employees age 60+ with at least 15 years in the DC Plan.

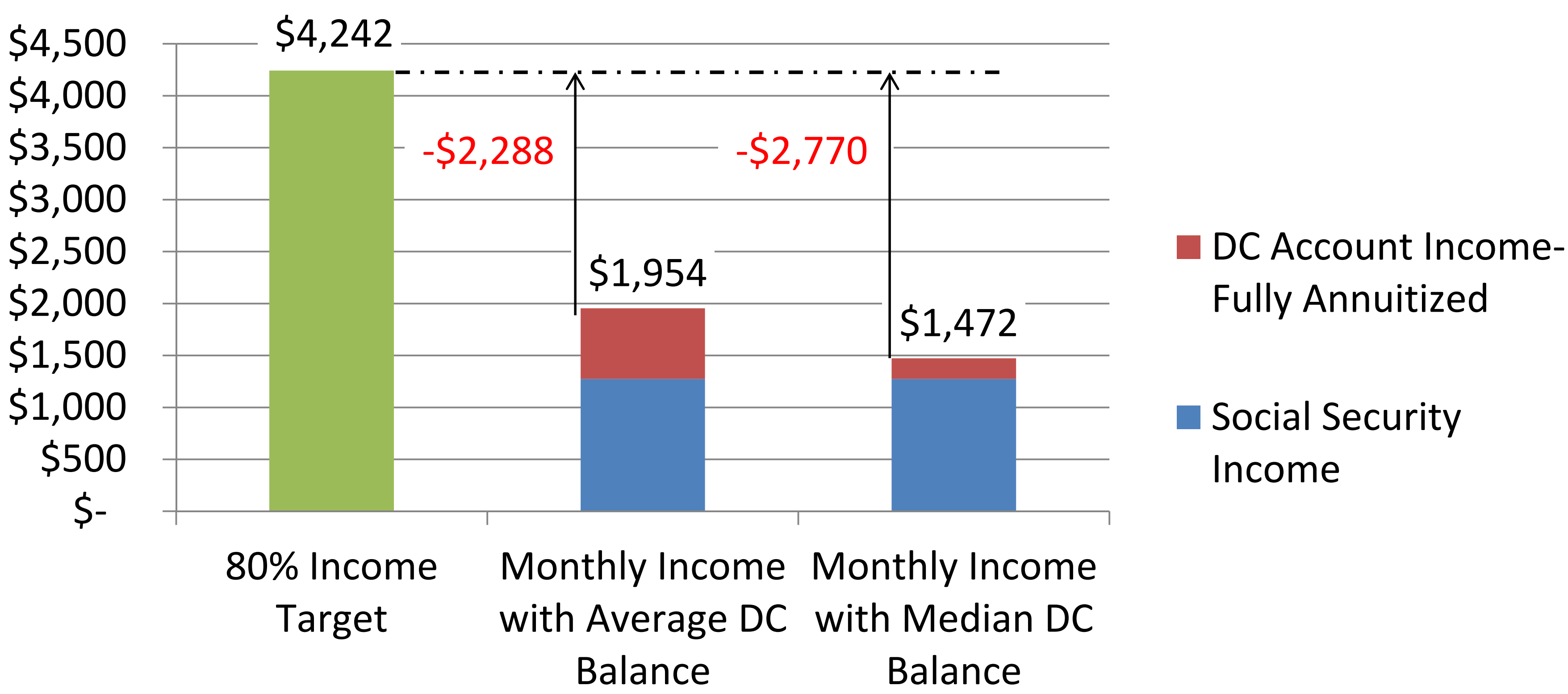
Benefit Adequacy

How prepared for retirement are State of Michigan employees in the DC Plan?

- **$679**. Monthly annuity income for 65 year old with the *average* DC Plan balance.
- **$197**. Monthly annuity income for a 65 year old with the *median* DC Plan balance.
- **$4,242**. Monthly income needed to replace 80% of pre-retirement income – the experts' recommendation - for someone with the average salary equal to that of this group ($63,634).

Benefit Adequacy

Retirement Income Shortfall for SERS DC Members with Average and Median Account Balances



Benefit Adequacy

How prepared for retirement are Americans in general?

- **45%**. Percent of working-age households in the United States that do not own a retirement account.
- **$14,500**. Median retirement account balance of all households nearing retirement (age 55-64).
- **$104,000**. Median retirement account balance of households nearing retirement when considering only households that own a retirement account.

Nari Rhee, PhD., and Ilana Boivie, *The Continuing Retirement Savings Crisis* (National Institute on Retirement Security, 2015), http:// www.nirsonline.org.

Impacts of Closing the Hybrid Plan

Benefit Adequacy is Important

59% of Americans indicate that availability of retirement benefits contributes to their loyalty to their employer.

MetLife, *10th Annual Study of Employee Benefits Trends: Seeing Opportunity in Shifting Trades* (2012).

The Hybrid Plan is Successful

The Hybrid Plan allows employers to **attract**, **retain**, and **reward the best employees** for Michigan's public schools.

The Hybrid Plan is Successful

The Hybrid Plan …

- Is currently **100% funded**.*
- Is **1/3 less risky** than the legacy plans.
- Has **$0** in unfunded liabilities.

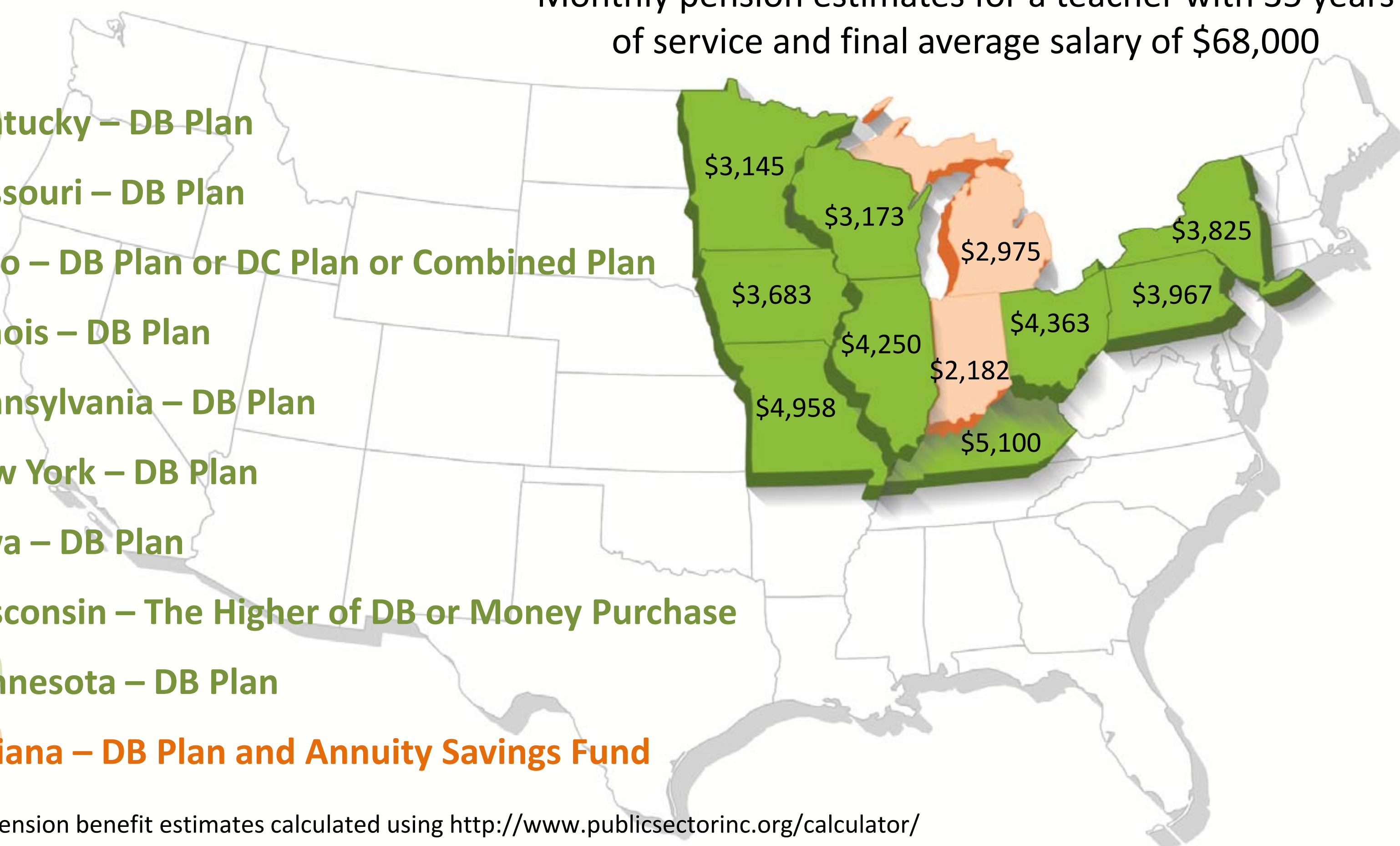
*Gabriel Roeder Smith & Company, *Michigan Public School Employees' Retirement System Annual Actuarial Valuation Report* (2015)

How Do We Compare to Peer States?

- Alaska is the only state in the union that currently has a DC only plan for its teachers.
- The 2012 study commissioned by Michigan's Legislature showed that MPSERS currently provides a benefit that is **less than 9 out of 10 peer states**.
- If MPSERS were to switch to a DC plan, benefit adequacy would be **lowest of all 10 peer states**.

How Do We Compare to Peer States?

Monthly pension estimates for a teacher with 35 years of service and final average salary of $68,000



Higher benefit than Michigan

- **Kentucky – DB Plan**
- **Missouri – DB Plan**
- **Ohio – DB Plan or DC Plan or Combined Plan**
- **Illinois – DB Plan**
- **Pennsylvania – DB Plan**
- **New York – DB Plan**
- **Iowa – DB Plan**
- **Wisconsin – The Higher of DB or Money Purchase**
- **Minnesota – DB Plan**

Lower benefit than Michigan

- **Indiana – DB Plan and Annuity Savings Fund**

Monthly pension benefit estimates calculated using http://www.publicsectorinc.org/calculator/

Case Study: States That Switched to DC

A national study of states that have switched to DC plans (including Michigan's SERS) concluded that closing a retirement system does not reduce or prevent unfunded liabilities.

National Institute on Retirement Security, *Public Pension Resource Guide: Case Studies of State Pension Plans that Switched to Defined Contribution Plans* (2015), http:// www.nirsonline.org.

Case Study: States That Switched to DC

West Virginia re-opened their DB plan in 2005 after closing it in 1991 because:

- Unfunded liabilities were not reduced, and became harder to fund due to lower membership.
- The 7.5% employer contribution to the DC plan was roughly double the normal cost of their DB plan.
- Only 105 out of 1,767 teachers over the age of 60 had account balances greater than $100,000.

National Institute on Retirement Security, *Public Pension Resource Guide: Case Studies of State Pension Plans that Switched to Defined Contribution Plans* (2015), http:// www.nirsonline.org.

Case Study: States That Switched to DC

The report concludes:

"As states and municipalities have considered switching from the DB pension to a DC plan, those that have conducted a cost analysis have found that the move would save little to no money long term and could actually substantially increase retirement plan costs in the near term. Not surprisingly, virtually no state that has conducted such a study has made the switch."

National Institute on Retirement Security, *Public Pension Resource Guide: Case Studies of State Pension Plans that Switched to Defined Contribution Plans* (2015), http:// www.nirsonline.org.

Case Study: States That Switched to DC

Continued

"… Only one state (Oklahoma) ultimately opted in favor of moving to DC, but it did so as part of an overhaul of the total compensation package, without conducting a separate cost study for the switch."

Because the plan is still open to local government employees, the plan is technically still open, and they were not required to accelerate the UAAL funding.

Comparison of Retirement Plan Goals

	Hybrid Plan	Optional MPSERS DC	SERS-Style DC Plan
Likely to Provide Stable Retirement Income	Yes	No	Maybe
Portability	Yes	Yes	Yes
Individual Direction	Yes	Yes	Yes
Ability for Employee to Contribute More	Yes	Yes	Yes
Higher Average Investment Returns*	Yes	No	No
Addresses Career-Minded Employees	Yes	No	No
Avoid Accelerating Unfunded Accrued Liability Payments	Yes	No	No

*William B. Fornia, FSA, Nari Rhee, PhD, *Still a Better Bang for the Buck: An Update on Economic Efficiencies of Defined Benefit Pensions* (National Institute on Retirement Security, 2014), http://www.nirsonline.org.

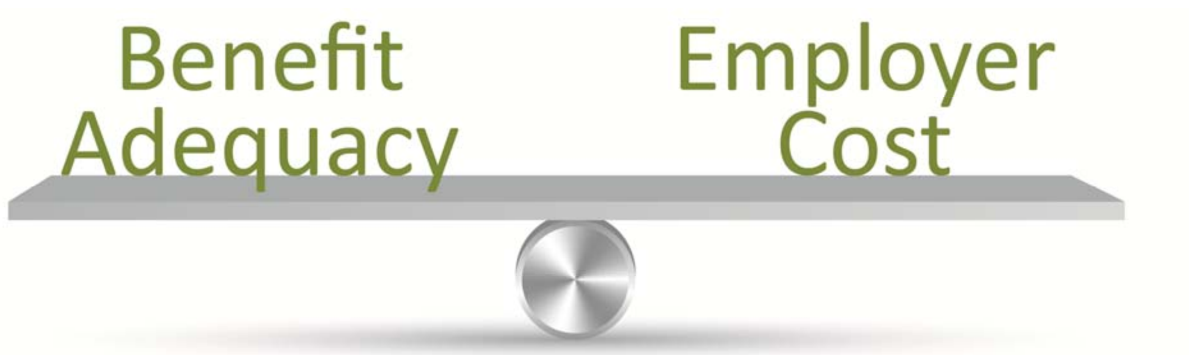
Summary

Closing the Hybrid Plan means:

- **$5.2 billion** increased cost over the next 5 years.
- **$24.1 billion** increased cost over the next 30 years.
- **No reduction in UAAL**, which is entirely associated with the closed legacy DB plans.
  - UAAL of the legacy plans still needs to be paid regardless of which kind of plan new hires go into.

Summary

The Hybrid Plan provides the most adequate benefit for the most reasonable cost according to the 2012 independent actuarial study, commissioned by the Michigan Legislature.



Public Policy Questions

- Is it important to provide an adequate retirement benefit to our public school employees?

- If so, what is the most cost-effective way to do this?
  - The Hybrid Plan is **100%** funded, and the total employer Normal Cost is **4.17%** of pay.