

## \*Public Agenda Item #28

# *\*Annual Review of Retirement Program Actuarial Valuations and Financial Status*

December 8, 2021

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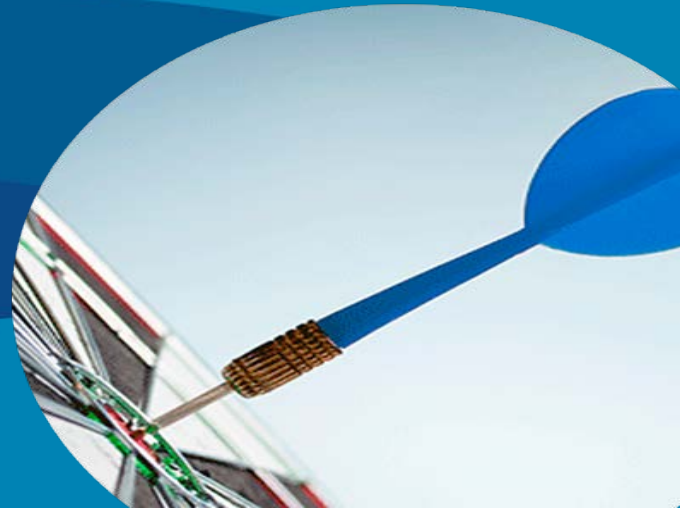
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# Actuarial Valuations of the ERS Retirement Funds as of August 31, 2021

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December 8, 2021



# Agenda

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- ERS Funding Valuation Results
  - Review of 2021 Legislative Reform
  - Impact on Accounting Results as of August 31, 2021
  - Impact of FY2021 Investment Performance
- LECOSRF and JRS2 Funding Valuation Results

# Purpose of Actuarial Valuation

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- Snapshot as of August 31, 2021 using member data, financial data, benefit and contribution provisions, actuarial assumptions and methods as of that date
- Purposes:
  - Measure the actuarial liabilities and funding levels
  - Determine adequacy of current statutory contributions
    - Set future amounts of contributions if current found to be inadequate
  - Provide other information for reporting
    - GASB 67/68, Annual Comprehensive Financial Report
  - Explain changes in actuarial condition of the plans
  - Track changes over time
  - Analyze future outlook

# My, what a difference a year makes!

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- SB 321 passed by the 2021 Legislature made foundational changes to the funding mechanisms and to benefits for future hires
  - As we will show, the “ability to adapt” is the most impactful feature of the new package of policies
  - Went from a projected depletion date of 41 years to a target full funding date in 33 years
- The 25% return on market assets equates to three and a half years worth of expected investment earnings generated in one year
  - This will be smoothed in over the next five valuation cycles
  - This takes significant pressure off of needing to generate 7.0% returns on a market basis over the short to intermediate term in order to maintain the same contribution expectations discussed when SB 321 was implemented

# SB 321 - Funding

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*Sec. 815.407 LEGACY PAYMENTS. (a) In addition to the state contributions required by this subtitle, each fiscal year the state shall make an actuarially determined payment in the amount necessary to amortize the system's unfunded actuarial liabilities by not later than the fiscal year ending August 31, 2054.*

- This amount is a level dollar amount schedule, not tied to payroll or headcount
- \$510 million per year in the 2022-2023 biennium
- Projected at \$510 million per year through 2054 in the impact statement
- ERS will also continue to receive contributions from the members and 10% of pay contributions from the State/agencies

# New Terminology

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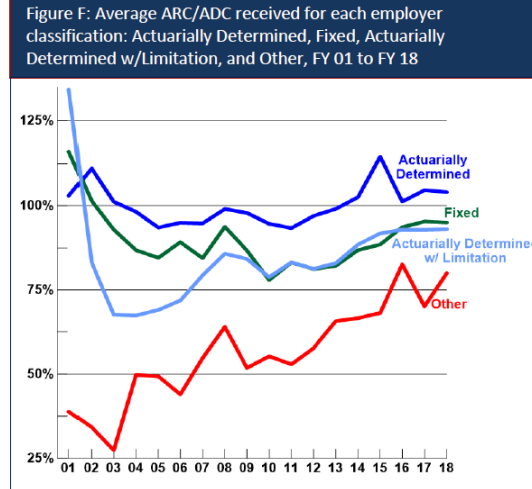
- Moving from a world with a “Funding Period” to one with an “Amortization Period”
- Funding Period is used to convert a contribution stream into a time period
  - UAAL is \$100, receive \$10 a year, how long until the UAAL is paid off?
    - 10 years would be the funding period, it is the output
- Amortization Period is used to convert a time period into a contribution stream
  - UAAL is \$100, want to pay it off in 10 years, how much to pay each year?
    - 10 years is the amortization period, it is an input
    - The contribution stream is the output

# Plans with pre-determined, automatic formulas received substantially more of their needed contributions over the past two decades

Table 1. Median ARC/ADC received by each classification of employer contribution, FY 01 to FY 18

Method for Determining Employer Contributions	Actuarially Determined	Fixed	Actuarially Determined w/ Limitation	Other
<b>Median ARC/ADC Received</b>	<b>100.0%</b>	<b>87.9%</b>	<b>86.8%</b>	<b>71.7%</b>

SB 321 Moved ERS from polices that created the Green line (Fixed)



To policies that created the bright Blue Line (Actuarially Determined)

NASRA Issue Brief: State and Local Government Contributions to Statewide Pension Plans: FY 18  
 Issued April 2020

Source: State retirement system CAFRS, compiled by NASRA

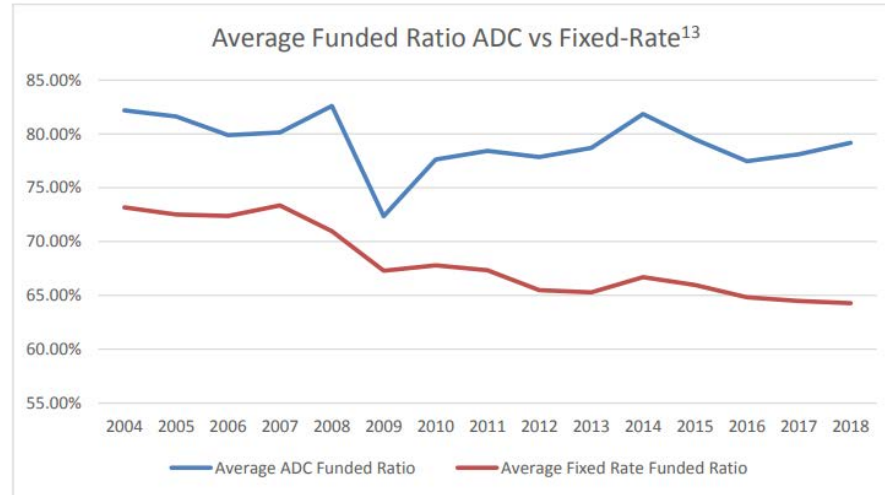




# Automatic Funding Policies Provide Benefit Security

- Excerpt from a Study by the Texas Pension Review Board

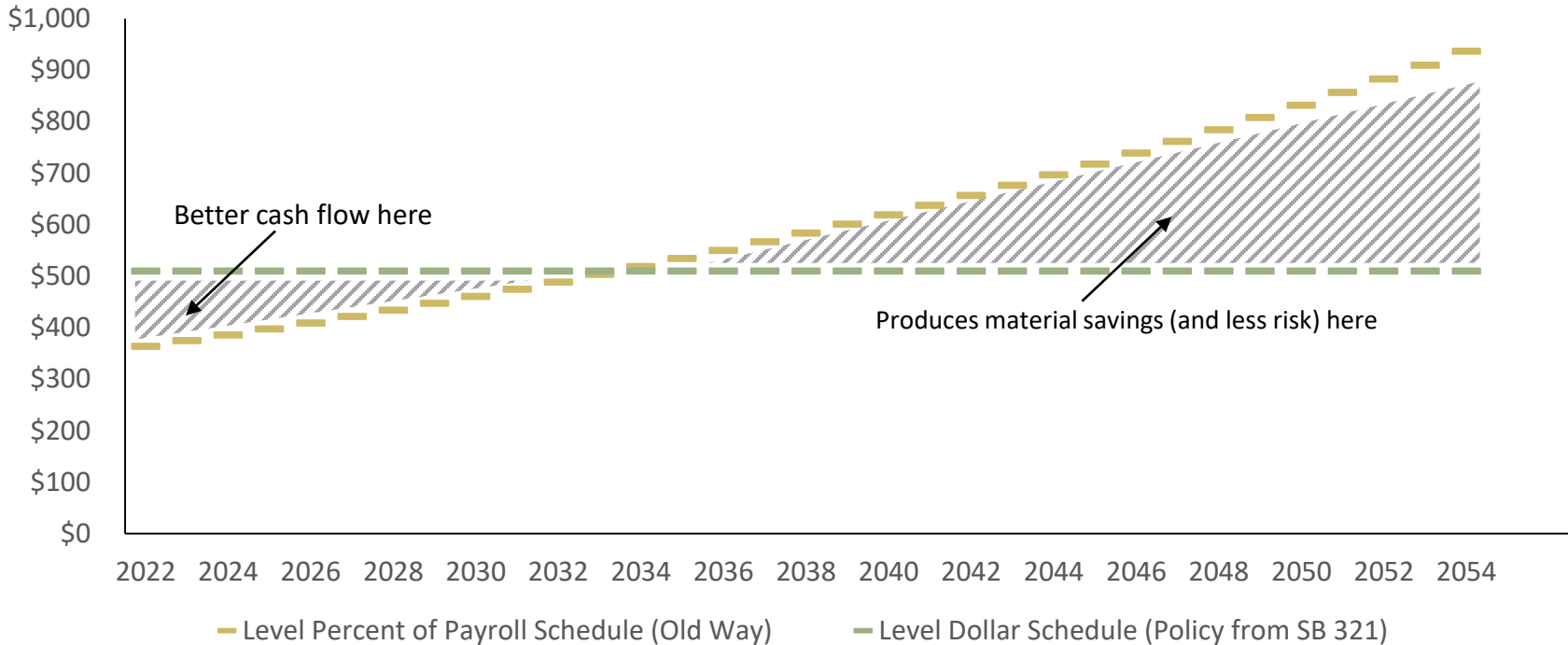
SB 321 Moved ERS from polices that created the Red line



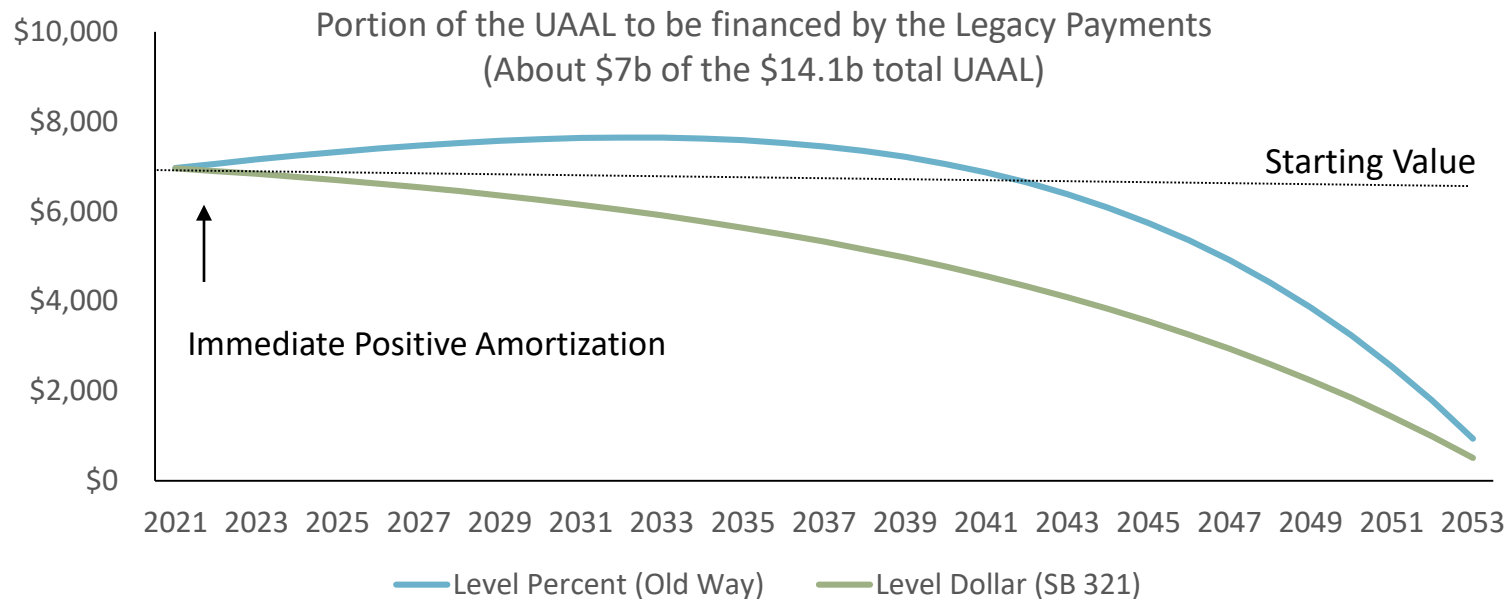
To policies that created the Blue Line

- Fixed Rate Plans: Situations where the contribution is a set percentage of payroll specified in statute/ordinance or local bargaining agreements
  - Actuarially Determined Plans: Situations where a predetermined formula, either set by the Board or by Statute sets the amount of contribution
- <https://www.prb.state.tx.us/txpen/wp-content/uploads/2019/02/Funding-Policy-Paper.pdf>

# Level dollar Legacy Payment schedule saves \$3.2b in interest charges over the time period compared to the previous level percent approach

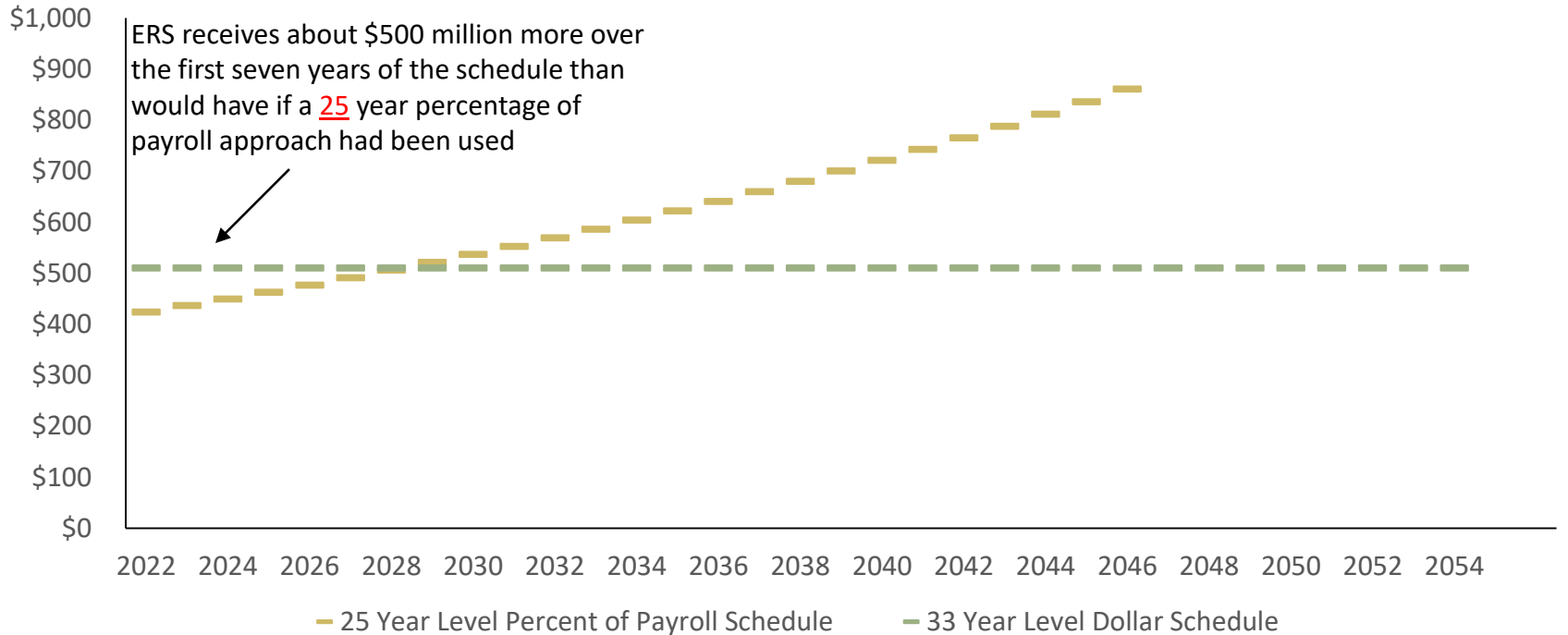


# Level Dollar Schedules Produce Immediate Positive Amortization



If had chosen the prior method (percentage of payroll financing), this portion of the UAAL would have increased for 11 years, and is still larger than the original amount 19 years later

# Hypothetical Example to Show the Strength of Level Dollar Amortization: Compare 33 Year Level Dollar to 25 Year Level Percent



# Impact from Contraction in Membership on Payroll

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- Active membership declined about 3.5% year over year
  - Even more pronounced for LECOs which declined 8%
- This led to an actual decline in covered payroll from \$7.2b to \$7.1b
  - Valuation assumes this increases at 2.7% per year
- Under old policies where all contributions were tied to this payroll, lower payroll would have increased the funding period (and ASC) materially
- The change to level dollar financing separates a significant portion of the funding from the headcount or payroll
  - The \$510m stays the same, regardless of headcount or payroll (or inflation)
  - More dependable, less risk

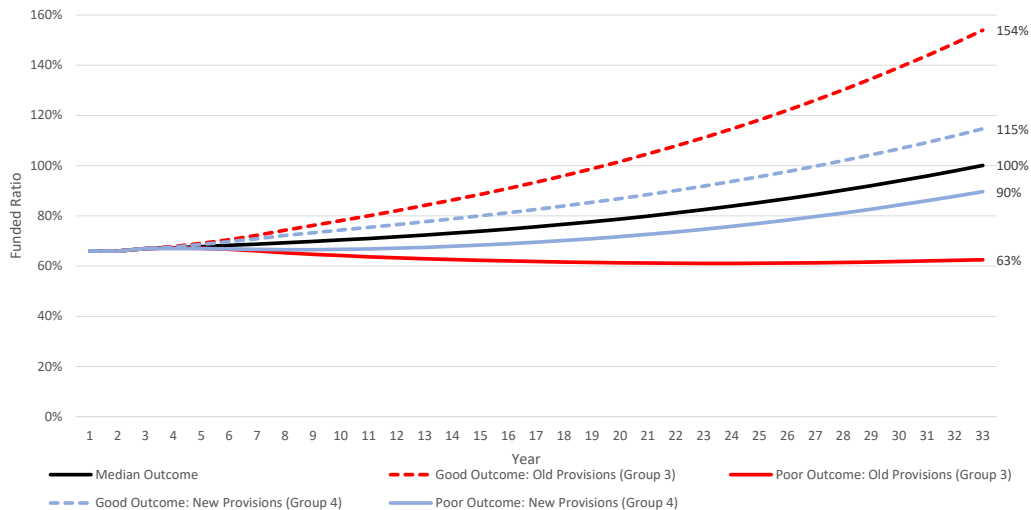
# SB 321

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- There will be more detail in future meetings from ERS Staff and GRS on the new benefit structure as there are details/rules that need to be codified
- This only applies to future hires so has no impact on the 2021 valuation results
- The overall employer provided value is approximately the same so this has minimal impact on projected future results if assumptions are met
  - Difference will emerge when experience is different than the assumptions (positively or negatively)

# Illustration of Future Impact from Having Adaptable Benefit Provisions

Projected Funded Ratio  
Comparison of Having Adaptable Benefit Provisions



This graph compares the adaptable benefit package from group 4 to the non-adaptable benefits from group 3 based on actual investment performance

The red lines represent a “poor” and a “good” investment scenario with group 3 benefits. The likely range of funded ratio 33 years out is 63% to 154%

The blue lines represent a “poor” and a “good” investment scenario with group 4 benefits. The likely range of funded ratio 33 years out is 90% to 115%

For this hypothetical example, we modeled all current and future members in either group 3 or group 4 to show the impact once all members are in group 4. Thus, this gives a view into the future risk profile of ERS, 30-50 years from now

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# ERS

## Funding Valuation Results

### at August 31, 2021



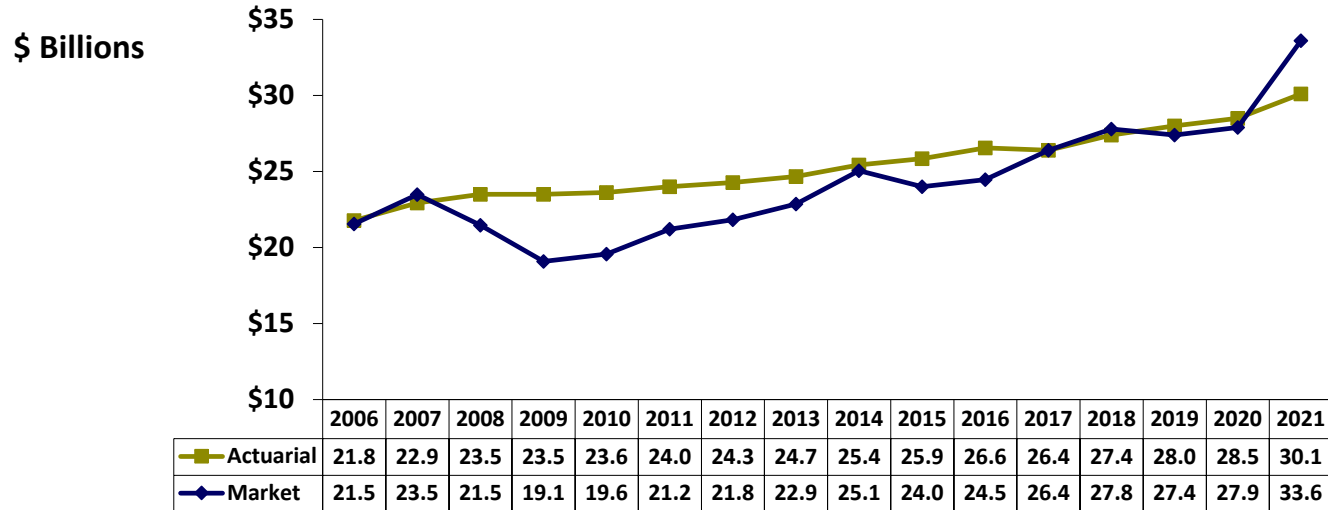
# Investment Experience

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- Actual rate of return on market for FY21 was  $\approx 25\%$
- All of the actuarial funding metrics based on 5-year smoothed value of assets (actuarial value, or AVA), not market value
- 5-year smoothed return on AVA was 10.0% in FY21
- \$3.5 billion in net deferred gains, not yet recognized
  - Represents 8% of the current actuarial accrued liability
  - Represents 10% of current market assets
  - Will be recognized over next four years, either to improve the funded status of ERS or to offset adverse experience during that time

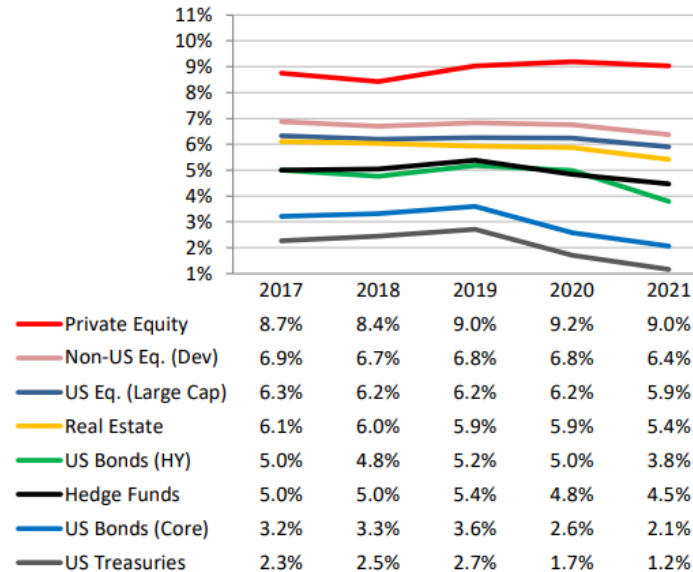
# ERS Asset Values: Market vs Smoothed

- The strong investment performance put the System in a situation with material deferred investment gains



# Recent Strong Performance has lead to declines in Return Expectations

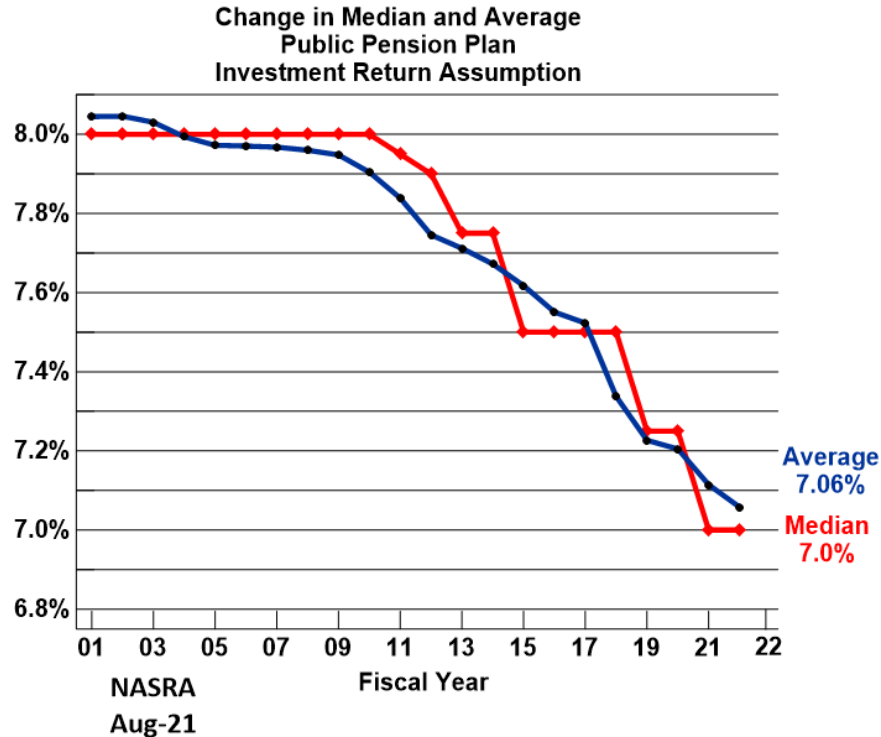
**Average Expected Returns (10-Year Horizon)**



Figures are average geometric returns for selected asset classes for the 30 advisors who provided short-term assumptions in each of the surveys from 2017 through 2021.

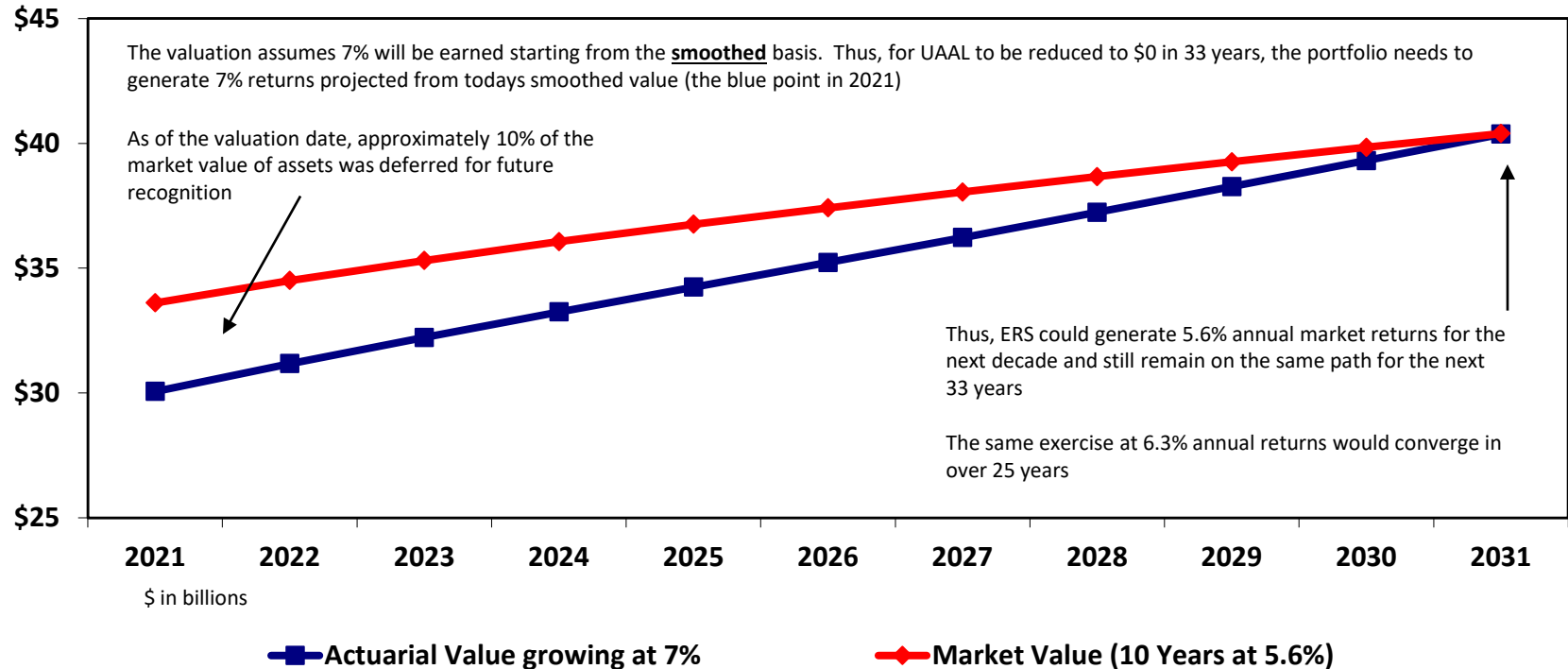
[Survey of Capital Market Assumptions, 2021  
Edition by Horizon Actuarial Services, LLC  
https://www.horizonactuarial.com/uploads/3/0/4/9/30499196/rpt\\_cma\\_survey\\_2021\\_v0804.pdf](https://www.horizonactuarial.com/uploads/3/0/4/9/30499196/rpt_cma_survey_2021_v0804.pdf)

# Investment Return Assumptions have been Declining



Data compiled by the  
National Association of  
State Retirement  
Administrators

# What the deferred gains does for ERS: Projected Growth of Market and Actuarial Assets



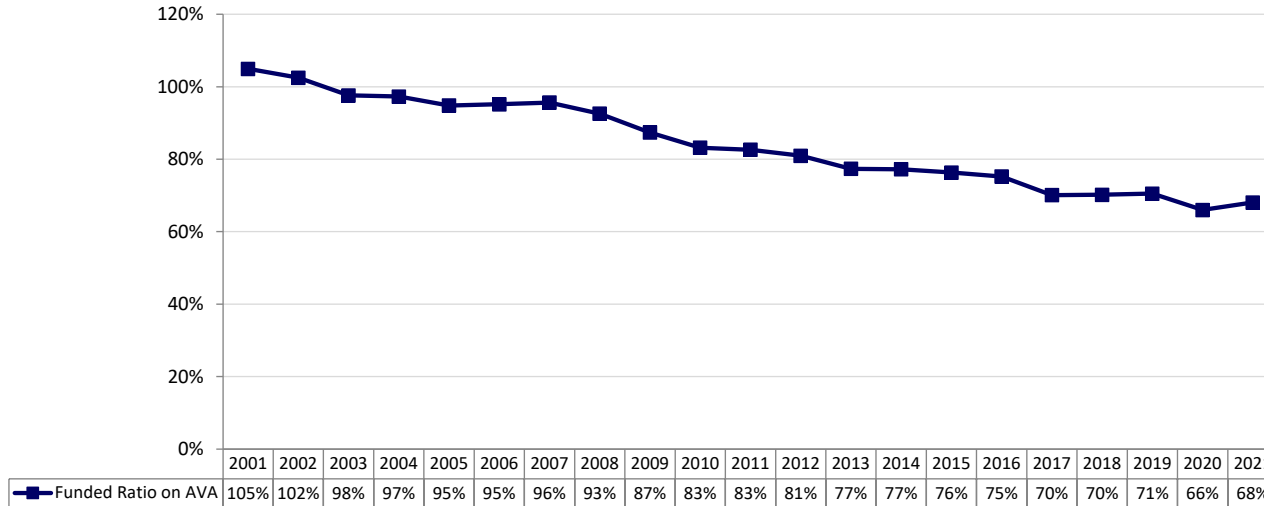
# UAAL and Funded Status (ERS)

(\$ in millions)

Actuarial Valuation as of August 31,		
	2021	2020
Actuarial Accrued Liability	\$44,184	\$43,258
Actuarial Value of Assets	<u>30,065</u>	<u>28,543</u>
Unfunded Accrued Liability	\$14,119	\$14,715
Funded Ratio	68.0%	66.0%
Amortization Period Per Section 815.407	33 years	Never

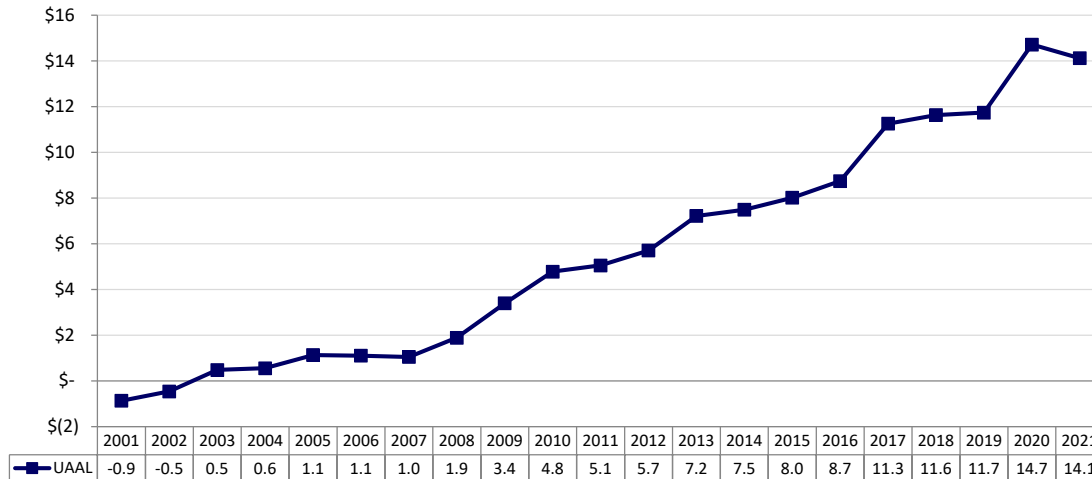
# Funded Ratio

- The Funded Ratio increased from 66% to 68% on a smoothed basis
- This was based on experience, not because of SB 321



# UAAL History

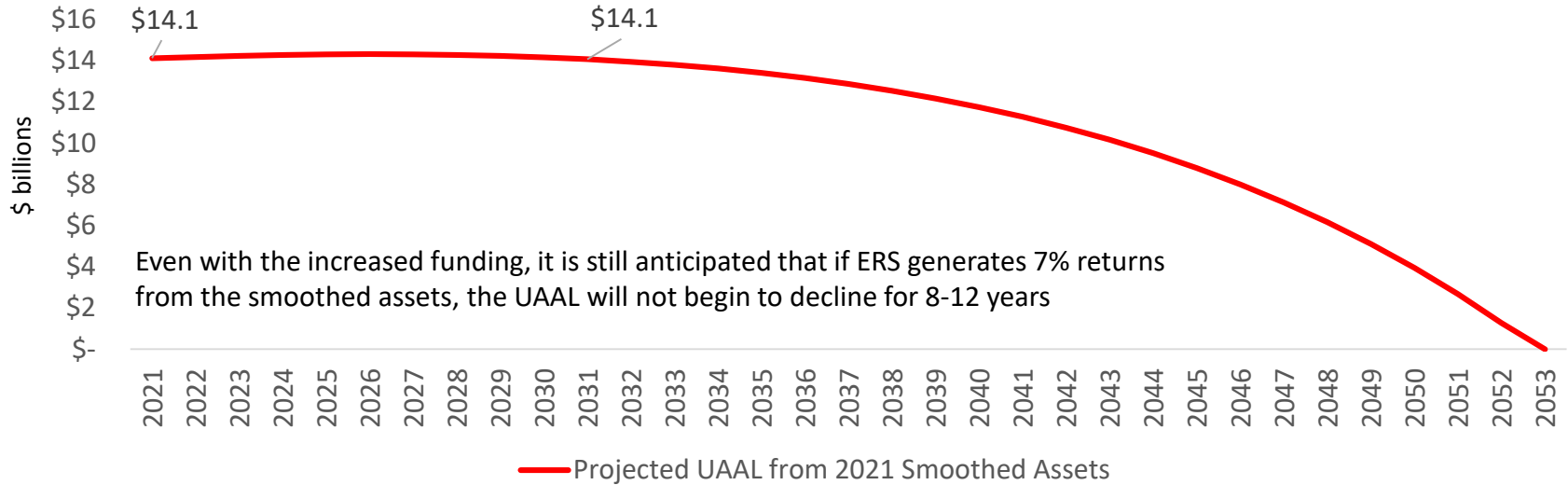
- UAAL decreased for the first time since 2007
- Trend in UAAL is the main metric for monitoring the strength of a pension system
- An increasing UAAL means the accumulation of assets is falling further behind the target
- A declining UAAL (especially for a number of years in a row) means the package of benefits, funding, and investments is strengthening in comparison to the target





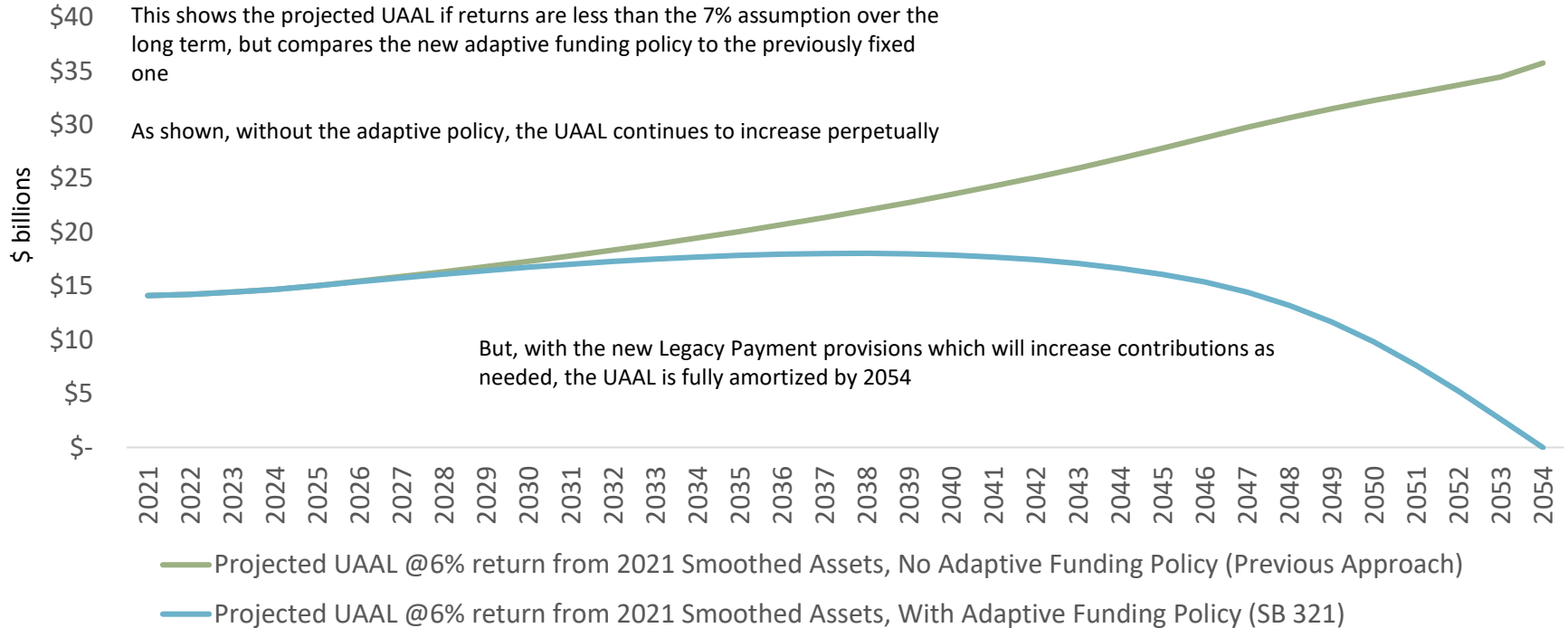
# Projections

## Projected UAAL from 2021 Smoothed Assets



Assumes 7% annual returns on the smoothed assets and annual \$510m legacy payments, and all other assumptions met

# Sensitivity Projections



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# LECOSRF and JRS2 Funding Valuation Results at August 31, 2021

# LECOSRF and JRS2 Need Additional Funding

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- Current level of contributions are not sufficient to sustain either plan
  - LECOSRF projected depletion date in 29 years
    - Need 2.75% of payroll increase in contribution
  - JRS2 projected depletion date in 55 years
    - Need 8.05% of payroll increase in contribution

# Funded Status

(\$ in millions)

LECO Supplemental Retirement Fund		
Actuarial Valuation as of	2021	2020
Actuarial Accrued Liability	\$1,650	\$1,610
Actuarial Value of Assets	<u>998</u>	<u>968</u>
Unfunded Accrued Liability	\$652	\$642
Funded Ratio	60.5%	60.1%
Funding Period	Never	Never

Judicial Retirement System of Texas, Plan 2		
Actuarial Valuation as of	2021	2020
Actuarial Accrued Liability	\$618	\$591
Actuarial Value of Assets	<u>523</u>	<u>487</u>
Unfunded Accrued Liability	\$95	\$104
Funded Ratio	84.6%	82.3%
Funding Period	Never	Never



# Utilization of a Legacy Payment Structure

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- Legacy Payment Structure could be implemented to finance the UAAL
- However, in both cases, the current contribution rates are less than the normal cost
  - Contribution rates need to be increased to cover at least the normal cost
  - At that point, UAAL could be financed through level dollar fixed payments

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# Summary

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- SB 321, along with one of the strongest 12 month investment performance periods in plan history, have remarkably changed the outlook for ERS
- For LECOSRF and JRS-2, current contribution levels are not sufficient to sustain the plans
  - Benefit security will continue to deteriorate without an increase in contributions over the current schedules



# Disclaimers

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- This presentation is intended to be used in conjunction with the actuarial valuation reports issued in December 2021. This presentation should not be relied on for any purpose other than the purpose described in the valuation reports.
- This presentation shall not be construed to provide tax advice, legal advice or investment advice.

Questions?