Teacher Retirement System Trends

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EQUABLE

Retirement Plans for Teachers and Public School Employees in America

01 What Retirement Plans Exist Across Different States

02 Pros/Cons of Different Designs

03 Recent Trends

About Equable Institute

Equable is a bipartisan non-profit that educates and informs employees, retirees, and taxpayers about how to create real retirement plan sustainability and accountability without sacrificing future income security.

01

What Retirement Plans Exist Across Different States?

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1. Pensions

- "Pensions" are formally a kind of "defined benefit" plans. The benefit that is defined is a guaranteed income in retirement.

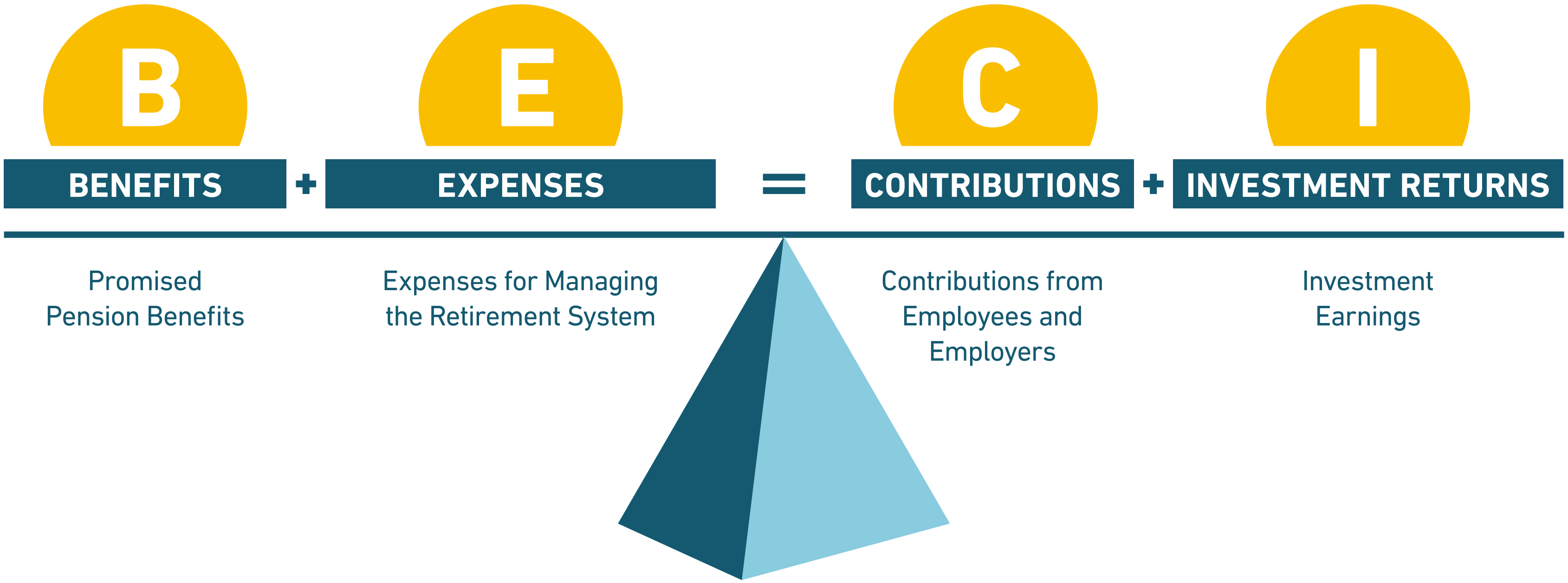
- A pension provides that fixed, guaranteed monthly income based on two factors:

1) years worked, and
2) average salary during final working years.

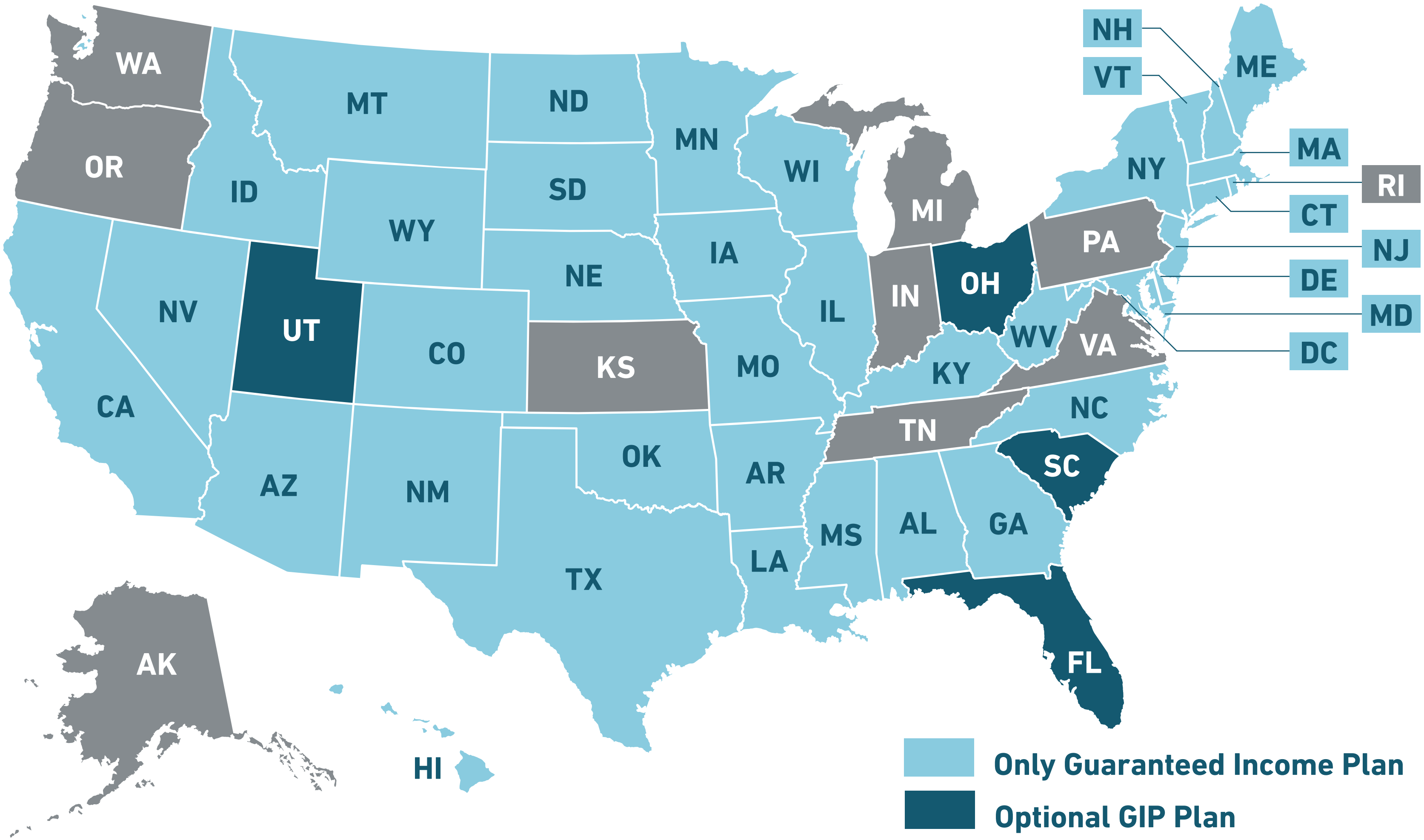
1. Pensions: Benefit Formula

YOS	x	Multiplier	x	FAS
Years of Service		Number in % that the YOS are multiplied by		Final Average Salary

1. Pensions: Funding Formula



1. Pensions: Where for Teachers



2. Guaranteed Return Plan (GRP)

1) Employees and employers both make contributions to a central fund during their working years.
2) The retirement system invests that money on behalf of employees and guarantees they'll earn at least a certain amount on the investments.
3) At retirement, employees can convert their accumulated savings into income that is guaranteed for life.

2. Guaranteed Return: Key Features

- GRP's are technically also "defined benefit" plans and are sometimes called "cash balance" plans.
- GRP's invest all employee money together; no choices are required by the employees.
- Each employee has a notional account balance that can be rolled over to a private retirement account if they leave the public retirement system.
- Employees that stay with their employer can "annuitize" account balances, which essentially turns the GRP into a traditional pension.

2. Guaranteed Return: Typical Example

- Employees and employers each contribute 5-7.5% of pay (for a total of 10% to 15%).
- The state guarantees a 4% annualized return will be credited to the employee account.
- The GRP provides share of upside returns:
  - 75% (3/4th) of any returns above 4% are also credited to the employee account.
  - 25% (1/4th) of returns above 4% are reserved to the state retirement fund (to cover management costs and create a pool of funds for years where investment returns are low).

2. Guaranteed Return: Where

- **Kansas:** Public school employees hired since 2015 have a guaranteed return plan with 4% guarantee minimum return plus up to another 4% more.

- **New York City:** Optional, supplemental guaranteed return plan with 7% guarantee.

- States with *non-teacher* guaranteed return plans: **Texas, Kentucky, Nebraska**

3. Defined Contribution (DC) Plan

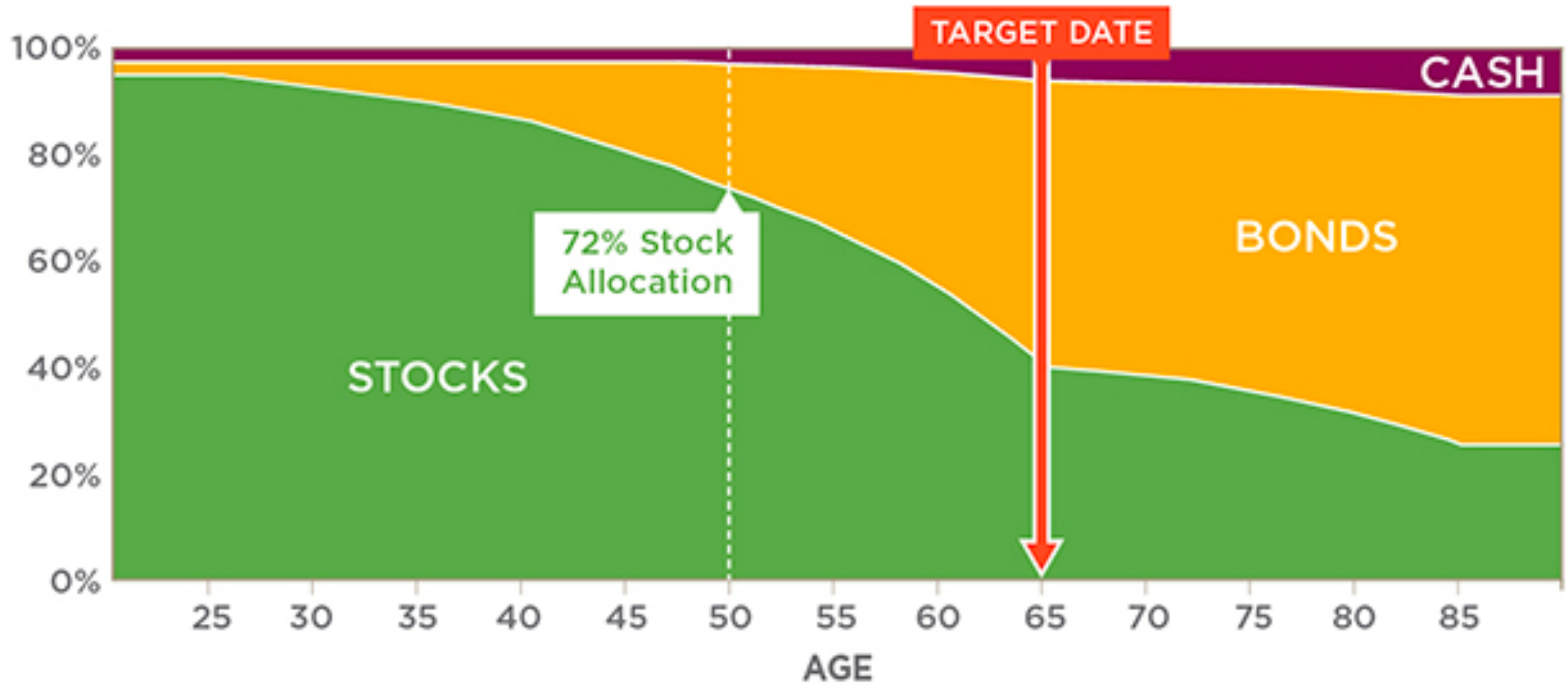
1) Employees and employers both make contributions to an individual account.
2) Individual accounts are invested in one of several professionally designed and managed funds.

Some DC plans allow employees to convert retirement savings into a guaranteed monthly pension check (called an annuity).

3. Defined Contribution: Best Practice

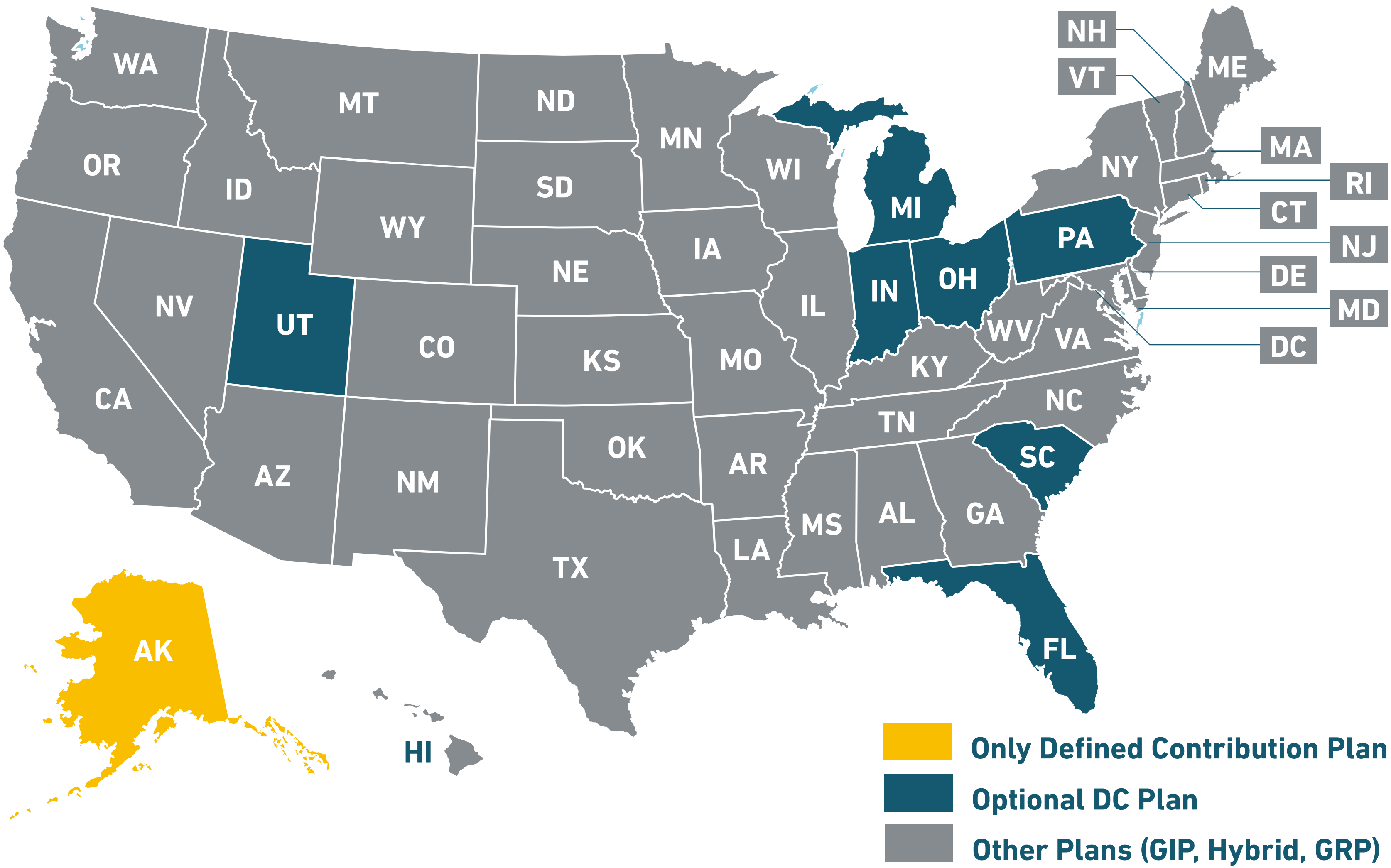
- Auto-enroll employees in the retirement plan so they do not miss out.
- Require minimum, adequate contributions (total of 10% to 15% from employee and employer combined).
- Default employees into a qualified portfolio like a target date fund.
- Allow employees to convert retirement savings into a guaranteed monthly pension check (called an annuity).

3. Defined Contribution Plan: How Target Date Funds Work



Source: Charles Schwab & Co.

3. DC Plan: Where for Teachers



4. Hybrid Plans

- Some plans mix and match elements of multiple designs into a “hybrid” structure.
- A common example is pairing a guaranteed income plan with a defined contribution plan.
- A frequent paring is:
  - Pension plan with 1% multiplier on years of service
  - DC plan with employer contributions of 1%-5% of payroll

4. Hybrid Plans Common Design

- Pennsylvania Hybrid Elements
  - Pension Plan: 1.25% multiplier
  - DC Plan: employer contribution = 2.25% of pay
  - Employee contribution = 5% for pension, 3.25% for DC

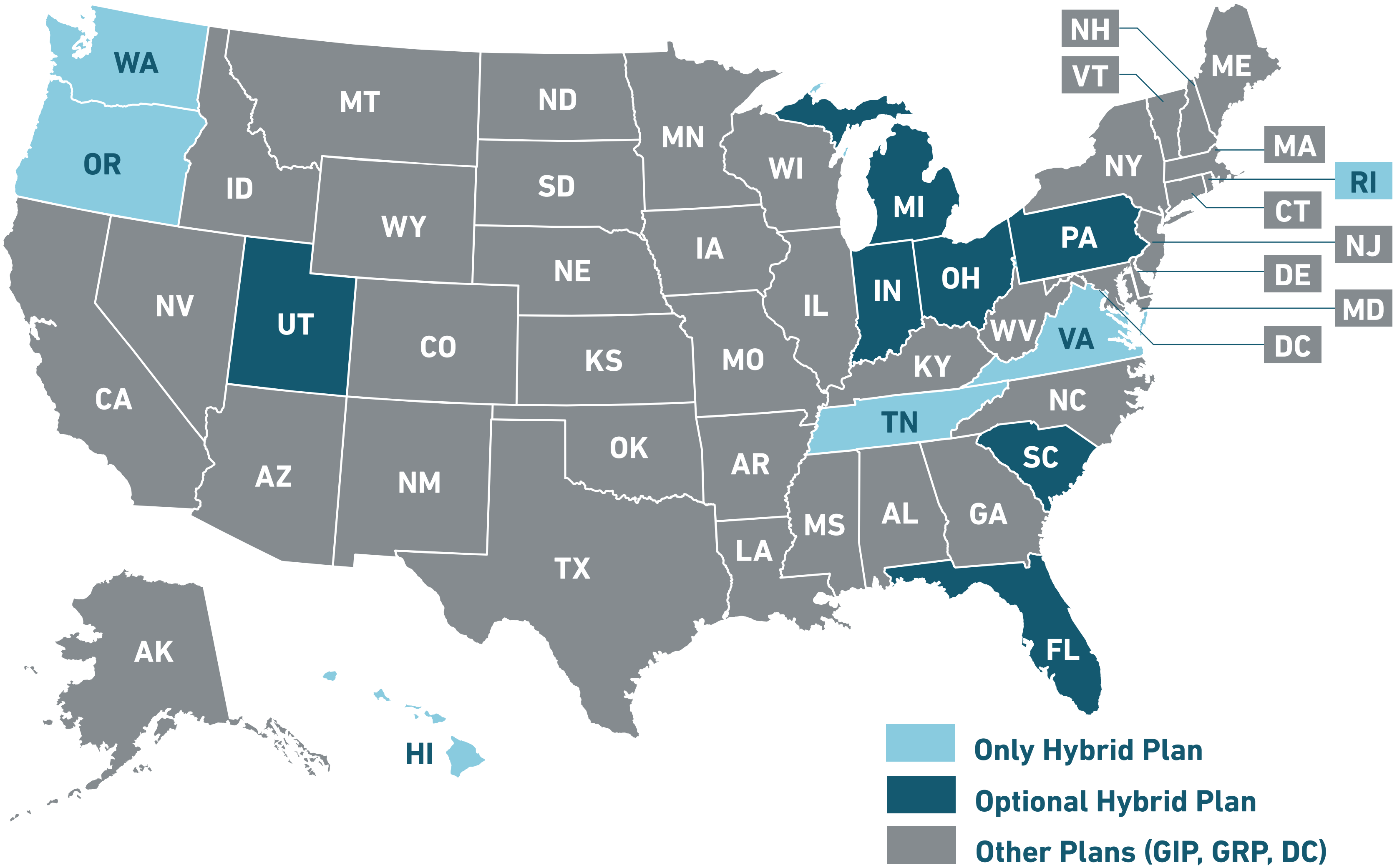
OR

  - Pension Plan: 1% multiplier
  - DC Plan: employer contribution = 2%
  - Employee contribution = 4% for pension, 3.5% for DC

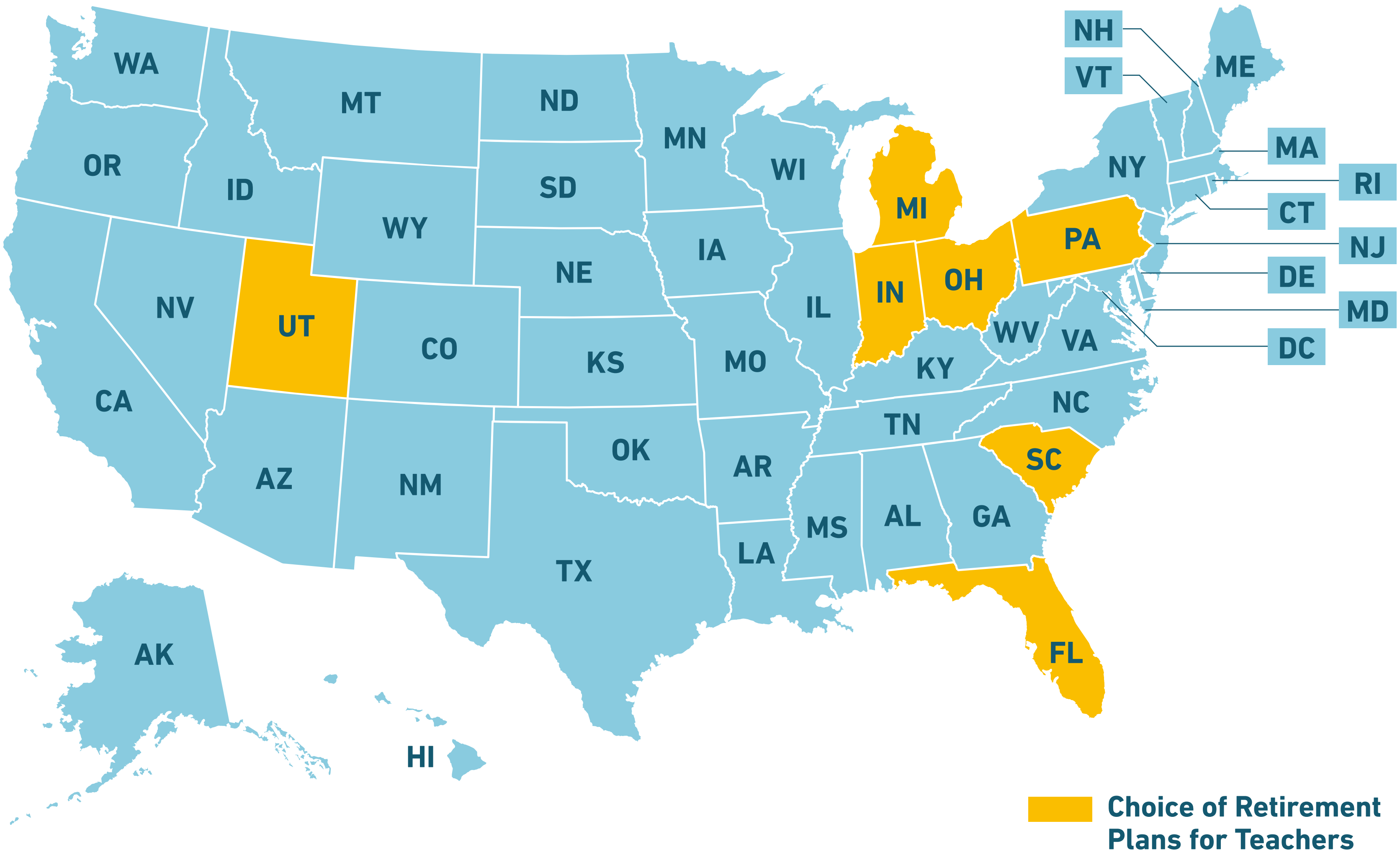
4. Hybrid Plans
Modern Mix of Features

- South Dakota Hybrid Elements
  - Pension Plan: 1.8% multiplier — provides the primary retirement income benefit.
  - Employees with 3 years of service or more can leave with their own contributions, plus interest, plus 85% of that amount matched with employer contributions (this is <u>not</u> common).
  - Employer makes up to 1.5% of payroll contribution to a "variable account" that is used to increase the value of pension benefits at retirement.
  - Employees are auto-enrolled in an optional DC plan.

4. Hybrids: Where for Teachers



5. Choice: Where for Teachers



02

Pros/Cons of Different Designs

Objectives of Retirement Plans

1. Adequate Retirement Income Security
2. Funding and Budgetary Predictability
3. Recruiting and Retention
4. Employee Career Mobility/Portability

+ Investment and Funding Risk Sharing

Objective:
Adequate Retirement Income Security

Pension: • Yes, if employee spends a **full career with one employer** (or within one retirement system). • No, if employee leaves before 15-25 years (depending on the plan).	**Guaranteed Return:** • Yes, if design includes **sufficient minimum guaranteed and shared returns**, access to lifetime income options, and adequate contributions. • No, if total contributions are less than 10%-15% of salary.
Hybrid: • Yes, if mix of **plan designs fits the career pattern of the employee**. • No, if combined plan elements do not provide for a high enough pension multiplier and or DC/GRP contributions.	**Defined Contribution:** • Yes, if **design is focused on income replacement generally**, with lifetime income options available within the plan, and adequate contributions. • No, if total contributions are less than 10%-15% of salary.

Objective:
Funding and Budgetary Predictability

Pension: • **Limited predictability.** • Budgetary stability can be trade-off for higher long-term costs.	**Guaranteed Return:** • **Mostly predictable.** • Budgetary costs can increase if investments consistently underperform guaranteed rate.
Hybrid: • **Moderate predictability**. • Depends on the mix of pension and defined contribution elements.	**Defined Contribution:** • 100% predictable.

Objective:
Recruiting

- The majority of academic literature analyzing recruiting concludes that retirement plans are NOT a major recruiting factor for teachers.

- Equable's national survey of teachers finds that an overwhelming majority of educators join the profession to help kids, not for financial or benefit reasons.

Objective:
Retention

Pension:	Guaranteed Return:
• Can support retention goals **once employees pass 20- or 25-years of service.**	• Can support retention goals **if plan design elements increase guaranteed returns** over increasing years of service.
Hybrid:	**Defined Contribution:**
• **Limited effect on retention.** • Retention success depends on mix of plan design elements.	• **Limited effect on retention.** • Retention success depends on levels of contributions.

Objective:
Employee Career Mobility/Portability

Pension: • **Very limited portability.** • Plan designs are for full career employees.	**Guaranteed Return:** • **Moderate-to-full portability.** Depends on how quickly employer contributions vest • Plan designs are for either full career employees or more mobile workers.
Hybrid: • **Moderate portability.** Depends on what portion of benefit is DB/pension or DC. • Plan designs are for either full career employees or more mobile workers.	**Defined Contribution:** • **Full portability.** • Plan designs are usually best for short-to-medium term employees (up to 15-20 years).

Investment and Funding Risk Sharing

Pension: • **No direct employee investment risk.** • Underfunding could result in increased employee contributions, lower pay levels, reduced COLAs.	**Guaranteed Return:** • **No direct employee investment risk.** • Limited funding risk (if the state does not build a backstop to the guaranteed returns).
Hybrid: • **Shared investment risk between employee and employer.** • Underfunding pension portion of benefits could result in increased employee contributions, lower pay levels, reduced COLAs.	**Defined Contribution:** • **Employee carries investment risk.** • No funding risk. Can not develop unfunded liabilities.

03

Recent Trends

States Creating Options

- **Utah 2011**: Pension Plan or DC Plan
  - Pension option is a risk sharing plan
- **South Carolina 2012**: Pension Plan or DC Plan
- **Indiana 2013**: Pension Plan or Hybrid Plan
- **Michigan 2017**: DC Plan or Hybrid Plan
  - Hybrid is mostly a pension plan with a small DC plan
- **Pennsylvania 2017**: Two Hybrid Plans or DC Plan
  - Individuals can choose from three options, two hybrids with different sized pensions and employee contribution requirements, or a DC only plan
- **Florida 2017**: DC Plan or Pension Plan
  - Florida first created a DC plan option in 2000, but in 2017 changed the default to the DC plan

States Creating Hybrid Only Plans

- **Rhode Island 2011**: For all public employees
- **Virginia 2012**: For all public employees
- **Tennessee 2013**: For all public employees

States Creating Other Designs

- **Kansas 2012**: Guaranteed return plan for state workers
- **Kentucky 2014**: Guaranteed return plan for state workers and local government employees
- **South Dakota 2017**: Adds auto-enrolled optional DC plan

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THANK YOU

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Appendix

How Pension Contributions Work

EMPLOYEE CONTRIBUTIONS

EMPLOYER CONTRIBUTION

GROSS NORMAL COST

The contribution necessary to pay for benefits earned each year.

This is calculated based on:

- **Salary Growth**
- **Mortality Rate**
- **Disability Rates**
- **Retirement Patterns**
- **Rate of Return on Assets***

**This is sometimes called the discount rate*

UNFUNDED LIABILITIES

The shortfall in dollars that should be in the pension fund today.

This is calculated based on:

- **Value of Assets**
- **Value of Liabilities**

REQUIRED PENSION CONTRIBUTION

Key Challenges Pensions Face

- **Underperforming Investments** — assumed rates of return are too high relative to actual performance
- **Not Always Paying the Bill** — states sometimes pay less than the actually determined contribution rate, or have fixed contribution rates in statute
- **Shifting Demographics** — people are living longer and changing their working patterns, raising costs
- **Plans are Maturing** — higher ratios of retirees to active workers means there is less room for error

Guaranteed Return
Alternative Example: Kansas "Cash Balance" Plan

- **Employee contribution**: 6%
- **Employer contribution**:
  - 3% for those with less than 5 years of service
  - 4% for those with 5-11 years of service
  - 5% for those with 12-23 years of service
  - 6% for those with 24+ years of service

These are called "credit rates" and are only available when retiring.

- **Guaranteed return**: 4% annually
- **Upside share**: Up to 4% annually based on performance

Guaranteed Return
Alternative Example: NYC Teachers Supplemental

- **Employee contribution:** optional; up to IRS personal max
- **Employer contribution:** 0%
- **Guaranteed return:** 7% annual
- **Upside share:** 0%

Note that this design carries a considerable amount of risk for the city budget, and the guarantee is backed by the city pension fund. The guaranteed rate is collectively bargained, and only applies to a supplemental plan not intended to be a primary retirement plan.