



# Model Retirement Systems: Putting Tools and Metrics into Practice

Phoenix, AZ

December 10<sup>th</sup>, 2019

National Conference of State Legislatures

Seminar on Pensions Topics

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Strengthening Public Sector Retirement Systems

# Putting Theory Into Action

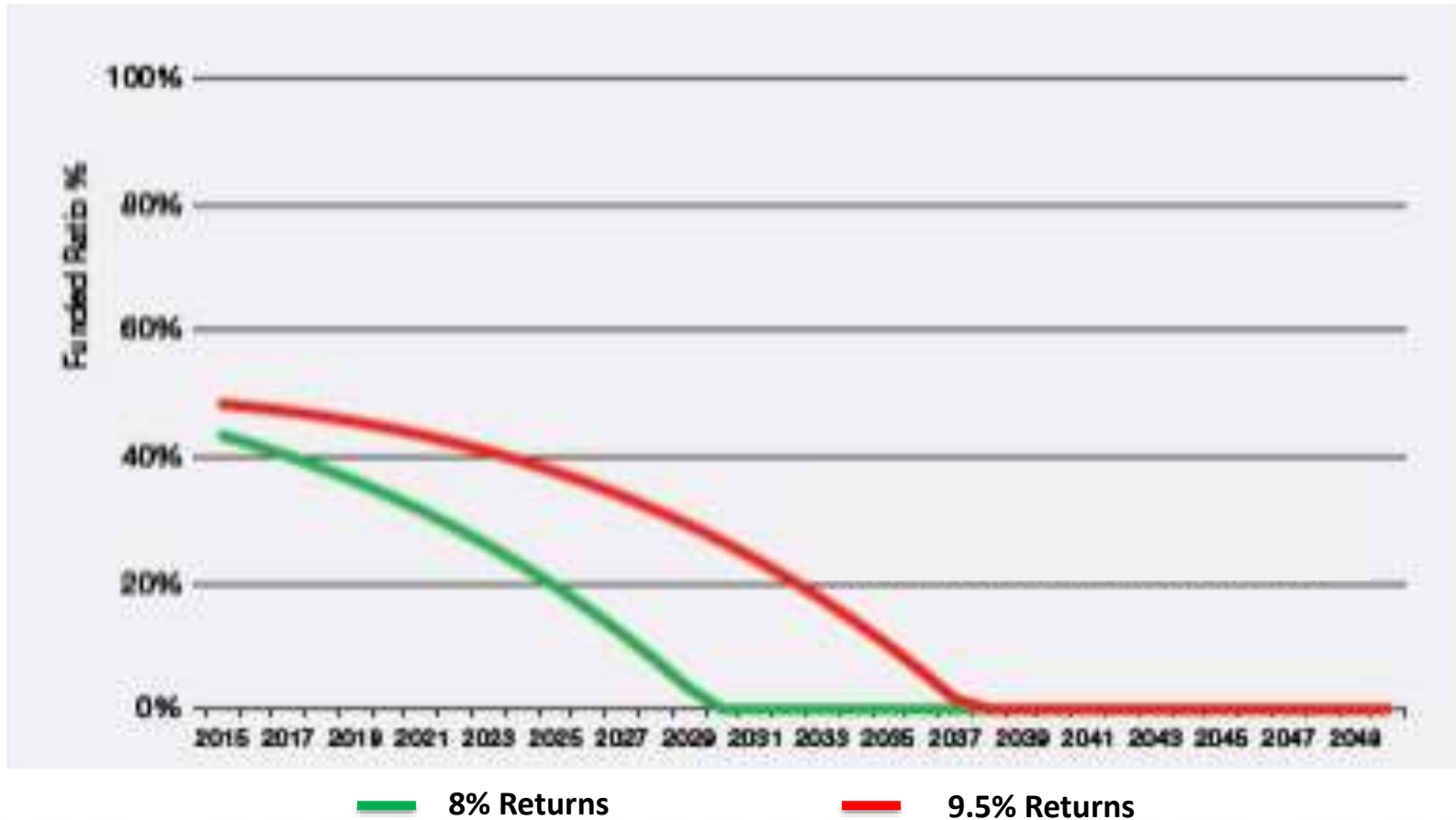
- Ensuring financial stability – stress testing and risk reporting are key
- Cost sharing – different models and implementation issues
- Managing changes in economic and investment return outlook
- The role of clear objectives in strengthening retirement systems

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# Colorado Public Employees Retirement Association

Pre-reform (2010) reports provided policymakers and budget officials with the tools necessary to evaluate the pension system



# Colorado's 2015 Analysis

Signal Light developed a clear and concise framework to evaluate risk of fiscal distress



## About Signal Light



Status	Definition
Dark Green	100% Funded by 2041 (30 years from 2011)
Green	100% Funded by 2046 (30 years from 2016)
Light Green	100% Funded by 2056 (40 years from 2016)
Yellow	100% Funded by 2066, and never as low as 20% Funded
Orange	Solvent, and only gets as low as 20% Funded
Red	Insolvent after 2036 (after 20 years)
Dark Red	Insolvent by 2036 (within 20 years)

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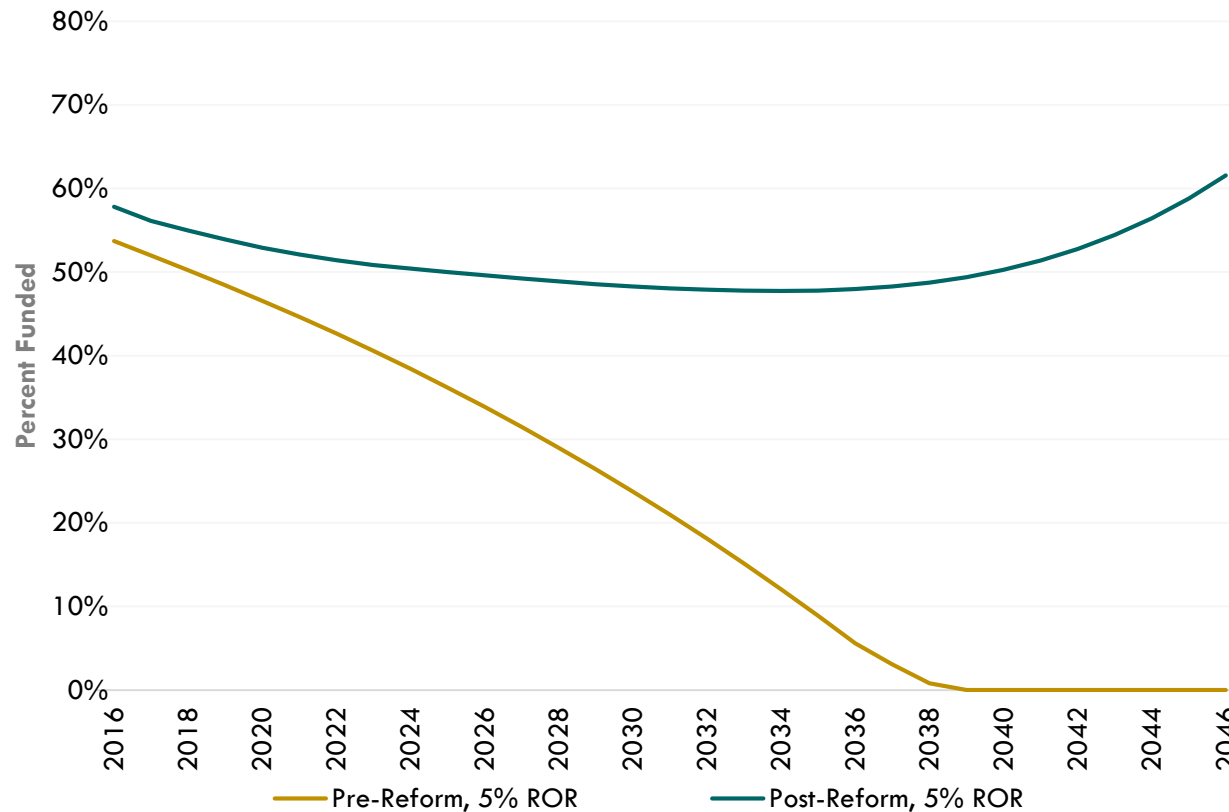


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} 23% Probability

# Stress Testing in Action: Colorado

Stress Testing analysis helped to facilitate comprehensive and lasting reform

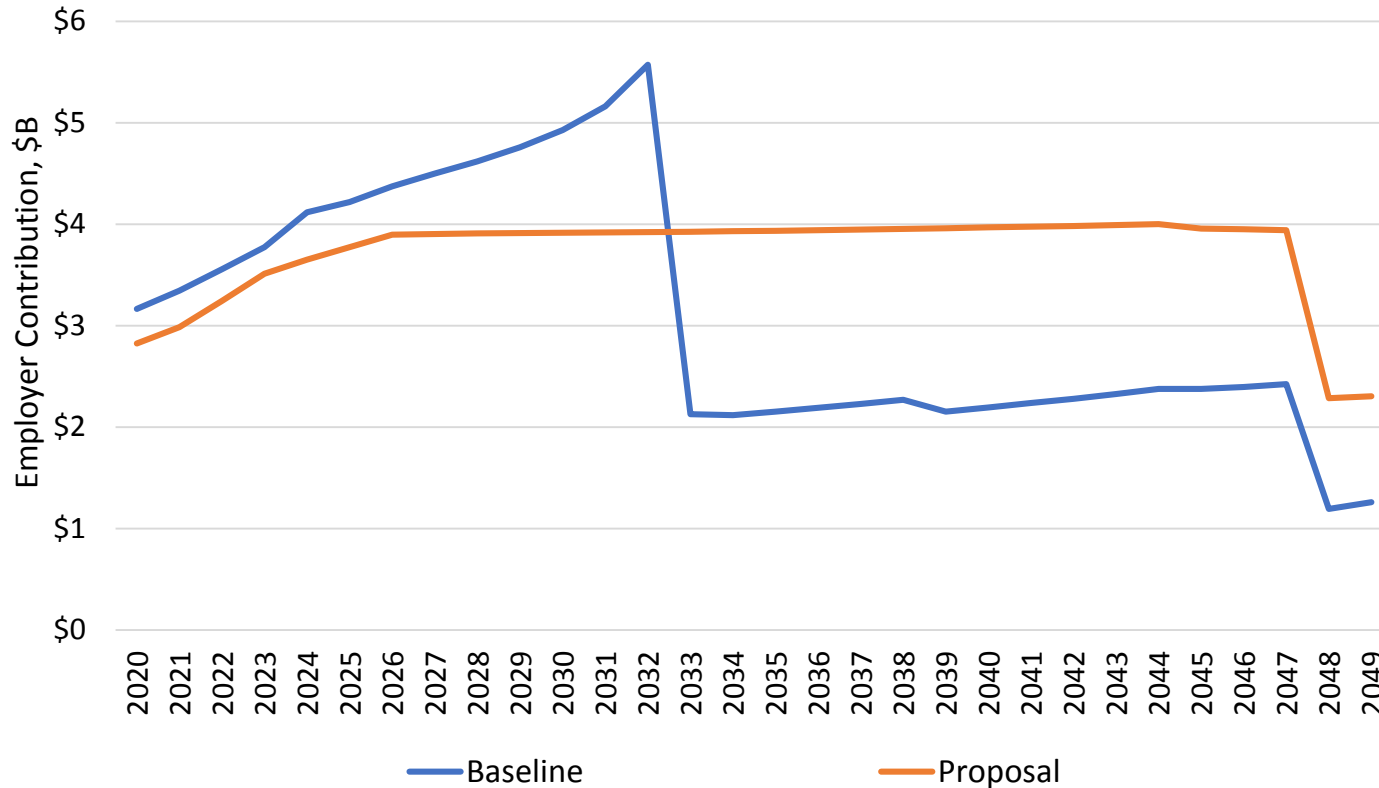


Sources: Analysis by The Pew Charitable Trusts and The Terry Group based on publicly available Comprehensive Annual Financial Reports (CAFRs), actuarial reports and valuations, other public documents or as provided by plan officials.

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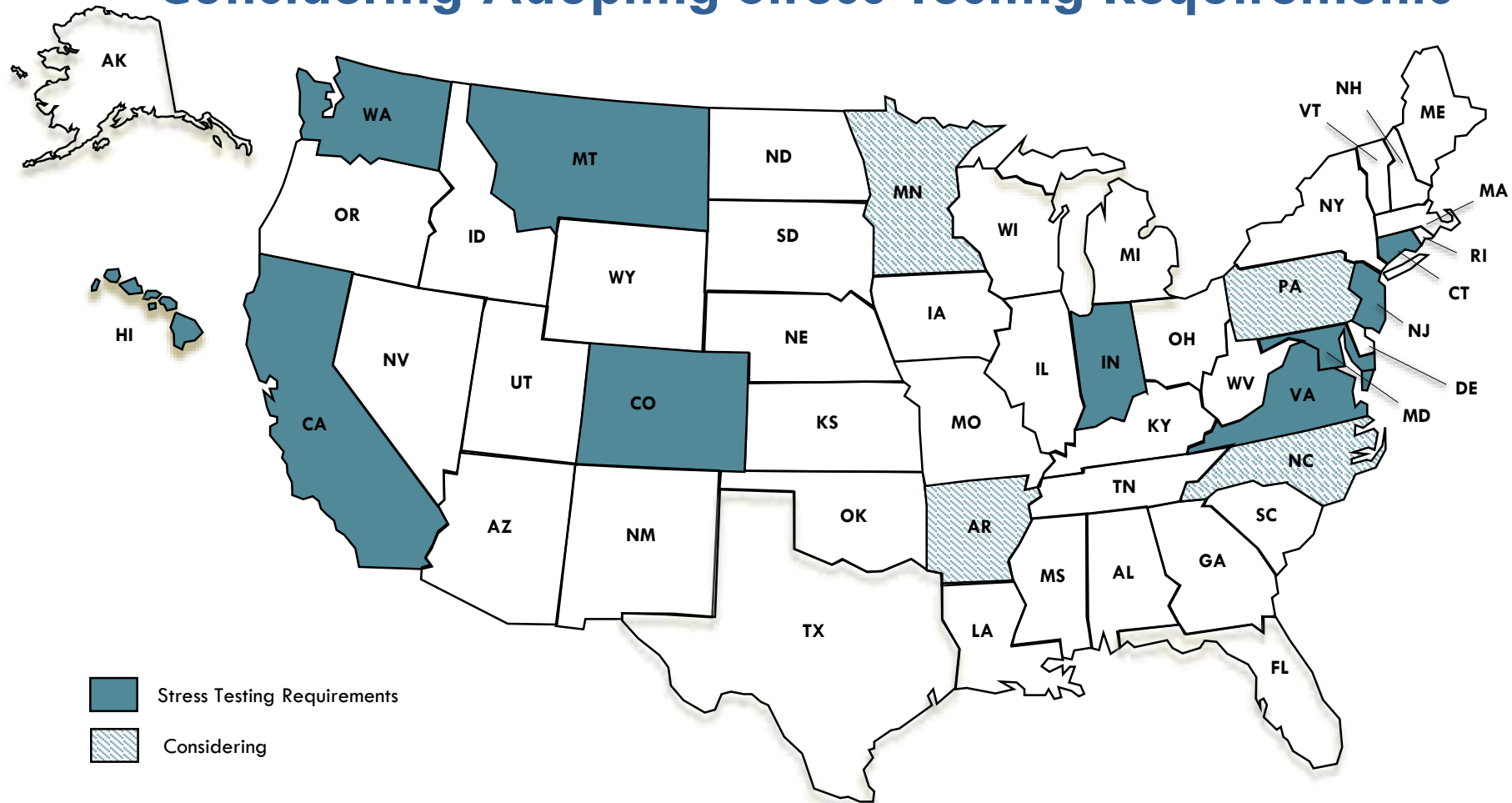
Projected Employer Contributions  
6.9% Returns, SERS and TRS Combined



Sources: Analysis by The Pew Charitable Trusts and The Terry Group based on publicly available Comprehensive Annual Financial Reports (CAFRs), actuarial reports and valuations, other public documents or as provided by plan officials.



# Emerging Trend: States that Have Enacted or are Considering Adopting Stress Testing Requirements



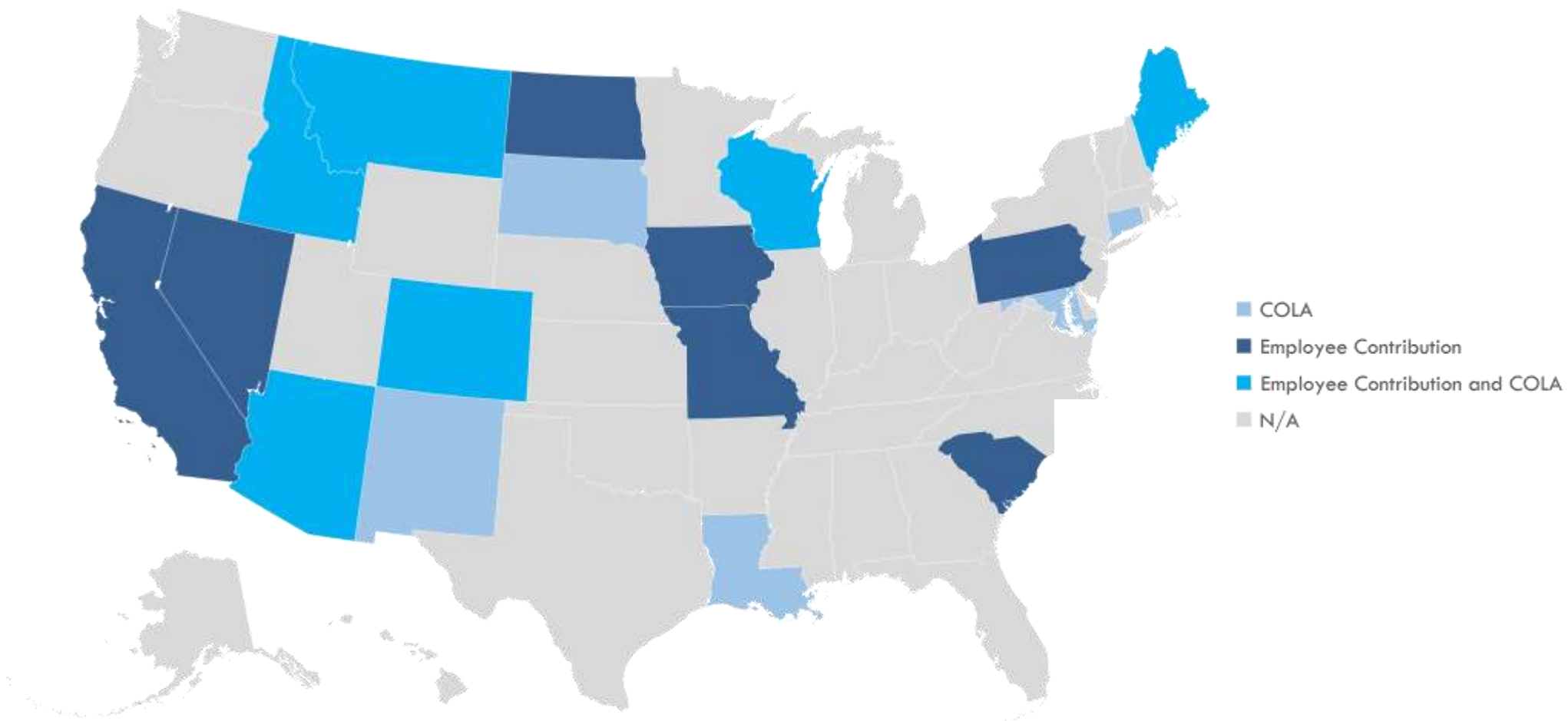
Note: Of the states that have adopted stress testing requirements by statute, at least four (WA, CA, VA, HI) have produced at least two stress testing reports as of January 2019. Map is as of August 2019.

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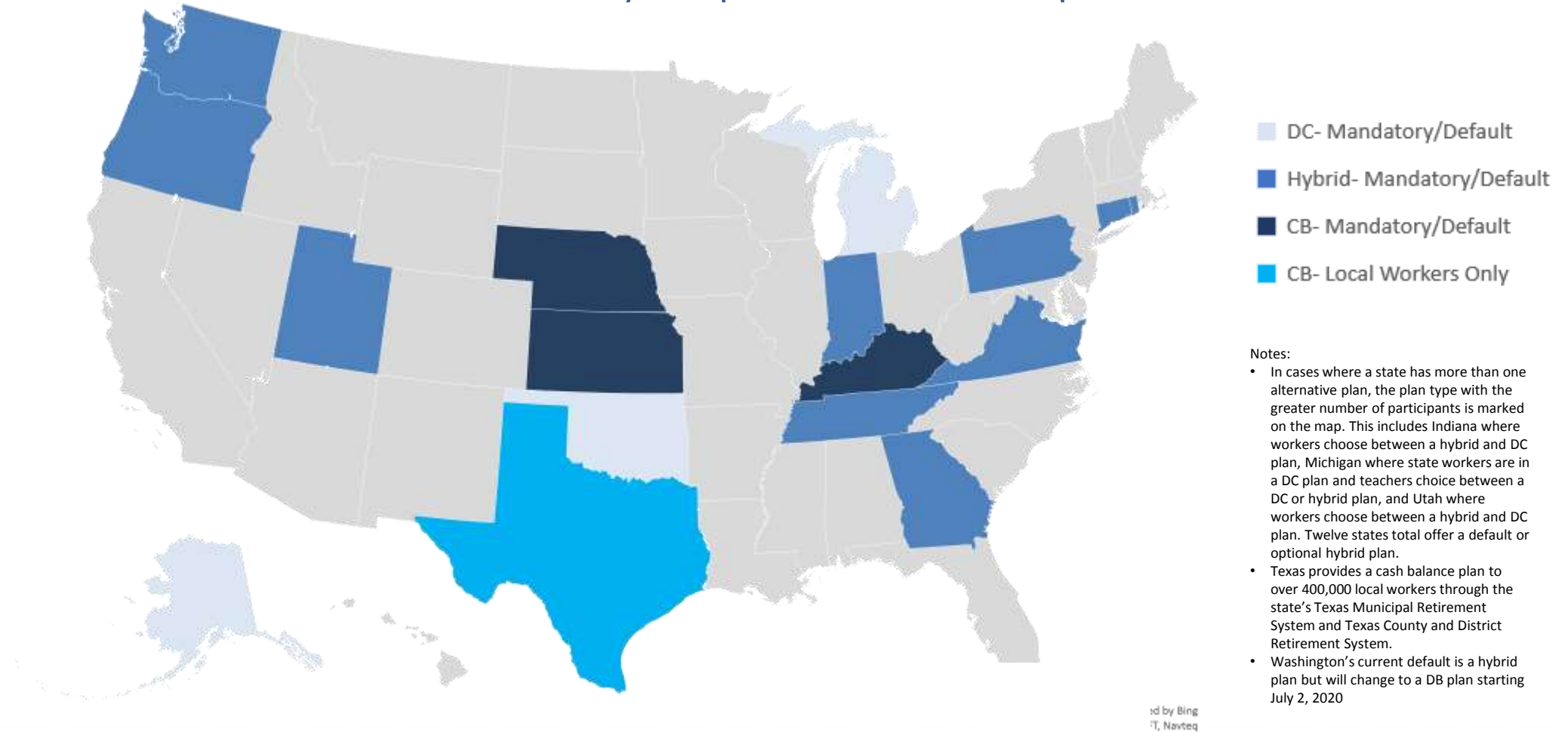
# Cost Sharing is Used in Traditional DB Plans

28 DB plans in 18 states have formal cost sharing policies



# Alternative Plans are the Default or Mandatory Option in 17\* states

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



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