NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM (NDPERS) PENSION SOLVENCY ANALYSIS

Prepared by:

Pension Integrity Project at Reason Foundation

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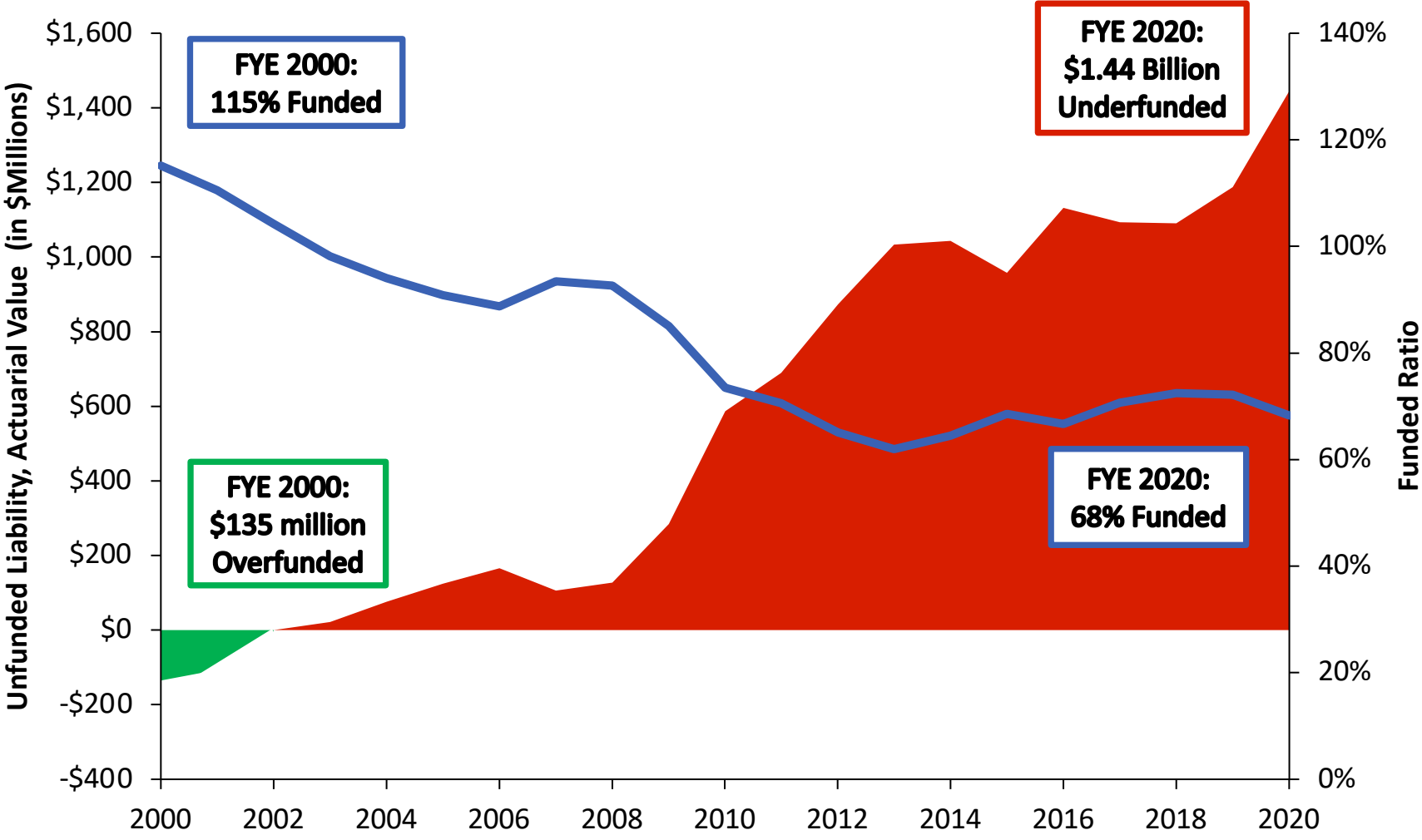# About the Pension Integrity Project

We offer pro-bono technical assistance to public officials to help them design and implement pension reforms that improve plan solvency and promote retirement security, including:

- *Customized analysis* of pension system design, trends

- *Independent actuarial modeling* of reform scenarios

- Consultation and modeling around *custom policy designs*

- Latest pension reform *research and case studies*

- *Peer-to-peer mentoring* from state and local officials who have successfully enacted pension reforms

- Assistance with *stakeholder outreach*, engagement and relationship management

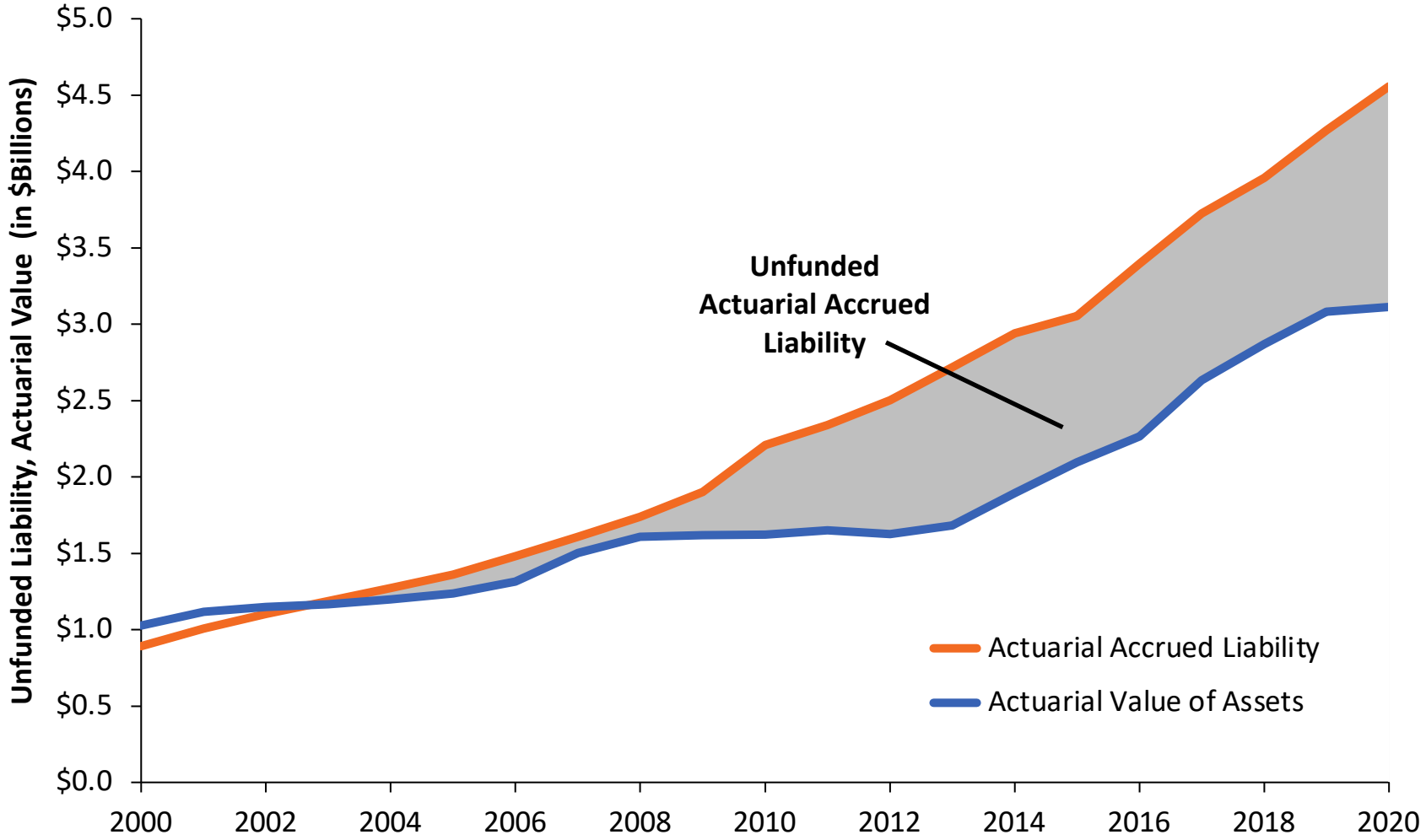- Design and execution of *public education programs* and media campaigns

A History of NDPERS Solvency (2000-2020)

FYE 2000: 115% Funded

FYE 2020: $1.44 Billion Underfunded

FYE 2000: $135 million Overfunded

FYE 2020: 68% Funded

Source: Pension Integrity Project analysis of NDPERS actuarial valuation reports and CAFRs.
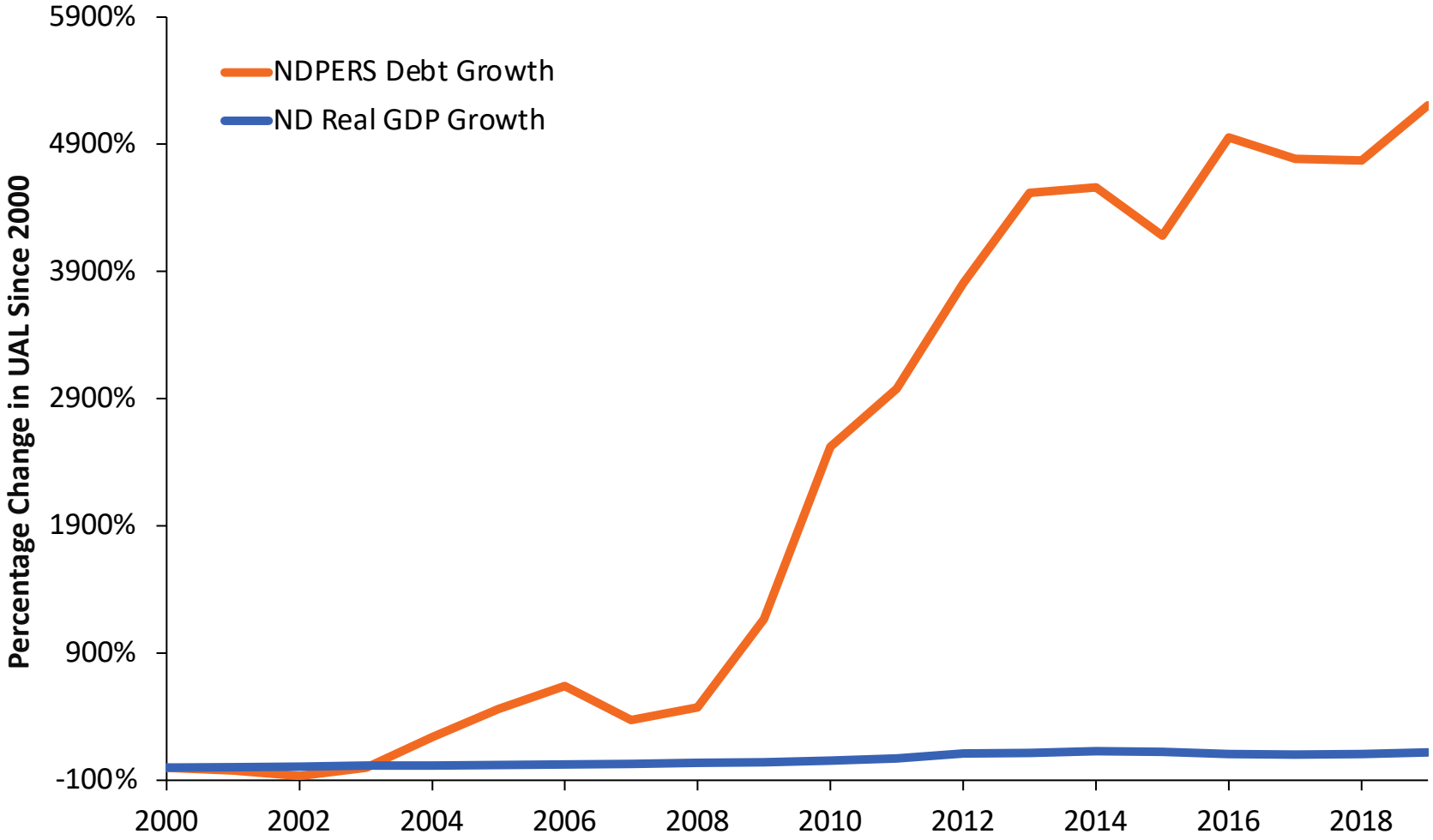
NDPERS Liabilities are Growing Faster than Assets

Source: Pension Integrity Project analysis of NDPERS actuarial valuation reports through FY2020.

NDPERS Unfunded Liabilities are Growing Faster than the North Dakota Economy

Source: Pension Integrity Project Analysis of NDPERS valuation reports and CAFRs, Federal Reserve of St. Louis Data for the North Dakota gross domestic product.

Makeup of NDPERS Contributions

	FY2020 Contributions	
	% of Payroll	**$ Value**
Total Employee	**7.0%**	**$81,838,631**
Employer (Normal Cost)	4.33%	$50,653,617
Employer (Debt Amortization)	2.83%	$33,055,611
Total Employer	**7.16%**	**$83,709,228**
Total Contributions	**14.12%**	**$165,547,859**

Employer contributions are fixed at 7.16%, resulting in an infinite amortization period and a contribution deficit of over $67 million in FY2020.
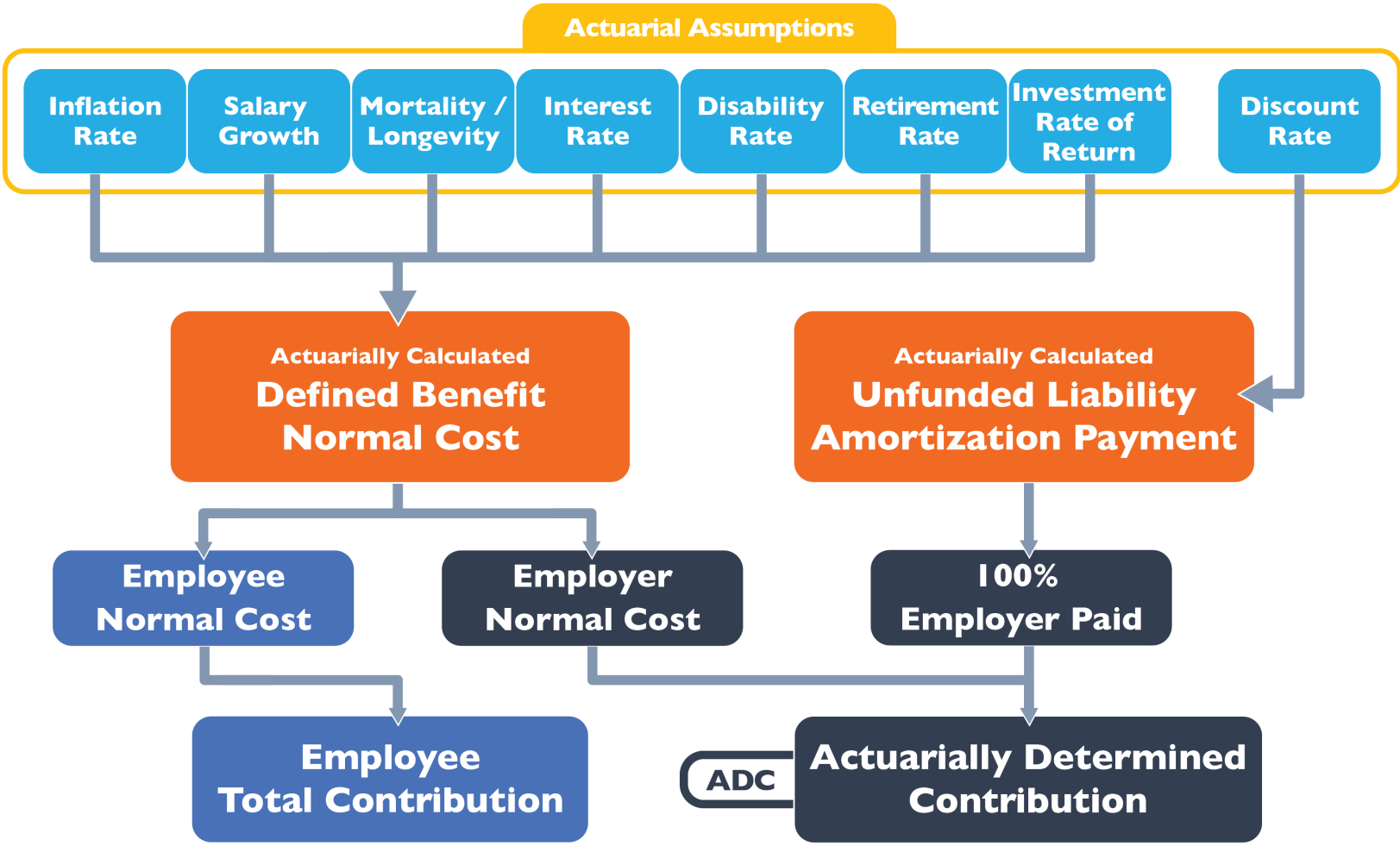
Source: Pension Integrity Project analysis of NDPERS actuarial valuation reports. Employer contribution deficit equals $67,571,124, or 5.78% of payroll.

CHALLENGES FACING NDPERS

How a Pension Plan is Funded

CHALLENGE 1: INSUFFICIENT CONTRIBUTIONS & DEBT MANAGEMENT POLICIES

- For 17 of the past 20 years, employer contributions have fallen short of even the interest accrued on the pension debt, resulting in a need for much higher contributions today.

- Contributions into NDPERS have failed to meet the actuarially determined contribution rate since 2003.
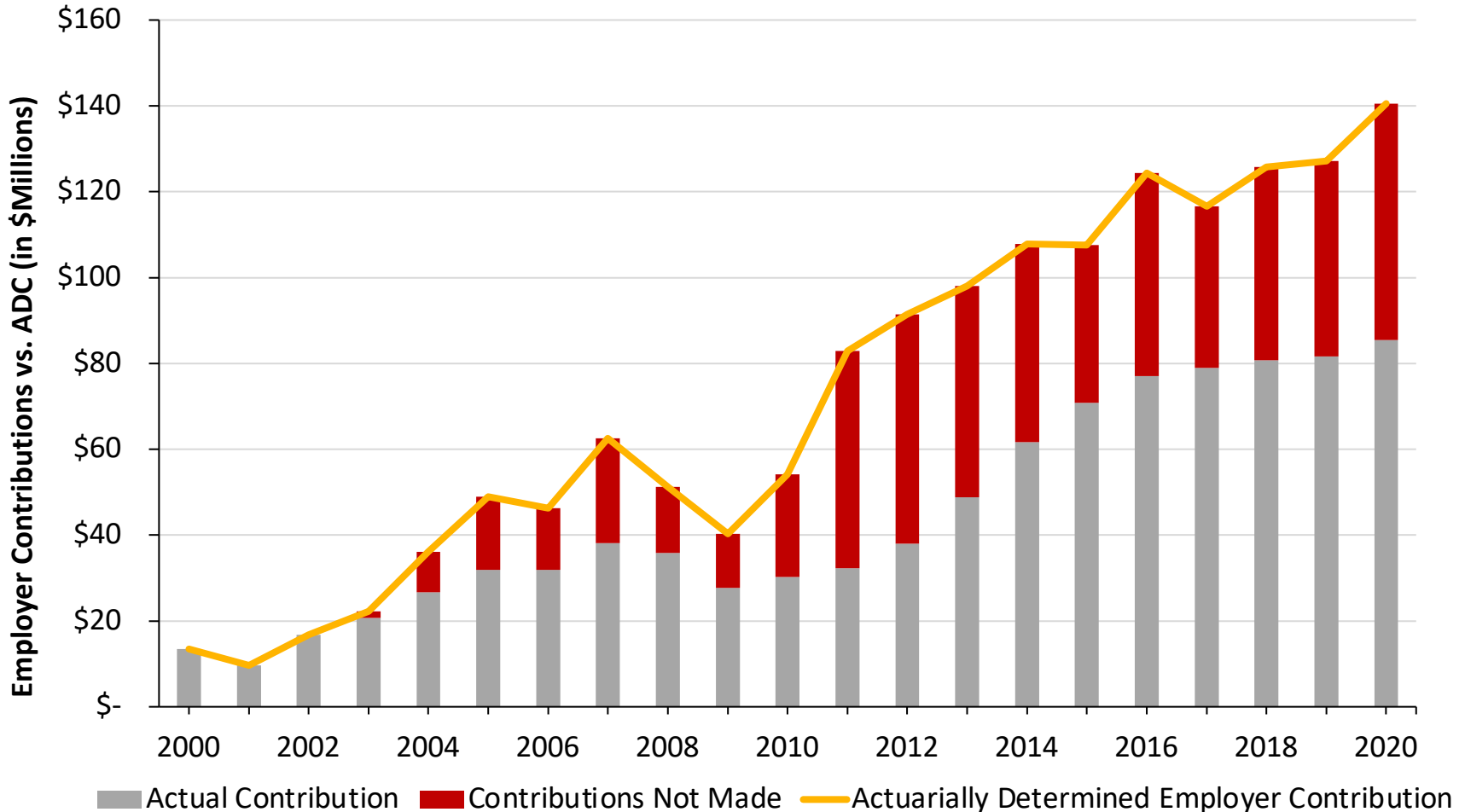
State Statutes Have Created a Structural Underfunding Challenge for NDPERS

1. Between 2003-2020, employer contributions into NDPERS were <u>consistently less than</u> the actuarially determined employer contribution (ADEC) rate, leading to an increase in unfunded liabilities.

2. Since 2003 the state has not paid over $585 million in actuarially determined employer contributions to NDPERS due to rates being set in statute.
   - The best practice is to have annual contribution rates actuarially determined based on a targeted funding policy.

3. 2020: Employer ADEC v. Statute
   - *Statutory Employer Contribution*: 7.16% of payroll
   - *Actuarially Determined Employer Contribution*: 12.94% of payroll

Actuarially Determined Employer Contribution History, 2000-2020
Actual v. Required Contributions

Source: Pension Integrity Project analysis of NDPERS actuarial valuation reports 2000-2020 and CAFRs.

State Statutes Have Created a Structural Underfunding Challenge for NDPERS (cont'd)

4. Plan actuary Gabriel, Roeder, Smith & Company (GRS) is sounding the alarm on insufficient contributions.

5. GRS notes the following in the 2020 Valuation Report:

"Based on the current actuarial valuation and the current actuarial assumptions and methods and benefit provisions for current employees, the total statutory contribution rate is not expected to ever amortize the unfunded liability."

"We recommend an increase to the Main System total statutory contribution rate such that the funded ratio is projected to reach 100 percent within 30 years."

Source: Pension Integrity Project analysis of NDPERS actuarial valuation reports and CAFRs

Negative Amortization:
Understanding the Current Funding Policy

- With the NDPERS contribution rate being fixed in statute, reported amortization periods have indicated that the state is on a path of perpetual underfunding.

> **NDPERS Amortization Period History**:
>
> - 2020: Infinite-year amortization period
> - 2017: Infinite-year amortization period
> - 2014: Infinite-year amortization period
> - 2013: Infinite-year amortization period

- Plan amortization payments are not sufficient to pay down the unfunded liability and subsequent interest it accrues (i.e. *negative amortization).*
  - The unfunded liability contribution rate is calculated using a 20-year open period, level percentage of payroll amortization method. The remaining amortization period will be reset to 20 years in each future actuarial valuation. This method essentially ensures NDPERS debt is never paid off.

Source: Pension Integrity Project analysis of NDPERS actuarial valuation reports and CAFRs

Debt Management Policies
# Back-Loaded Pension Debt Payments

> NDPERS uses 20-year open, level-percentage amortization method to amortize accrued unfunded liability.

- **What is level percent of payroll amortization?**

  - Sets the amortization payment as a fixed share of total member payroll

  - Very sensitive to missed assumptions

  - Often results in **back-loaded pension debt payments**, especially if payroll growth deviates from assumption, which is common

- **What does an open amortization period mean?**

  - When NDPERS make debt payments, the plan spreads debt payments over a 20-year amortization period, but because the amortization method used is "open," that means **the amortization period is reset annually**, akin to refinancing a mortgage each and every year on a 20-year basis.

  - In practical terms, by perpetually refinancing pension debt, **an open amortization schedule will never allow the state to fully pay down its unfunded liabilities**, ensuring higher than necessary long-term costs to pay NDPERS' accrued benefits.

Debt Management Policies
Interest Added to Unfunded Liability
NDPERS Negative Amortization Growth, 2003-2020
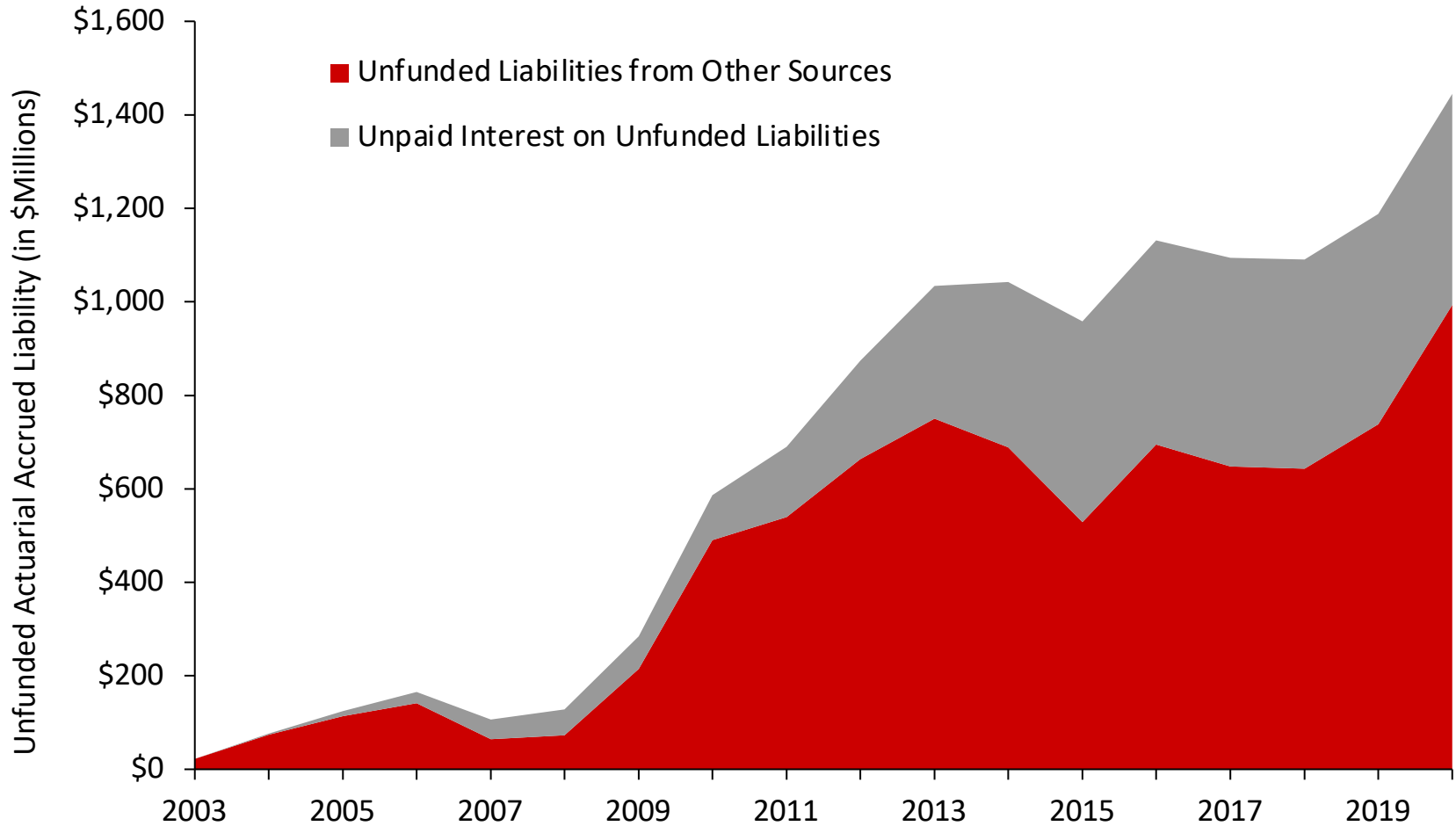
Source: Pension Integrity Project analysis of NDPERS actuarial valuation reports and CAFRs
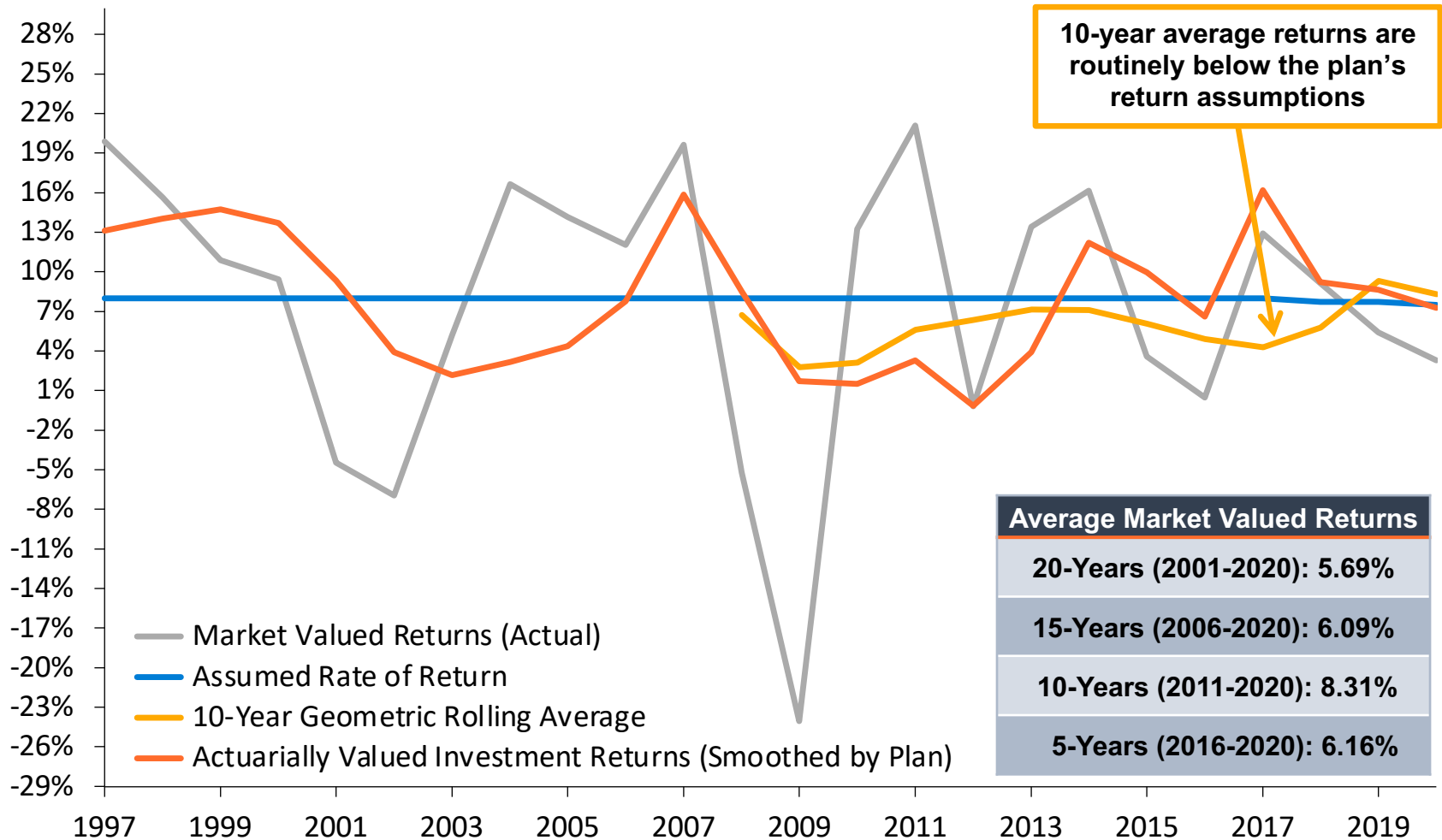
CHALLENGE 2:
ASSUMED RATE OF RETURN

- **Unrealistic Expectations:** The NDPERS *Assumed Return* has been and continues to expose taxpayers to significant investment underperformance risk.

- **Underpricing Contributions:** Using an overly optimistic investment return assumption leads to underpricing benefits and an undercalculated actuarially determined contribution rate.

NDPERS Challenge 2: Investment Returns
Investment Returns History, 1997-2020

10-year average returns are routinely below the plan's return assumptions

Average Market Valued Returns

20-Years (2001-2020): 5.69%

15-Years (2006-2020): 6.09%

10-Years (2011-2020): 8.31%

5-Years (2016-2020): 6.16%

Legend:
- Market Valued Returns (Actual)
- Assumed Rate of Return
- 10-Year Geometric Rolling Average
- Actuarially Valued Investment Returns (Smoothed by Plan)

Source: Pension Integrity Project analysis of NDPERS actuarial valuation reports and CAFRs.
The Assumed Rate of Return was 8% 1997-2017, 7.75% in 2017-18, 7.5% in 2018-19 and 7.0 in 2020.

NDPERS Challenge 2: Investment Returns

Investment Returns Have Underperformed

- NDPERS actuaries have historically used an 8% assumed rate of return to calculate member and employer contributions, slowly lowering the rate to 7.0% over the past two decades in response to significant market changes.

- NDPERS expanded its low transparency, high-risk alternative asset holdings in a search for greater investment returns (greater yields)

- Average long-term portfolio returns have not matched long-term assumptions over different periods of time:
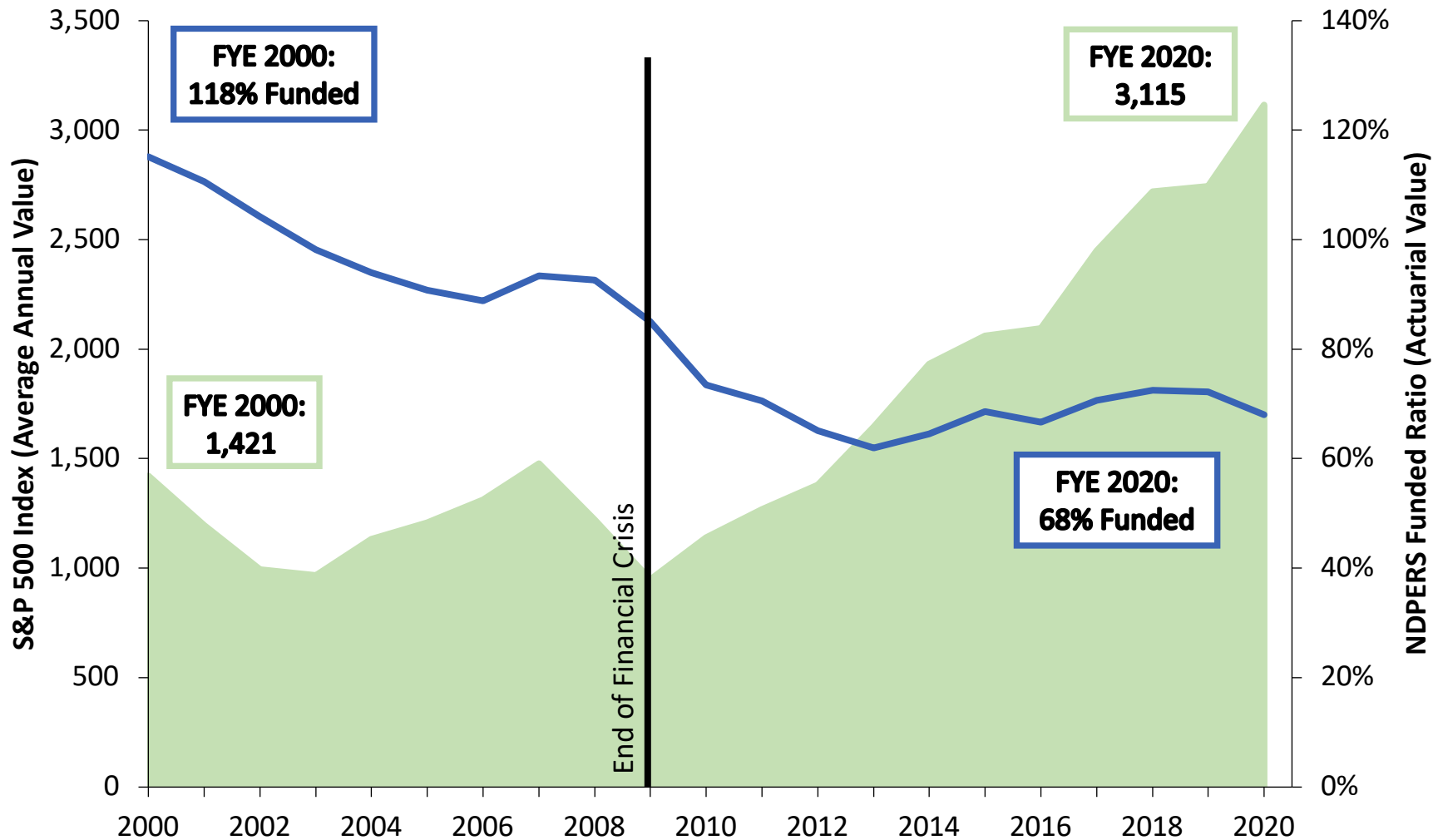
Average Market Valued Returns	Average Actuarially Valued Returns
20-Years (2001-2020): 3.69%	20-Years (2000-2019): 6.00%
15-Years (2006-2020): 6.09%	15-Years (2005-2019): 7.40%
10-Years (2011-2020): 8.31%	10-Years (2010-2019): 7.03%
5-Years (2016-2020): 6.16%	5-Years (2015-2019): 9.53%

Note: Past performance is not the best measure of future performance, but it does help provide some context to the problem created by having an excessively high assumed rate of return.

Source: Pension Integrity Project analysis of NDPERS actuarial valuation reports.
Average market valued returns represent geometric means of the actual time-weighted returns.

New Normal: Markets Have Recovered Since the Crisis—NDPERS Funded Ratio Has Not

FYE 2000: 118% Funded

FYE 2000: 1,421

FYE 2020: 3,115

FYE 2020: 68% Funded

End of Financial Crisis

Source: Pension Integrity Project analysis of NDPERS actuarial valuation reports and Yahoo Finance data.

New Normal: The Market Has Changed

The "new normal" for institutional investing suggests that achieving even a 6% average rate of return in the future is optimistic.

1. Over the past two decades there has been a steady change in the nature of institutional investment returns.

   - 30-year Treasury yields have fallen from near 8% in the 1990s to consistently less than 3%.
   - New phenomenon: negative interest rates, designates a collapse in global bond yields.
   - The U.S. just experienced the longest economic recovery in history, yet average growth rates in GDP and inflation are below expectations.

2. McKinsey & Co. forecast the returns on equities will be 20% to 50% lower over the next two decades compared to the previous three decades.

   - Using their forecasts, the best-case scenario for a 70/30 portfolio of equities and bonds is likely to earn around 5% return.
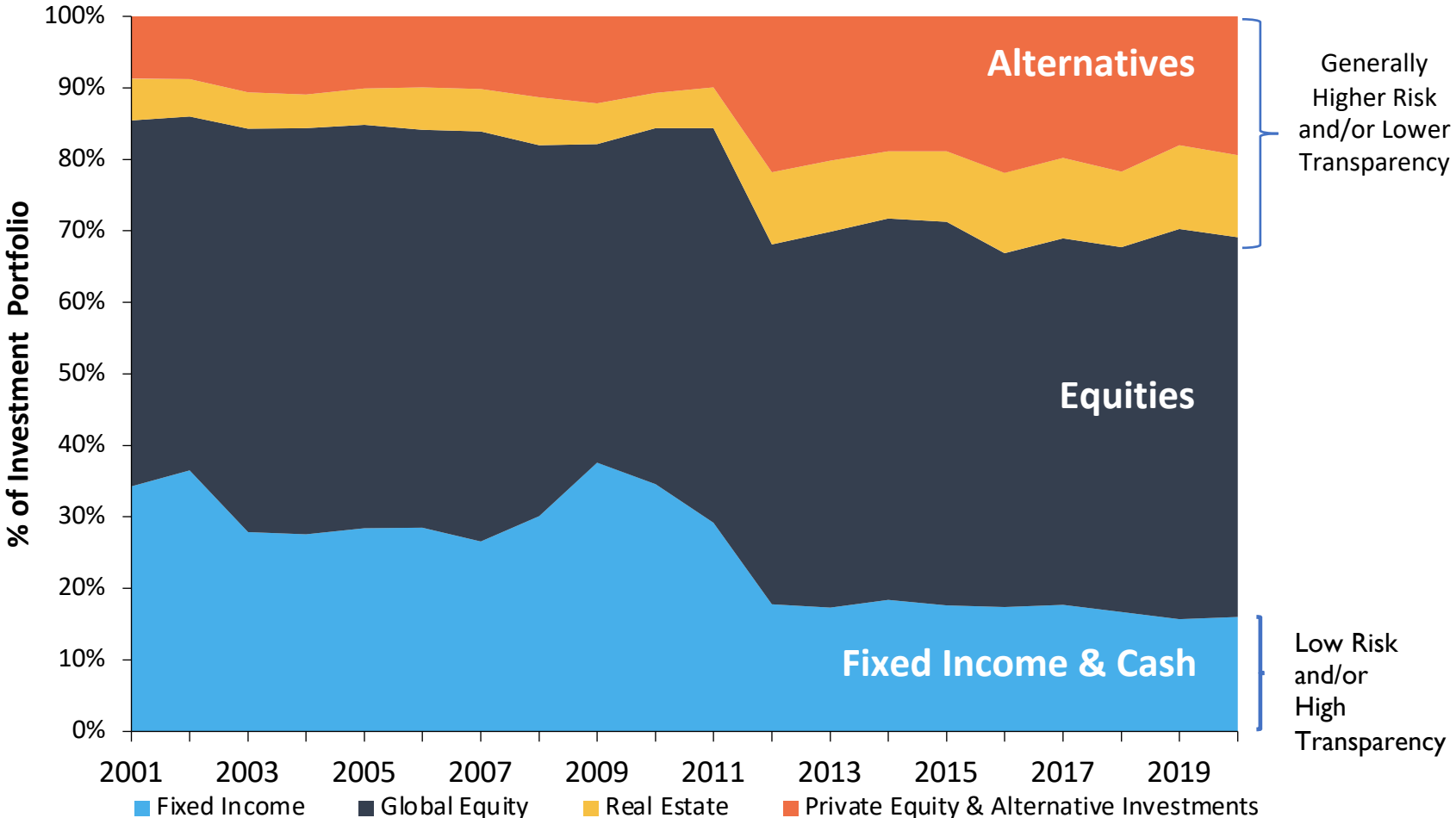
Source: Pension Integrity Project analysis of NDPERS actuarial valuation reports and CAFRS.

Probability Analysis: Measuring the Likelihood of NDPERS Achieving Various Rates of Return

Possible Rates of Return	Plan Assumptions & Experience		Short-to-Mid Term Market Forecast				Long-Term Market Forecast	
	Based on NDPERS Assumptions	NDPERS Historical Returns	Horizon Market 10-yr Market Forecasts	JP Morgan 10-15 yr Forecast	BNY Mellon 10-yr Market Forecasts	Research Affi. 10-yr Market Forecasts	Horizon 20-yr Market Forecasts	BlackRock 20-yr Market Forecasts
8.50%	33.6%	16.5%	24.6%	17.9%	18.4%	9.0%	37.4%	33.8%
8.00%	40.8%	22.0%	30.6%	23.3%	24.4%	12.7%	44.3%	40.8%
7.50%	48.1%	28.0%	37.3%	30.1%	31.1%	17.6%	51.5%	47.6%
7.00%	55.1%	34.7%	44.6%	37.4%	39.2%	23.3%	58.4%	55.3%
6.50%	62.2%	42.9%	51.7%	45.2%	47.3%	30.1%	65.6%	62.4%
6.00%	69.1%	51.1%	58.6%	53.2%	56.2%	37.0%	72.2%	68.7%
5.50%	75.3%	58.9%	65.8%	60.9%	64.7%	45.4%	77.9%	75.2%

Probability of NDPERS Pension Plan Achieving A Given Return Based On:

Source: Pension Integrity Project Monte Carlo model based on NDPERS 2019 asset allocation and reported expected returns by asset class.
Forecasts of returns by asset class generally by BNYM, JPMC, BlackRock, Research Affiliates, and Horizon Actuarial Services were matched to the specific asset class of NDPERS. Probability estimates are approximate as they are based on the aggregated return by asset class. For complete methodology contact Reason Foundation.

Probability Analysis: Measuring the Likelihood of NDPERS Achieving Various Rates of Return

NDPERS Assumptions & Experience

- A probability analysis of NDPERS historical returns over the past 20 years (2000-2019) indicates a very modest chance (35%) of hitting the plan's 7.0% assumed return.
- NDPERS' own investment return forecasts only imply a 55% chance of achieving their investment return target over the next 20 years.

Short-Term Market Forecast

- Returns over the short to medium term can have significant negative effects on funding outcomes for mature pension plans with large negative cash flows like NDPERS.
- Analysis of capital market assumptions publicly reported by the leading financial firms (BlackRock, BNY Mellon, JPMorgan, and Research Affiliates) suggests that over a 10-15 year period, NDPERS returns are likely to fall short of assumptions.

Long-Term Market Forecast

- Longer-term projections typically assume NDPERS investment returns will revert back to historical averages.
  - ✓ The "reversion to mean" assumption should be viewed with caution given historical changes in interest rates and a variety of other market conditions that increase uncertainty over longer projection periods, relative to shorter ones.
- Forecasts showing long-term returns near 7.0% being likely also show a significant chance that the actual long-term average return will fall far shorter than expected.
  - ✓ For example, according to the BlackRock's 20-year forecast, while the probability of achieving an average return of 7.0% or higher is about 55%, the probability of earning a rate of return below 5.5% is about 25%.

RISK ASSESSMENT

- How resilient is NDPERS to volatile market factors?

Important Funding Concepts

Employer Contribution Rates

- *Statutory Contributions*: Annual payments usually based on a rates set in North Dakota state statute, meaning contributions remain static until changed by legislation.
- *Actuarially Determined Employer Contribution (ADEC)*: is the annual required amount NDPERS's consulting actuary has determined is needed to be contributed each year to avoid growth in pension debt and keep NDPERS solvent.

All-in Employer Cost

- The true cost of a pension is not only in the annual contributions, but also in whatever unfunded liabilities remain. The "All-in Employer Cost" combines the total amount paid in employer contributions and adds what unfunded liabilities remain at the end of the forecasting window.

Baseline Rates

- The baseline describes NDPERS' current assumptions using the plan's existing contribution and funding policy and shows the status quo before the 2020 market shock.

Employer & Employee Rates

- The scenarios in this analysis assume that employer contribution rates . State is assumed to make 100% actuarially required contributions in non-baseline scenarios.

Quick Note:

With actuarial experiences of public pension plans varying from one year to the next, and potential rounding and methodological differences between actuaries, projected values shown onwards are not meant for budget planning purposes. **For trend and policy discussions only.**

Stress Testing Using Crisis Simulations

Stress on the Economy:

- Market watchers expect dwindling consumption and incomes to severely impact near-term tax collections – applying more pressure on state and local budgets.
- Revenue declines are likely to undermine employers' ability to make full pension contributions, especially for those relying on more volatile tax sources (e.g., sales taxes) and those with low rainy-day fund balances.
- Many experts expect continued market volatility, and the Federal Reserve is expected to keep interest rates near 0% for years and only increase rates in response to longer-term inflation trends.

Methodology:

- Adapting the Dodd-Frank stress testing methodology for banks and Moody's Investors Service recession preparedness analysis, the following scenarios assume one year of -24.6% returns in 2020, followed by three years of 11% average returns.
- Recognizing expert consensus regarding a diminishing capital market outlook, the scenarios assume a long-term investment return on 6% once markets rebound.
- Given the increased exposure to volatile global markets and rising frequency of Black Swan economic events, we include a scenario incorporating a second Black Swan crisis event in 2035.
- In the event plan sponsors are unable to appropriate their full actuarially determined or statutory contributions amid budget stress, additional scenarios show the impact of a five-year employer contribution freeze.
- ADEC = 20-year closed amortization for current and new debt.
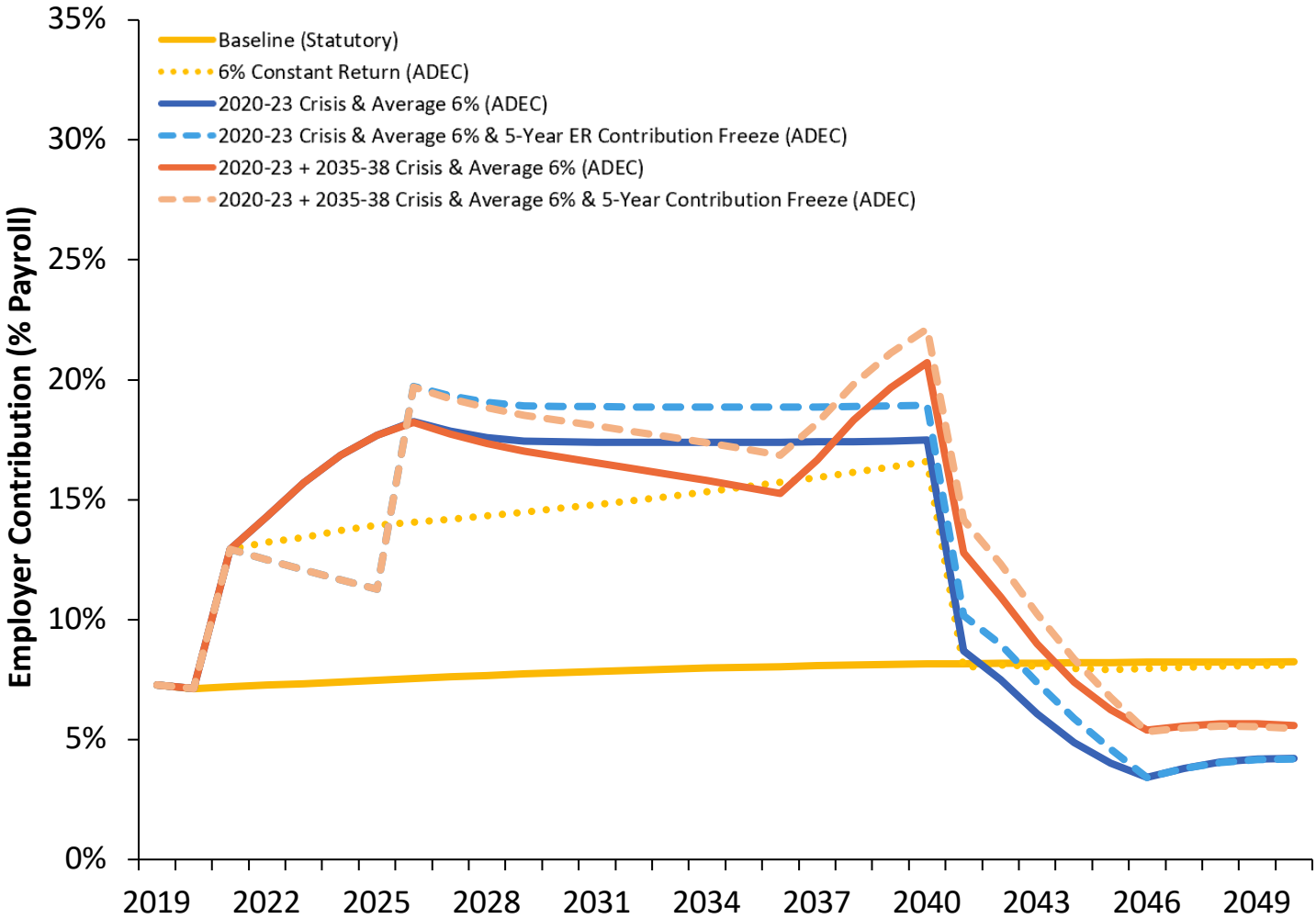
Stress Testing Scenarios:

1. Baseline (current statutory rate & consistent 7% return)
2. 6% Constant Annual Return
3. 2020-23 Crisis + Average 6.0% Long-Term
4. 2020-23 Crisis + 2035-38 Crisis + Average 6.0% Long-Term
5. Scenario 2 + 5-Year Employer Contribution Freeze
6. Scenario 3 + 5-Year Employer Contribution Freeze

NDPERS Stress Testing: All-in Employer Cost Projections
How a Crisis Increases NDPERS Costs
Discount Rate: 7.0%, Assumed Return: 7.0%, Actual Return: Varying, Amo. Period: Current

Legend:
- Baseline (Statutory)
- 6% Constant Return (ADEC)
- 2020-23 Crisis & Average 6% (ADEC)
- 2020-23 Crisis & Average 6% & 5-Year ER Contribution Freeze (ADEC)
- 2020-23 + 2035-38 Crisis & Average 6% (ADEC)
- 2020-23 + 2035-38 Crisis & Average 6% & 5-Year Contribution Freeze (ADEC)

Y-axis: Employer Contribution (% Payroll), 0% to 35%
X-axis: 2019 to 2049

| Scenarios	Total All-in Employer Cost (2020-50)
Pre-Crisis Baseline (Statutory)	$5.8 B
6% Constant Return	$5.7 B
2020-23 Crisis + Average 6%	$5.2 B
Two Crises + Average 6%	$5.3 B
2020-23 Crisis + Average 6% + 5-Year Cont. Freeze	$5.3 B
Two Crises + Average 6% + 5-Year Cont. Freeze	$5.4 B

Source: Pension Integrity Project actuarial forecast of NDPERS. Values are rounded and adjusted for inflation. State is assumed to make *actuarial* contributions. The "All-in Cost" includes all employer contributions over the 30-year timeframe, and the ending unfunded liability accrued by the end of the forecast period.

NDPERS Stress Testing: Unfunded Liability Projections

Unfunded Liabilities Under Crisis Scenarios

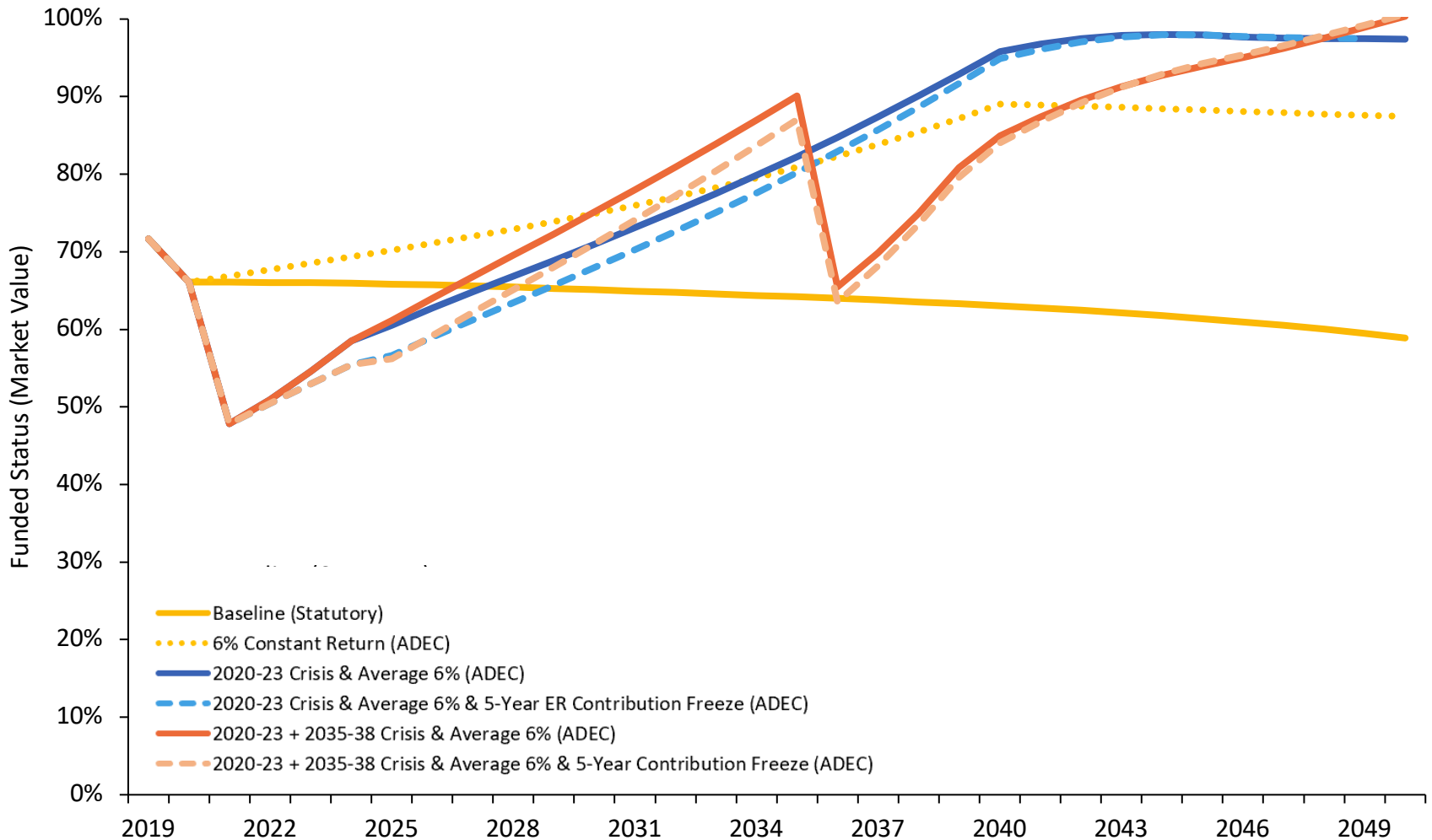Discount Rate: 7.0%, Assumed Return: 7.0%, Actual Return: Varying, Amo. Period: Current
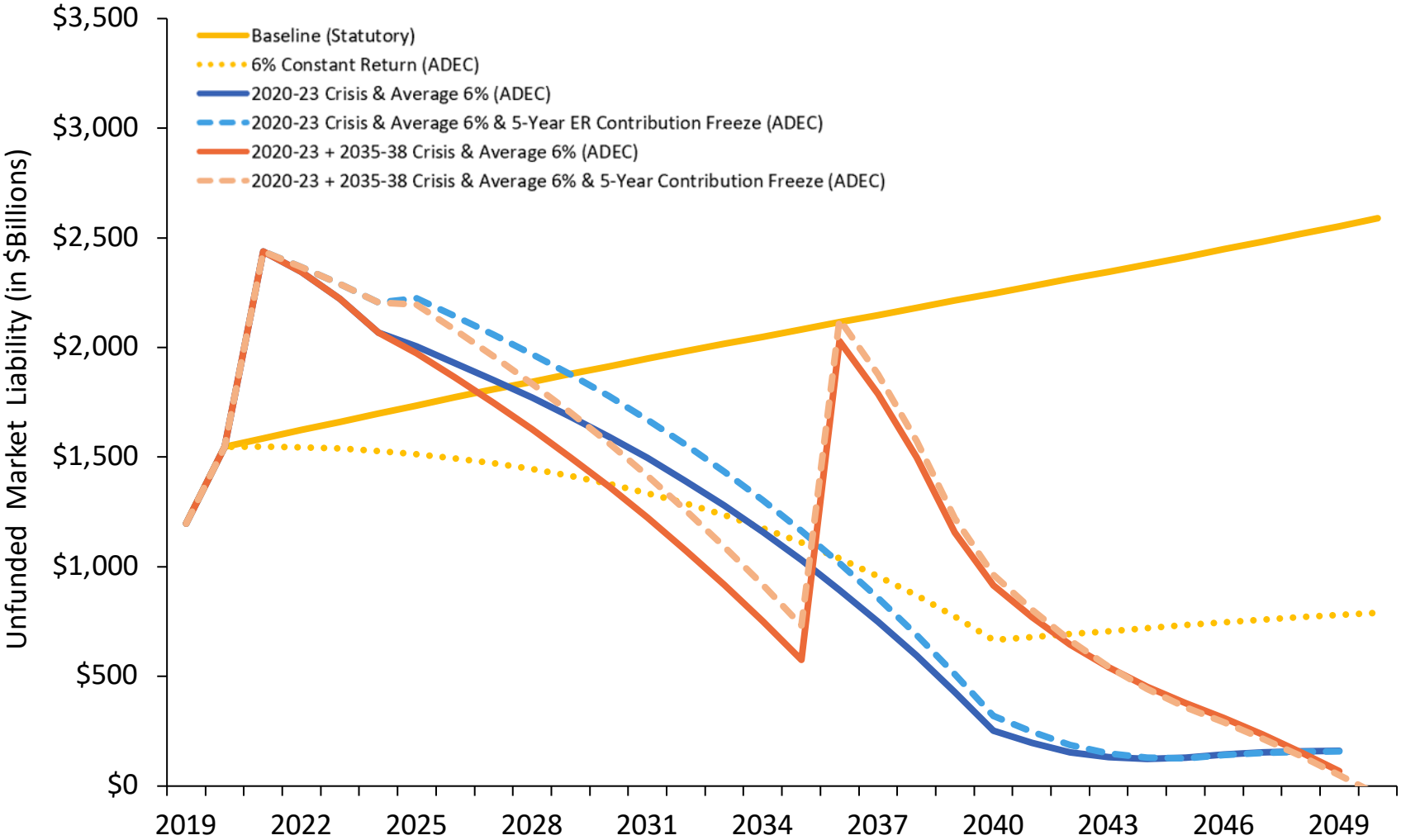
Source: Pension Integrity Project actuarial forecast of NDPERS. Values are rounded. State is assumed to make 100% *actuarially* required contributions. The "All-in Cost" includes all employer contributions over the 30-year timeframe, and the ending unfunded liability accrued by the end of the forecast period.

NDPERS Stress Testing: Funded Ratio Projections

Funded Ratio Under Crisis Scenarios

Discount Rate: 7.0%, Assumed Return: 7.0%, Actual Return: Varying, Amo. Period: Current

Source: Pension Integrity Project actuarial forecast of NDPERS Values are rounded and adjusted for inflation. State is assumed to make *actuarial* contributions. The "All-in Cost" includes all employer contributions over the 30-year timeframe, and the ending unfunded liability accrued by the end of the forecast period.

Scenario Comparison of Employer Costs

Scenarios	Current Statutory Contributions			Actuarially Determined Employer Contribution		
	30-Year Employer Contributions	2050 Unfunded Liability (Market Value)	Total All-in Employer Costs	30-Year Employer Contributions	2050 Unfunded Liability (Market Value)	Total All-in Employer Costs
Baseline	$3.2 B	$2.6 B	$5.8 B	$3.8 B	$0	$3.8 B
6% Constant Annual Return	$3.2 B	$4.4 B	$7.6 B	$4.9 B	$789 M	$5.7 B
2020-23 Crisis + Average 6%	$3.2 B	$5.3 B	$8.5 B	$5.0 B	$164 M	$5.2 B
Two Crises + Average 6%	$3.2 B	$5.4 B	$8.6 B	$5.3 B	($22 M)	$5.3 B
2020-23 Crisis + Average 6% + 5-Year Cont. Freeze	$3.2 B	$5.4 B	$8.6 B	$5.2 B	$162 M	$5.3 B
Two Crises + Average 6% + 5-Year Cont. Freeze	$3.2 B	$5.5 B	$8.7 B	$5.5 B	($39 M)	$5.4 B

Source: Pension Integrity Project actuarial forecast of NDPERS. All values are rounded and adjusted for inflation. State is assumed to make 100% of actuarially required contributions. The "All-in Cost" includes all employer contributions over the 30-year timeframe, and the ending unfunded liability accrued by the end of the forecast period.

30-year Employer Contribution Forecast
Timing of Returns Will Affect the Funding Outcome
Long-Term Average Returns of 7.0%
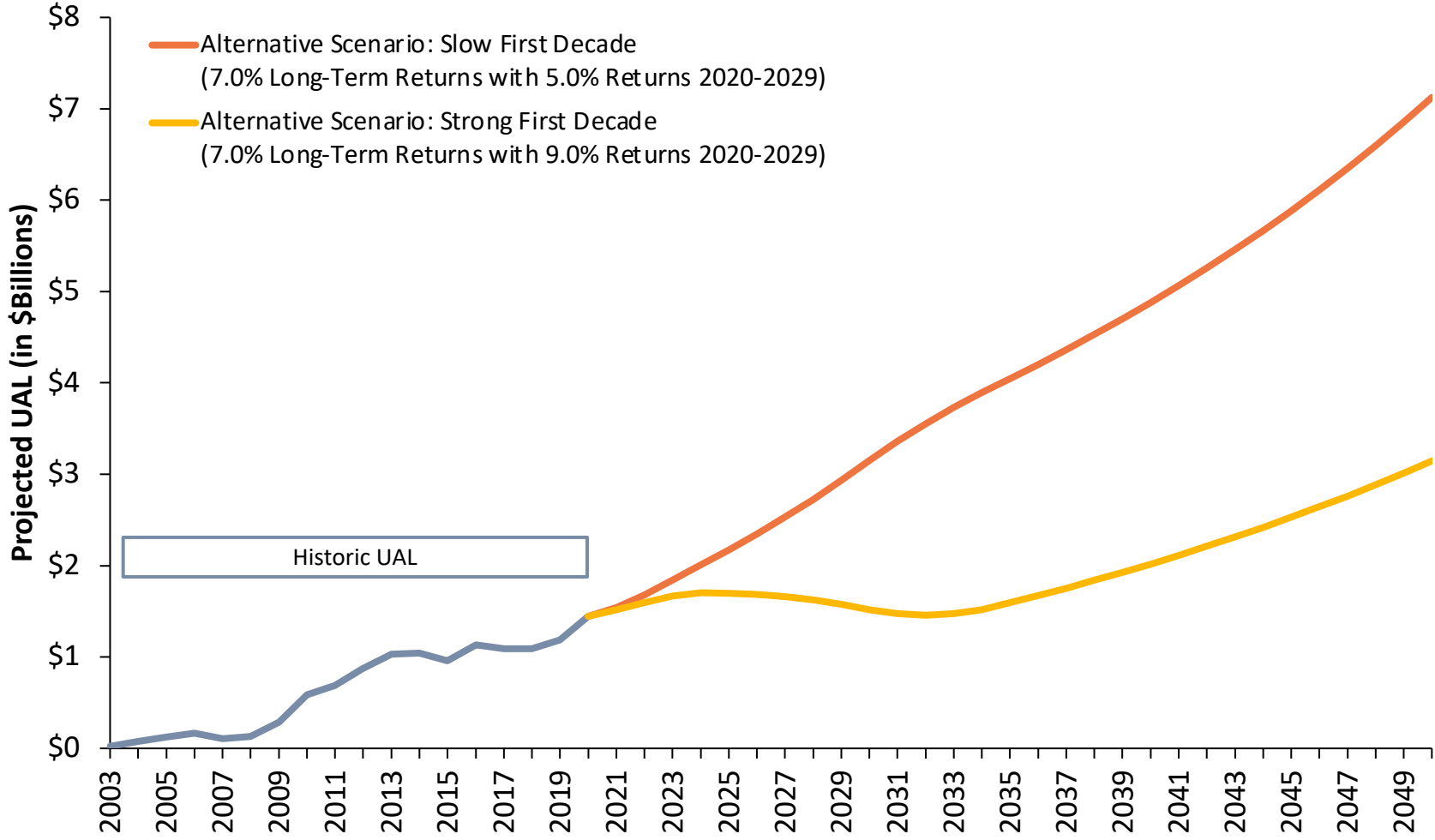
Source: Pension Integrity Project actuarial forecast of NDPERS. Scenarios assume NDPERS receives statutory-based contributions.

Forecasting the Impact of Market Volatility

Random Variable Analysis

What is it?	**Why use it?**

- Model generates 10,000 different random investment return scenarios, creating ranges in required contributions and funding outcomes
- This analysis displays 50 percent of all outcomes that are closest to the median outcome
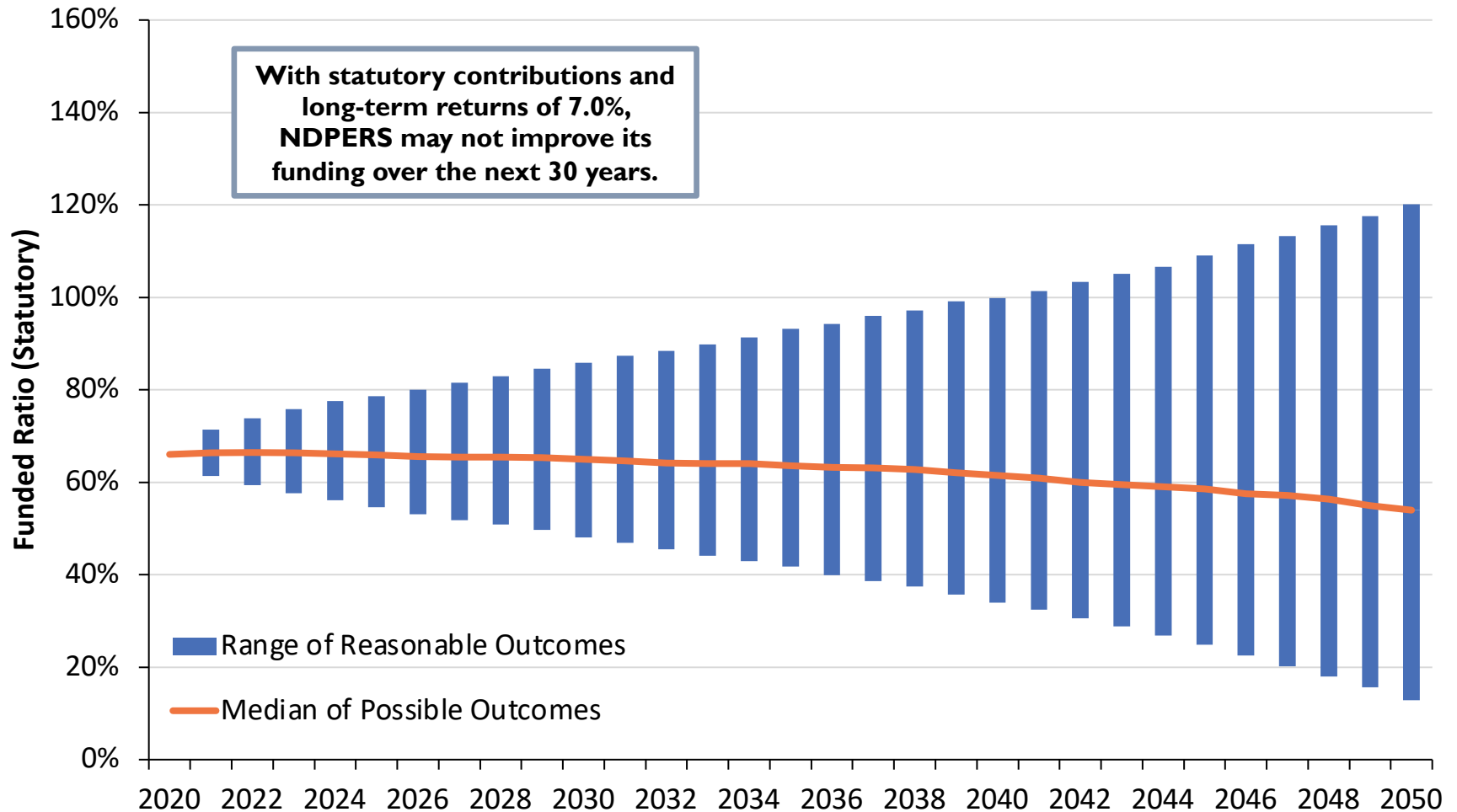
- Using a large sample of potential 30-year return scenarios can show the differences in how plan's funding will react to high or low investment fluctuations.
- The cone of displayed outcomes and the median illustrates the level of risk placed on the plan
- A narrow cone suggests a plan is more resilient—and has less investment risk—than that of a wider cone

30-year Funded Ratio Forecast
Probability of Reaching Full Funding: Current Statutory Rate
Long-term Average Returns of 7.0%

> **With statutory contributions and long-term returns of 7.0%, NDPERS may not improve its funding over the next 30 years.**

Funded Ratio (Statutory)

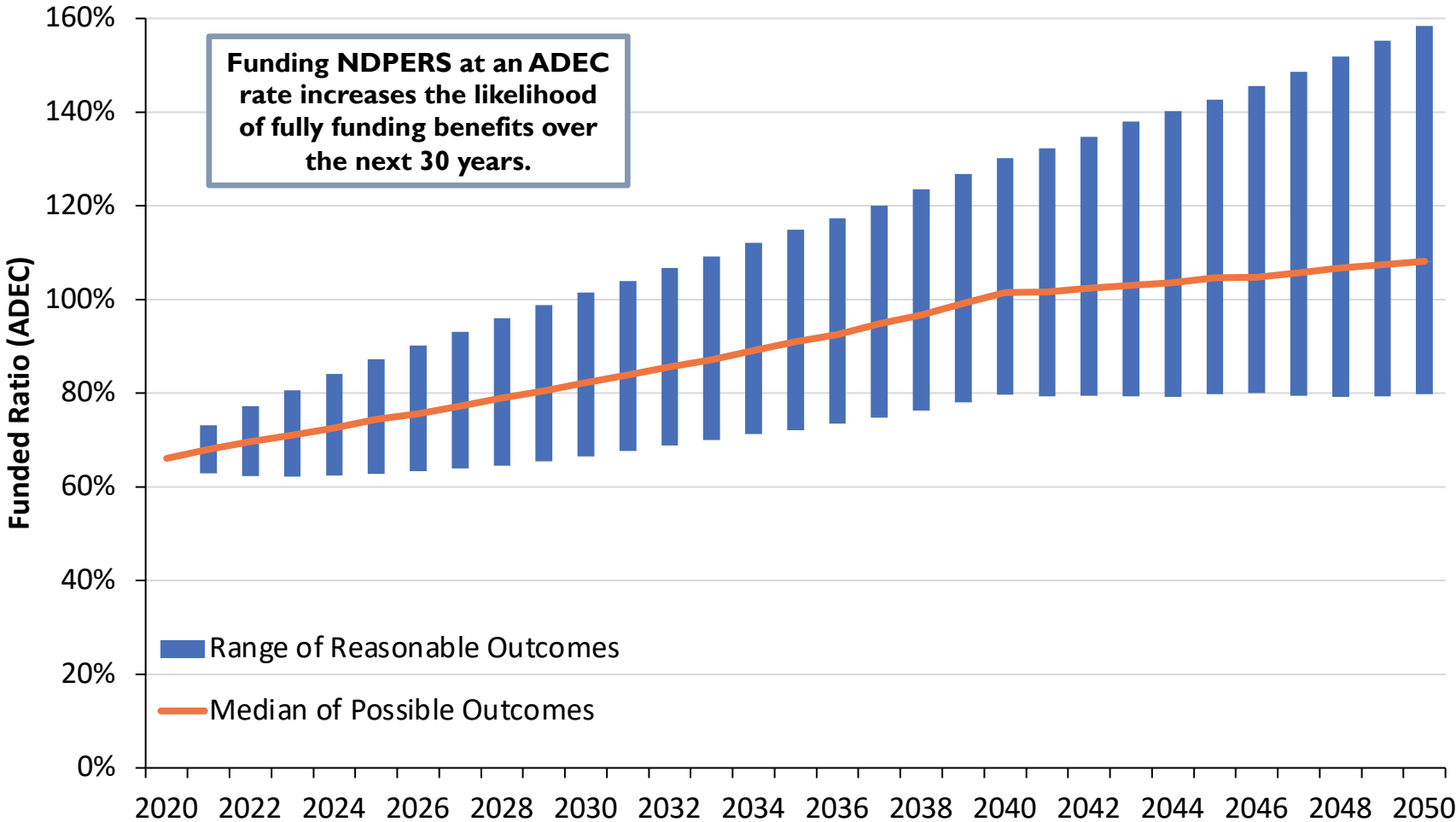- Range of Reasonable Outcomes
- Median of Possible Outcomes

Source: Pension Integrity Project actuarial forecast of NDPERS plan based on plan return and risk assumptions.
Range of Reasonable Outcomes represents the 50% of possible outcomes closest to the median.

30-year Funded Ratio Forecast

Probability of Reaching Full Funding: ADEC (conceptual)

Long-term Average Returns of 7.0%

> **Funding NDPERS at an ADEC rate increases the likelihood of fully funding benefits over the next 30 years.**

Range of Reasonable Outcomes
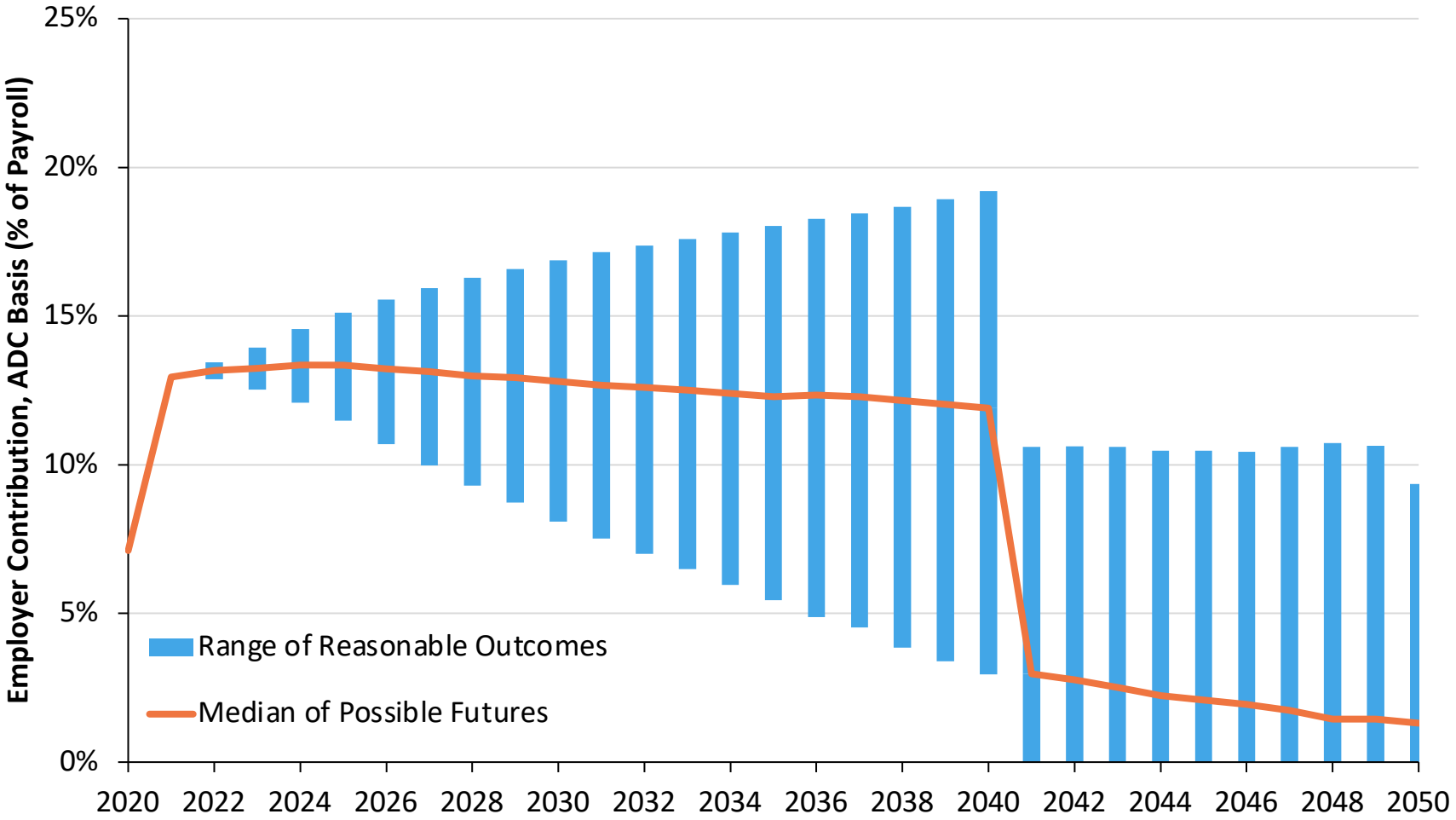
Median of Possible Outcomes

Source: Pension Integrity Project actuarial forecast of NDPERS plan based on plan return and risk assumptions.
Range of Reasonable Outcomes represents the 50% of possible outcomes closest to the median.

30-year Employer Contribution Forecast
If NDPERS Performs as Expected, Rates Can Still Vary
Long-term Average Returns of 7.0%

Source: Pension Integrity Project actuarial forecast of NDPERS. Scenario assumes that the state starts to pay 100% of the actuarially determined contribution each year. Figures are rounded and adjusted for inflation.

PROBLEM 3: DISCOUNT RATE AND UNDERVALUING DEBT

- The discount rate is likely undervaluing the recognized amount of existing pension obligations

NDPERS Discount Rate Methodology is Undervaluing Liabilities

1. **The "discount rate" for a public pension plan should reflect the risk inherent in the pension plan's liabilities**:

   - Most public sector pension plans — including North Dakota PERS — use the assumed rate of return and discount rate interchangeably, even though each serve a different purpose.

   - The **Assumed Rate of Return** (ARR) adopted by NDPERS estimates what the plan will return on average in the long run and is used to calculate contributions needed each year to fund the plans.

   - The **Discount Rate** (DR), on the other hand, is used to determine the net present value of all of the already promised pension benefits and supposed to reflect the risk of the plan sponsor not being able to pay the promised pensions.

NDPERS Discount Rate Methodology is Undervaluing Liabilities

2. **Setting a discount rate too high will lead to undervaluing the amount of pension benefits actually promised**:
   - If a pension plan is choosing to target a high rate of return with its portfolio of assets, and that high assumed return is then used to calculate/discount the value of existing promised benefits, the result will likely be that the actuarially recognized amount of accrued liabilities is undervalued.

3. **It is reasonable to conclude that there is almost no risk that North Dakota would pay out less than 100% of promised retirement income benefits to members and retirees.**
   - Promised benefits for vested members represent a legal contract.

4. **The discount rate used to account for this minimal risk should be appropriately low.**
   - The higher the discount rate used by a pension plan, the higher the implied assumption of risk for the pension obligations.

NDPERS Pension Debt Sensitivity
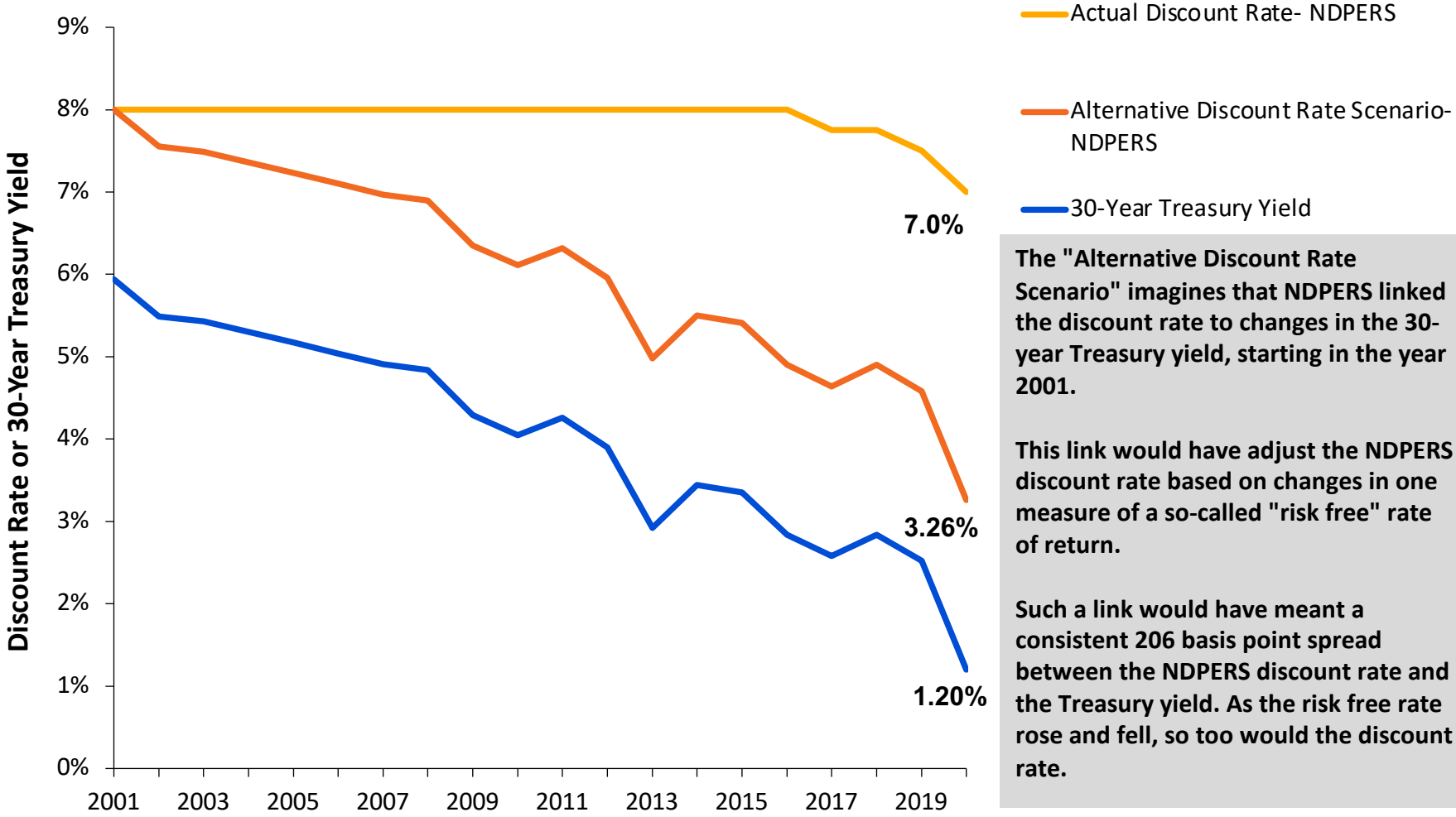## FYE 2020 Unfunded Liability Under Varying Discount Rates

Discount Rate	Funded Ratio (Actuarial Value)	Unfunded Liability (Actuarial Value)	Actuarial Accrued Liability
7.0% (2020 Baseline)	68%	$1.4 billion	$4.5 billion
6.0%	60%	$2.1 billion	$5.2 billion
5.0%	52%	$2.8 billion	$5.9 billion
4.0%	46%	$3.6 billion	$6.7 billion

Source: Pension Integrity Project analysis of NDPERS GASB Statements.
Figures are rounded.

Change in the Risk-Free Rate Compared to NDPERS Discount Rate (2001-2020)

Actual Discount Rate- NDPERS

Alternative Discount Rate Scenario- NDPERS

30-Year Treasury Yield

7.0%

3.26%

1.20%

The "Alternative Discount Rate Scenario" imagines that NDPERS linked the discount rate to changes in the 30-year Treasury yield, starting in the year 2001.

This link would have adjust the NDPERS discount rate based on changes in one measure of a so-called "risk free" rate of return.

Such a link would have meant a consistent 206 basis point spread between the NDPERS discount rate and the Treasury yield. As the risk free rate rose and fell, so too would the discount rate.

Source: Pension Integrity Project analysis of NDPERS actuarial reports and Treasury yield data from the Federal Reserve
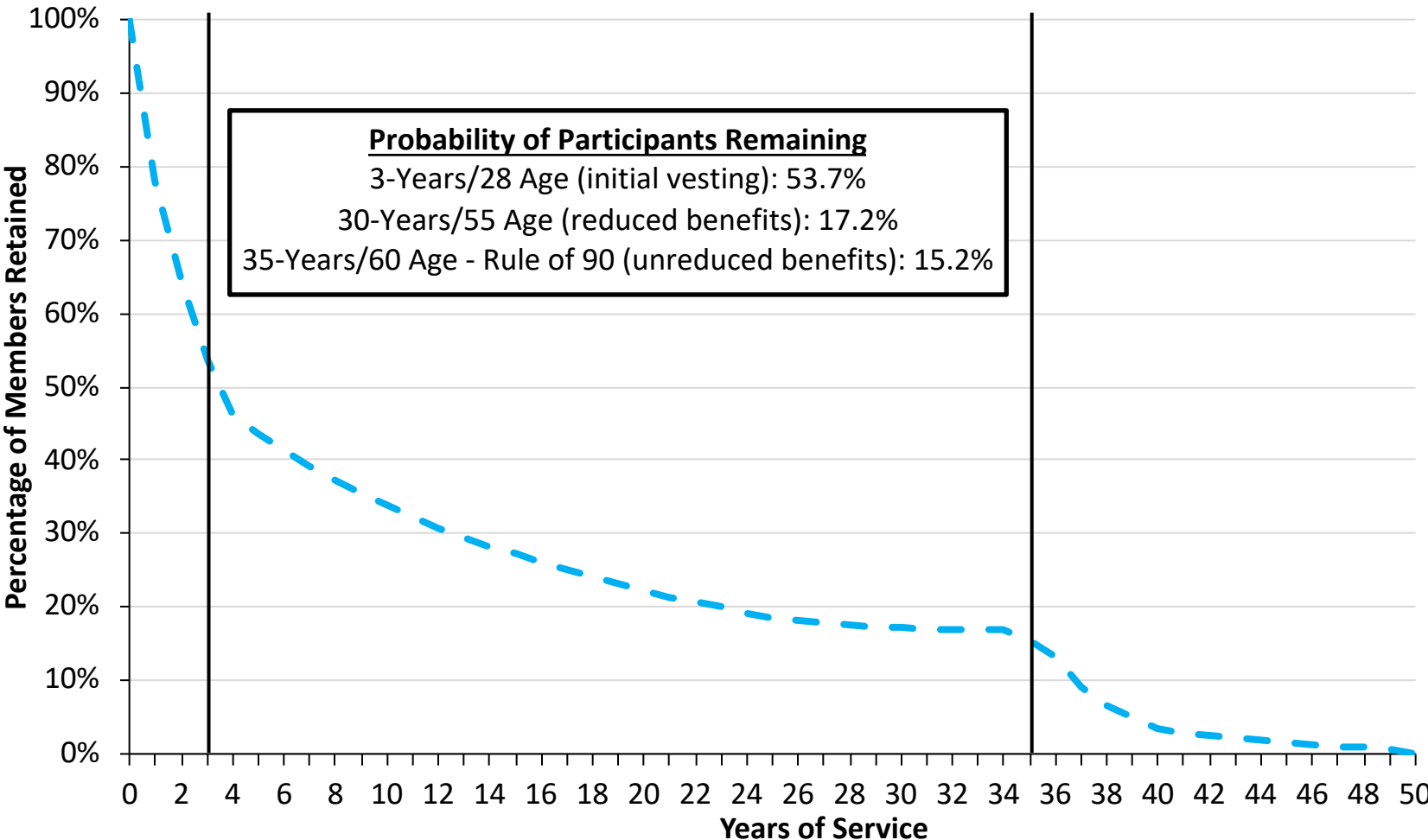
CHALLENGE 4:
THE EXISTING BENEFIT DESIGN DOES NOT WORK FOR EVERYONE

- The turnover rate for members of NDPERS suggests that the current retirement benefit design is not supporting goals for retention

Probability of Members Remaining in NDPERS

Probability of Participants Remaining
3-Years/28 Age (initial vesting): 53.7%
30-Years/55 Age (reduced benefits): 17.2%
35-Years/60 Age - Rule of 90 (unreduced benefits): 15.2%

Source: Pension Integrity Project analysis of NDPERS reports and CAFRs.
Illustration is based on *Main Plan* assumptions and a hypothetical analysis of an average member hired at the age of 25

Do NDPERS Retirement Plans Work for All Employees?

46% of new NDPERS members leave before 3 years

- Benefited employees must work 3 years before their benefits become vested.
- Members who leave the plan before then must forfeit contributions their employer made on their behalf.
- Another 20% of new employees who are still working after 3 years will leave before 10 years of service.

- **17%** of all new paid members hired next year will still be working after 30 years (with age 55), long enough to qualify for a reduced benefits.
  - North Dakota ensures that all state employees have access to Social Security benefits.

Recruiting and Retaining Public Employees

- **Recruiting a 21st Century Workforce:**
  - There is little evidence that retirement plans — DB, DC, or other design — are a major factor in whether an individual wants to enter public employment.
  - The most likely incentive to increase recruiting to the public workforce is increased salary.

- **Retaining Employees:**
  - If worker retention is a goal of the NPDERS system, it is clearly not working, as nearly half of new hires leave within 3 years.
  - After 25 years of service there is some retention effect, but the same incentives serve to push out workers in a sharp drop off after 30 years of service.

FRAMEWORK FOR SOLUTIONS & REFORM

Objectives of Good Reform

Keeping Promises: Ensure the ability to pay 100% of the benefits earned and accrued by active workers and retirees

Retirement Security: Provide retirement security for all current and future employees

Predictability: Stabilize contribution rates for the long-term

Risk Reduction: Reduce pension system exposure to financial risk and market volatility

Affordability: Reduce long-term costs for employers/taxpayers and employees

Attractive Benefits: Ensure the ability to recruit 21st Century employees

Good Governance: Adopt best practices for board organization, investment management, and financial reporting

Practical Policy Framework

1. ## Establish a plan to pay off the unfunded liability as quickly as possible.

   - NDPRES effectively has an infinite amortization period that currently creates perpetual debt that will never be paid off.
   - Funding NDPERS using an ADEC rate ensures current and future debt is amortized.
   - Moving from an open to a closed amortization period also ensures any debt will be fully paid off within a guaranteed period.

2. ## Better funding policy, risk assessment, and actuarial assumptions

   - Lower the assumed rate of return to align with independent actuarial recommendations.
   - These changes can be made while minimizing risk and contribution rate volatility for employers and employees.

3. ## Review current plan options to improve retirement security

   - Consider offering additional retirement options that create a pathway to lifetime income for employees that do not stay in public service.

Questions?

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