Cobbler’s Shoes

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Presenters

Greg Allen, CEO and Chief Research Officer, oversees the firm's fund sponsor consulting, trust advisory, database, client report services, operations, and all research and education groups, including the Callan Institute. Greg is a member of numerous Callan committees, including the Investment Committee, which oversees all of Callan's discretionary multi-manager solutions. He is also a member of Callan's Board of Directors.

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Introduction

- Motivation and highlights
- Methodology and demographics of dataset
- Average balances and contribution behavior
- Investment design
  - Number of options
  - Use of target date funds
  - Active versus passive
  - Use of proprietary options
  - Top asset managers used by asset managers
  - Top recordkeepers
- Conclusions

Motivation for Study

- Unique factors impacting plan design for asset managers
  - Asset managers are engaged directly in the business of retirement
  - Workforce comprised of investment professionals, who are presumably more interested and engaged in plan design
  - Faced with interesting conundrum around using their own products versus those of their competitors
  - Organizational philosophy on active versus passive
  - Industry has generally been a target for 401(k)-related litigation
- How do these factors impact employer and employee contribution behavior?
- How do they impact plan design?
- How do they impact savings outcomes?
- Are there any common characteristics of plans with good savings outcomes?
- Are there ways that the industry can improve those outcomes?

Highlights

- High balances
- High employer and employee contributions
- Greater complexity of investment design
- Lower allocations to capital preservation vehicles
- Low adoption of target date funds
- Similar use of passive management
- Higher allocations to brokerage windows
- Good expense management

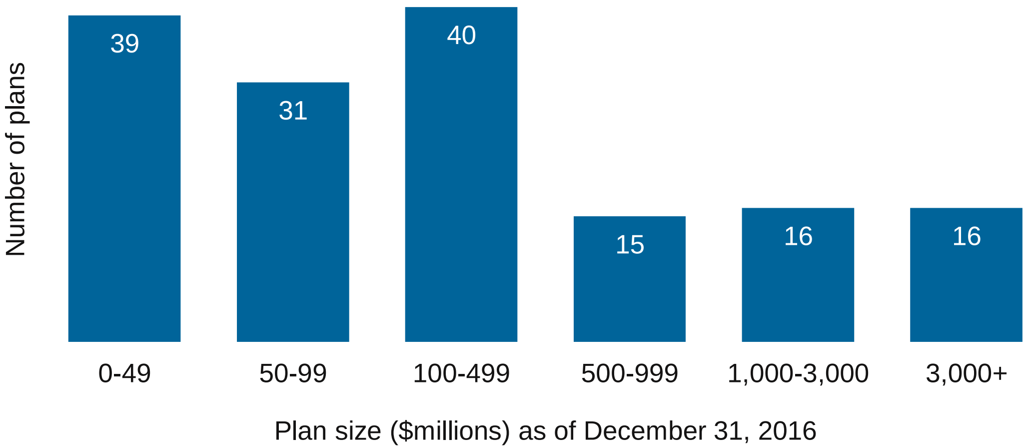
Methodology

- Asset manager plan data extracted from Department of Labor Form 5500 dataset (2016 plan year)
- Schedule H forms for each plan were painstakingly analyzed to determine investment design for each plan
  - Identified each investment option employed by plan
  - Mapped it to appropriate product and vehicle in Callan's Global Manager Research database
  - Allowed us to understand asset allocation decisions, expense ratios, prevalence of target date funds, etc.
- Comparative data on investment design was derived from Callan's DC Index™ and our annual DC surveys
- High-level metrics such as average balances and contribution rates were compared to the entire Form 5500 dataset (over 55,000 plans in 2016)

Study Demographics

- 157 different asset manager-sponsored 401(k) plans
- Approximately $200 billion in total assets
- Relatively small plan size with 75% of plans under $500 million, and 50% of plans under $100 million
- Dataset was correlated with Callan's Global Manager Research database to understand the attributes of the sponsoring organizations (i.e., AUM, ownership structure, personnel turnover, breadth and types of strategies managed, organizational history, etc.)

Distribution of Plan Population by Assets

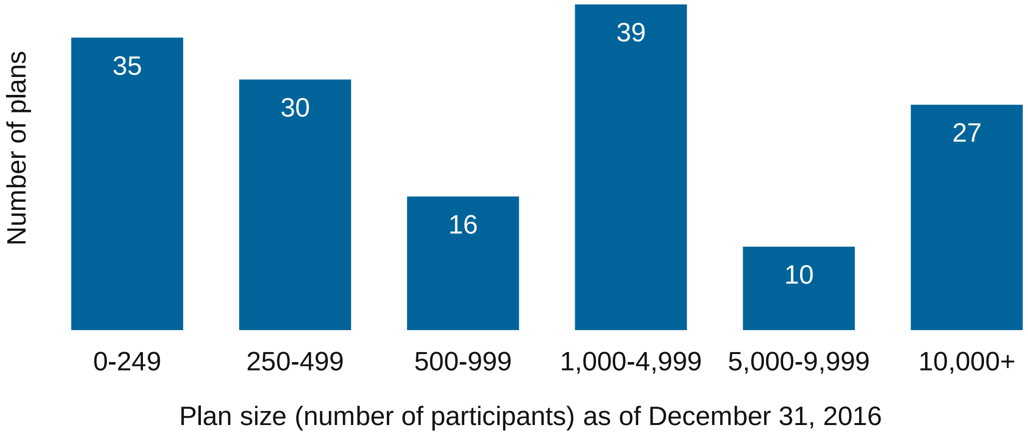


Source: Callan analysis of U.S. Department of Labor data

Study Demographics

- Over 1.5 million participants
- Roughly half of the plans had fewer than 1,000 participants
- 27 plans sponsored by relatively large organizations with over 10,000 participants
- Large plans face very different challenges and typically commit significantly more resources to the management of their plans relative to smaller plans

Distribution of Plan Population by Participants

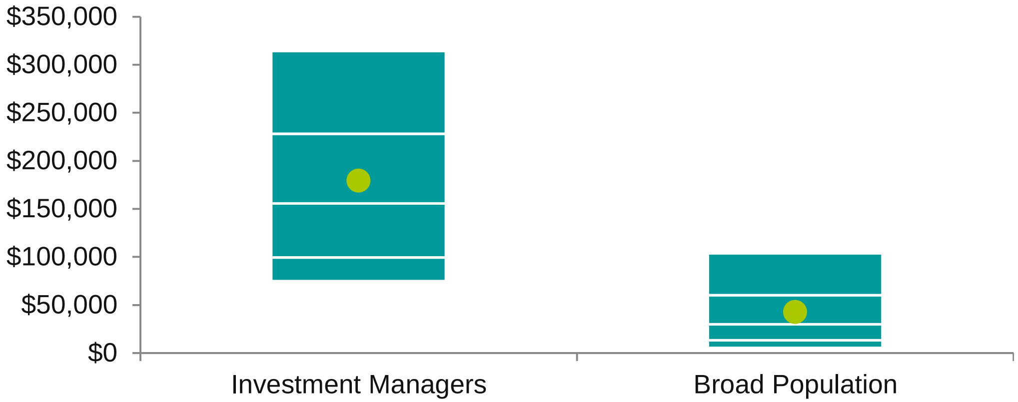


Source: Callan analysis of U.S. Department of Labor data

Average Balances

- Investment managers are succeeding on the most important metric of retirement savings health—average balances
- The average balance for investment manager-sponsored plans is over four times as large as the average balance for the broad Form 5500 dataset
- The 90th percentile average balance for asset manager-sponsored plans would be in the top quartile of the broad population
- In both populations the average balance is above the median, suggesting an upward skew created by the highest balance plans

Average Balances Comparison



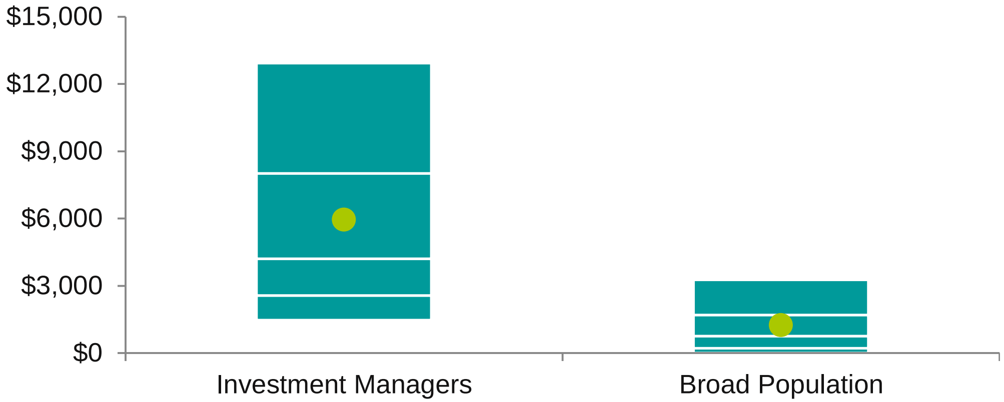
	Investment Managers	Broad Population
10th Percentile	$314,158	$103,945
25th Percentile	$228,280	$60,341
Median	$155,534	$30,101
75th Percentile	$99,494	$13,255
90th Percentile	$74,844	$5,440
Average	$179,171	$42,394

Source: Callan analysis of U.S. Department of Labor data

Employer Contributions

- A key driver of the successful savings outcomes in the asset manager-sponsored plans is the level of employer contributions
- Average employer contributions for asset manager-sponsored plans were almost five times higher than for the broad population
- The bottom quartile employer contribution in the asset manager population would be top quartile in the broad population

Comparing Employer Contributions



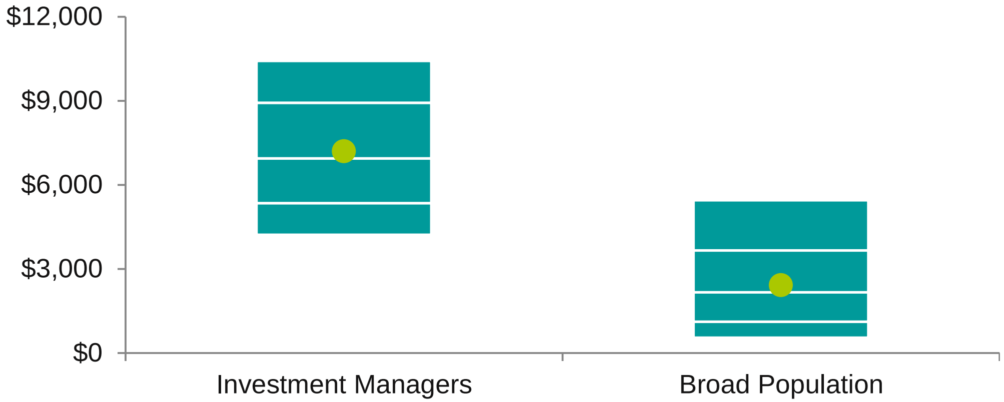
	Investment Managers	Broad Population
10th Percentile	$12,928	$3,268
25th Percentile	$8,013	$1,704
Median	$4,200	$761
75th Percentile	$2,572	$212
90th Percentile	$1,473	$0
Average ●	$5,938	$1,238

Source: Callan analysis of U.S. Department of Labor data

Employee Contributions

- Employees in asset manager-sponsored plans also contribute at levels well above the broad population
- Average employee contributions were almost three times that of the broad population
- Bottom decile employee contributions for the asset manager-sponsored plans were $4,225 in plan year 2016

Comparing Employee Contributions



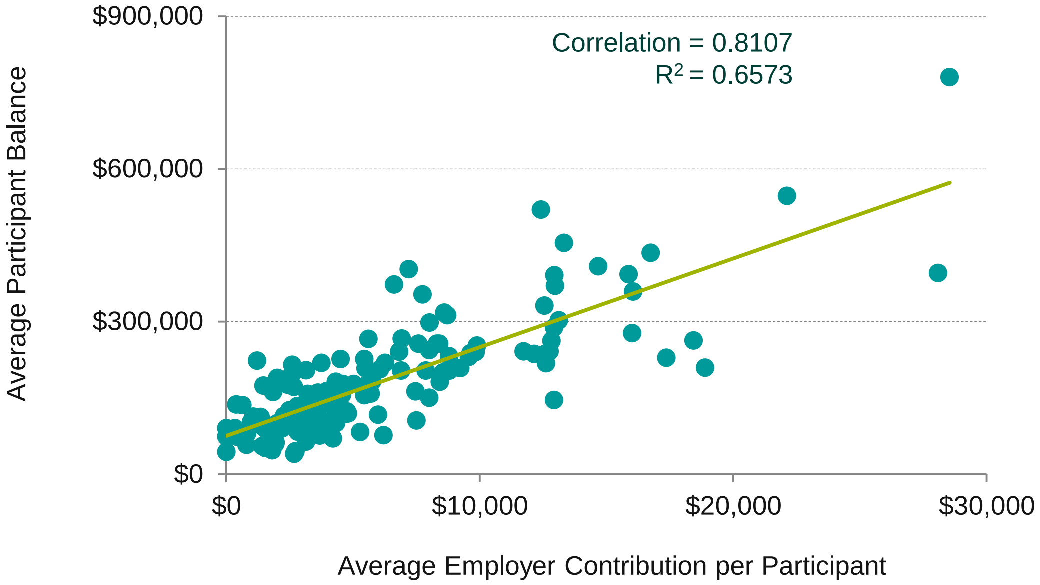
	Investment Managers	Broad Population
10th Percentile	$10,418	$5,450
25th Percentile	$8,932	$3,656
Median	$6,941	$2,169
75th Percentile	$5,346	$1,121
90th Percentile	$4,225	$545
Average ●	$7,187	$2,410

Source: Callan analysis of U.S. Department of Labor data

Contributions and Average Balances

- As you might expect there was a very high correlation between average balances and employer contribution behavior
- This suggests that the higher-contributing sponsors in 2016 have made consistently higher contributions over time
- Employer contributions not only directly increase balances, they also encourage engagement by employees in their 401(k) plan

Average Balances vs. Employer Contributions



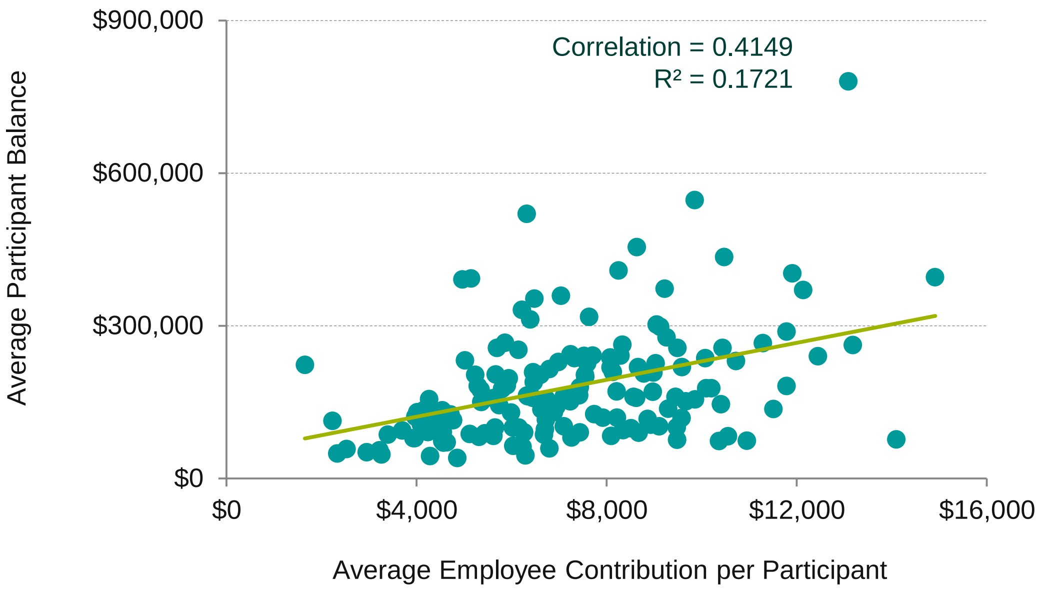
R-squared or R^2 measures the overall strength of "explanatory power" of a statistical relationship. In general, a higher R-squared means a stronger statistical relationship between two variables. An R-squared of 1 (100%) indicates that the statistical relationship has perfect explanatory power.

Source: Callan analysis of U.S. Department of Labor data

Contributions and Average Balances

- The correlation between employee contributions and average balances was positive but surprisingly it was not as strong as the relationship with employer contributions
- We postulate that organizations with consistent and generous profit-sharing arrangements may hold onto high-value employees longer, which leads to the higher balances and the stronger correlation
- Employee contributions are typically driven by overall salary levels and may be less correlated with retention

Average Balances vs. Employee Contributions

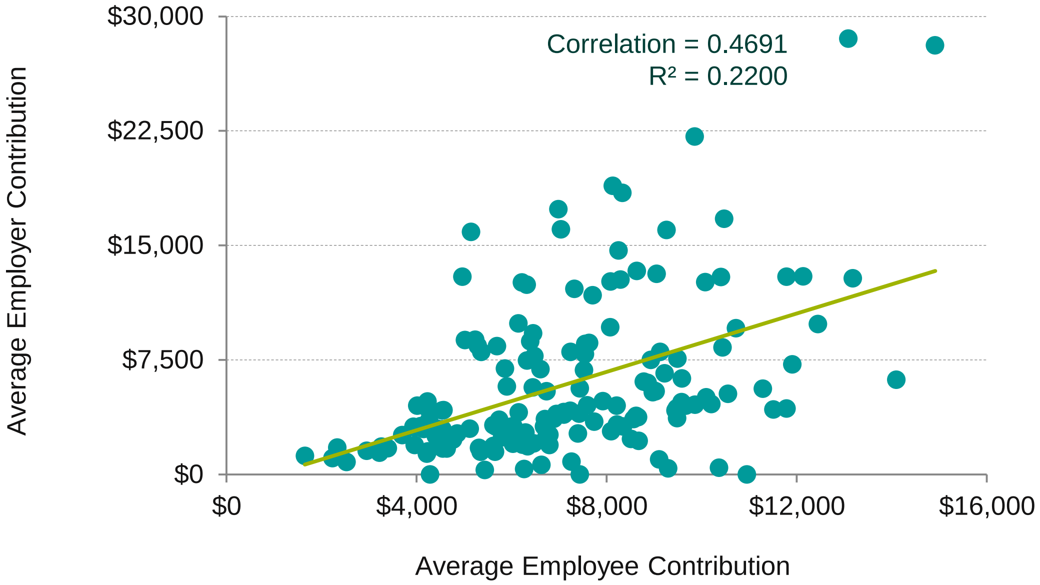


Source: Callan analysis of U.S. Department of Labor data

Relationship Between Employer and Employee Contributions

- There was a positive relationship between employer and employee contributions
- This suggests that employer contributions, both matching and profit-sharing, create more employee engagement with the plan
- Sponsors that make retirement savings a corporate priority can encourage better savings behavior through the match, auto-features, profit-sharing, good plan design and oversight, and education

Average Employer vs. Average Employee Contribution

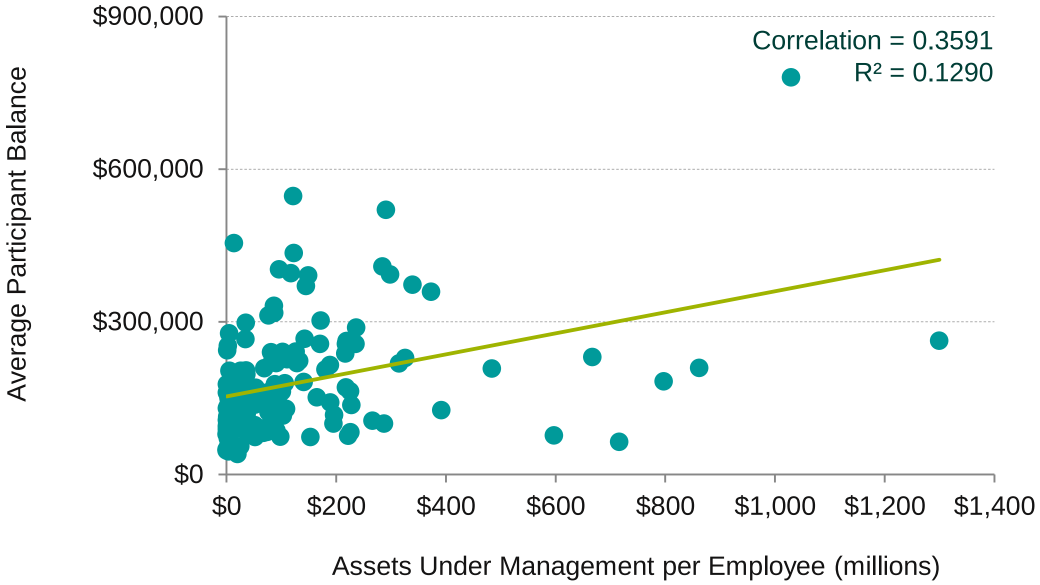


Source: Callan analysis of U.S. Department of Labor data

Profitability and Participant Balances

- As a proxy for profitability we used AUM per employee
- While a reasonable proxy in a homogenous competitive industry, the difference in fee structures makes this a weaker proxy
- The relationship is positive, though weak, suggesting that either our proxy is bad, or that profitability does not translate directly into a corporate commitment to retirement savings
- It is likely a combination of both

Average Balances vs. Profitability Proxy

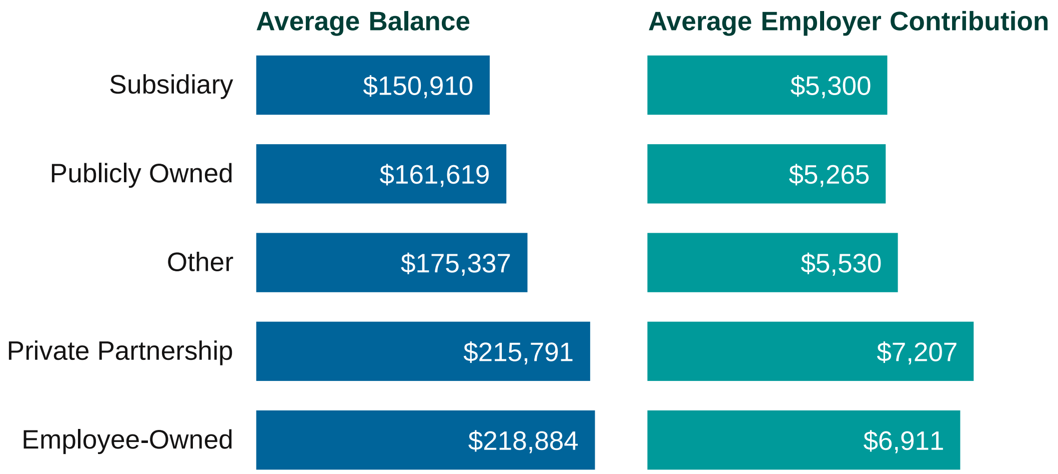


Source: Callan analysis of U.S. Department of Labor data

Firm Ownership Structure and Retirement Savings

- We broke the dataset down by ownership structure using Callan's Global Manager Research database
- There seemed to be a pretty strong relationship between private ownership and higher balances
- Publicly owned and subsidiary firms were often part of much larger organizations where many of the employees may not be in the asset management industry
- Many of the privately held firms in the dataset are 100% focused on asset management and have been for long periods of time

Ownership Structure and DC Plans



Source: Callan analysis of U.S. Department of Labor data

Firm Ownership Structure and Retirement Savings

Top 10 plans by average balance

- Of the top 10 firms in terms of average balance in 2016, 8 of them were privately held
- 8 out of 10 of these firms had products or organizational histories with at least a 30-year track record
- Employer contributions exceeded employee contributions in 9 out of 10 cases for 2016
- Callan is honored to be in this company

	Average Balance	Total Plan Assets	Number of Participants	Average Employee Contribution	Average Employer Contribution	Privately Held
Dodge & Cox	$779,791	$208,983,873	268	$13,083	$28,539	X
Baron Capital	$546,681	$89,108,932	163	$9,854	$22,118	X
Wellington Management	$519,878	$1,750,948,191	3,368	$6,315	$12,414	X
Davenport & Company	$454,109	$210,706,606	464	$8,632	$13,328	X
Wasatch Advisors	$434,982	$53,502,837	123	$10,475	$16,745	X
Loomis, Sayles & Company	$408,127	$344,867,038	845	$8,253	$14,670	
Callan LLC	$402,603	$95,416,866	237	$11,905	$7,192	X
Renaissance Technologies	$395,021	$130,751,809	331	$14,912	$28,086	X
Jennison Associates	$392,484	$210,371,621	536	$5,143	$15,875	
Capital Group	$390,717	$3,879,824,476	9,930	$4,961	$12,943	X
Average	$472,439	$697,448,225	1,627	$9,353	$17,191	NA

Source: Callan analysis of U.S. Department of Labor data

Investment Design

Best practices for 401(k) plans

- This investment structure represents a happy medium between offering enough choice in order to build a sufficiently diversified portfolio while at the same time not overwhelming participants with a proliferation of options
- It generally represents Callan's "clean-sheet" investment design recommendation to sponsors of DC plans
- Larger plans are increasingly implementing with open architecture multi-manager structures for active core and target date funds

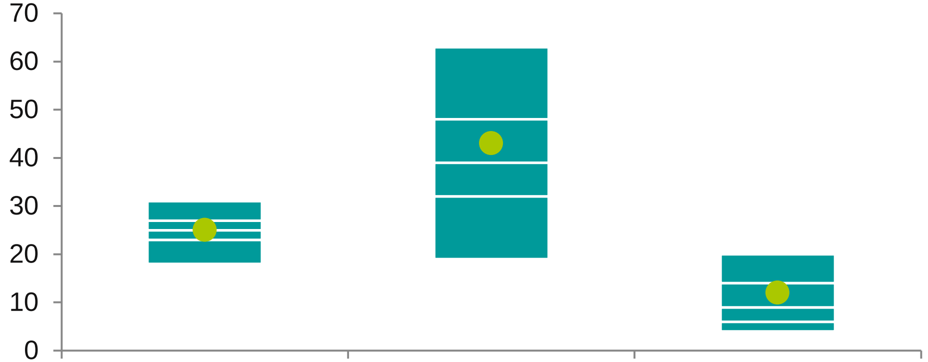
Target Date Funds	Core Passive Options	Core Active Options	Specialty
2060 Fund	U.S. Equity	Active Large Cap Growth	Brokerage Window
2055 Fund		Active Large Cap Value	Company Stock
2050 Fund		Active U.S. Small Cap	
2045 Fund	Non-U.S. Equity	Active Non-U.S. Equity	
2040 Fund		Active High Yield Bonds	
2035 Fund	U.S. Fixed Income	Active Core Fixed Income	
2030 Fund		Capital Preservation	
2025 Fund			
2020 Fund			
2015 Fund			
Retirement Fund			

Source: Callan

Number of Options

- The typical manager-sponsored plan offers more options than the typical DC plan (39 vs. 25)
- Additionally there is a much wider dispersion in the offerings in the investment manager universe relative to the institutional plan universe
- The average manager-sponsored plan offers 12 different equity options
- This can be confusing to participants, most of whom don't have the information or background to make educated choices

Number of Options Offered



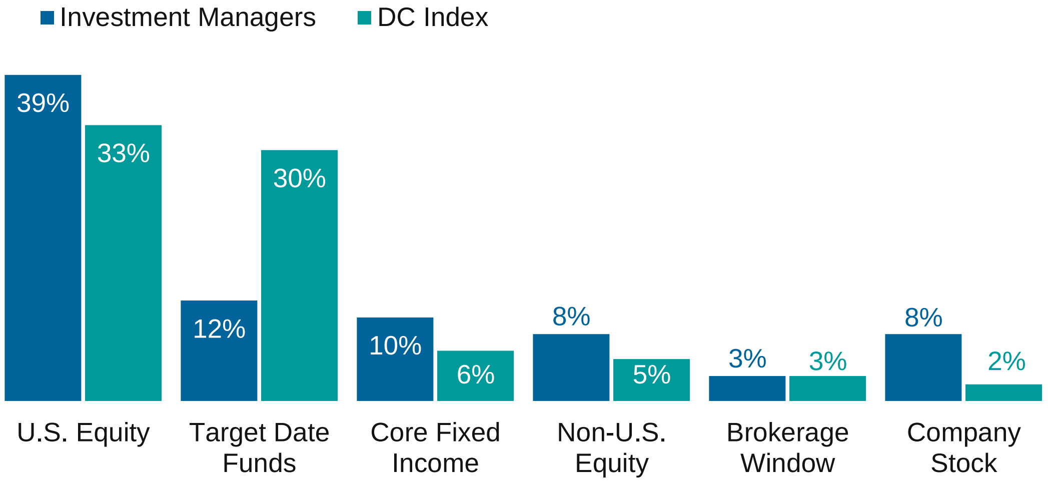
	DC Index	Investment Managers	Equity (Managers)
10th Percentile	31	63	20
25th Percentile	27	48	14
Median	25	39	9
75th Percentile	23	32	6
90th Percentile	18	19	4
Average ●	25	43	12

Source: Callan analysis of U.S. Department of Labor data, Callan DC Index™

Asset Allocation

- Manager-sponsored plans make significantly less use of target date funds relative to the larger institutional plans in Callan's DC Index universe
- Manager-sponsored plans make greater usage of both U.S. and non-U.S. equity
- They also generally have lower allocations to capital preservation vehicles
- Average brokerage window allocations are similar between the two groups, though there were a number of manager-sponsored plans with very high allocations to brokerage windows

Average Asset Allocation
Manager-Sponsored Plans vs. Plans in Callan's DC Index

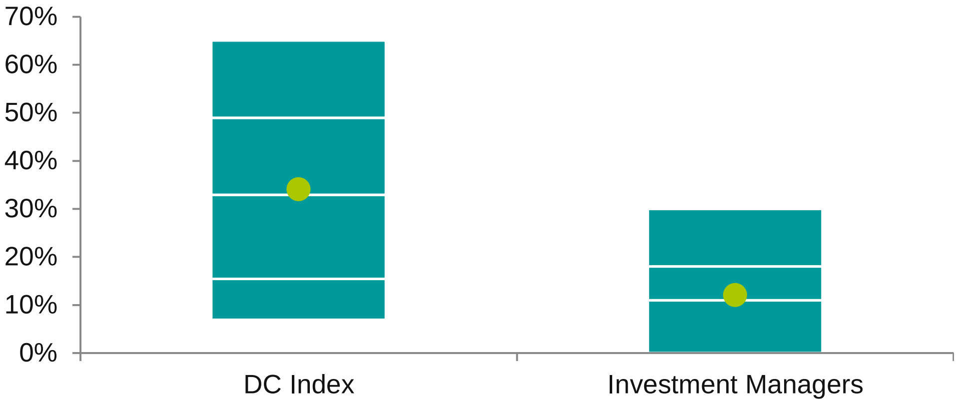


Source: Callan analysis of U.S. Department of Labor data, Callan DC Index™

Allocation to Target Date Funds

- Investment managers tend to have lower allocations to target date funds, which are used as the default in the majority (86%) of DC plans.
- The lower allocation to target date funds holds across the distribution. It may indicate a higher willingness to utilize core options.

Plan Assets Invested in Target Date Funds



	DC Index	Investment Managers
10th Percentile	65%	30%
25th Percentile	49%	18%
Median	33%	11%
75th Percentile	15%	0%
90th Percentile	7%	0%
Average	34%	12%

Source: Callan analysis of U.S. Department of Labor data, Callan DC Index™

Target Date Funds

Overview of major TDF providers

- The allocation to target date fund managers among investment managers mirrored the wider population, though there was more concentration with the top two providers
- 39% of the investment managers used a target date product of their recordkeeper, while only 25% of the broad population utilized their recordkeeper’s target date fund
- BlackRock was used by a number of the mega-plans in the dataset

TDF Provider	Number of Plans	Total Plan Assets	Average Plan Size	TDF Assets	Percent TDF	Recordkept by Provider
Vanguard	31	$23,792,825,789	$767,510,509	$4,580,982,398	19%	8
T. Rowe Price	20	$15,162,115,500	$758,105,775	$2,505,501,584	17%	4
Fidelity	8	$15,454,537,975	$1,931,817,247	$1,855,185,239	12%	8
Schwab	8	$1,825,712,699	$228,214,087	$149,804,905	8%	8
BlackRock	6	$15,098,106,573	$2,516,351,096	$3,515,129,206	23%	0

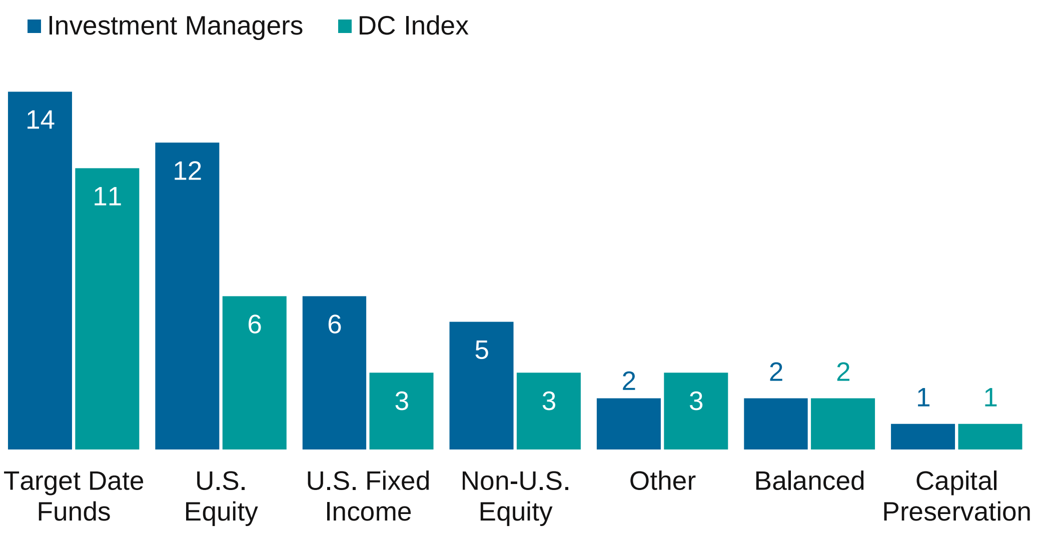
Source: Callan analysis of U.S. Department of Labor data

Core Asset Class Options

Use of options within plans

- The typical investment manager-sponsored plan offered more options within most core asset classes
- Interestingly the top 10 plans in terms of number of options offered an average of 109 options to participants
- The fact the managers on average offered more target date vintages indicated a higher prevalence of “Through” paths relative to the broad institutional market
- The fact that target date funds garnered only 12% of total assets indicated they have been added relatively recently without a reenrollment event

Average Number of Options within Plans by Asset Class

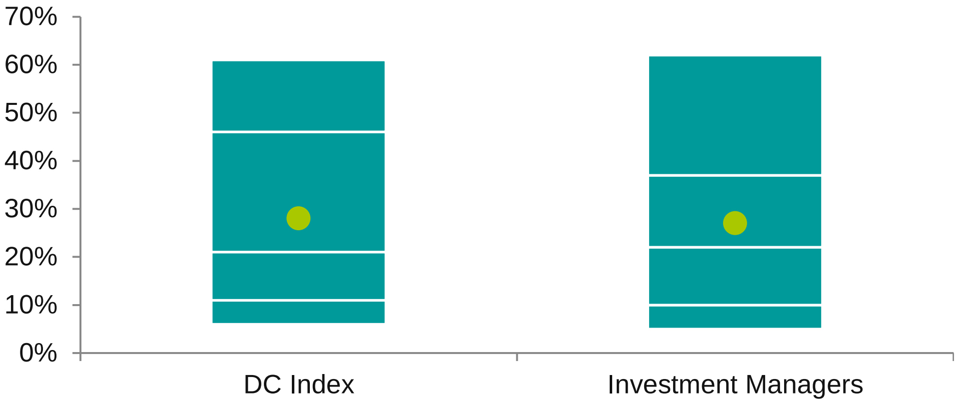


Source: Callan analysis of U.S. Department of Labor data, Callan DC IndexTM

Active vs. Passive Management

- The distribution of passive management across the sample of investment manager-sponsored plans and the overall population closely mirrored each other
- Most manager-sponsored plans offered at least one passive option
- The most prevalent passive option was a U.S. large cap equity fund
- Vanguard was the clear leader in terms of passive options employed by manager-sponsored plans

Share of Passive Assets



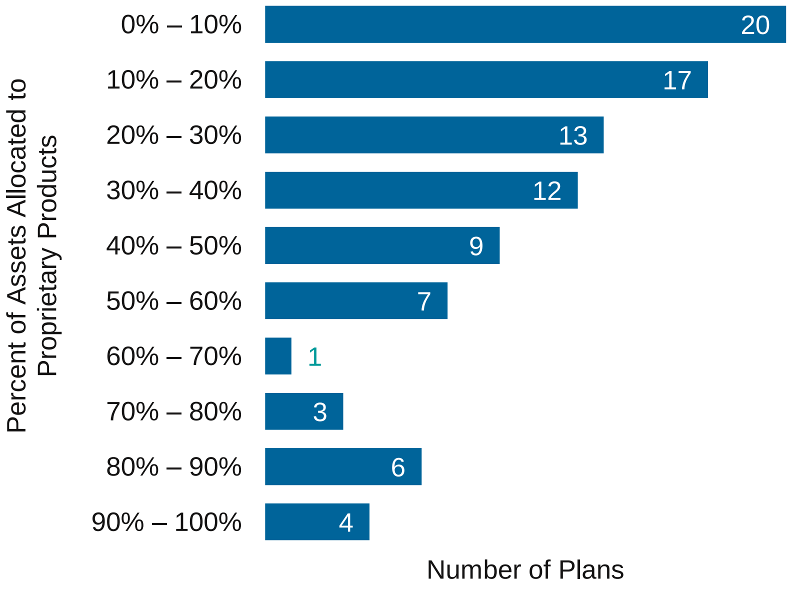
	DC Index	Investment Managers
10th Percentile	61%	62%
25th Percentile	46%	37%
Median	21%	22%
75th Percentile	11%	10%
90th Percentile	6%	5%
Average ●	28%	27%

Source: Callan analysis of U.S. Department of Labor data; excludes TDFs and the brokerage window, Callan DC Index™

Asset Allocation to Proprietary Products

- Proprietary products are defined as funds managed by the sponsoring organization of the plan
- 92 out of 157 plans offered at least one proprietary product within their plan
- The allocation to proprietary products among the top 10 plans (in terms of allocations to proprietary products) was close to 90% of total plan assets
- Three out of the top five plans in terms of usage of proprietary products were the major recordkeepers, T. Rowe Price, Vanguard, and Fidelity, with 96%, 93%, and 89% of plan assets respectively invested in proprietary products
- We found a zero correlation between the use of proprietary products and average expense ratio

Distribution of Plans by Assets in Proprietary Products

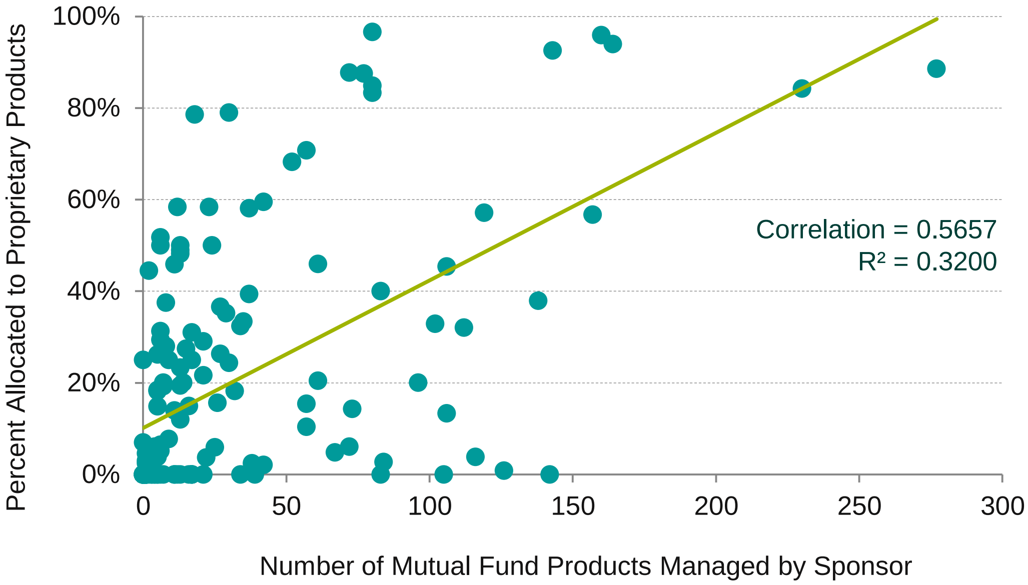


Source: Callan analysis of U.S. Department of Labor data

Proprietary Products

- Perhaps not surprisingly there was a pretty strong positive correlation between the number of mutual funds offered by an organization and their propensity to offer them in the plan
- Proprietary collective investment trusts were much less prevalent in the dataset
- In almost all cases in which proprietary mutual funds were offered, the institutional share classes were employed
- Smaller plans (under $50 million) were the only cases where this was not always true

Use of Proprietary Products vs. Number of Funds Managed

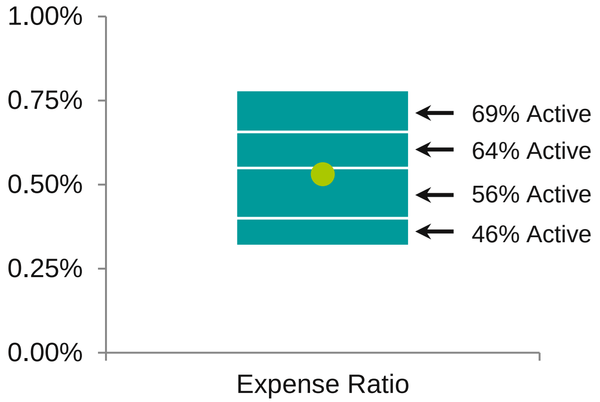


Source: Callan analysis of U.S. Department of Labor data

Investment Expense

- The weighted average expense ratio across all plans was 53 basis points
- This is quite reasonable given the prevalence of active management and the focus on equities within the overall asset allocation
- There was a clear relationship, shown in the chart, between the use of active management within a plan and the average expense ratio for the plan
- The investment management industry in general seems to have done a good job of monitoring and managing the expense ratios within their own 401(k) plans

Distribution of Weighted Average Investment Expense



	Expense Ratio
10th Percentile	0.78%
25th Percentile	0.66%
Median	0.55%
75th Percentile	0.40%
90th Percentile	0.32%
Average ●	0.53%

Source: Callan analysis of U.S. Department of Labor data

Asset Managers Used in Manager Plans

Periodic table of top 10 asset managers used by manager-sponsored plans

- Vanguard was the most widely used asset manager by manager-sponsored plans, both in terms of number of plans and total assets allocated
- The three major recordkeepers were well represented in this group; 88% of total assets allocated to Fidelity were through plans recordkept at Fidelity
- 243 different asset management firms were employed by the 157 plans in the dataset (this does not include assets in brokerage windows)

Number of Plans	Total Assets ($millions)	Equity Assets ($millions)	Fixed Income Assets ($millions)	Target Date Assets ($millions)
115 Vanguard	$19,892 Vanguard	$11,352 Vanguard	$3,474 Fidelity	$4,596 Vanguard
72 T. Rowe Price	$15,735 Fidelity	$9,832 Fidelity	$3,027 Vanguard	$3,476 BlackRock
61 PIMCO	$7,496 BlackRock	$4,215 T. Rowe Price	$909 PIMCO	$2,489 T. Rowe Price
57 Capital Group	$7,075 T. Rowe Price	$4,037 Capital Group	$846 BlackRock	$1,779 Fidelity
55 Fidelity	$5,731 Capital Group	$3,129 BlackRock	$394 Capital Group	$890 Capital Group
46 OFI Global	$1,657 Dodge & Cox	$1,432 Dodge & Cox	$280 T. Rowe Price	$87 Franklin Templeton
45 BlackRock	$1,279 MFS	$1,238 MFS	$179 Franklin Templeton	$23 PIMCO
39 Franklin Templeton	$1,240 PIMCO	$768 Franklin Templeton	$149 Dodge & Cox	$0 Dodge & Cox
36 MFS	$1,119 Franklin Templeton	$544 OFI Global	$44 OFI Global	$0 OFI Global
34 Dodge & Cox	$602 OFI Global	$112 PIMCO	$10 MFS	$0 MFS

Source: Callan analysis of U.S. Department of Labor data

Recordkeeper Analysis

Periodic table of top six recordkeepers used by manager-sponsored plans

- Fidelity was the top recordkeeper employed by 32 different asset manager-sponsored plans
- Alight had the largest total assets, reflecting its prevalence in the very large plan market
- Schwab and BofA Merrill were well represented, reflecting the flexibility that they offer at the smaller end of the market
- Vanguard was recordkeeper for only eight plans, but as we saw in the previous slide, was the dominant asset management firm

Number of Plans	Total Assets ($millions)	Total Participants	Average Plan Size ($millions)	Average Number of Participants	Average Balance
32 Fidelity	**$36,581** Alight	**232,019** Alight	**$4,065** Alight	**25,780** Alight	**$210,231** BofA Merrill
27 Schwab	**$32,217** Fidelity	**177,191** Fidelity	**$1,056** Vanguard	**5,958** Vanguard	**$187,091** Schwab
11 BofA Merrill	**$9,636** Schwab	**51,504** Schwab	**$1,007** Fidelity	**5,537** Fidelity	**$181,822** Fidelity
9 Principal	**$8,447** Vanguard	**47,662** Vanguard	**$566** Principal	**3,952** Principal	**$177,220** Vanguard
9 Alight	**$5,094** Principal	**35,570** Principal	**$387** BofA Merrill	**1,908** Schwab	**$157,662** Alight
8 Vanguard	**$4,259** BofA Merrill	**20,260** BofA Merrill	**$357** Schwab	**1,842** BofA Merrill	**$143,215** Principal

Source: Callan analysis of U.S. Department of Labor data

Concluding Observations

- The “industry vertical” analysis provided a useful lens to help us better understand many of the general questions that face all plan sponsors
- High balances are a result of:
  - Good savings behavior (high employer and employee contributions)
  - Long tenure (reflective of overall focus on well-being of employees)
  - Equity-focused portfolios and lower allocations to capital preservation vehicles
  - Good expense management
- The industry appears to have the opportunity to make improvements in plan design
  - Simpler, more-streamlined investment structures
  - Less redundancy and overlap of options
  - Greater use of target date funds, potentially through re-enrollment events
  - Greater adoption of open-architecture design

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