South Carolina Joint Committee on Pension Systems Review

Designing Public Pension Plans: Balancing Risk & Retirement Security

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The Pew Charitable Trusts

- More than 40 active, evidence-based research projects
- Projects include public safety, immigration, elections, transportation, pensions, and state tax incentives
- All follow a common approach: data-driven, inclusive, and transparent

Pew's Public Sector Retirement Systems Project

- Research since 2007 includes 50-state trends on public pensions and retiree benefits relating to funding, investments, governance, and employee preferences
- Technical assistance for states and cities since 2011
- In South Carolina, supported the funding and governance improvements developed by the Joint Committee and enacted earlier this year. (see recap in appendix)

Overview

- Principles for Fiscal Sustainability and Retirement Security
- Benefit Design Overview & Policy Options
  - Requested focus of meeting by the Joint Committee
- Risk Managed Hybrid Plan: Key Features and Impacts
  - Tennessee Example (at the request of committee members)
- South Carolina Sample Risk Managed Hybrid (RMH)

Principles for Fiscal Sustainability and Retirement Security

- No one-size-fits-all solution, but **key principles** can guide any reform process.

- **Fiscal sustainability principles**
  - Commit to fully funding and paying for pension promises.
  - Manage investment risk and cost uncertainty.
  - Follow sound investment governance and reporting practices.

- **Retirement security principles**
  - Target sufficient contributions and savings to help put employees on a path to a secure retirement.
  - Invest assets in professionally managed, pooled investments with low fees and appropriate asset allocations.
  - Provide access to distribution options, including lifetime income in retirement.

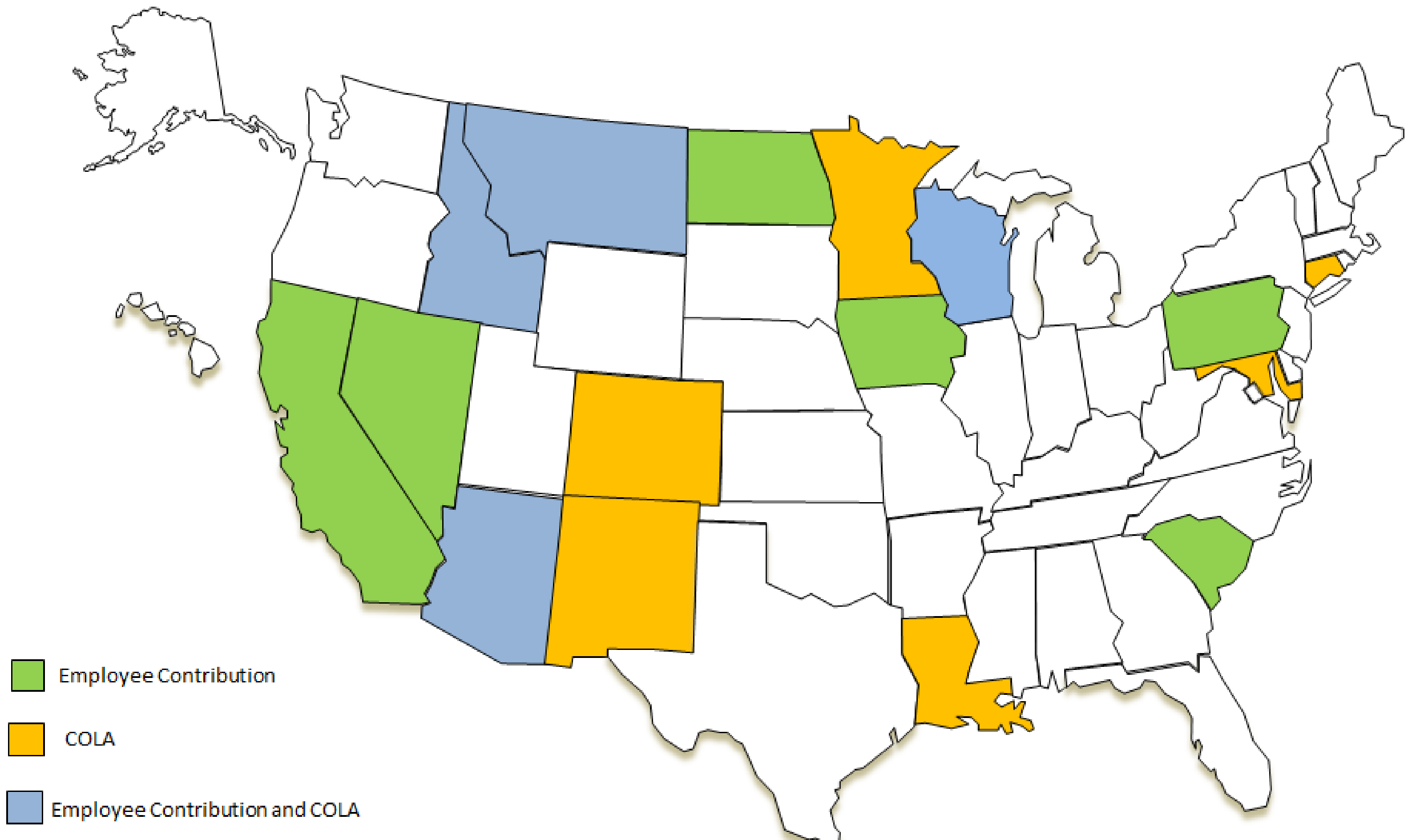
Benefit Design Overview & Policy Options

Overview

- Policymakers across the country have taken a closer look at the way they deliver retirement benefits to employees in recent years.
- States have modified their DB plans - such as cost-sharing features – as well as established new alternative plans for workers.
- Twenty three states, including South Carolina, have implemented an alternative such as a hybrid, defined contribution, or cash balance plan for some workers.
- A number of recently adopted hybrid plans incorporate additional risk management features on both the DB and DC portions of the hybrid.
- SCRS and the State ORP already incorporate many of these features. Pairing the two plans - with a reduced defined benefit (DB) multiplier and modification to contribution rates - would result in a strong risk-managed hybrid (RMH) plan.

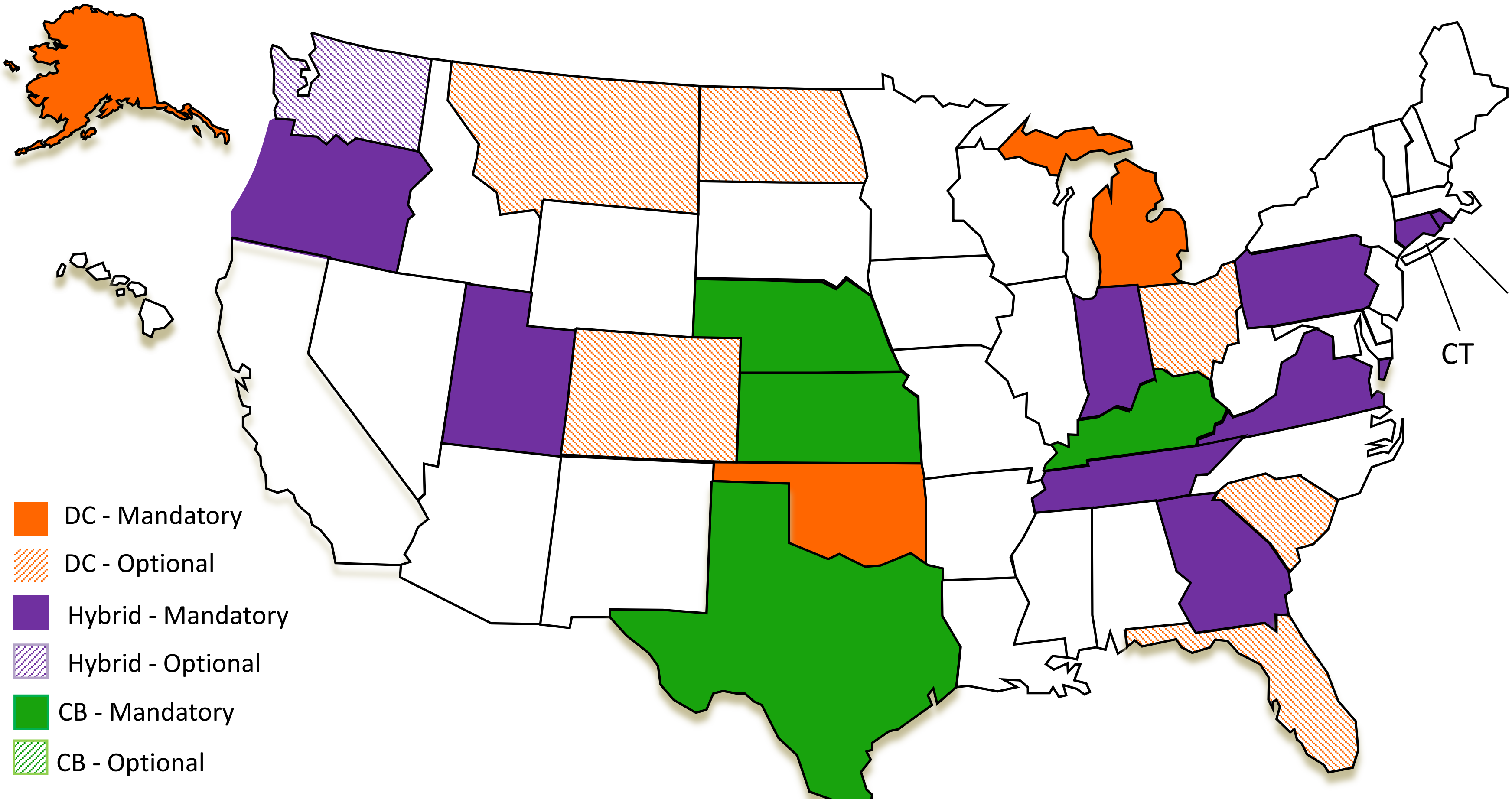
Cost Sharing is Used in Traditional DB Plans

29 DB plans in 17 states have formal cost sharing plans, including SC



Growing Number of States with Alternative Public Sector Retirement Plans

23 states have implemented an alternative plan for workers.



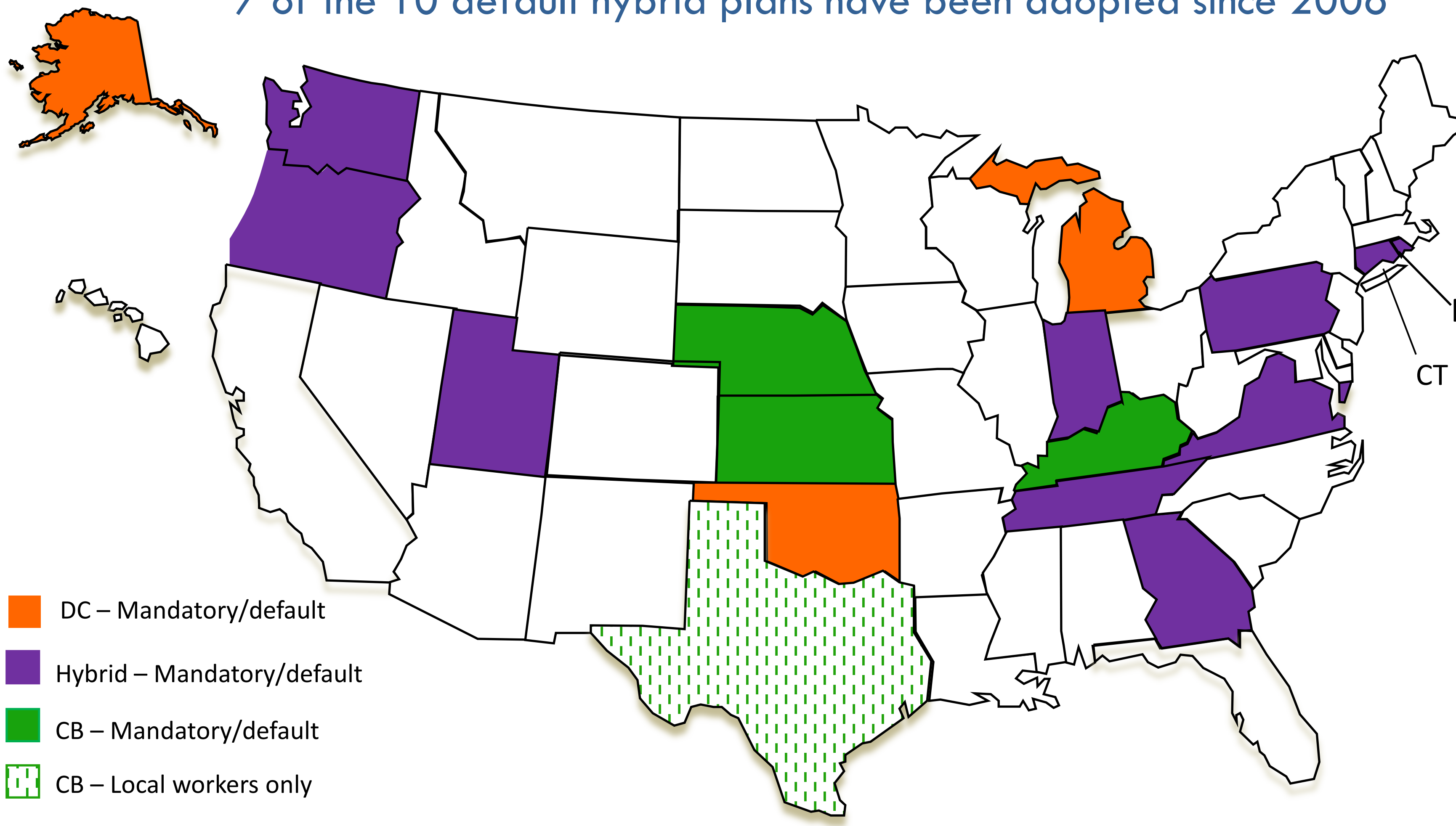
Notes

- In cases where a state has more than one alternative plan, the plan type with the greater number of participants is marked on the map. This includes Indiana where workers choose between a hybrid and DC plan, Michigan where state workers are in a DC plan and teachers have a choice between a DC and hybrid, and, Ohio where workers choose between a DB, hybrid or DC plan, and Utah where workers choose between a hybrid and DC plan.
- Texas's cash balance plan is only available to local workers.
- In addition, California provides an optional cash balance plan for part-time workers and adjunct educational employees.

Sources: NASRA, NCSL

Alternative Plans are the Default or Mandatory Option in 16 states

7 of the 10 default hybrid plans have been adopted since 2006



Notes:

- In cases where a state has more than one alternative plan, the plan type with the greater number of participants is marked on the map. This includes Indiana where workers choose between a hybrid and DC plan, Michigan where state workers are in a DC plan and teachers choice between a DC or hybrid plan, and Utah where workers choose between a hybrid and DC plan. Twelve states total offer a default or optional hybrid plan.
- Texas provides a cash balance plan to over 400,000 local workers through the state's Texas Municipal Retirement System and Texas County and District Retirement System.

Sources: NASRA, NCSL

Measuring Retirement Security and Fiscal Sustainability

- **Potential replacement income.** What percentage of career-end take-home pay is replaced by retirement income?
- **Value of lifetime benefits.** What is the total amount of government-sponsored retirement income an employee can expect to receive over a lifetime?
- **Retirement savings rate.** What percentage of salary is available to a worker who leaves public service before reaching retirement age eligibility?
- **Fiscal Metrics.** What is the impact on employer cost? What is the range of employer costs possible under different scenarios?

South Carolina Policy Options

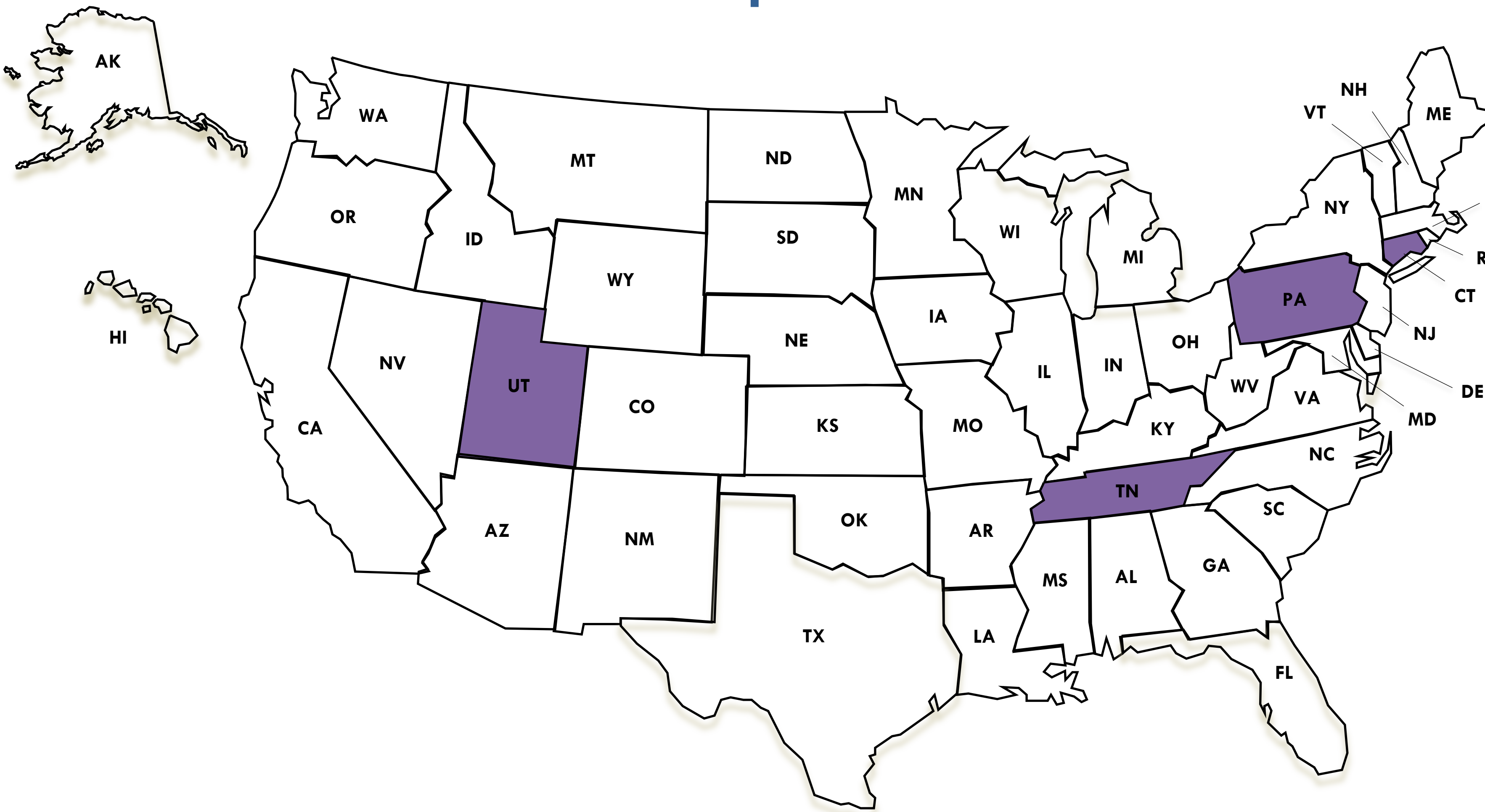
Policy Option	Comment
Maintain current SCRS DB plan.	• Focus on implementing the new strengthened funding policy. • Consider further reductions to assumed rate of return, adopting stress test reporting.
Revisit cost-sharing for current SCRS DB plan.	• HB 3726 limited SCRS cost sharing by capping employee rates at 9%. • Cost-sharing through contribution levels (AZ, IA, WI) or benefit payments (MD, MN, WI)
Establish a Hybrid Plan.	• Reduces risk for employers and increase predictability of employer costs. • Improves savings rate for shorter term workers and maintains an adequate benefit for career workers.
Establish a Risk Managed Hybrid (RMH).	• Further reduces state exposure to investment risk and increases predictability of employer costs. • TN, PA, CT and UT have adopted a RMH as their default, primary benefit for at least some state employees.
Make State ORP the default option.	• For the FY 2016, 31% of eligible higher education employees, 12% of state employees, and 14% of K-12 employees selected the ORP. • Sufficient contributions key to adequate savings rate for DC plans.

Risk Managed Hybrid Plan:
Key Features and Impacts

Features of Standard and Risk Managed Hybrids

Hybrid Feature	Standard	Risk Managed
Smaller DB multiplier increases cost predictability.	✓	✓
Separate DC component that improves the worker savings rate.	✓	✓
Formal DB cost sharing to distribute unexpected cost increases between employee and employer.		✓
DC component minimizes risk for employees through adequate savings rate, low fee investment options, and appropriate distribution options.		✓

States With Risk Managed Hybrids as the Default Option



Note: Michigan also recently adopted a risk managed hybrid plan for teachers. However, the risk managed hybrid plan is not the default. New teachers are defaulted into a defined contribution plan with the option to select the hybrid plan.

Risk Managed Hybrid Example:
Deep Dive on Tennessee

- **Year Adopted:** 2013
- **DB Benefit Multiplier:** 1%
- **Total DC Contribution:** 7%
  - 5% Employer. 2% Employee.
- **DB Employee Contribution:** 5% (total savings rate of 12% including all DC contributions)
- **Cost Sharing:** If the cost of the DB component exceeds 4% or if target unfunded liabilities are exceeded, a set of automatic adjustments are triggered in the following order:
  - Utilize surplus funds
  - Reduce or suspend COLA
  - Shift some or all of the DC employer contribution to the DB plan
  - Increase employee contribution to the DB plan by 1% of payroll
  - Reduce future service accrual below 1%
  - Freeze plan, no future accruals
- If the employer cost is reduced and plan funding improves, cost sharing adjustments are reversed.

Cost Sharing Strategies in RMH plans

- In Tennessee, RMH distributes costs through a set of automatic adjustments.

- However, there are a range of ways RMH plans can design cost-sharing mechanisms.

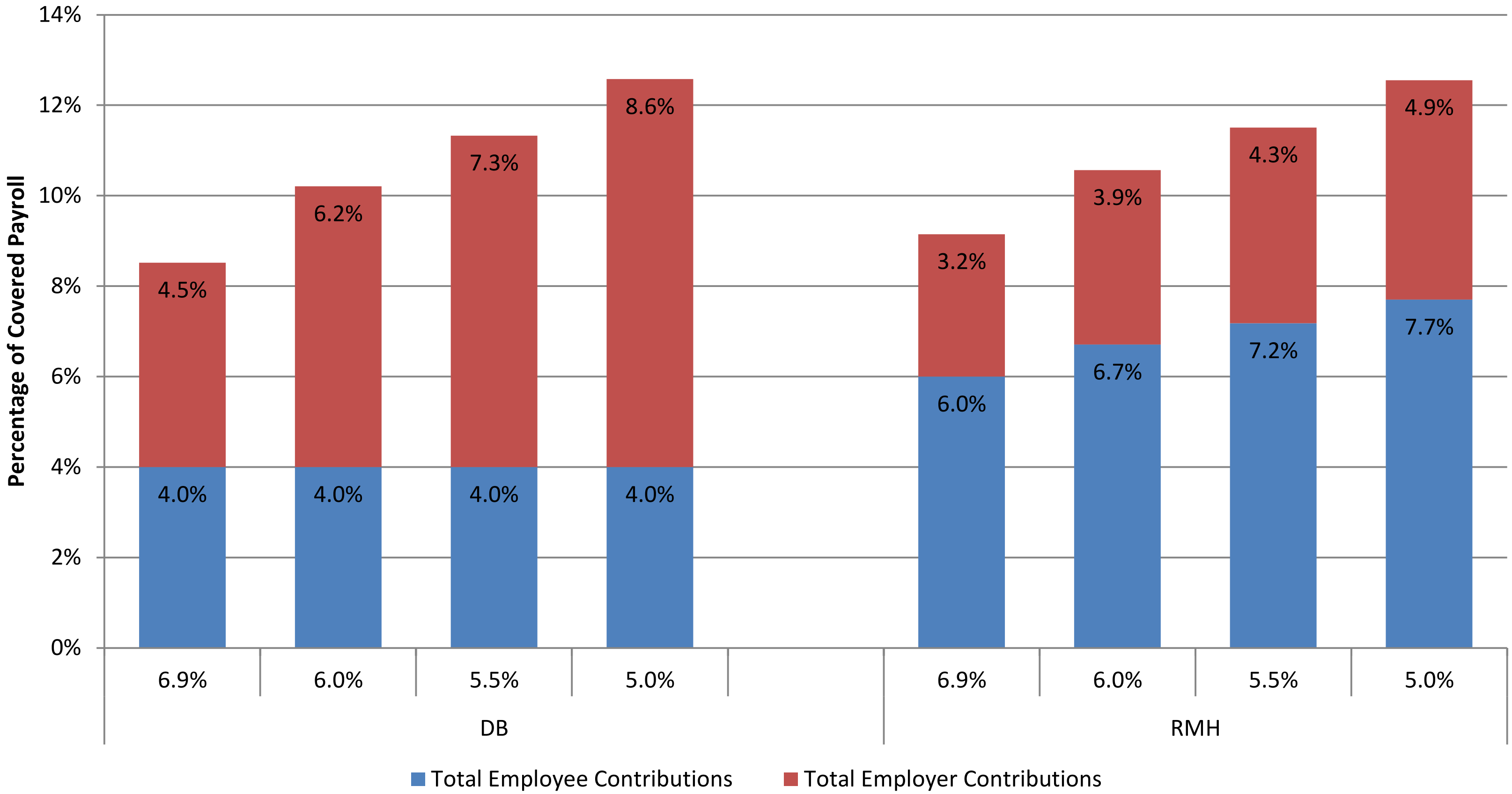
  - **Splitting some or all of the plan costs between the employer and the employees.** Under Michigan's new hybrid plan, employees contribute 50 percent of the cost of the DB portion.

  - **Adjusting the employee contribution in response to investment returns.** Connecticut's hybrid plan distributes losses on investment returns between the employer and employee by increasing the employee contribution.

  - **Capping employer contribution.** In Utah, employer contribution to both DB and DC components is capped at 10%. If the DB cost is greater than 10%, employees contribute the difference. If the DB cost is less than 10%, excess is contributed to DC.

Connecticut's Risk Managed Hybrid

CT adopted a RMH that distributes investment shortfalls below 6.9% between the employer and employer



Note: Includes employer and employee contributions to the DC component as well DB component.

South Carolina Sample RMH

South Carolina is Well Positioned to Adopt a Risk Managed Hybrid

- South Carolina already incorporates elements of a risk managed hybrid in its DB and DC plans.

- The DB plan includes employee contribution cost sharing, a moderate COLA and a multiplier in line with the national average.

- The State ORP has a sufficient savings rate (14% total), access to low fee investments, and appropriate distribution options, including annuities.

- Pairing the two represents a balanced approach to providing retirement security while ensuring cost predictability.

SCRS Already Incorporates Many RMH Features

RMH Feature	Existing South Carolina Feature?	Comment
DB Cost Sharing	Yes, current DB plan shares some unexpected cost with employees through the contribution rate.	Could consider a series of cost sharing features based on funded level, similar to TN.
Adequate DC Savings Rate	Yes. ORP total contribution is 14%, employees contribute up to 9%	Existing level of employee contribution rates make it easier to shift to a hybrid plan.
Low fee investments	Yes	Offers a range of low-fee investment options.
Distribution Options	Yes	Access to lifetime income is offered through external vendors.
Contribution Defaults	Yes	ORP plan members have an automatic employee contribution rate of 9%.

Example South Carolina RMH

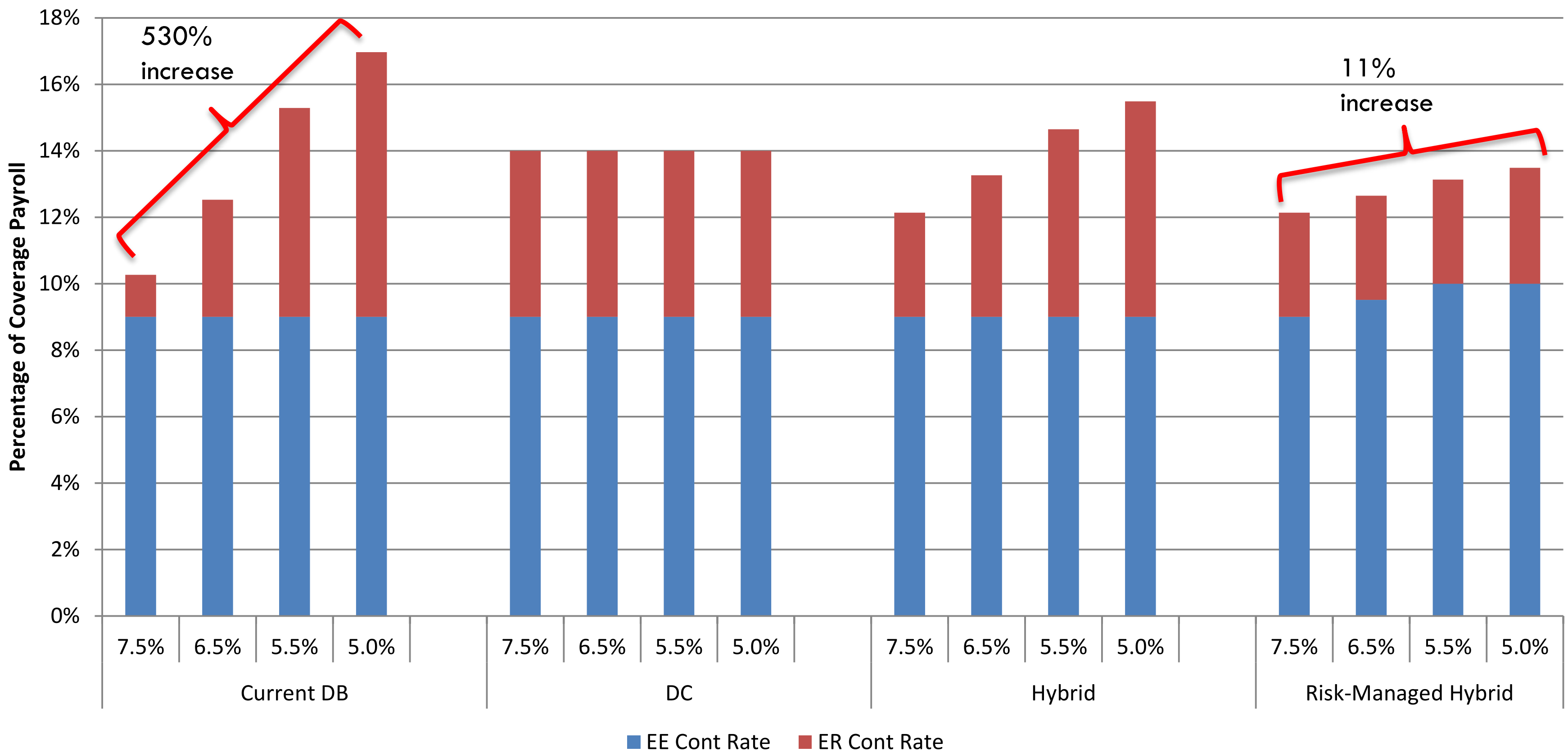
- To develop an example plan to model, we used the state's existing DB and DC plans as a starting point and made the following adjustments:
  - Split the DB plan's 1.82% multiplier in half to get to 0.9%. (1% is most common multiplier)
  - Maintained the 9% maximum employee contribution and split it equally between the DB (4.5%) and DC (4.5%) components.
  - Divided the current 5% employer DC contribution in half to get 2.5%.
  - Built on the existing cost sharing mechanism in the current DB plan and introduced ideas from TN's RMH to suggest a potential set of steps to distribute risk.
- The result is a plan with a 0.9% multiplier for the DB component, total DC contribution of 7% (4.5% employee, 2.5% employer), 4.5% employee DB contribution, and a cost sharing mechanism.

Example RMH for South Carolina

Plan Element	Example RMH Plan	Comment
Defined Benefit (DB) Component		
Multiplier	0.9%	Half of the DB's 1.8% multiplier. 1% is most common multiplier for hybrid plans.
Employee Contribution	4.5%	Half of the maximum employee contribution in the DB
COLA	1% (up to $500)	Same as in DB
Vesting	8 years	Same as in DB
Cost Sharing	➢ If funding falls below 100%, COLA not provided for retirees. ➢ If actuarial cost for hybrid plan increases above normal cost: o Employer DC contribution is decreased by up to 1%. o Employee contribution will increase by up to 1%.	Modeled after TN's hybrid plan.
Defined Contribution (DC) Component		
Employee Contribution	4.5%	Half of employee contribution to State ORP
Employer Contribution	2.5%	Half of employer contribution to State ORP
Distribution Options	Range of options, including lump-sum, periodic withdrawals, purchase an annuity.	Same in State ORP
Vesting	Immediate	Same in State ORP

RMH Reduces Impact of Low Returns on SC Employer Costs

Under DB, employer costs increase by over 500% when returns fall from 7.5% to 5%. In contrast, under RMH, employer costs increase by 11%.



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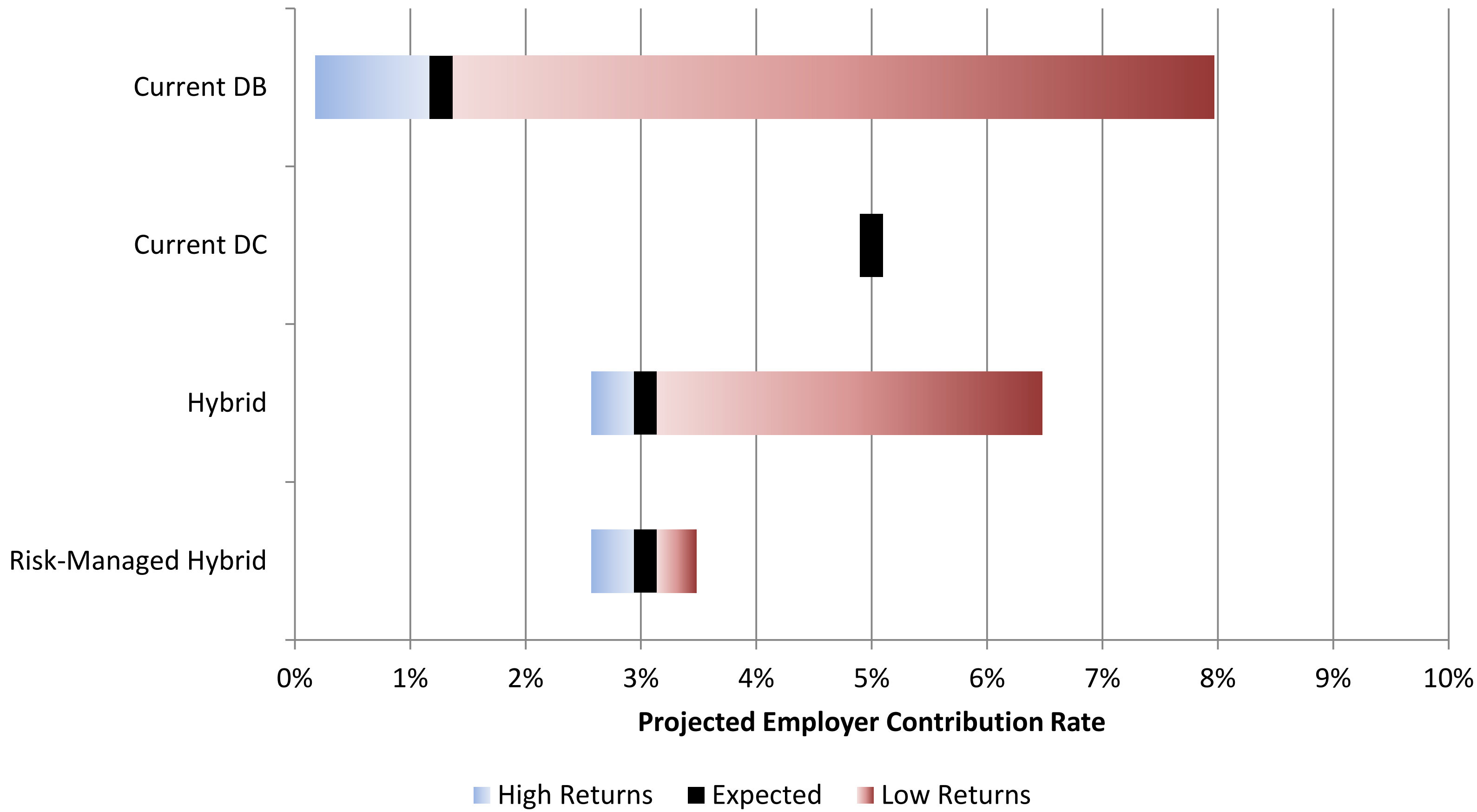
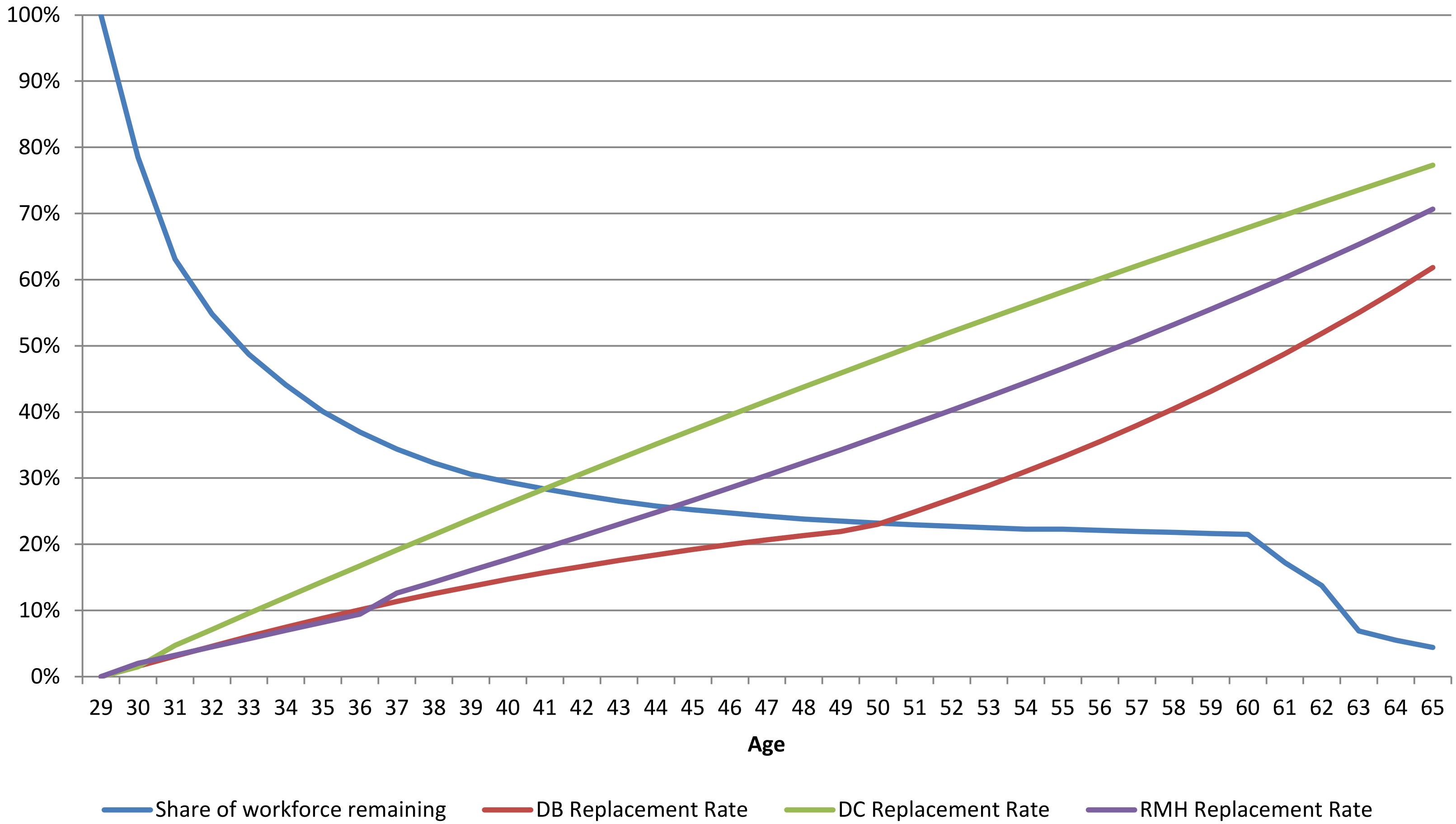
RMH Reduces the Range of Likely Employer Costs



Note: Assumes DB employer normal cost as of 2017. Hybrid and RMH employer normal cost assumed to be half of the DB's normal cost. The low return assumption is 5% and the high return assumption is 8.5%.

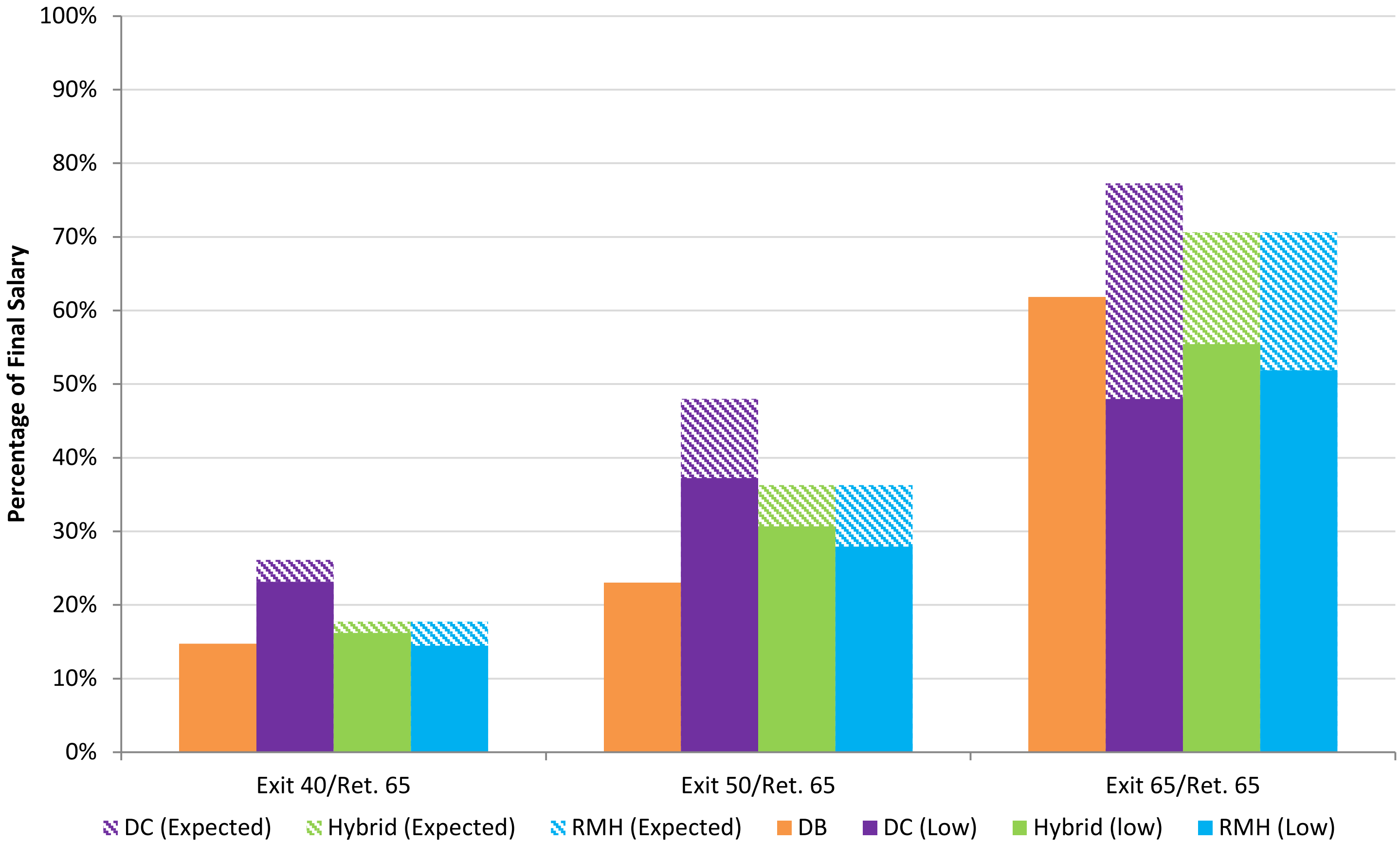
DB, DC and Hybrid Plan Replacement Rates Compared with Share of Workforce Remaining



Note: Assumes start age of 29

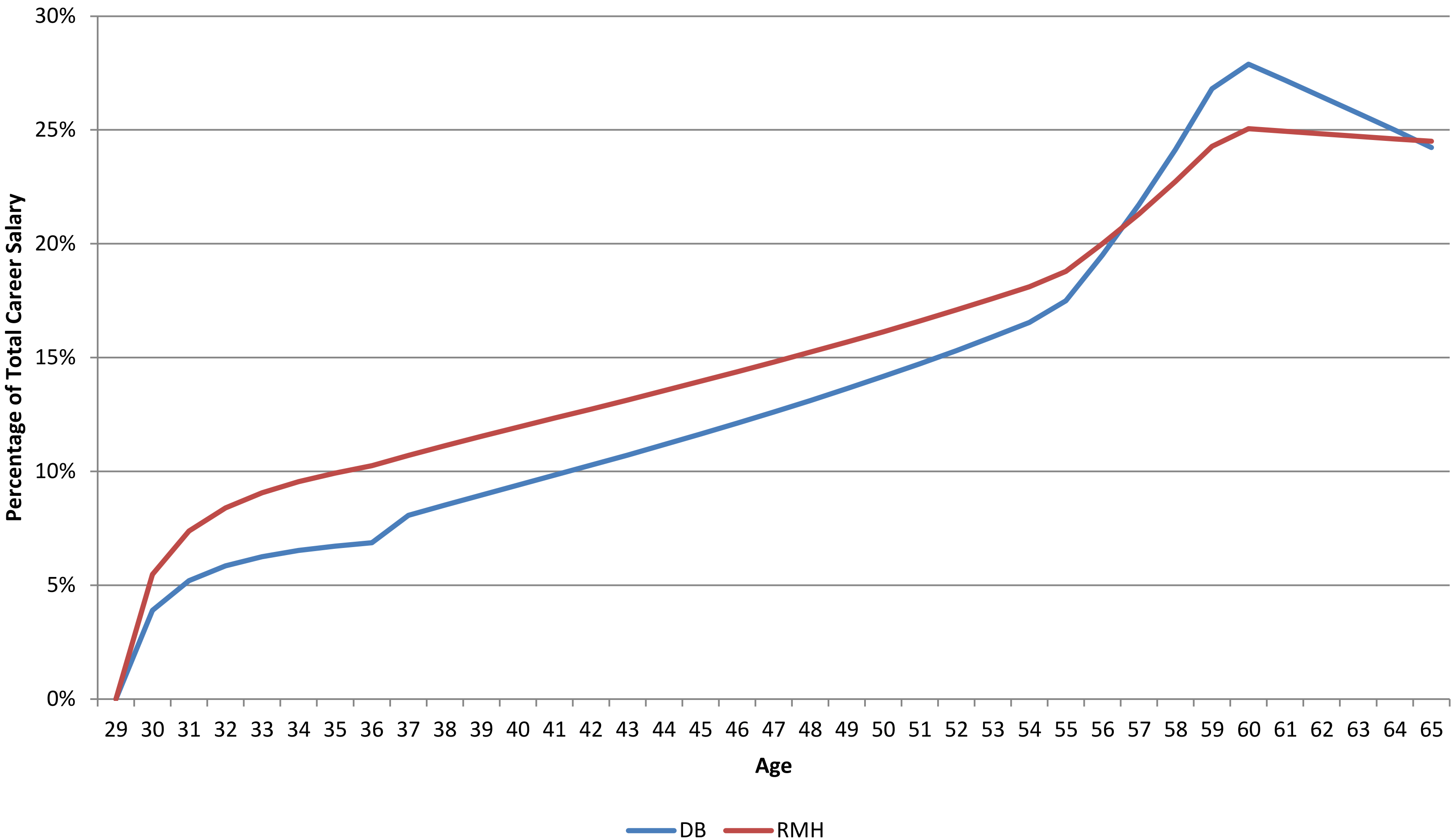
Comparing Replacement Income Rates Under Different Plans

Workers who leave mid-career do better under the hybrid or DC plans



Notes: Assumes state age 29, retire age 65, does not include Social Security

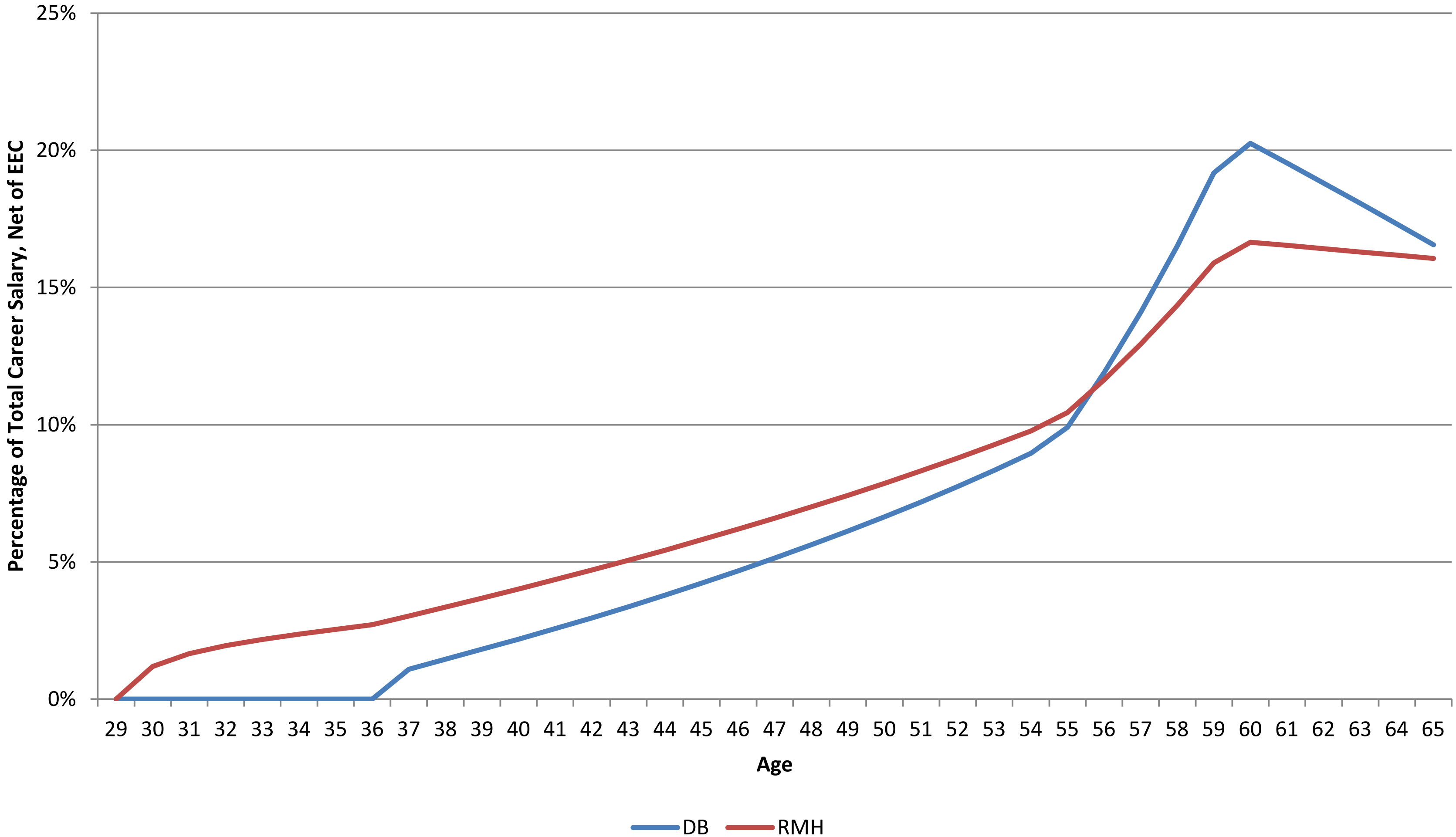
Value of Lifetime Benefits as % of Total Career Salary



Source: The Urban Institute

Notes: Assumes start age of 29. Assumes expected rate of return.

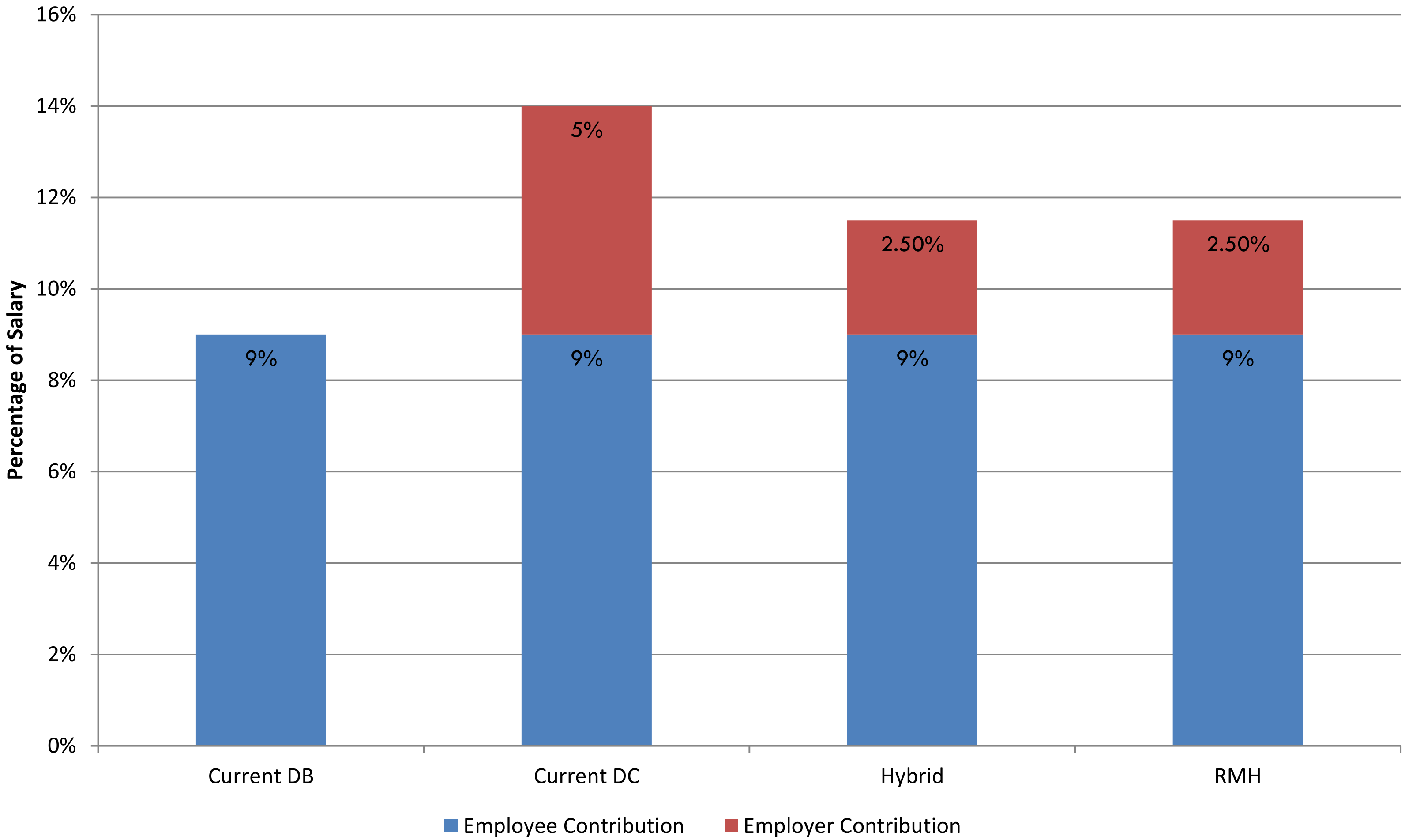
Value of Lifetime Benefits as % of Total Career Salary, Net of Employee Contributions



Source: The Urban Institute

Notes: Assumes start age of 29. Assumes expected rate of return.

SC Member Savings Rate Under Different Plan Types



Note: Savings rate for RMH assumes cost sharing metrics are not triggered. If cost sharing metrics are triggered, total savings rate could fall to 10.5%.

Key Considerations Going Forward

- South Carolina has taken important steps to improve the funding and governance of SCRS with the enactment of Act 13 earlier this year.

- Even with these changes, taxpayers can expect decades of increased costs to deal with past unfunded liabilities. These unfunded liabilities are the result of both the riskiness and uncertainty of investments as well as the state's own policy choices.

- South Carolina has the opportunity to put in place measures to better manage risk and ensure the sustainability of the retirement system.

- A risk managed hybrid can be an effective way of both ensuring a well funded retirement system as well as providing retirement security to workers.

Appendix

Joint Committee Phase 1 Recap & Introduction

- The Joint Committee on Pension Systems Review was formed in 2016 to identify and evaluate measures to improve the fiscal health of the South Carolina Retirement System.
- During Phase 1, the Joint Committee crafted a successful legislative proposal to strengthen the SCRS funding policy and streamline the state's pension governance structure.
- Act 13 was the result of careful deliberation by the Joint Committee based on input and analysis from PEBA, RSIC, as well as Pew and other outside experts.
- Today's presentation is designed to inform the second phase of the Joint Committee's work- considering alternative pension plan designs for future public workers.
- We remain available to meet individually with any member and greatly appreciate the opportunity to continue working with all of you on these important issues.

Types of Retirement Plans

- **Defined benefit (DB) plan**: A plan in which the employer promises a specific amount of monthly retirement income based on a formula that typically takes into account the employee's salary, years of service, and age.

- **Defined contribution (DC) plan**: A plan that provides employees with an individual retirement account that grows through investment of accumulated employer and employee contributions. Annual returns are generally based on investment performance and are not typically guaranteed.

- **Hybrid Plan**: A plan that combines a defined benefit based on the employee's final average salary with a separate defined contribution savings account.

- **Risk Managed Hybrid (RMH):** A hybrid plan with a formal mechanism for distributing unexpected costs between employers and employees and a DC component has a focus on retirement security for employees.

Hybrid Plans – Basic Definitions and Impacts

- Hybrid plans combine a defined benefit (DB) with a separate defined contribution (DC) savings account. Typically, the separate DB and DC components of a hybrid plan provide a smaller benefit than they would in a stand-alone DB or DC plan.

- Hybrid plans have been adopted in part to reduce state exposure to investment risk and increase predictability of employer costs.

- In addition, hybrid plans provide higher savings rate for workers, particularly beneficial to workers who withdraw from employment early or mid-career.

- Since the Great Recession, there has been growing trend towards hybrid plans. In the last ten years, seven states have adopted a hybrid plan for at least some new workers.

- In the last few years, states have begun designing new hybrid plans to includes mechanisms that distribute risk. Under these plans, unexpected costs are shared between employers and employees and the DC component has a focus on retirement security for employees.

Growing Number of Hybrid Plans Distribute Risk

	Multiplier	COLA	DB Risk Managed	Employer Contribution to DC	Default Employee Contribution to DC	Total Default Contribution to DC	Employee Contribution to DB
Georgia Employee's Retirement System	1%	No	No	3% matching (0% mandatory)	5%	8%	1.25%
Tennessee Consolidated Retirement System	1%	Yes	Yes	5%	2%	7%	5%
Rhode Island Employee Retirement System	1%	Ad hoc	No	1%	5%	6%	3.75%
Virginia Retirement System	1%	Yes	No	3.5% matching (1% mandatory)	1%	2%	4%
Pennsylvania State and School Employees	1.25%	No	Yes	2.25%	2.75% - 3.25%	5% - 5.5%	5% -5.5%
Michigan Public Schools Retirement System	1.50%	No	Yes	1%	3%	4%	50% of total cost (6.2%)
Connecticut State Retirement System	1.30%	Yes	Yes	1%	1%	2%	5%-7%
Federal Government Retirement System	1%	Yes	No	5% matching (1% mandatory)	3%	7%	0.80%

Notes: Other data points on hybrid plans, including investment and distribution options, and retirement age are available in the Pew Charitable Trusts' brief "Hybrid Public Pension Plans," available at http://www.pewtrusts.org/~/media/assets/2015/04/hybrid-public-pension-plans_brief.pdf.
For Pennsylvania State Employees and School Employees, the table only includes the default hybrid plan. The Michigan Public Schools hybrid plan is not the default option, new employees are defaulted in a DC plan but can choose the hybrid plan instead.

Other State RMH Examples

- Pennsylvania (2017)
  - **Benefit Multiplier:** 1.25%
  - **Total DC Contribution:** 5%-5.5%
    - 2.25% Employer. 2.75%-3.25% Employee
  - **DB Employee Contributions:** 5%-5.5%
  - **Cost Sharing:** If investment returns are more than 1% lower than expected (using a 10-year average), employee contributions can increase up to 2%. If returns are more than 1% higher than assumed employee contributions can decrease up to 2%.

- Connecticut (2017)
  - **Benefit Multiplier:** 1.3%
  - **Total DC Contribution:** 2%
    - 1% Employer. 1% Employee.
  - **DB Employee Contribution:** 5%
  - **Cost Sharing:** Actuarial losses from investment returns lower than 6.9% are split evenly between the DB ERC and EEC, with a maximum additional contribution of 2% for EEs.

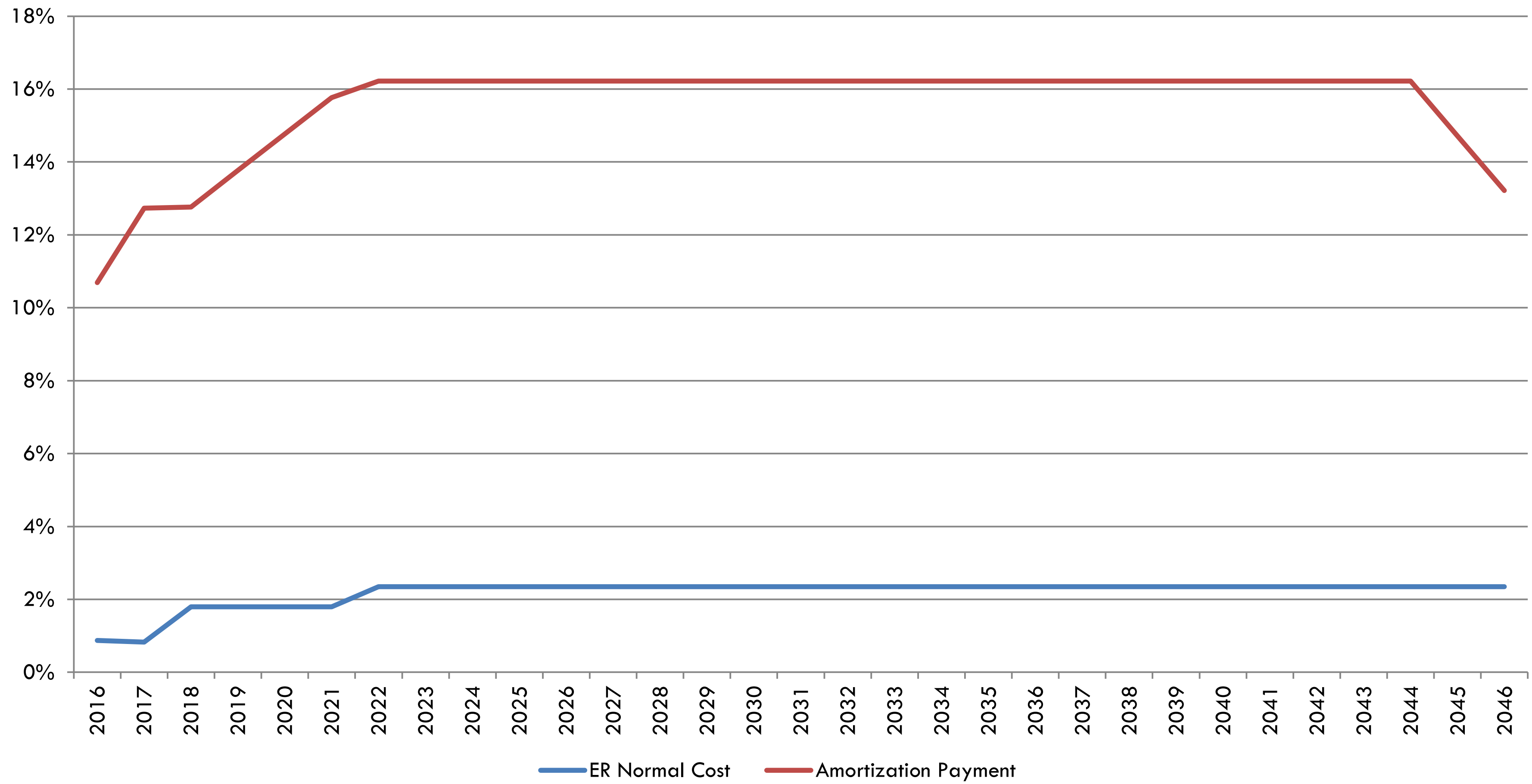
- Utah (2011)
  - **Benefit Multiplier:** 1.5%
  - **Total DC Contributions:**
    - Employer : Employer contributes up to10% to the DB. If DB costs less 10%, remaining ERC goes to DC. (Additional employer match of up to $1,352 annually for voluntary employee contributions under a supplemental DC plan.)
    - Employee: No default contribution.
  - **DB Employee Contributions:** If costs for the DB exceed 10%, employees contribute the difference.

Plan Provisions for Different Plan Types

	SCRS DB (Hired on or after July 1, 2012)	State ORP (DC)	Example Hybrid Plan	Example RMH
Multiplier	1.82%	n/a	0.9%	0.9%
COLA	1% (up to $500)	n/a	1% (up to $500)	1% (up to $500)
Employee Contribution (DB)	9%	n/a	4.5%	4.5%
Employee Contribution (DC)	n/a	9%	4.5%	4.5%
Employer Contribution (DC)	n/a	5%	2.5%	2.5%
Vesting	8 years	Immediate	DB: 8 years; DC: Immediate	DB: 8 years; DC: Immediate
Normal Retirement	Age 65, 8 YOS; Rule of 90 with 8 YOS	N/A	Age 65, 8 YOS; Rule of 90 with 8 YOS	Age 65, 8 YOS; Rule of 90 with 8 YOS
Risk-Sharing	EE contributions can be increased up to 9%, are decreased if funding improves			Yes, cost sharing provisions are triggered by funded level.

Employer Normal Cost and Amortization Cost. 30 Year Projection

Amortization payments are significantly higher than the normal cost.



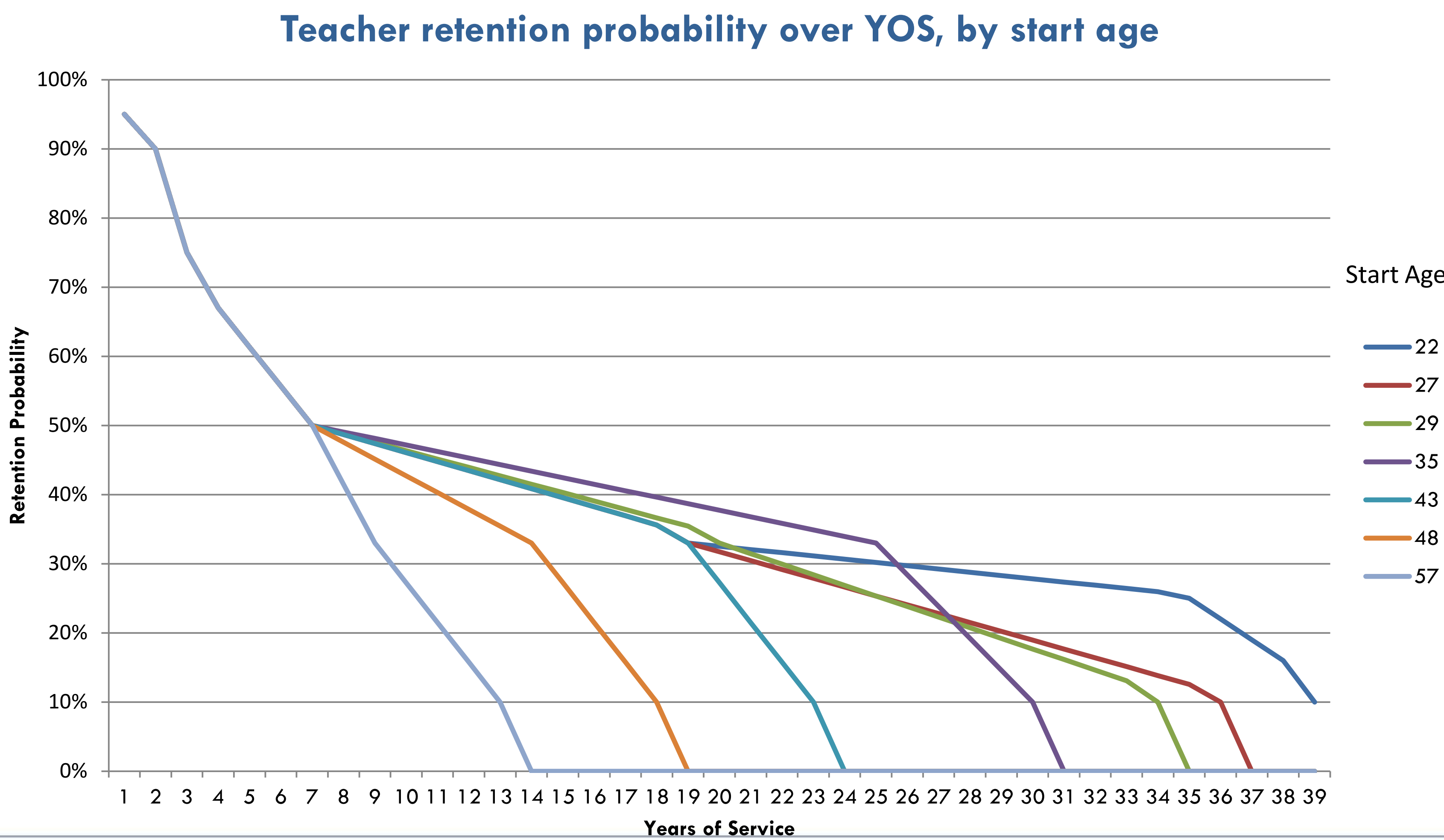
Start Age for Workers Vary

1/3 of workers start by age 29 and 2/3 start by age 43

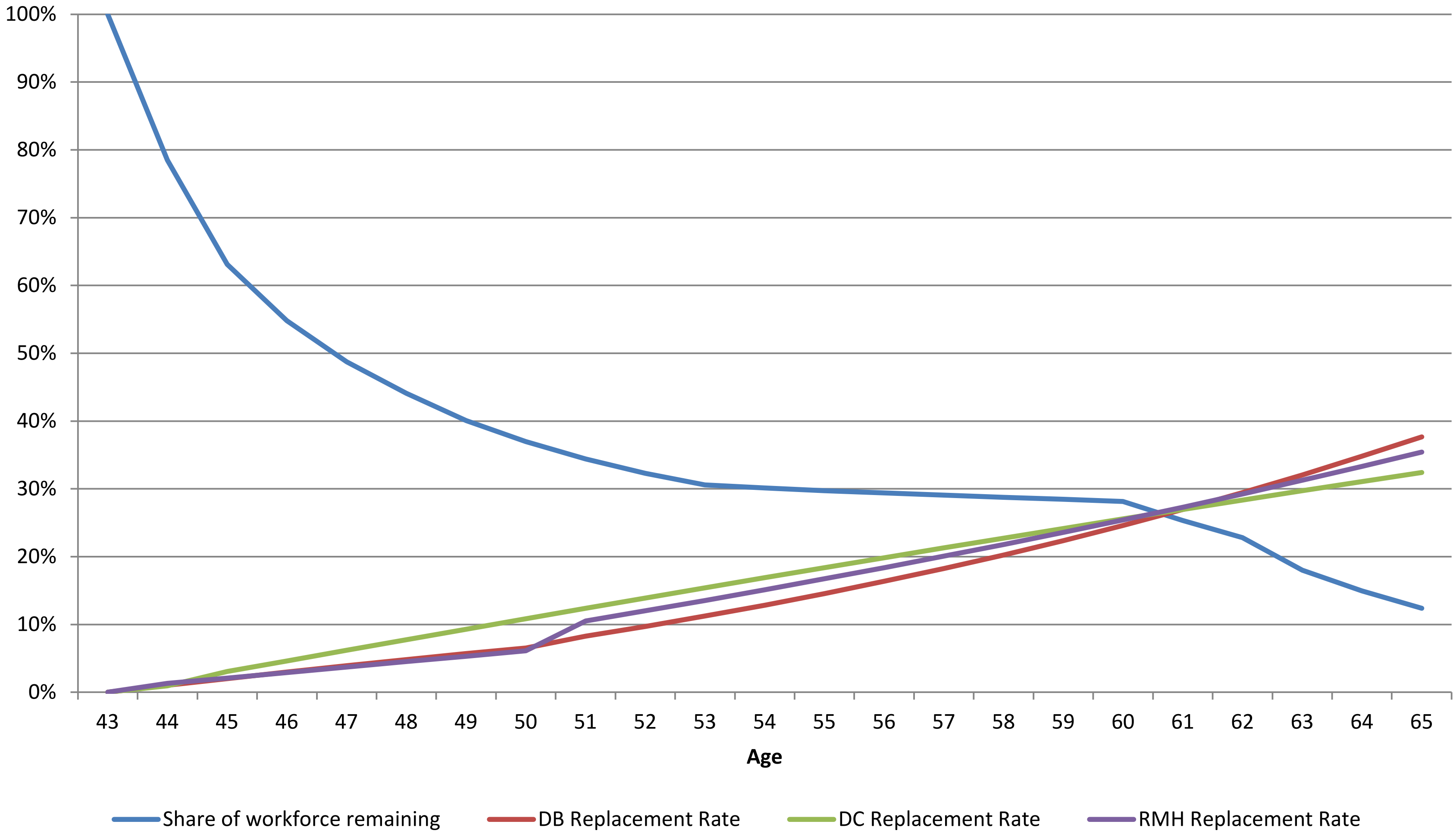
Percentage	Age
10%	22
25%	27
33%	29
50%	35
67%	43
75%	48
90%	57

50% of Workers Expected to Leave by 7 YOS

Many workers leave early regardless of start age



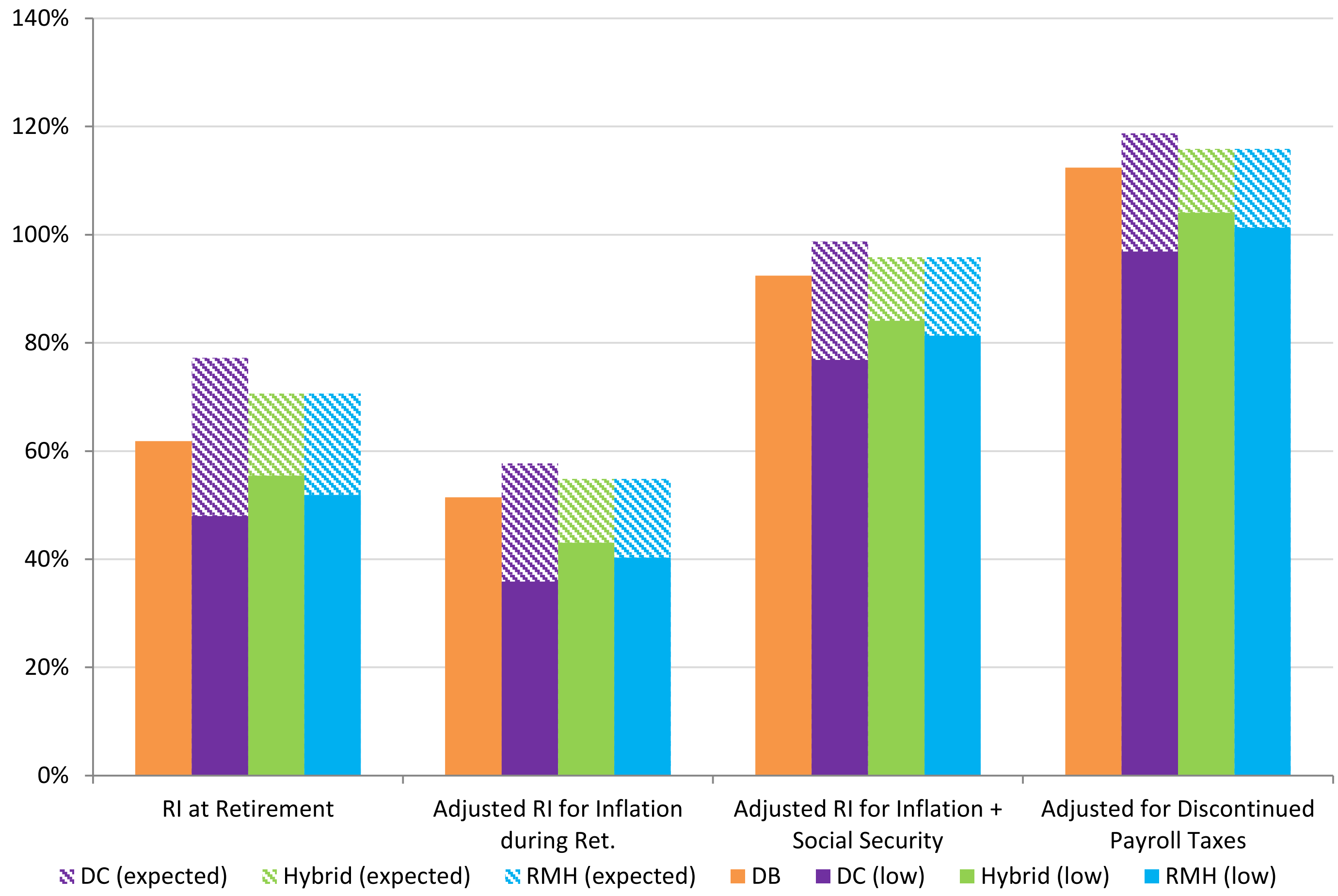
DB, DC and Hybrid Plan Replacement Rates Compared with Share of Workforce Remaining



Note: Assumes start age of 43

With Social Security, Career Worker Replaces Over 100% of Income

Workers who start mid-career have over 80% rate



Notes: Assumes state age 29, retire age 65, does not include Social Security

Other Plan Design Issues to Consider

Comparing State/Teacher DB Plan Retirement, Vesting, and Final Average Salary Plan Provisions

	Median	Average	Range	Notes
Vesting Period	5 years	7 years	3 to 10 years	
Normal Retirement Age	65 years old	63 to 64 years old	55 to 67 years old	
Early Retirement Age	55 years old	55 years old	45 to 62 years old	Based on earliest eligible age, regardless of YOS
Early Retirement Factor	6%	5.8%	3% to 12%	Reduction by year
Rule of Age + YOS (i.e. Age + YOS = 90)	88	87	80 to 92	Only 35 plans had Age+YOS rule
Final Average Salary Rule	5 years	4 years	1 to 8 years	In about half of plans the years need to be consecutive

Source: Urban Institute's State and Local Employee Pension Plan Database
Notes: To find the average and median retirement age, we looked at the earliest possible retirement age for members at least ten years of service, assuming at least 20 years of service, and assuming at least 30 years of service. The averages and medians were similar or the same regardless of the YOS requirement. Of 35 plans with a Rule of Age+YOS provision, most rules the member to reach a set age or YOS before qualifying.