



Pension Integrity Project at Reason Foundation

Modeling Methodology & Approach to Analysis of Public Retirement

The Pension Integrity Project (PIP) at Reason Foundation provides technical assistance to government policymakers to assess the solvency of public employee retirement systems and analyze the potential impacts of potential reforms. This assistance is grounded in years of experience developing effective, bipartisan policy solutions that address the complex needs of government employers, employees, retirees, and taxpayers. PIP's work demystifies complicated retirement policies with advanced actuarial modeling, built by a team of experts and backed by industry-leading actuarial consultants.

To advise on the immediate and long-term effects of policy decisions, PIP uses custom-built actuarial and employee benefit models that are tailored to reflect each unique retirement system. While PIP does not have access to individual participant-level data—accounting of the behavior of each individual participating member—given its proprietary nature, *that level of data is not necessary to develop highly accurate models* that allow for forecasting the factors most relevant to policymaking: general projections of liabilities, assets, and employer/employee contributions.

Highly accurate actuarial models require only the assumptions used by the pension system, which are publicly available and reported in the annual actuarial valuation and other common reports. PIP uses the system's current assumptions to develop advanced and dynamic actuarial modeling to provide valuable context on the near and long-term fiscal and financial impacts of various policy options.

PIP's team of experts frequently carries out checks and calibrations—holding findings up to official actuarial reporting—to ensure the accuracy of the models used. PIP also subjects forecasts and outputs to rigorous review by policy experts and licensed consulting actuaries.

Reason Foundation experts are particularly proficient at delivering intricate and plan-specific analyses in a way that is easy to understand and applicable to policymakers. PIP even develops interactive tools that put the wide possibilities of modeling directly in the hands of policymakers.

The Pension Integrity Project develops several different types of modeling to address the various policies that affect the overall success of a public retirement plan:

- Funding models project the liabilities of a plan as well as the short and long-term costs associated with policies.
- Employee benefit models calculate the utility of a retirement plan over time, illustrating how well a plan delivers on benefits offered to public workers at different ages and years of service.
- Return probability analyses evaluate the likeliness of specific plans achieving different market results.

Reason's actuarial modeling and analysis have contributed valuable, decision-relevant information to the policymaking process in several states that have successfully implemented bipartisan pension, including Texas, Michigan, Arizona, Colorado, New Mexico, and Florida.

PENSION INTEGRITY PROJECT CONTACTS

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Reason Foundation is a national 501(c)(3) public policy research and education organization with expertise across a range of policy areas, including public sector pensions, transportation, infrastructure, education, and criminal justice. For more information about the Pension Integrity Project at Reason Foundation, visit reason.org.

