February 23, 2021

Meeting Materials

Oklahoma State Pension Commission

February 2020

Public Pension Report

Oklahoma State Pension Commission

Executive Summary

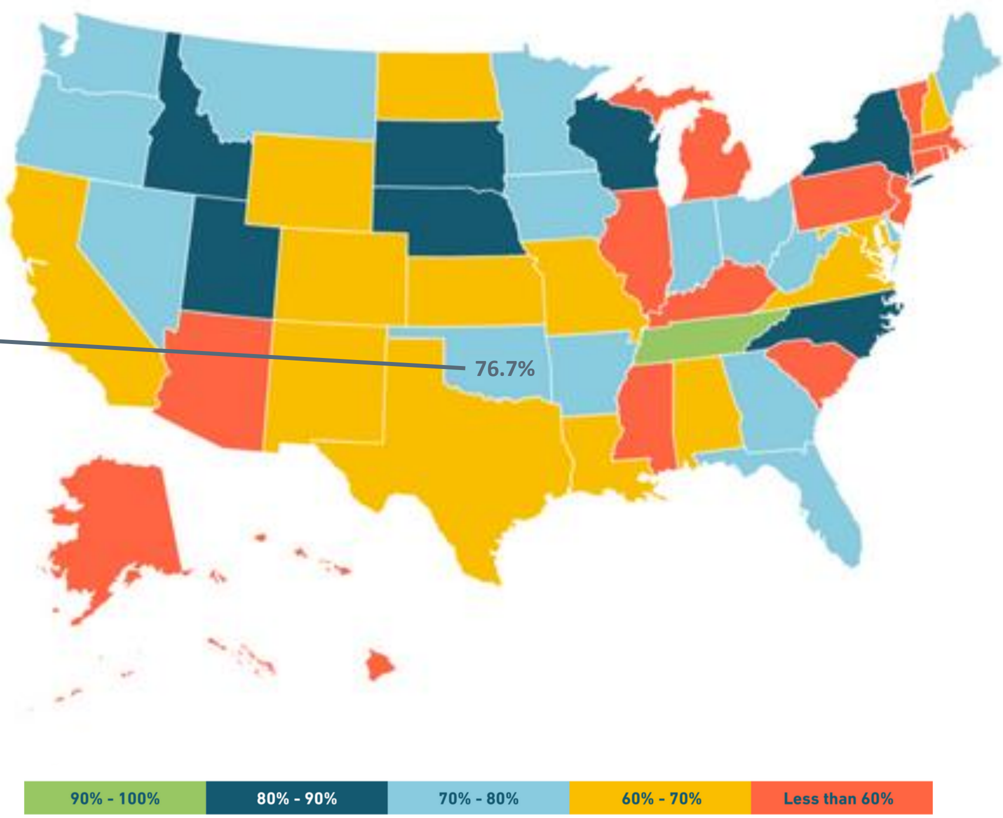
Overview	Public pension plans provide Oklahoma State employees with an important source of income in retirement. To manage the cost to taxpayers, “funded” pension plans accumulate a reserve of assets, which provide funding for future liability payments. Ideally, these assets grow at a rate that matches the growth in a plan’s liabilities. Over the past decade the Oklahoma Pension System has matched (or exceeded) the return required to keep pace with the growth in liabilities. This return, combined with disciplined contribution policies, has enabled the plan to improve its funded status steadily over time. Looking to the future, however, the plans face several challenges. Understanding and addressing these challenges will be important in the pursuit of each plan’s long-term objectives. To assist in this effort, this presentation highlights several challenges, as well as high level trends, that are shaping the future of public pension systems throughout the country.
Key Challenges	1. **Governance Challenges** – Perhaps the most enduring challenge for public pensions falls under the umbrella of governance. This challenge stems largely from the fact that public pension plans often fall under the oversight of Boards and Committees that are populated by members with different levels experience and are subject to frequent turnover. 2. **Investment Challenges** – The greatest investment challenge faced by public pension plans (and all institutional investors for that matter) is that return expectations for the foreseeable future are anticipated to be lower than the returns that were generated in the recent past. Although multiple factors contribute to this expectation, the most notable include: ❑ **Declining Return Expectations for Equity & Fixed Income** – The most significant headwind for future return expectations derives from equities and fixed income, as these asset classes have historically constituted the bulk of public plan investment portfolios. ❑ **Increasing Securities Market Efficiency** – One way to compensate for lower asset class returns is to select active managers that are capable of generating a return in excess of broad market indices. Over the past several decades, however, it appears that pricing efficiency is reducing the strength of this opportunity. This problem is most acute in US equity, which often constitutes the largest allocation in public plan portfolios. ❑ **Crowding of Capital in Alternative Asset Classes** – Seeking to increase return and/or broaden diversification, many public plans (and institutional investors generally) have increased allocations to alternative asset classes, such as private equity and hedge funds. While these investments can improve returns, they also entail higher fees and increased risk of adverse manager selection. Further complicating an already challenging situation is the fact that increase demand for these funds has made it more difficult to secure access to the top fund managers.

Background

Snapshot of Public Pension Funding in the United States

Funded Status of Public Pension Plans by State in 2020

Funded Status Range	States
90-100%	Tennessee
80-90%	Idaho Wyoming South Dakota Nebraska Wisconsin North Carolina New York Utah
70-80%	Arkansas Delaware Florida Georgia Indiana Iowa Maine Minnesota Montana Nevada Ohio Oklahoma Oregon Washington West Virginia
60-70%	Alabama California Colorado Kansas Maryland Mississippi Missouri New Hampshire New Mexico North Dakota Texas Virginia Wyoming
Less than 60%	Alaska Arizona Connecticut Hawaii Illinois Kentucky Louisiana Massachusetts Michigan New Jersey Pennsylvania Rhode Island South Carolina Vermont



*Estimate, see Methology in the full State of Pensions 2020 report for details.

Source: State of Pensions 2020. *Equable. (2020).*

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Oklahoma Pension System Snapshot

Key Public Plan Metrics

Metric	Combined OK Pension Plans	Teachers	Public Employees	RVK Public Fund Survey Average	Milliman Survey Average[1]
Funded Status	76.7%	67.3%	93.3%	77.1%	70.7%[2]
Liability Discount Rate	Varies	7.0%	6.5%	7.1%	7.0%
Annual Contribution as Percent of Required	138.5%	99%	226%	N/A	N/A
Income Replacement for Full Career Employees[3,4]	60%	60%	60%	N/A	N/A

*N/A indicates that data is not available.

Highlights

1. **Role of Public Pension System** – On average, full career employees (i.e., those retiring after working for a full 30 years) replace roughly 60% of their pre-retirement income with pension payments.

2. **Solid Funded Status** – In aggregate, the Oklahoma Pension Plans have a solid funded status, which is on par with the average funded level from an RVK survey of U.S. public pension plans, and well ahead of the average reported in a survey conducted by Milliman.

3. **Funded Status Improvement** – Oklahoma has improved the aggregate funded status of the pension plans over the past 15 years by increasing contributions above actuarially required rates and generating strong returns from the investment portfolios.

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Public Pension Plan Challenges

Challenge #1: Establishing & Maintaining Effective Governance Practices

Common Challenges of Institutional Investment Committees and Boards

I	II	III	IV
Defining the Scope of Authority	***Structuring High-Functioning Committees***	***Maintaining Strategic Continuity***	***Optimizing Decision Making and Execution***
❑ Determining the optimal scope of delegated committee authority ❑ Identifying responsibilities to delegate to staff or third parties	❑ Establishing an optimal Board size ❑ Identifying key member roles ❑ Identifying value-added member attributes ❑ Recruiting qualified committee members ❑ Evaluating committee member performance ❑ Enforcing accountability	❑ Educating new and existing committee members ❑ Creating comprehensive and practical documentation ❑ Establishing a continuous, disciplined strategic review process	❑ Prioritizing issues appropriately ❑ Creating impactful meeting materials ❑ Ensuring consistent meeting attendance ❑ Ensuring adequate meeting preparation ❑ Executing meeting facilitation that balances efficiency and thoroughness
Common Obstacles			
❑ *Stakeholder time availability*	❑ *Organizational influence of committee members (e.g., major donors)* ❑ *Candidate pool constraints, such as:* • *Current committee membership,* • *Legally required representation*	❑ *Committee member turnover* ❑ *Infrequency of committee meetings* ❑ *Pre-existing investment biases of committee members*	❑ *Meeting time constraints* ❑ *Committee member availability and engagement* ❑ *Cognitive decision-making biases*
Research Results and Case Studies			
❑ ***Case Study #1: Committee Charter***	❑ ***Investment Committee Member Selection Survey*** ❑ ***Case Study #2–Volunteer Advisor Program*** ❑ ***Case Study #3–Trustee Reviews***	❑ ***Case Study #4–Committee Member Orientation*** ❑ ***Compendium of Effective Tactics to Promote Strategic Continuity*** • *Statement of Investment Principles* • *Decision History* • *Annual Strategy Reviews* • *Rolling Work Plans*	❑ ***Case Study #5–Guest Speakers Program*** ❑ ***Compendium of Effective Decision-Making Tactics*** • *Pre-Meeting Conference Calls* • *Executive Summaries* • *Cognitive Bias Education*

Source: *Investment Committee Best Practices.* RVK, Inc. (2017).

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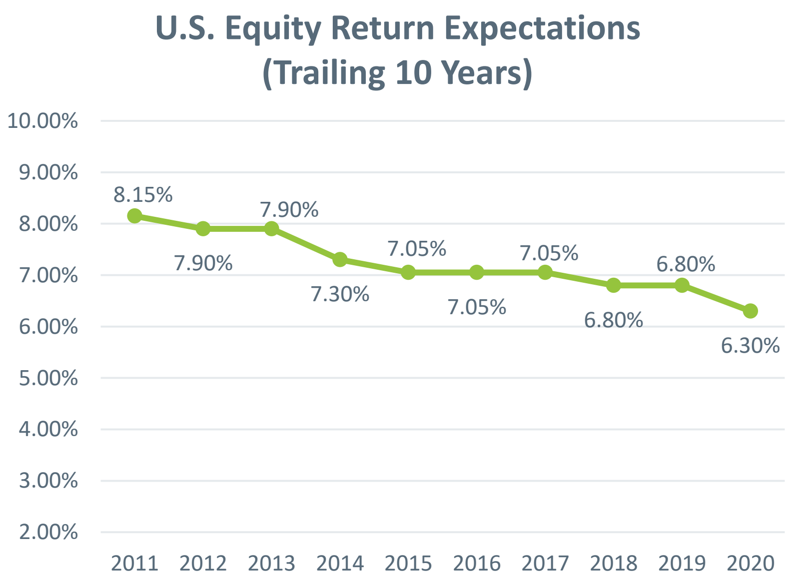
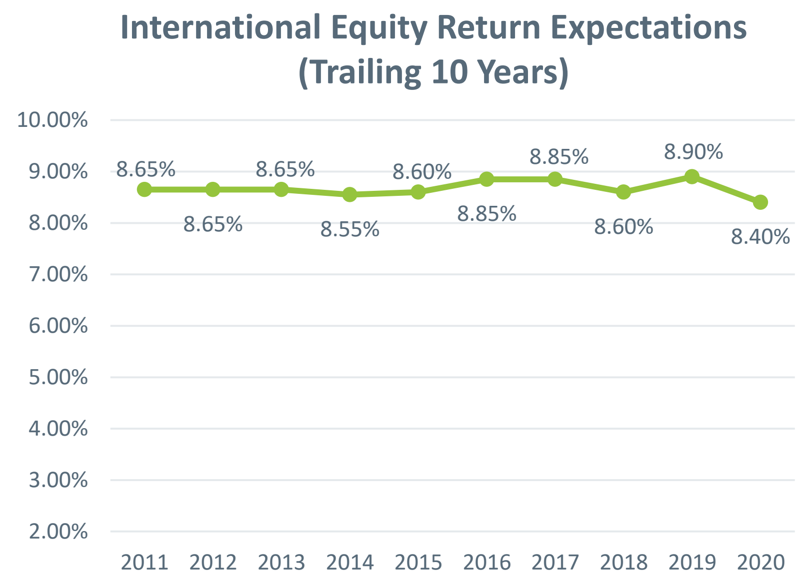
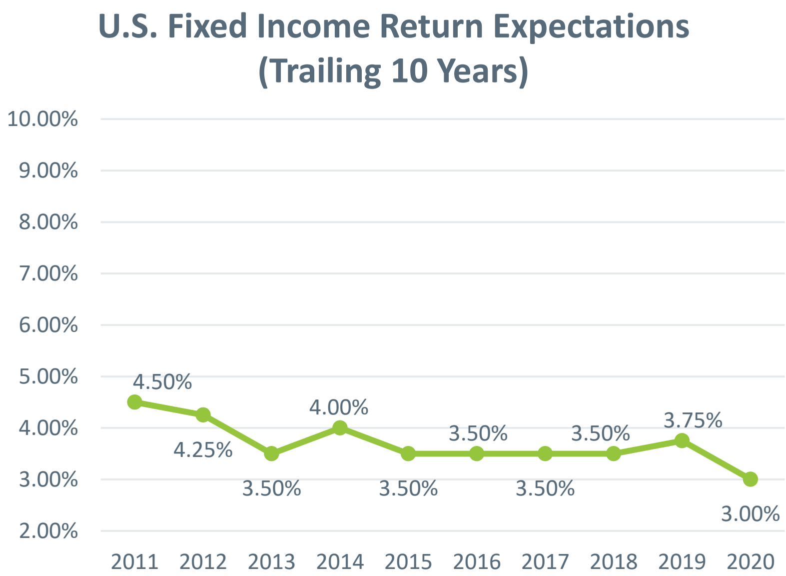
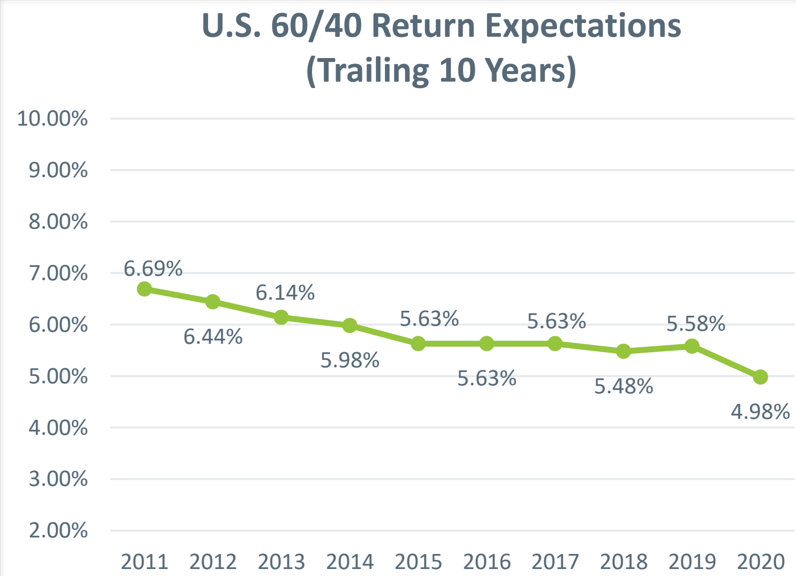
Challenge #2: Reduced Equity and Fixed Income Return Expectations









Source: *RVK, Inc. Capital Market Assumptions (2020).*

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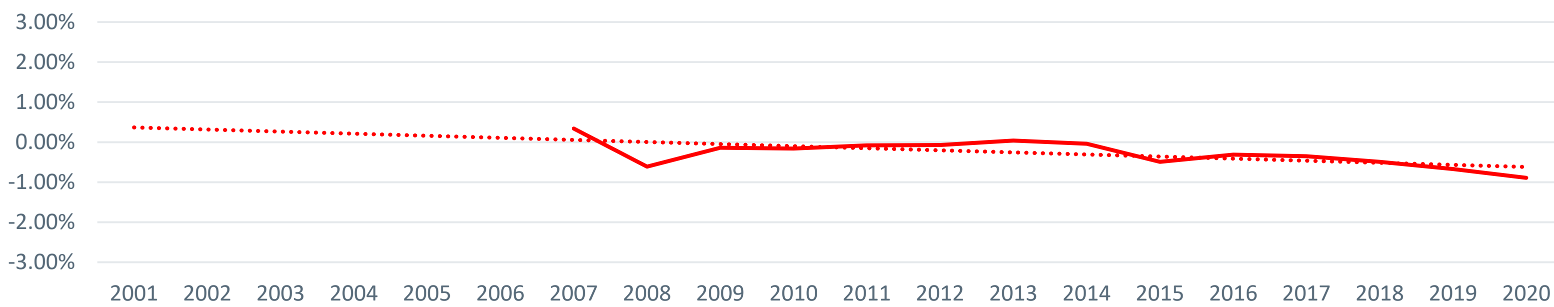
Challenge #3: Increased Efficiency of U.S. Equity Markets

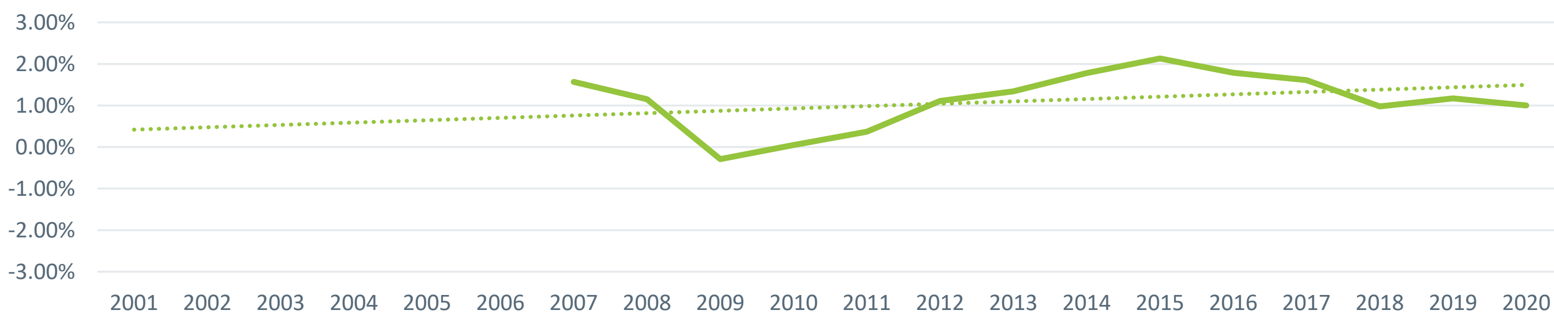
Rolling 5-Year Excess Return for Median Public Plan (2000 - 2020)

All Public Plans U.S. Equity Median vs. Russell 3000 Index

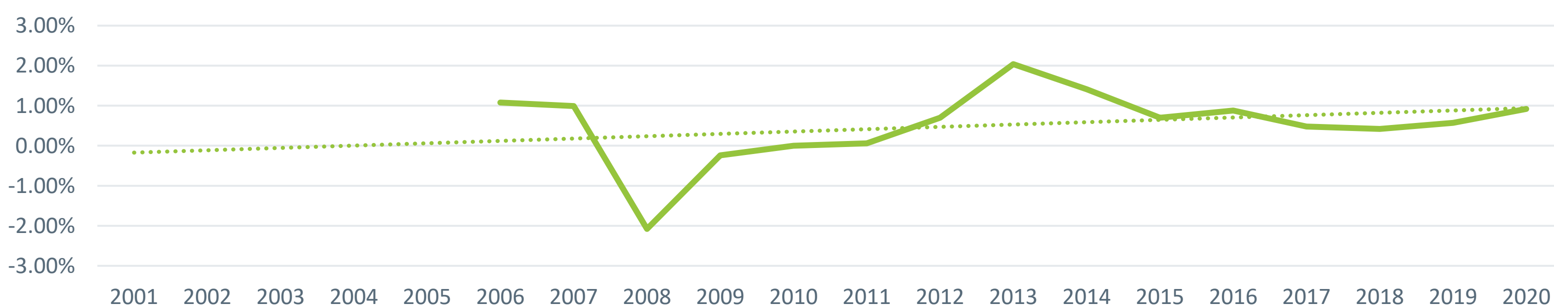


Opportunities for active management is both low and declining in U.S. equity.

All Public Plans International Equity Median vs. MSCI ACW Index



All Public Plans U.S. Fixed Income Median vs. Bloomberg U.S. Agg Index



Opportunities for active management appears more attractive in fixed income and international equity.

Source: *Investment Metrics.*

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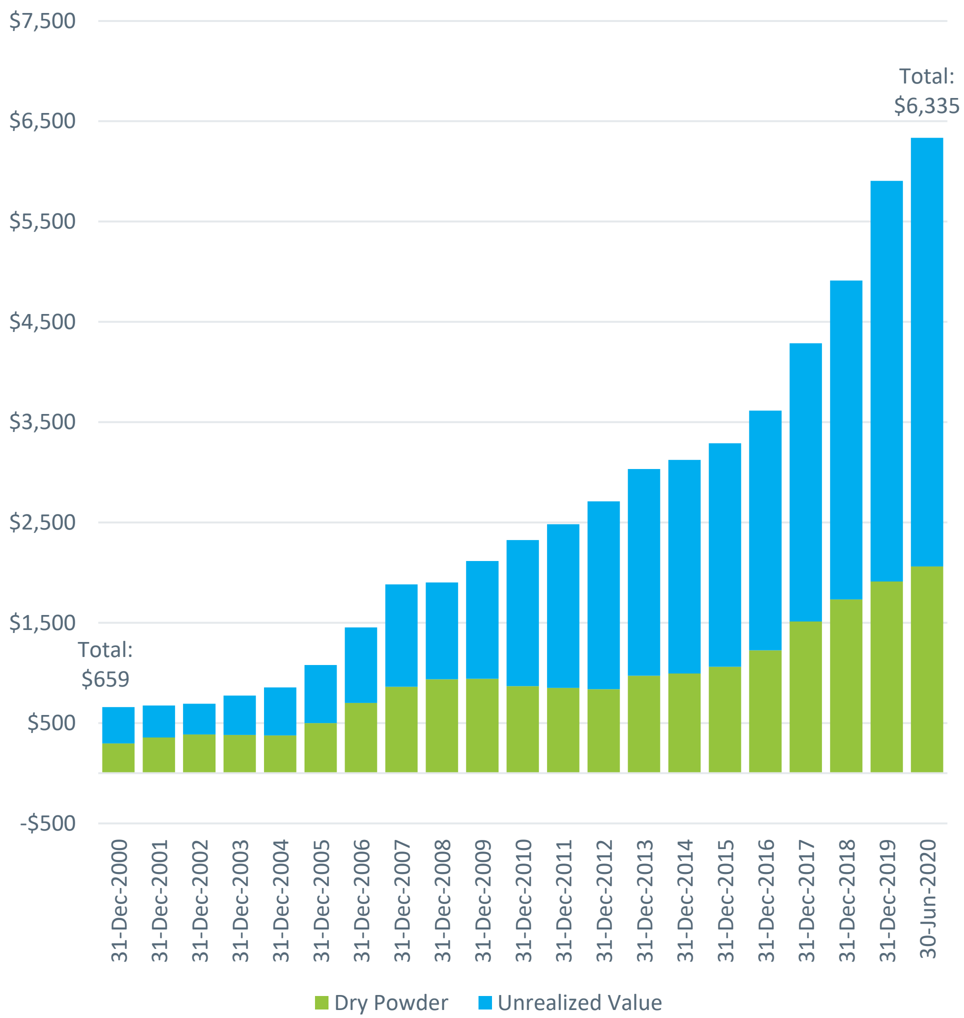
Challenge #4: Crowding of Capital in Alternative Asset Classes

Total Investment in Private Equity ($B USD) (2000-2020)



Total Investment in Hedge Funds ($B USD) (2000-2020)

Oklahoma Pension Plan Comparison

Funded Status

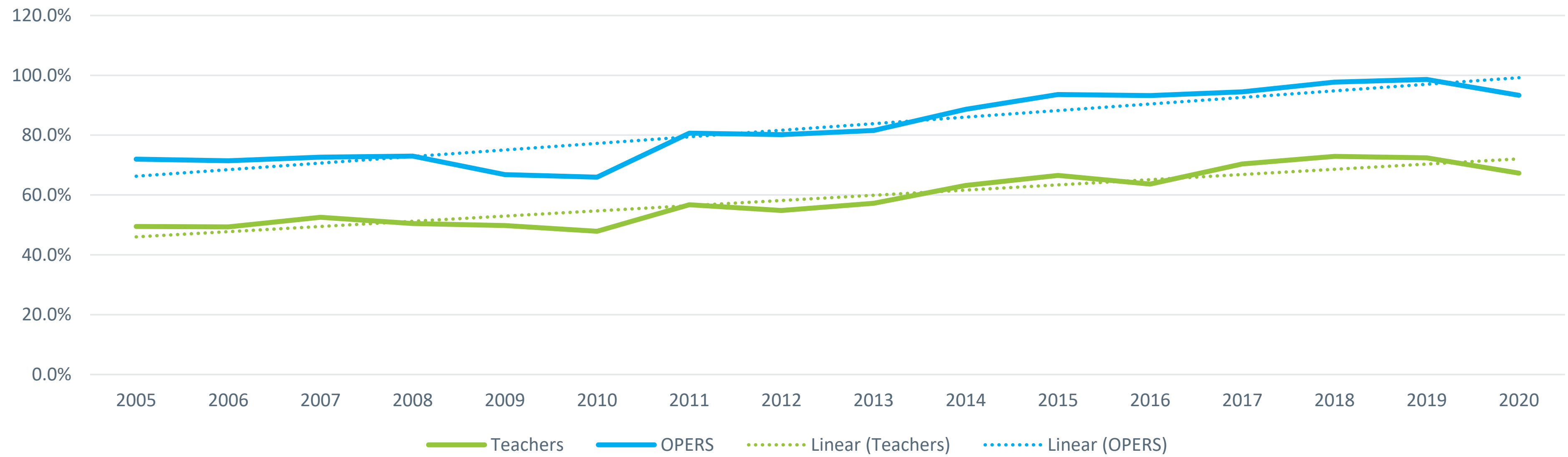
Oklahoma Pension Plan Metrics

(As of June 30, 2020)

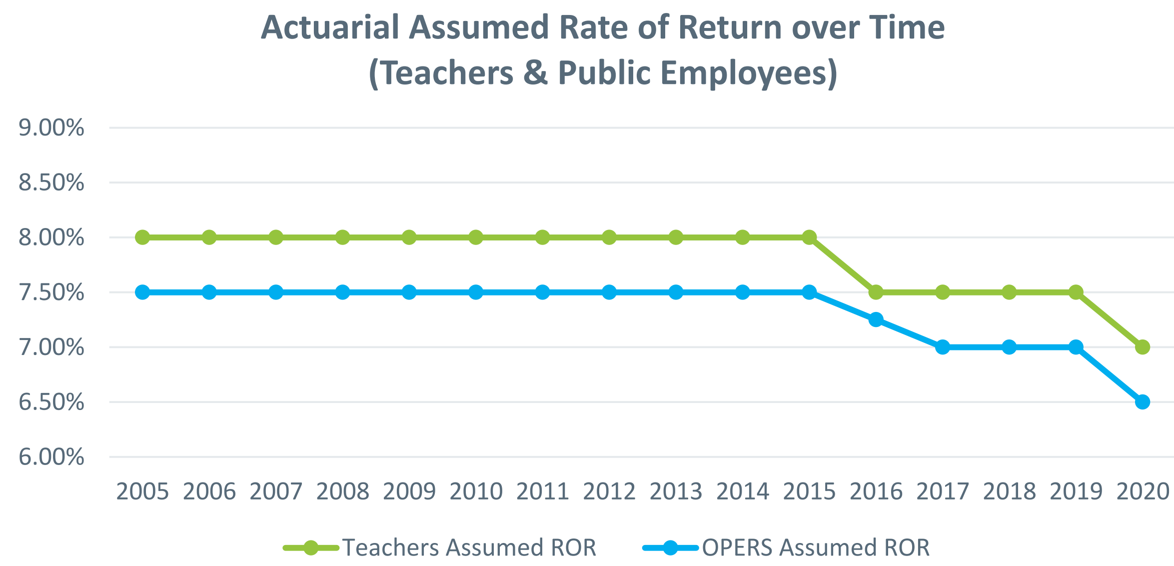
Plan	Actuarial Value of Assets ($M)	Actuarial Accrued Liability ($M)	Market Value of Assets ($M)	Funded Status (per Actuarial Assets)	Funded Status (per Market Value Assets)	State Contribution ($M)	% of OK FY20 Budget
Teachers	$17,769	$26,410	$16,930	67.30%	64.10%	$330.6	4.07%
OPERS	$10,212	$10,943	$10,098	93.30%	92.30%	$294.1	3.62%
Firefighters	$2,886	$4,103	$2,871	70.40%	70.00%	$148.5	1.83%
Police	$2,757	$2,736	$2,621	100.80%	95.80%	$44.2	0.54%
Law Enforcement	$1,088	$1,232	$1.01	88.30%	81.50%	$24.4	0.30%
Judges	$354	$333	$351	106.50%	105.40%	$7.6	0.09%
Wildlife	$119	$135	$118	88.20%	87.70%	$2.3	0.03%

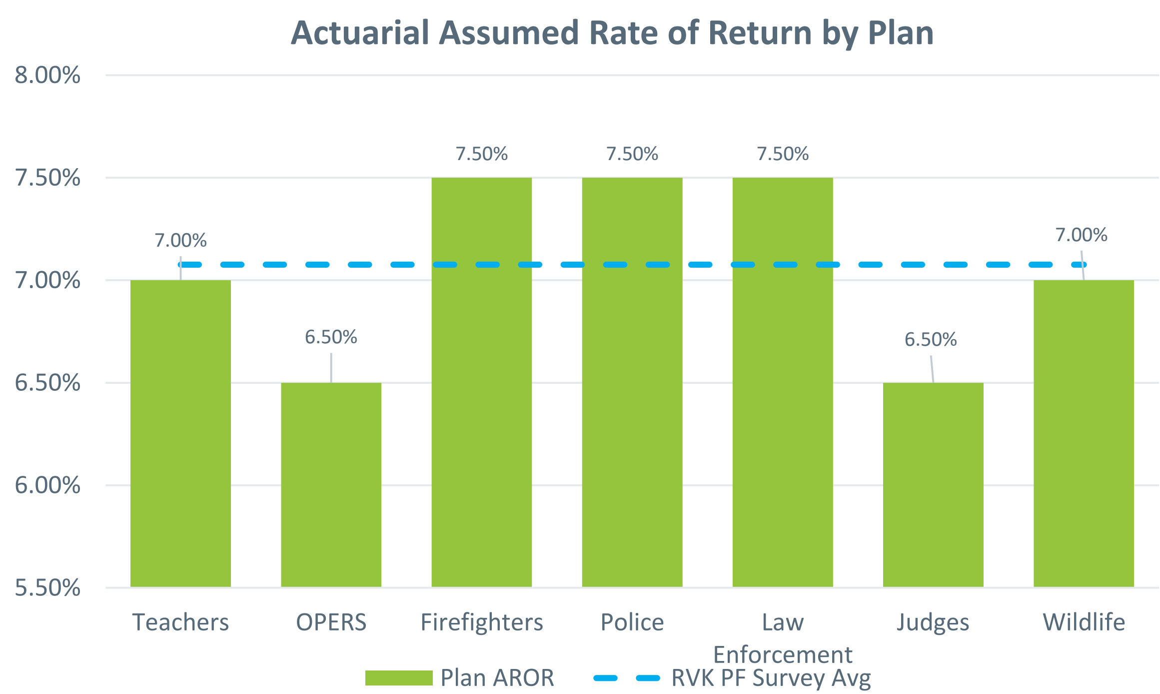
Oklahoma Pension and Teachers Funded Status

(per Actuarial Assets)



Actuarial Return Requirement



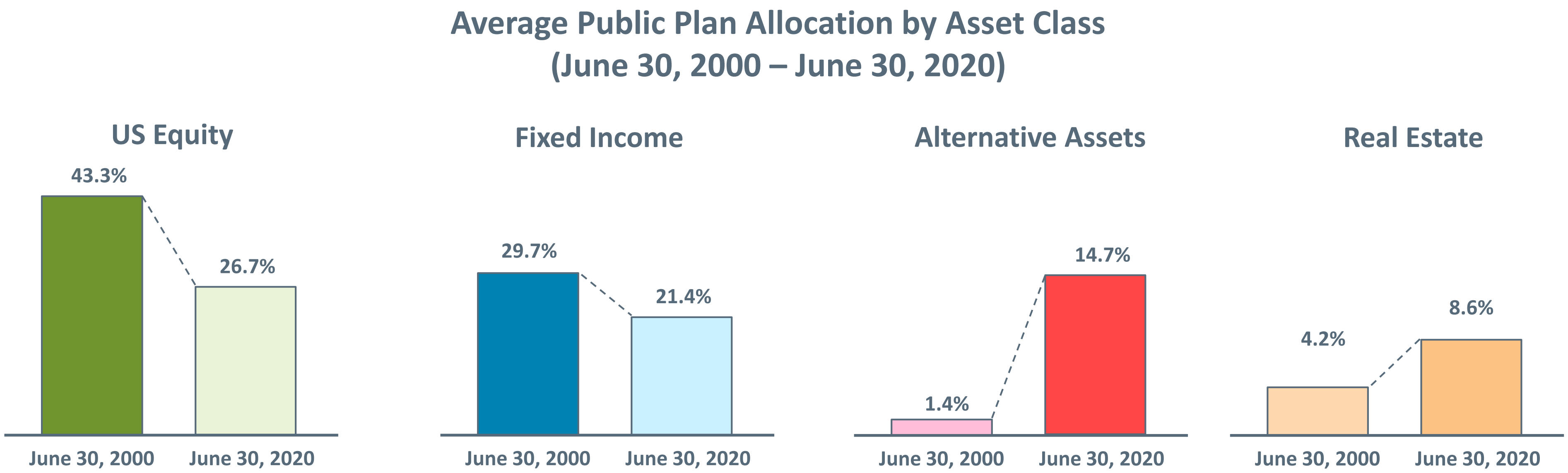


Highlights

1. **Decrease in Expected Return** – Beginning in 2016, Oklahoma Pension Plans began reducing the actuarially assumed rate of return. Teachers and Public Employees, which account for the majority of liabilities, both reduced the assumed rate of return by at total of 100 basis points over the past five years.

2. **Lower Assumed Return Relative to Peers** – In comparison to other state pension plans, the Oklahoma pension plans have been slightly more aggressive in reducing assumed rates of return. The weighted average assumed rate of return is 6.97% for the seven Oklahoma plans versus 7.10% for the RVK Public Fund average.

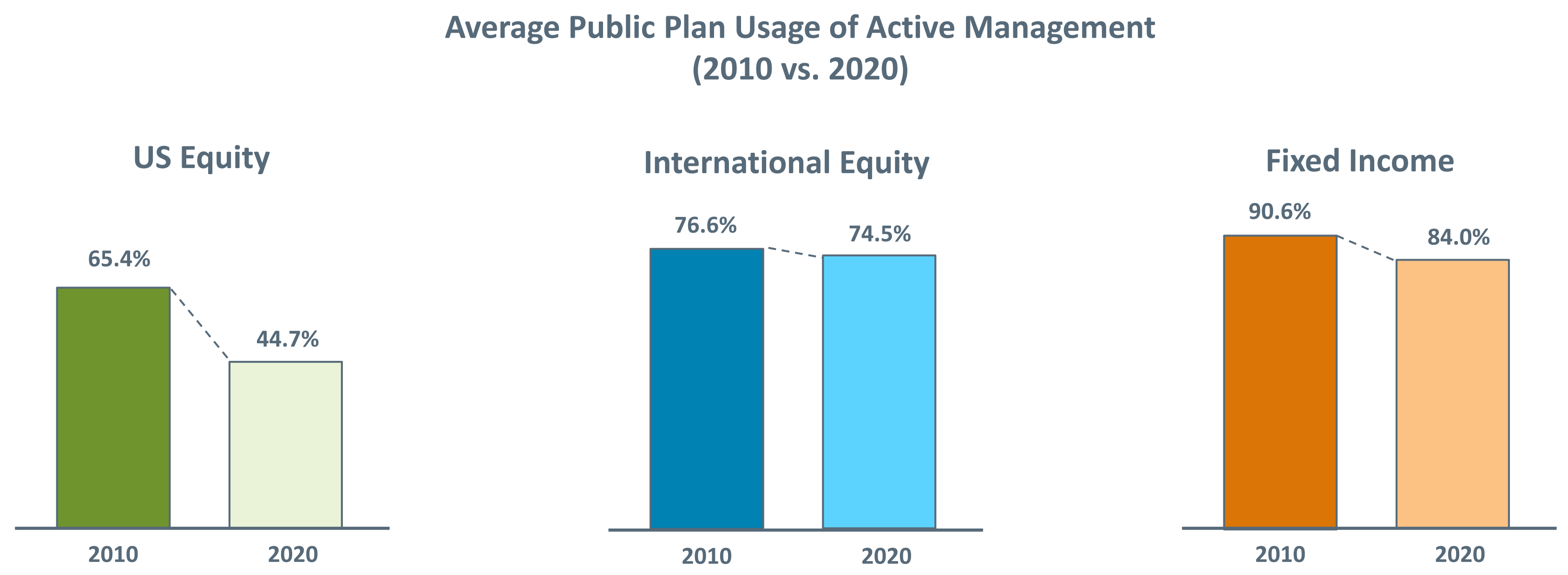
Public Plan Asset Allocation Trends



Highlights

1. **Reduction of US Equity and Fixed Income** – Over the past 20 years, public pension plans have significantly reduced US Equity and Fixed Income holdings.
2. **Increase in Alternatives and Real Estate** – The reduction of US equity and real estate redirected to higher allocations to alternative asset classes, such as private equity and hedge funds. To a lesser extent, public plans also increased allocations to real estate.

Public Plan Active Management Trends



Highlights

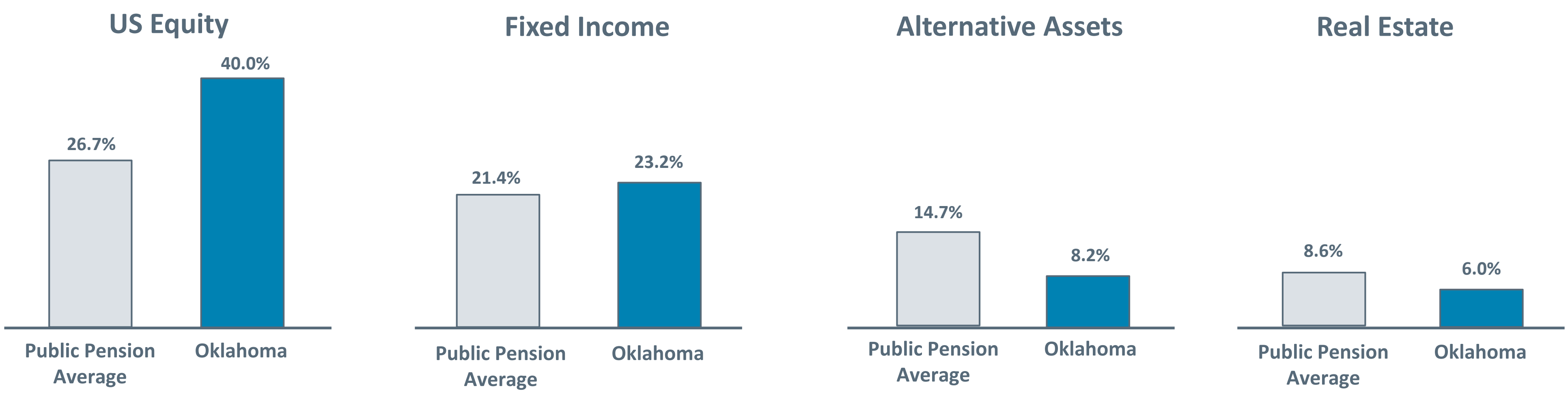
1. **Reduction of Active US Equity** – The average allocation to active US equity has decreased substantially over the past 10 years.

2. **Heavy Usage of Active Management Elsewhere** – Usage of active management in international equity and fixed Income have declined slightly, but remain high relative to US Equity.

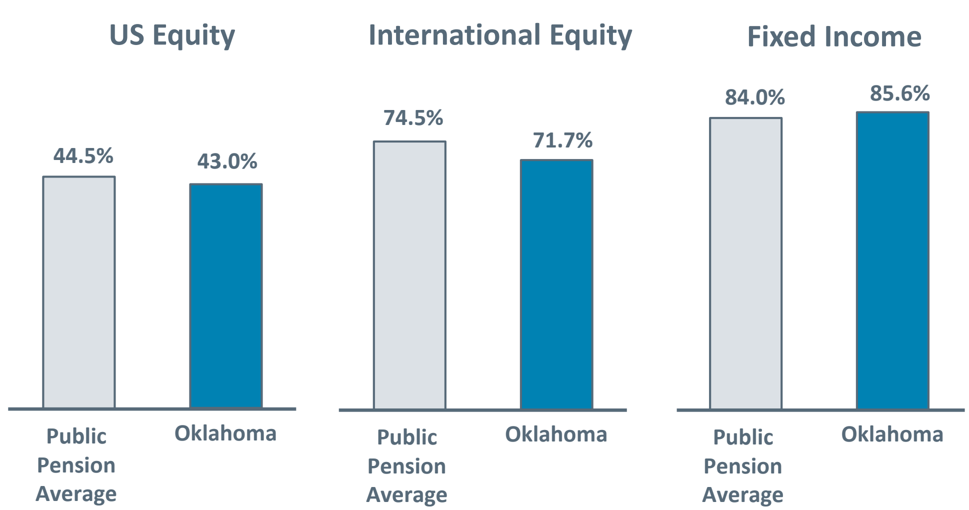
Source: *RVK, Inc. Public Fund Surveys as of 6/30/2010 & 6/30/2020.*

Oklahoma Pension Plan Allocation and Active Management Trends

Oklahoma Pension Plan Average Asset Allocation (as of June 30, 2020)



Average Active Management Usage Oklahoma vs. Pension Plan Average (2020)



Highlights

1. **High Allocation to U.S. Equity** – One of the primary drivers of Oklahoma's strong pension plan returns relative to other public plans is the high allocation to U.S. equity. In contrast many pension plans have reduced U.S. equity exposure in favor of asset classes that produced lower returns over the past 10 years – particularly alternatives.

2. **Selective Use of Active Management** – Oklahoma plans have focused active management in areas that are more likely to add value, such as international equity and fixed income.

Source: *RVK, Inc. Public Fund Survey as of 6/30/2020.*

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Investment Returns

Oklahoma Pension Plan Investment Returns
(as of December 31, 2020)

Plan	10 Year Return	10 Year Rank
Firefighters	10.15	2nd
Teachers	9.70	7th
Public Employees	8.96	26th
Judges	8.74	34th
Wildlife	8.22	53rd
Law Enforcement	8.17	55th
Police	7.93	65th
Median Plan	8.27	-

Highlights

1. **Strong Absolute & Relative Returns –** The Oklahoma pension plans have generally provided strong absolute returns over the prior 10-year period, as well as relative returns in comparison to other public pension plans. Perhaps most importantly, the two largest plans, Teachers and Public Employees, both ranked in the top quartile over the past 10 years, producing a combined return of approximately 9% per year net of fees.

Source: *Investment Metrics All Public Plans – Total Fund Median, as of 12/31/2020. Returns shown are gross of fees.*

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Conclusions

1. **Recent Returns Have Improved Public Pension Plan Funding** – In general, the funded status of public pension plans has improved over the past ten years due to particularly strong returns across several asset classes.

2. **Oklahoma Pension Plans Have Outperformed** – Oklahoma pension plans, in aggregate, have outperformed the median public pension plan over the prior 10 years. Key contributors include heavier exposure to public equity (US equity in particular), selective use of active management, and targeted (but limited) use of alternative asset classes.

3. **Future Return Expectations Have Declined** – Current yields in fixed income and valuations in equity present a considerable headwind to investors. Oklahoma responded by reducing future expected returns.

4. **Return Challenges Could be Amplified by Two Additional Trends** – Future returns could be impaired further by greater efficiency in securities markets and the crowding of capital in alternative asset classes.

5. **Governance Remains a Perpetual Challenge** – Similar to all institutional investors, public pension systems face the constant challenge of governance. At the core, this challenge stems from the fact that public pension boards experience frequent turnover, and new members bring different levels of experience.

6. **Response to Known and Emerging Challenges will Drive Performance** – The ability of Oklahoma to respond to known challenges, and promptly react to emerging challenges, will shape the relative success of the programs going forward.

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