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Evaluating Public Pension Funding and Financial Risk

January 15, 2020

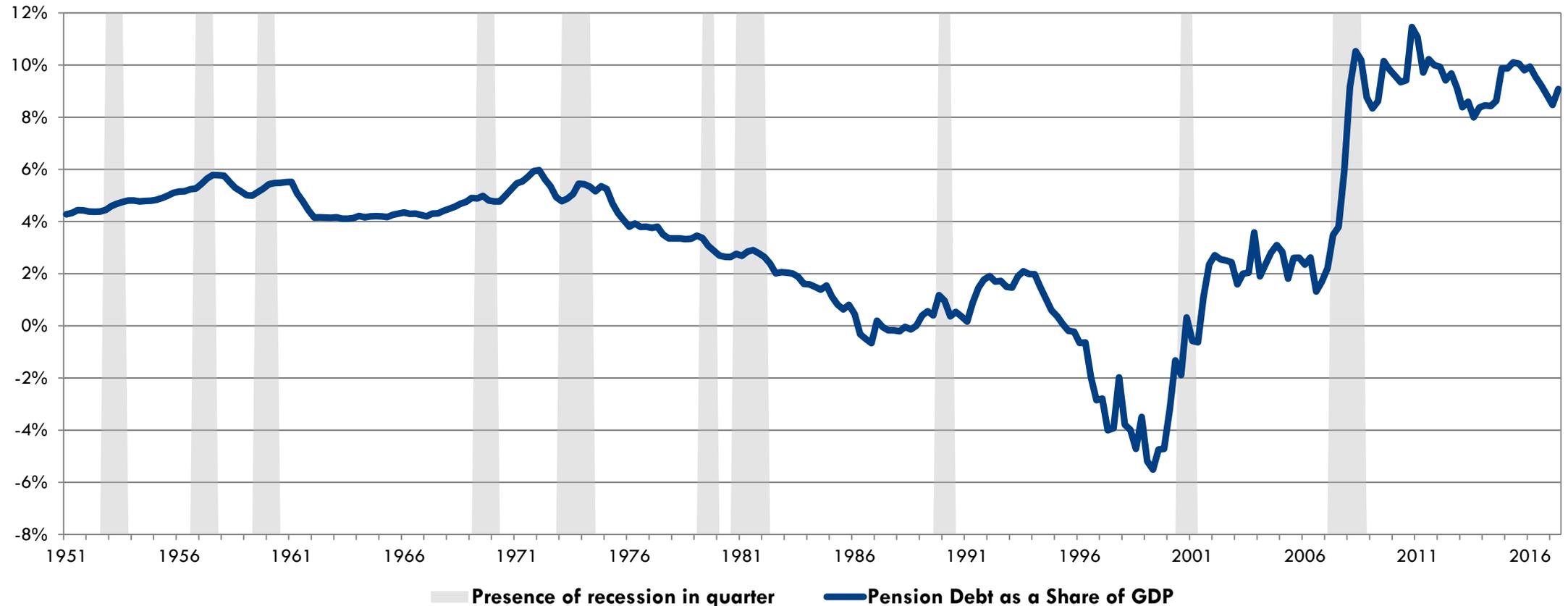
Greg Mennis – Project Director
Strengthening Public Sector Retirement Systems

Overview

- 50 State Review / Spotlight on Montana
- Range of Perspectives on Pension Funding
- Stress Testing

State and Local Pension Debt as a Share of Gross Domestic Product

After nine years of economic recovery, aggregate pension debt remains at historically high levels

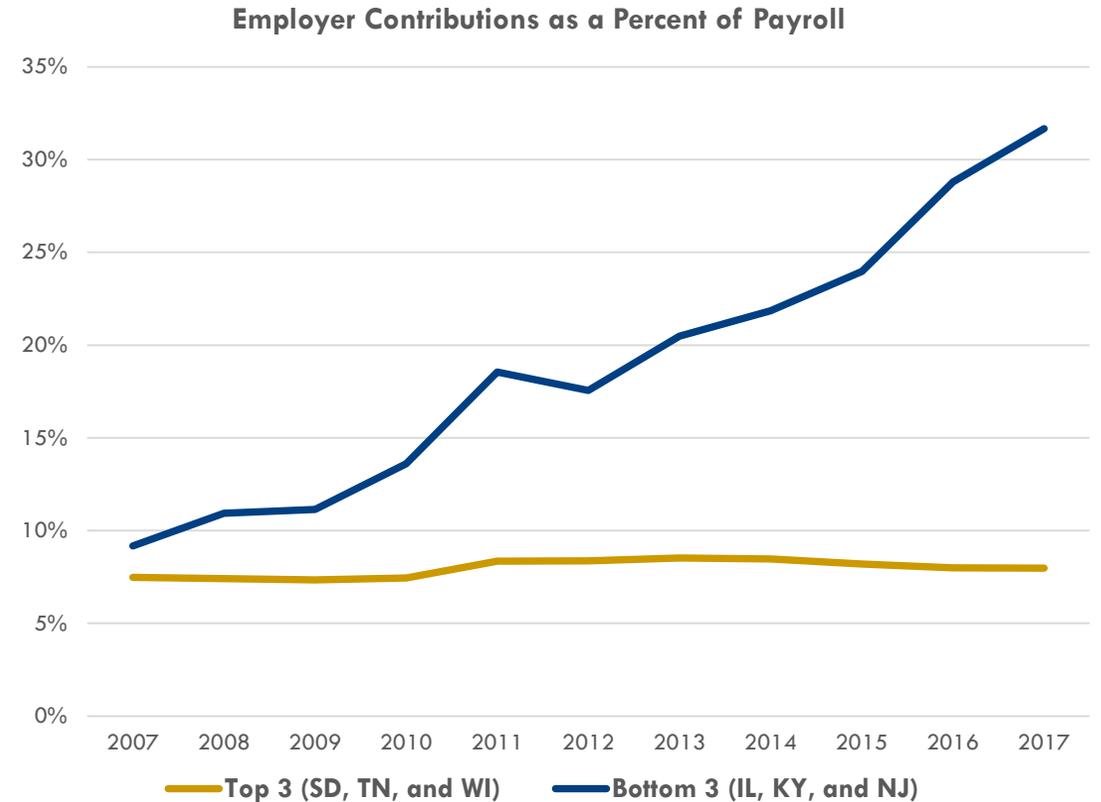
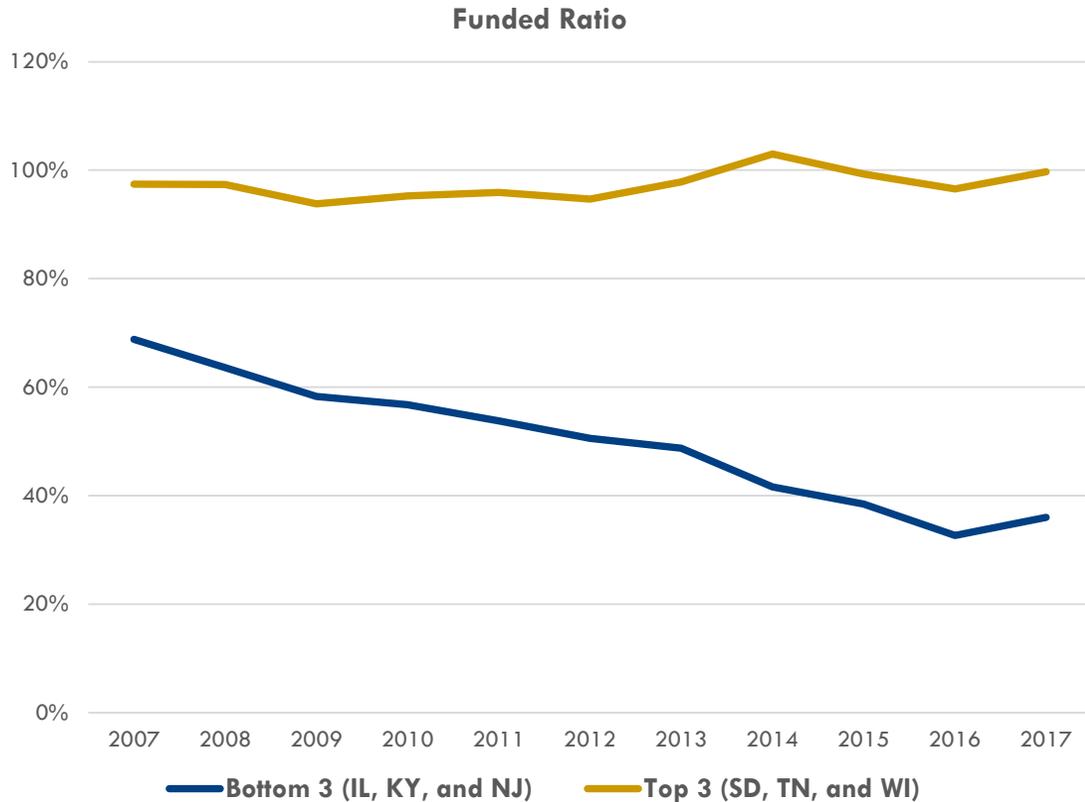


Note: Data reflects Federal Reserve data as of Q1 2018, prior to a change in the Fed's methodology for calculating pension liabilities.

Source: Federal Reserve Board

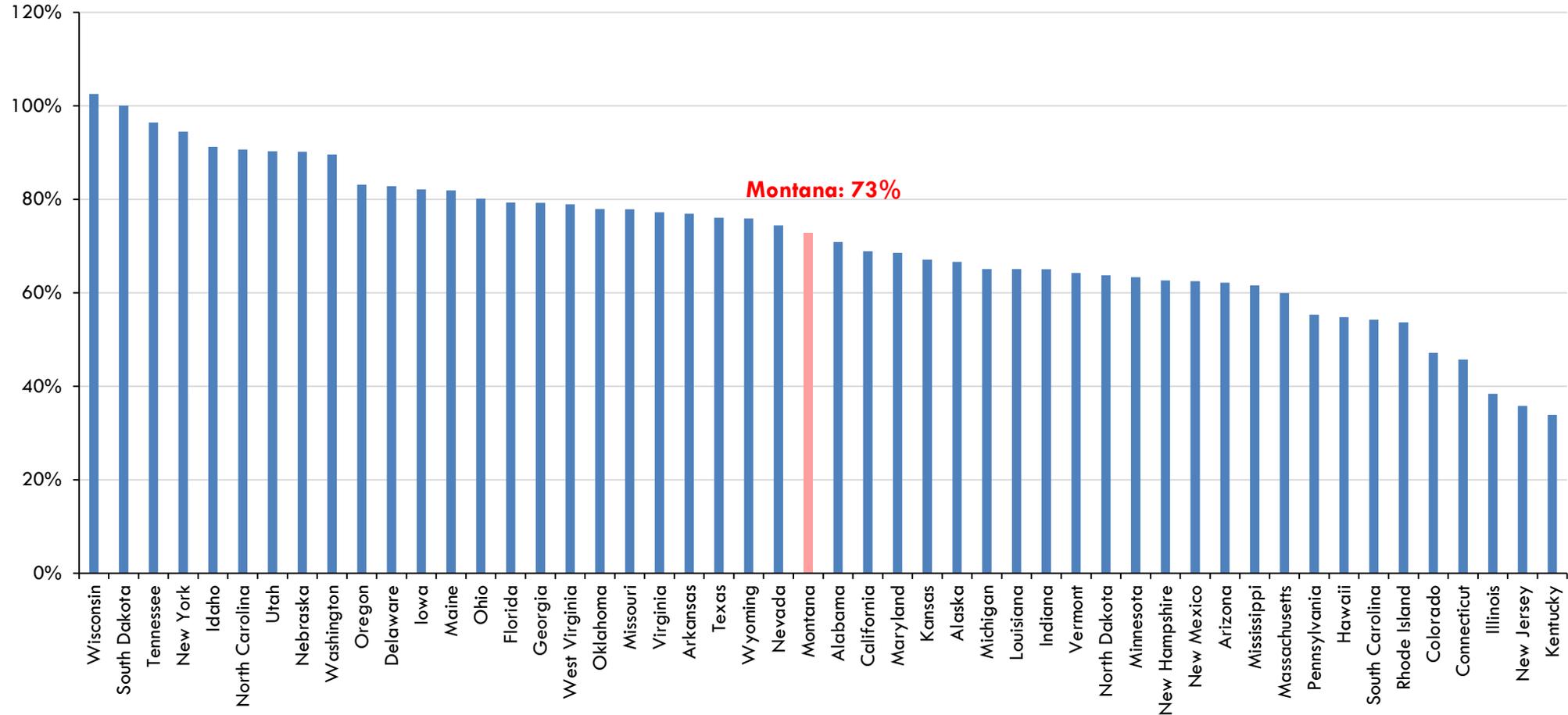
Growing Disparity: Funding and Costs for Top/Bottom 3 Funded States

South Dakota, Tennessee, and Wisconsin maintained well-funded pension plans while keeping costs stable



States Vary in Funding Levels

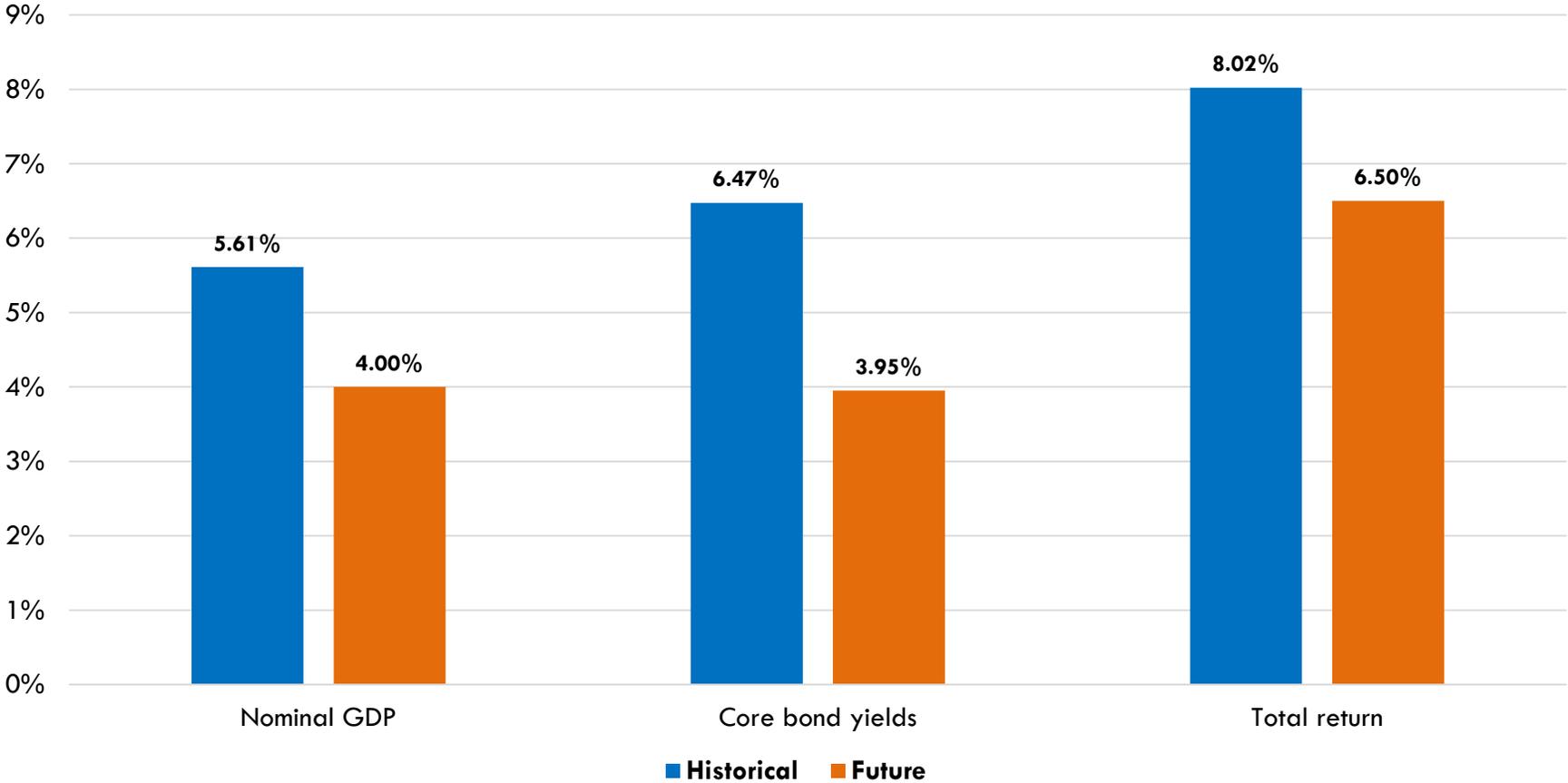
Montana is roughly average nationally with a collective plan funded ratio of 73%



Source: State comprehensive annual financial reports, actuarial reports and valuations, other public documents, or as provided by plan officials

Returns Over the Next 20 Years are Expected to Lag Behind Those Before the Great Recession

Projected nominal GDP growth and bond yields are at historic lows





Perspectives on Pension Funding

➤ Financial Economics

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- Call for double-digit increases for most states – but just one piece of overall credit



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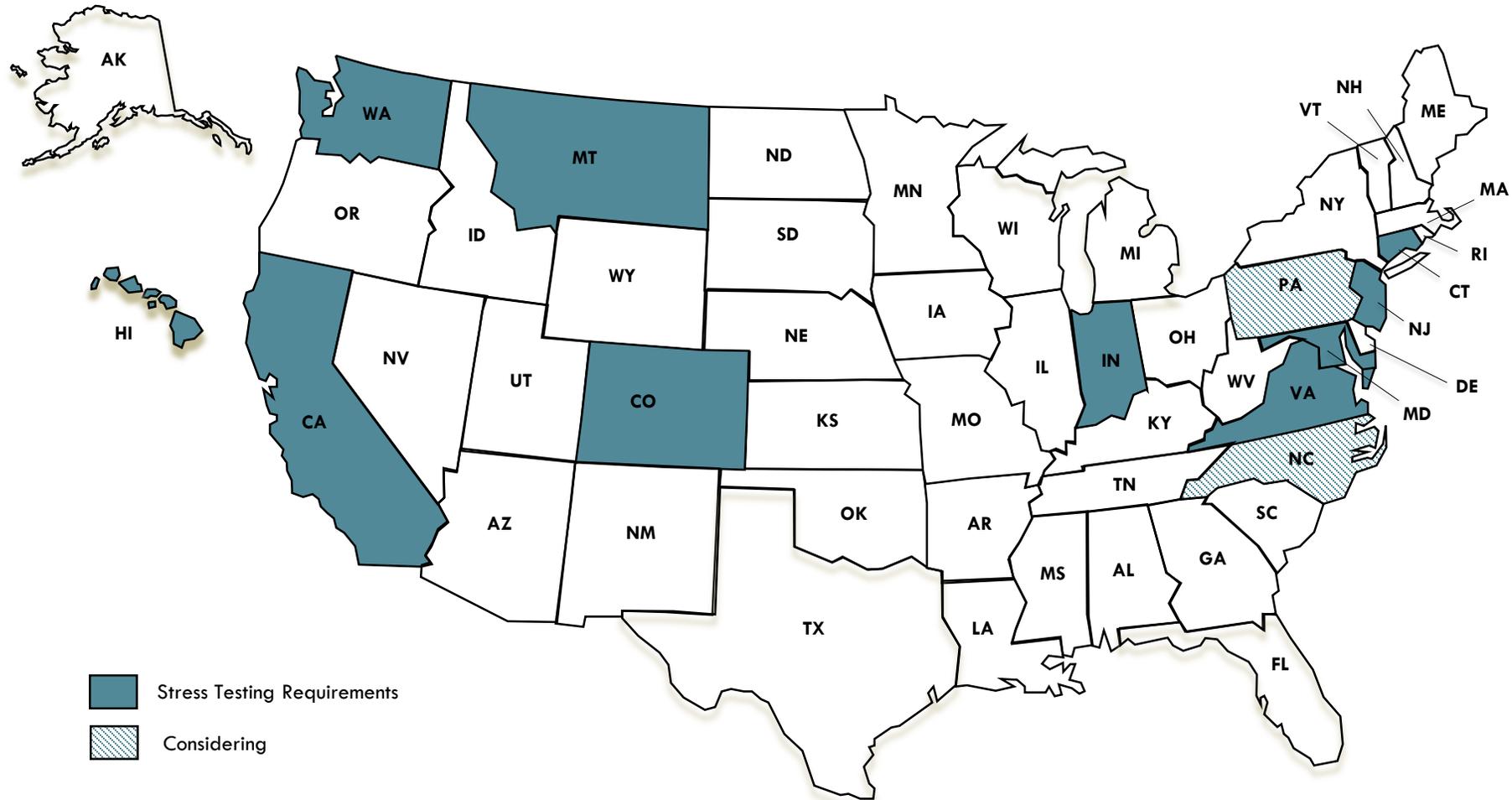
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Source: Novy-Marx, Robert and Joshua Rauh. "Public Pension Promises: How Big Are They and What Are They Worth?" *The Journal of Finance* Vol. 55, No. 4 (August 2011), pp. 1211-1249; Lenney, Jamie, Byron Lutz, and Louise Sheiner. "The Sustainability of State and Local Government Pensions: A Public Finance Approach." July 2019.

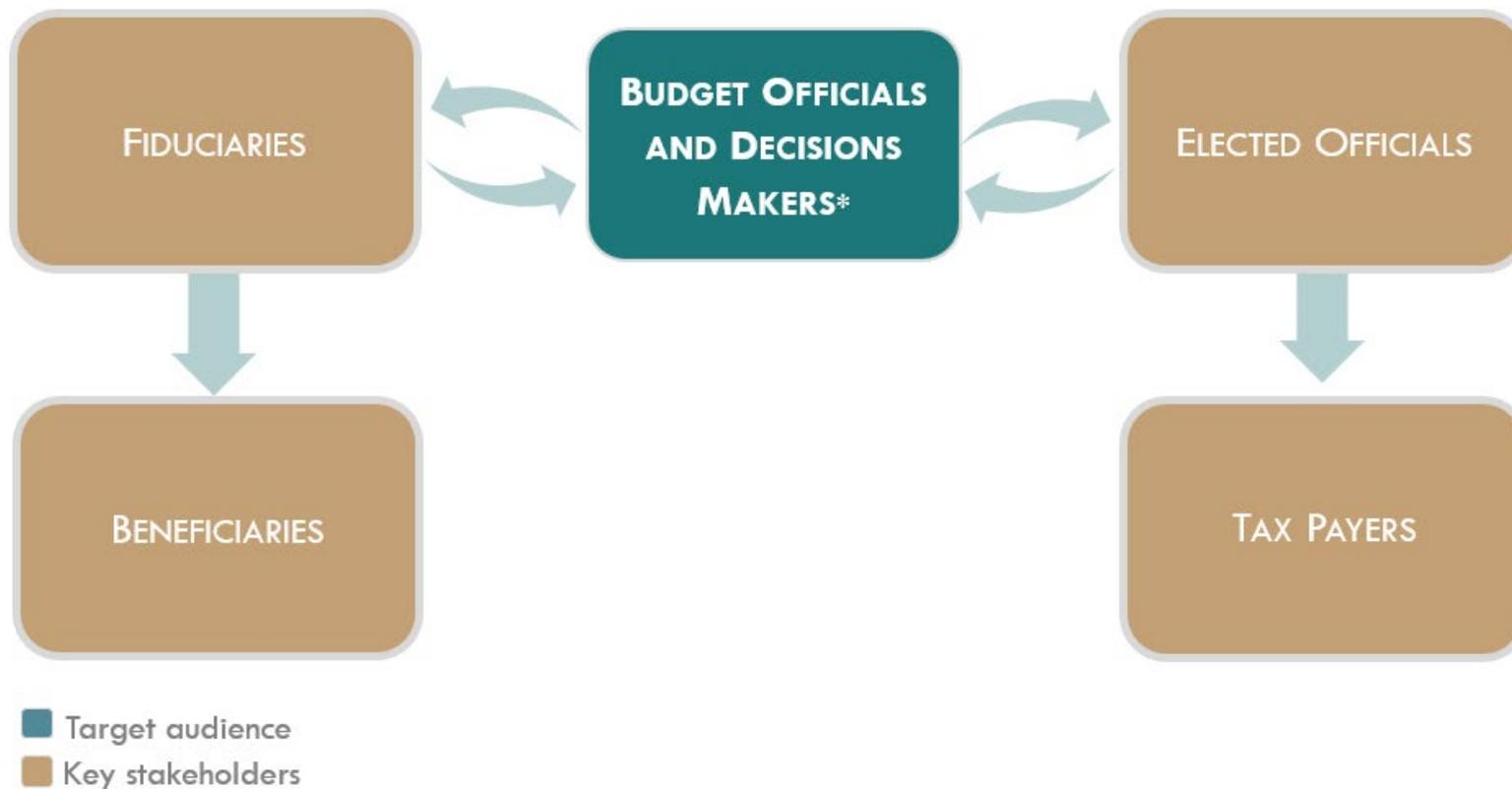
Emerging Trend: States that Have Enacted or are Considering Adopting Stress Testing Requirements



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 December 2019.

Target Audience for Pension Risk Reporting

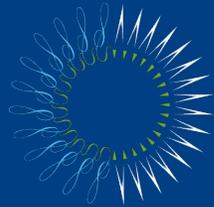
Budget Officers, State Treasurers, and other Finance Officials bridge the gap between pension plan fiduciaries and taxpayers



Notes: *Budget officials and decision makers may include executive branch appointees, state treasurers, appropriations legislators and staff, and state comptrollers

Conclusion

- Montana's pension systems track closely with national averages for benefit levels, fiscal health, and investment policies
- Goals for pension funding depend on perspective for risk and debt



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Appendix: Pew Stress Testing

Critical Risk Factors for Stress Testing

- **Investment Risk:** The potential that investment returns will be different than expected.*
- **Contribution Risk:** The potential of actual future contributions deviating from expected future contributions.**

Notes:

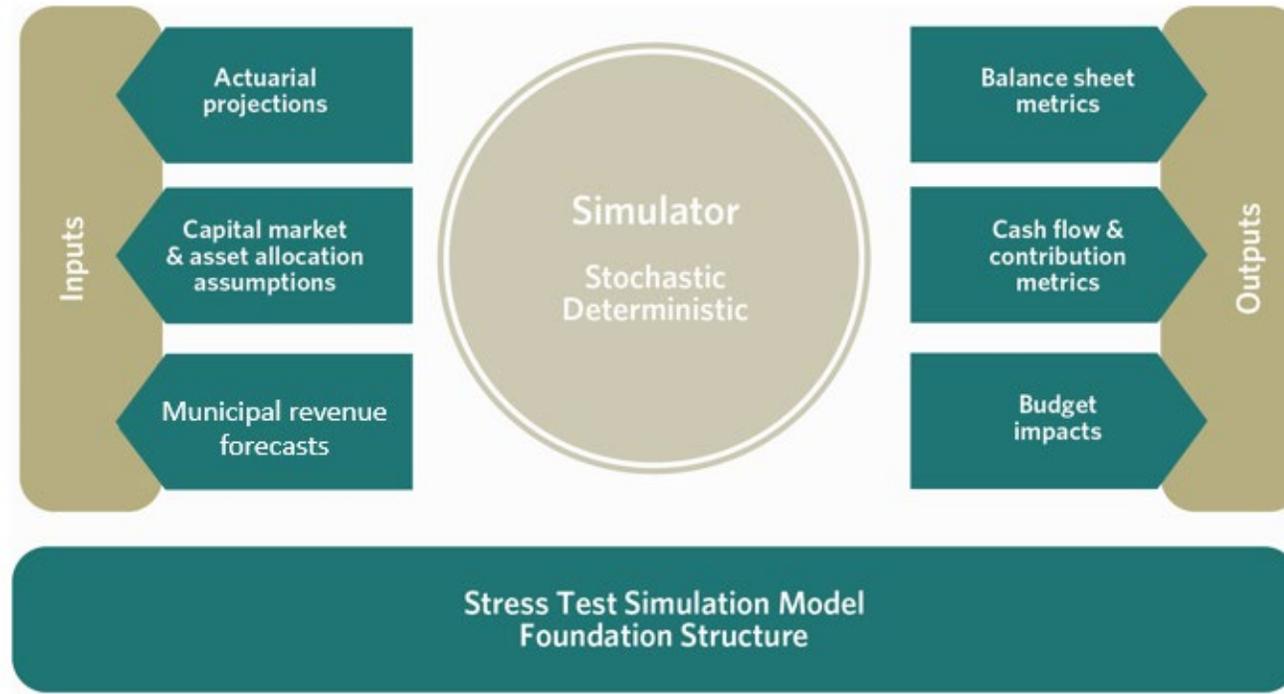
*See §3.2 *Areas of Risk to be Assessed Item a. Investment risks* in *ASOP No. 51*. Other areas of risks identified in §3.2 include: *Asset/liability mismatch risk, Interest rate risk, and, Longevity and other demographic risks.*

**As defined in §2.5 *Definitions* for the purposes of *ASOP No. 51*.



Stress Testing Simulation Model

Comprehensive model incorporates municipal revenue forecasts and measures budgetary impacts



Notes: For more information about Pew's model and methodology, see "Assessing the Risk of Fiscal Distress for Public Pensions: State Stress Test Analysis" by Greg Mennis, Susan Banta, and David Draine working paper for Harvard Kennedy School's Mossavar-Rahmani Center for Business and Government, May 2018.

Goals and Objectives for Pensions Risk Reporting

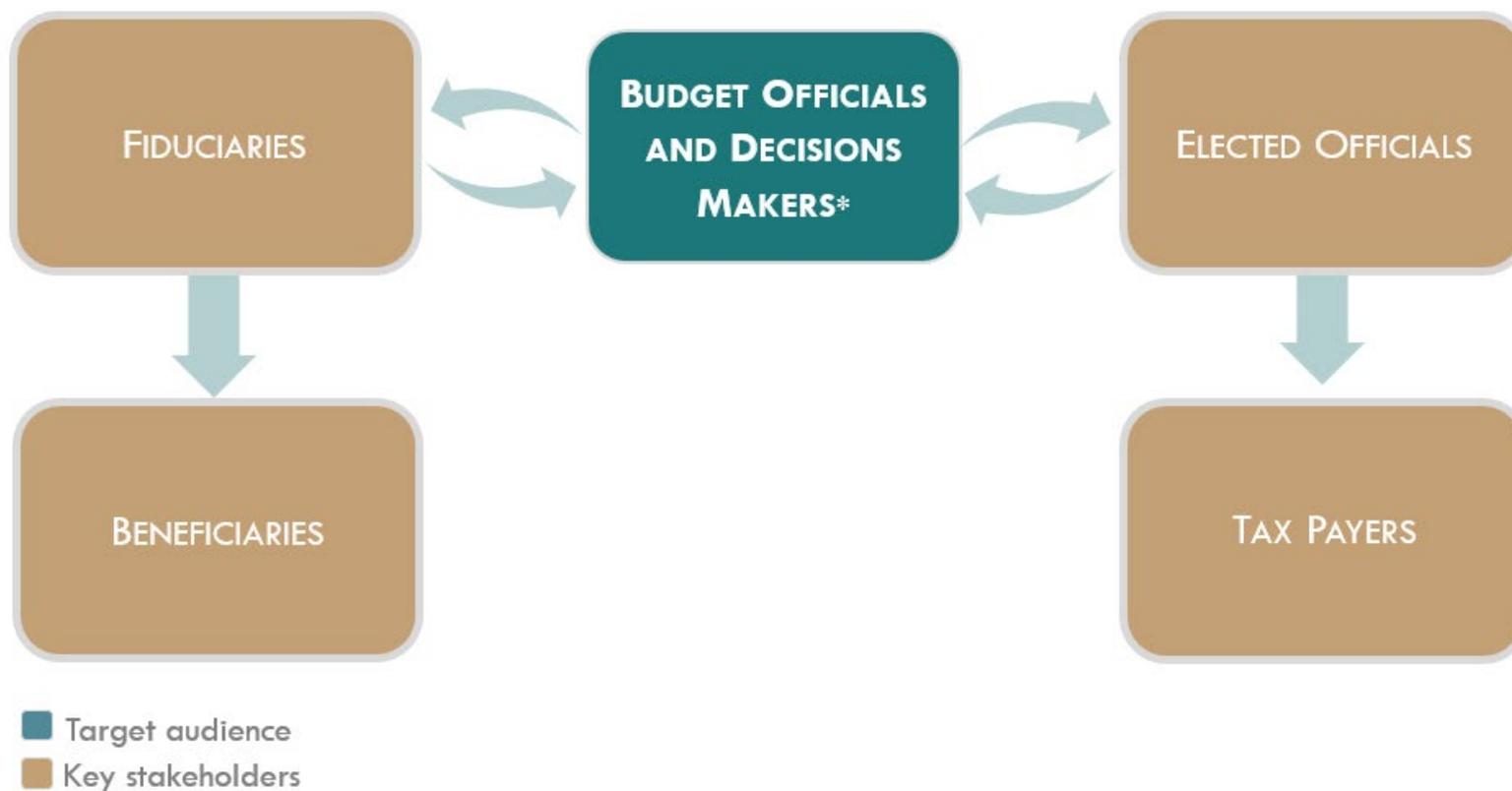
- **GOALS:** Provide budget officials, policymakers, and other stakeholders with:
 - (1) Accessible information about the risks and potential costs associated with investment assumptions and contribution behavior.
 - (2) Tools and analysis to better inform planning and decision making.

- **KEY OBJECTIVES:** Provide analysis of investment and contribution risk in a standard report to help policymakers:
 - (1) *Plan for the possibility of lower returns and higher costs over the long-term.*
 - (2) *Prepare for the next economic downturn.*
 - (3) *Manage financial market volatility throughout the business cycle.*
 - (4) *Evaluate the impact of proposed or enacted policy changes.*

Note: This framework is discussed in greater detail in *Foundation for Pension Risk Reporting*, the outcome of a 2018 conference at the Harvard Kennedy School.

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