

Wisconsin Deferred Compensation Program

Benchmarking Managed Accounts

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There is no guarantee provided by any party that participation in any of the advisory services will result in a profit.

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Sample Benchmarking – Managed Accounts Providers

- Each provider is given a score in each category
- Score results in an overall rating between “Sell” and “Buy”

Provider	Business	Staff	Process	Risk	Performance	Terms & Conditions	Rating
Morningstar	#	#	#	#	#	#	#
Provider 1	#	#	#	#	#	#	#
Provider 2	#	#	#	#	#	#	#
Provider 3	#	#	#	#	#	#	#

A Comparison of Advisory Fees

25bps

Digital Only
Robo Advisor¹

40bps

Wisconsin
My Total
Retirement

50bps

Fidelity PP&A²

Financial Engines²

Hybrid Robo Advisor
(account minimum ~50k
to 100k)³

85bps

100+bps

Full Services
Financial Advisor⁴

¹ <https://www.valuepenguin.com/comparing-fees-robo-advisors>

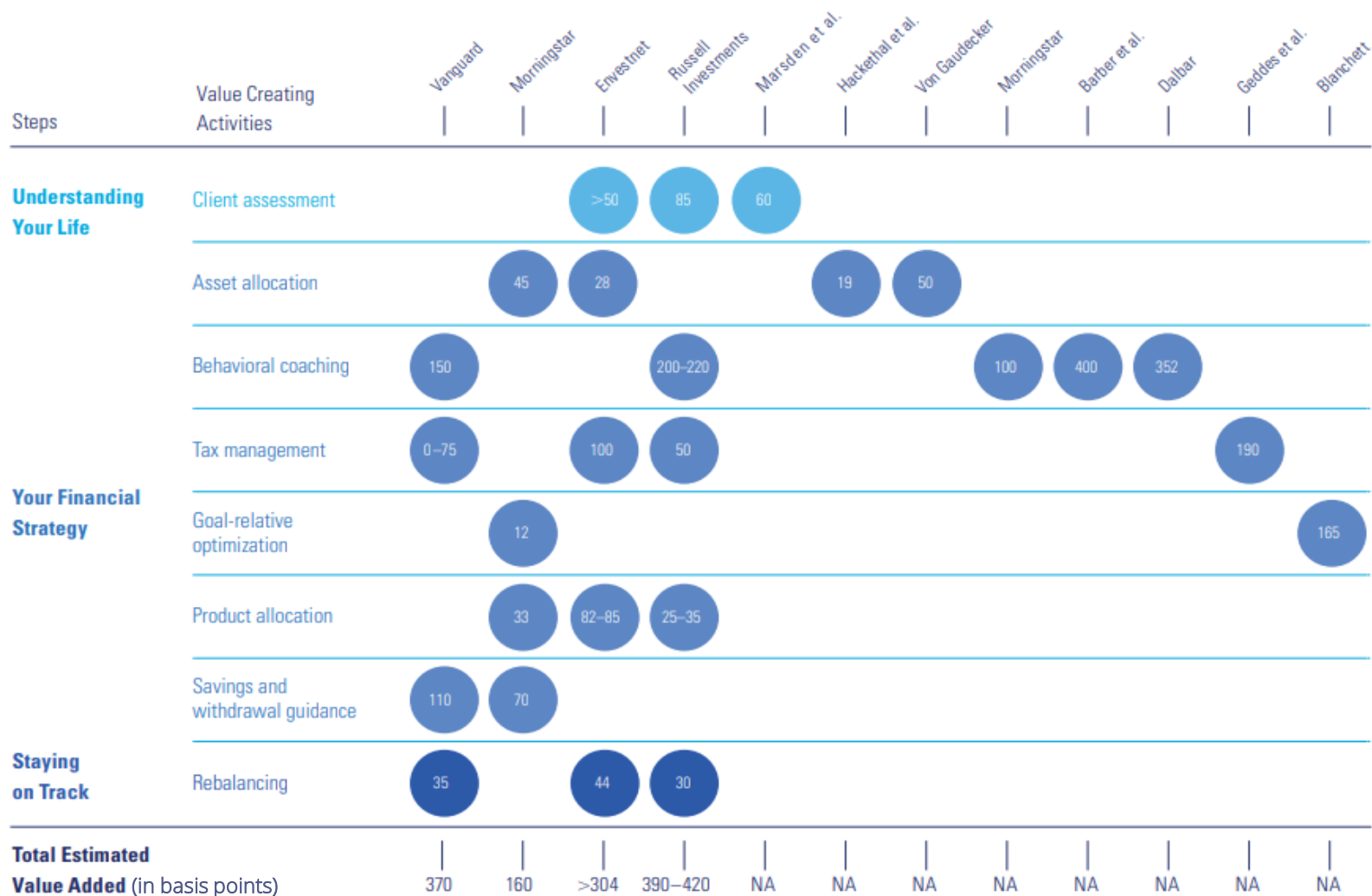
² Aon Managed Accounts Fee Comparison

³ <https://www.roboadvisorpros.com/robo-advisors-with-human-touch/>

⁴ <https://www.kitces.com/blog/independent-financial-advisor-fees-comparison-typical-aum-wealth-management-fee/>

*Online Advice and My Total Retirement™ are part of the Empower Retirement Advisory Services suite of services offered by Advised Assets Group, LLC, a registered investment adviser.

The Value of Financial Advice



Source: Merrill Lynch, "The Value of Personal Financial Advice"

Value of Managed Accounts

Vanguard¹

Component	Description
 Portfolio value	Optimal portfolio construction and client risk-taking <ul style="list-style-type: none"> • Portfolio risk/return characteristics • Tax efficiency • Fees • Rebalancing and trading activity
 Financial value	Attainment of financial goals <ul style="list-style-type: none"> • Saving and spending behavior • Debt levels • Retirement planning: cash flow, income, and health costs • Insurance and risk management • Legacy/bequest/estate planning
 Emotional value	Financial peace of mind <ul style="list-style-type: none"> • Trust—in advisor and markets • Success and sense of accomplishment • Behavioral coaching • Confidence

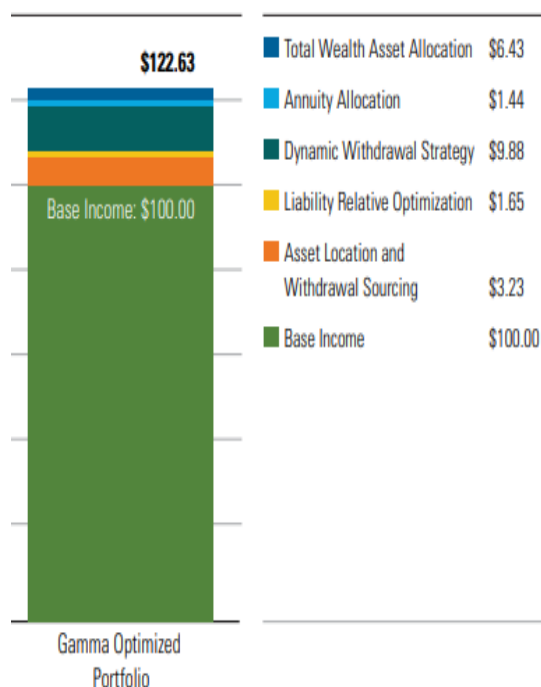
Source: Vanguard, 2019.

1 https://pressroom.vanguard.com/nonindexed/CIRAVOA_092019_online.pdf,

2 <https://www.morningstar.com/content/dam/marketing/shared/research/foundational/831611-GammaEfficientPortfolio.pdf>

3 Cosmano, Brian, "Made to measure: Evaluating the impact of a retirement managed account," January 2018

MORNINGSTAR²



EMPOWER³
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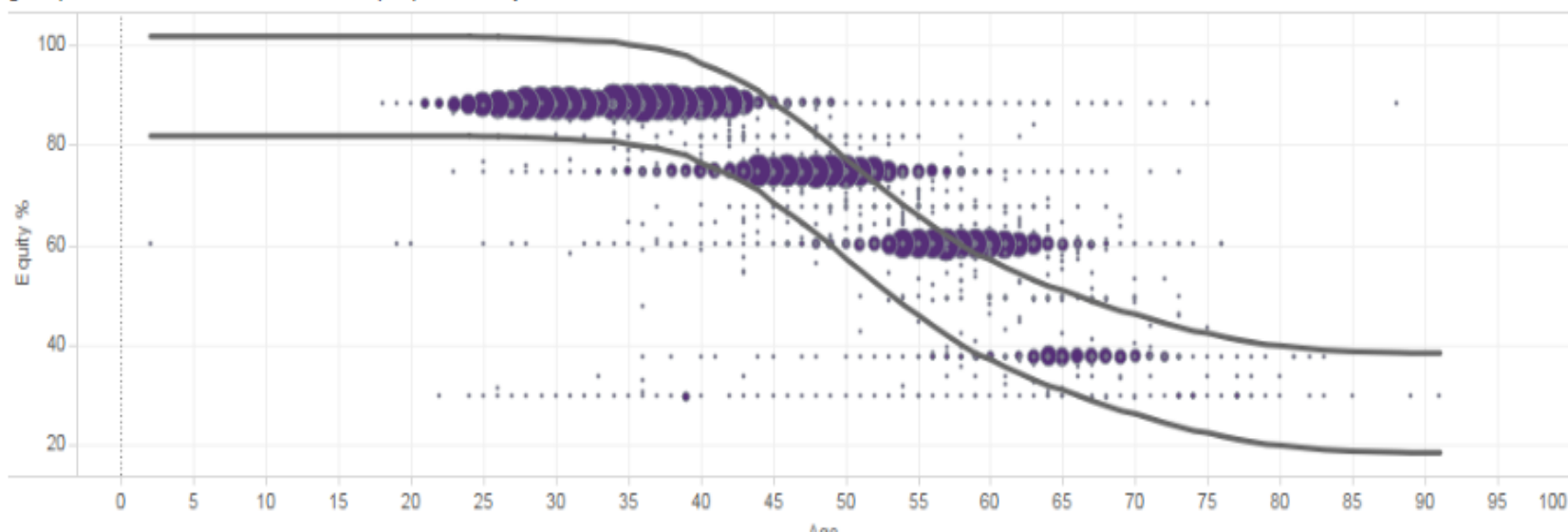
Engaged participants

	35	50	65
Age	35	50	65
Personalized investment allocations	6	30	22
Savings rate advice	80	80	0
Roth vs. pretax	6	0	0
Social Security claiming strategy	0	33	67
Dynamic withdrawals	0	38	75
Guaranteed retirement income allocation	0	5	10
Tax-efficient withdrawal	0	12	23
Mitigating negative behavior	60	60	60
Total value	152 bps	258 bps	257 bps

Equity Allocation of Target Date Fund Users

Wisconsin Deferred Compensation Program employee equity positions vs. representative target date glidepath

The representative target date glidepath reflects an asset allocation derived in conjunction with Morningstar Investment Management LLC. The glidepath reflected is for illustrative purposes only. Data as of 07/31/2019.

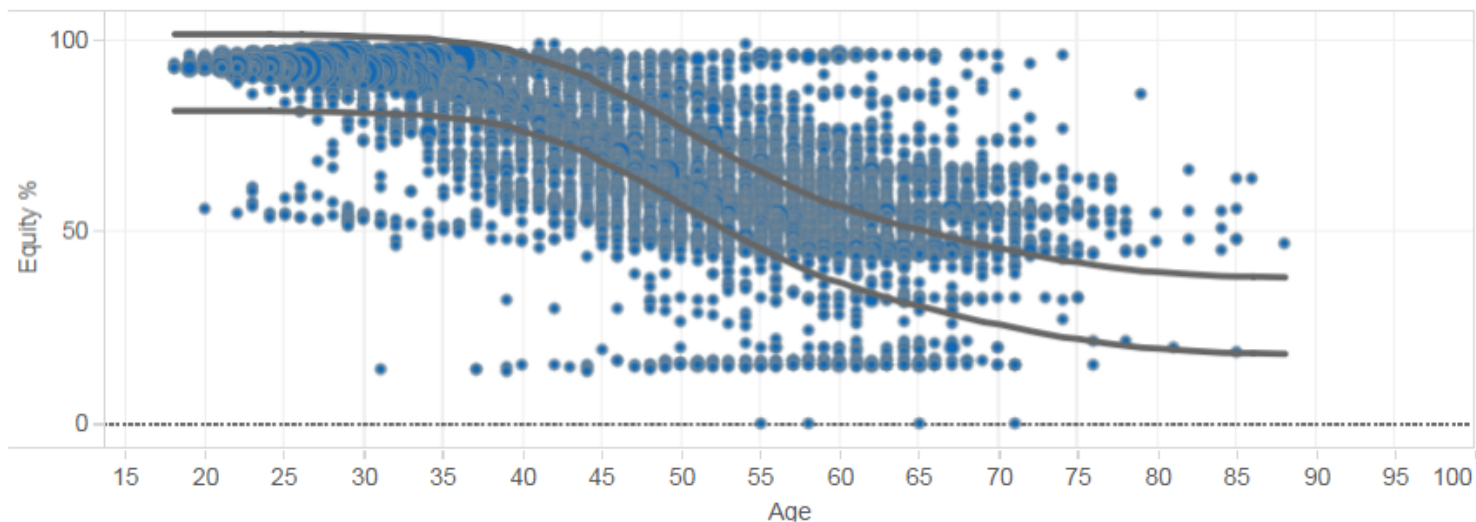


Investor Type	# of Participants
Only 1 TDF	14,943
Multiple TDF's	629
TDF(s) and Mutual Funds	9,918
Mutual Funds Only	38,403
Total	63,893

Equity Allocation of My Total Retirement Users

Wisconsin Deferred Compensation Program employee equity positions vs. representative target date glidepath

The representative target date glidepath reflects an asset allocation derived in conjunction with Morningstar Investment Management LLC. The glidepath reflected is for illustrative purposes only. Data as of 07/31/2019.



Reduction in allocation to risk extremes

Participants who are allocated outside typical ranges are there based on an analysis of their situation and participant provided personalization

Savings and Lifetime Income Score

	My Total Retirement	Online Advice	No advisory services
Participant count	15,494	154	49,260
Balance	\$671,779,689	\$36,653,536	\$4,708,051,067
Saving rate	4.41%	4.55%	3.25%
Avg age	44	57	53
Avg balance	\$43,357	\$238,010	\$95,576
Avg salary	\$81,556	\$111,722	\$157,966

Median Lifetime Income Score (LIS) by investment strategy

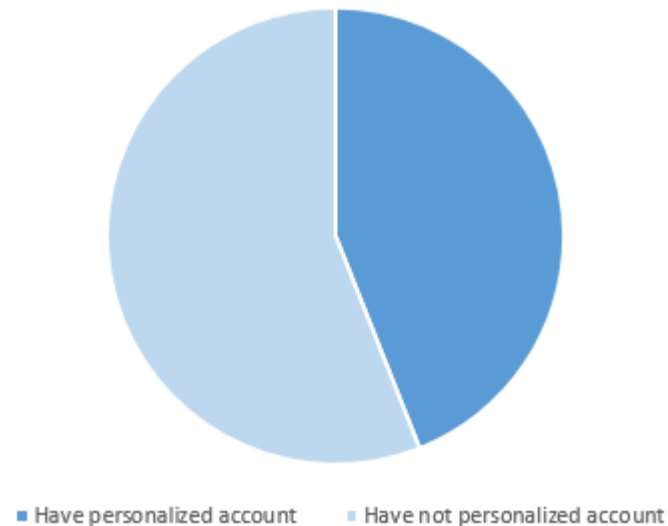
Includes LIS-eligible employees



My Total Retirement – 72%
 Online Advice – 78%
 Target Date Funds – 66%
 Do it yourselfers – 70%

Personalization of My Total Retirement

- Participants have added outside and/or pension accounts – 37%
- Adjusted retirement need – 20%
- Adjusted retirement age – 37%
- Total that have made at least one adjustment – 44%



Participants Rate of Return by Service Level*

Below is an analysis of the investment performance of your plan participants by service level. This analysis represents the average individual rate of return of participants enrolled in each level of investment allocation assistance in addition to plan participants not enrolled in any of the investment allocation assistance services. The average rate of return is determined by calculating a Compound Return for each participant over each of the years reported (i.e., one for 5 years, one for 3 years, and one for 1 year) and dividing each compounded return by the number of years in the period being reported. The calculated average rate of return is net of investment management fees paid to AAG. The performance data assumes reinvestment of dividends and/or capital gains.

	1 Year ¹ 07/01/18-06/30/19	3 Year ¹ 07/01/16-06/30/19	5 Year ¹ 07/01/14-06/30/19
Enrollment Status During Period	Average Annual Rate of Return		
My Total Retirement	5.73%	8.42%	5.82%
Online Advice	5.72%	8.80%	6.49%
Asset Allocation Product ²	0.00%	0.00%	0.00%
No Investment Allocation Product ³	6.81%	10.34%	7.44%

1 In order to have been included in the average IROR the participant had to have been in a level of Advisory Services, an Asset Allocation Product, or No Investment Allocation Assistance for the represented time period (i.e. enrolled in Managed Accounts from 1/1/2015 through 12/31/2017 for the three year annualized IROR.)

2 To qualify as being an Asset Allocation Product user, participants must have 95% or more of their account invested in one Asset Allocation investment as of the date that the participant analysis and forecasting was performed. Participants with less than 95% in any one single Asset Allocation Products are categorized in the No Investment Allocation Assistance group. In order to have been included in the average IROR for the "Asset Allocation Product" a participant had to have been enrolled in the Plan for the represented time period observed in this report.

3 In order to have been included in the average IROR for the "No Investment Allocation Assistance" a participant had to have been enrolled in the Plan for the represented time period observed in this report.

The rates of return above represent the average IROR for the participants who were in Advisory Services, an Asset Allocation Product or had No Investment Allocation Assistance as of 12/31/2017. Participants may have been in different portfolios or utilized different services or investments throughout the time period.

* For participant returns to be included in the average annual rate of return calculation by service level, participants must be enrolled or invested in a single service level for the full applicable period reported. Participants who were in multiple service levels during the applicable period reported would be excluded from the analysis for that reporting period. Thus, if a participant was invested >95% in an Asset Allocation Product for the first year and then enrolled in the Online Advice for the second and third (most recent) year, that participant's 1-year return would be included in the Online Advice average annual rate of return, but excluded from all service level average annual rate of return calculations for 3-year and 5-year returns.

Target Date Fund Rate of Return¹

INVESTMENT OPTION	Ticker	Gross/Net Expense Ratio	Inception Date	Returns as of Quarter Ending 06/28/2019					
				3 Month	1 Year	3 Year	5 Year	10 Year/ Since Inception	
Asset Allocation									
Vanguard Target Retirement Inc Trust I ^{3,4,18}	N/A	0.07 / 0.07	06-22-2007	2.96	6.62	5.29	4.24	6.44	
Vanguard Target Retirement 2015 Trust I ^{3,4,18}	N/A	0.07 / 0.07	06-28-2007	3.05	6.50	6.70	4.97	8.40	
Vanguard Target Retirement 2025 Trust I ^{3,4,18}	N/A	0.07 / 0.07	06-28-2007	3.39	6.70	8.77	6.04	9.87	
Vanguard Target Retirement 2035 Trust I ^{3,4,18}	N/A	0.07 / 0.07	06-28-2007	3.45	6.32	10.18	6.59	10.98	
Vanguard Target Retirement 2045 Trust I ^{3,4,18}	N/A	0.07 / 0.07	06-28-2007	3.51	5.94	11.11	6.94	11.34	
Vanguard Target Retirement 2055 Trust I ^{3,4,18}	N/A	0.07 / 0.07	10-05-2010	3.50	5.96	11.12	6.91	9.78	

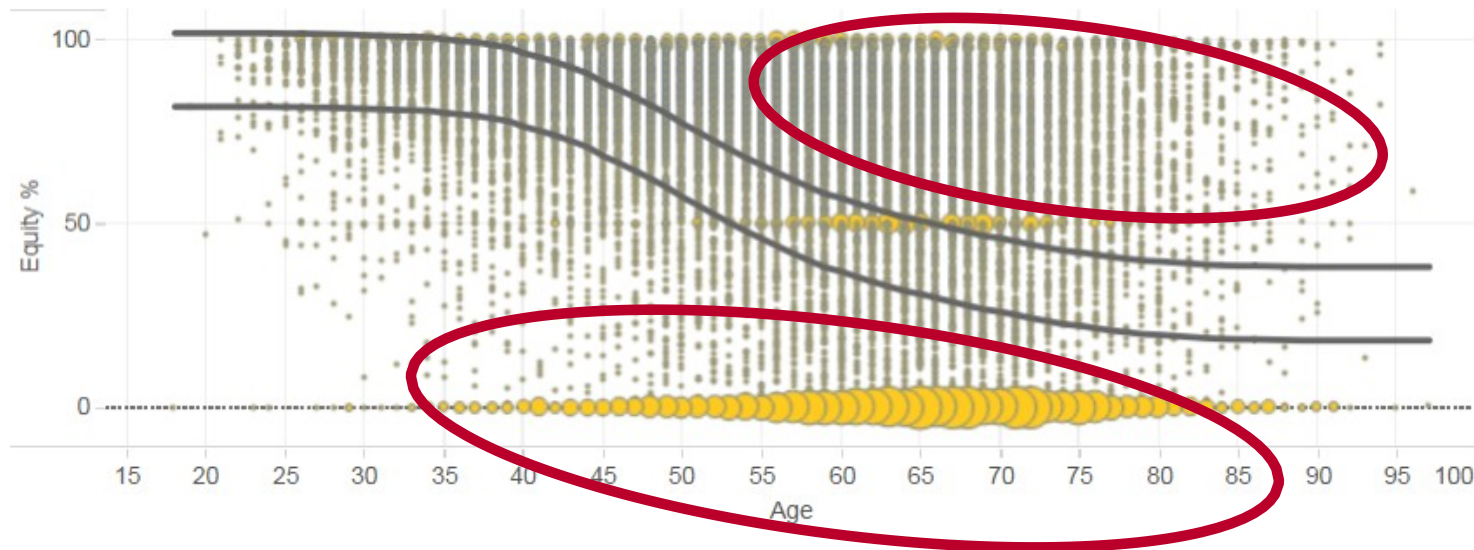
Current performance may be lower or higher than performance data shown. Performance data quoted represents past performance and is not a guarantee or predication of future results. For performance data current to the most recent month-end, please visit www.wdc457.org. The investment return and principal value of an investment will fluctuate so that, when redeemed, shares/units may be worth more or less than their original cost

¹ IOAG for WDCP. Additional footnotes refer to the risks of the trusts, details about collective trusts and source of data.

Equity allocations - Do-it-yourselfers

Wisconsin Deferred Compensation Program employee equity positions vs. representative target date glidepath

The representative target date glidepath reflects an asset allocation derived in conjunction with Morningstar Investment Management LLC. The glidepath reflected is for illustrative purposes only. Data as of 07/31/2019.



Meaningful allocation to risk extremes

Participants are likely unaware of the risk/return implications of their current allocation



Disclosure

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Asset allocation and balanced investment options and models are subject to risks of the underlying investments, which can be a mix of stocks/stock funds and bonds/bond funds. For more information, see the prospectus and/or disclosure documents.

A collective trust is not a mutual fund and is exempt from SEC registration. Designed for and exclusively sold to qualified retirement plans and their participants, the funds are not available to individual retail investors.

Asset allocation and diversification do not ensure a profit and do not protect against loss in declining markets. R0966326-0919

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Disclosure

Important Disclosures – Please Read

This report was not conducted with the intention to assert, indicate, or suggest in any way that, by enrolling in Advisory Services or investing in an available Asset Allocation Product, participants will experience improved investment performance or similar investment returns as otherwise depicted herein. The investment returns of any specific individual are a function of that individual's personal financial characteristics and retirement goals and the associated risk/potential return strategy that are provided by that person to AAG; the returns of which may be higher or lower than the averages shown in this report. Past performance is not a guarantee or prediction of future results. Portfolio returns are not guaranteed; investments may actually lose money.

Plan participants' individual rate of return

- The investment returns of specific individuals enrolled in Advisory Services are a function of those individuals' personal financial characteristics and retirement goals as shared with AAG and the associated risk/return potential strategies that the Advisory Services program advises for those participants, the returns of which may be higher or lower than the averages shown in this report.
- The material should be viewed in concert with additional sources and does not constitute a comprehensive analysis of the portfolio's investment choices.
- Individual rate of return (IROR) were calculated by the Empower Retirement defined contribution plan participant recordkeeping system. The IROR of an account represents an estimated fixed interest rate that would result from the change in account balance from the beginning of the period to the account balance at the end of the period, if the entire participant account were invested in a fixed pool. (i.e. a fixed investment amount for the stated period, adjusted for any changes in the balance resulting from investment performance such as dividends, interest or appreciation/depreciation.) The IROR calculation is used to minimize the effect of cash flows into or out of the account such as contributions or withdrawals during the stated period. Consequently, IROR is an estimate of actual account performance and may differ from actual returns, more so where there are substantial and/or frequent cash flows into or out of the account during the period stated. To closer approximate the actual performance of an account, the IROR calculation reflects the deduction of investment management fees paid to AAG and applicable fees assessed directly against the account, including but not limited to: asset fees, contract charges, contract maintenance charges, expense adjustments, fixed asset fees, premium payments and sales recovery charges.
- The IROR is determined by using a searching algorithm (Secant Method) to find the annualized interest rate. It does this by estimating an interest rate and then using the assumed interest rate to calculate an ending balance from the beginning balance and activity within the account for the stated period, as described above. Subsequent estimates are made until successive interest rates converge to a stated tolerance (+/- .0001) of the actual ending balance.
- The participants' rate of return section of this report excludes participants who are terminated with a balance below \$1,000, and active participants with balances under \$25.

Disclosure

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Advisory Services (including Online Investment Advice and Managed Accounts service)

- Advisory Services are a comprehensive suite of participant advisory services that combines the elements of sound financial planning with professional investment advice. The objective of Advisory Services are to provide defined contribution plan participants with a range of services each intended to facilitate the alignment of an individual's asset allocation strategy and its associated risk/potential return characteristics with his/her specific retirement goals and current financial position.
- The Online Investment Advice service provides investment allocation recommendations at a given point in time to a participant. It is the participant's responsibility to implement those investment recommendations at the time the recommendations are made and to revisit the service periodically to verify and/or update the recommendations. A participant may enroll in this service but AAG does not know if the participant acted upon the recommendations.
- In order to have been included in the average IROR the participant had to have been in a level of Advisory Services for the time period shown. For example, the 5 year time period for Managed Accounts includes enrollments from 7/1/2014 through 6/30/2019.

Asset Allocation Product

- Participants chose whether to invest in a particular Asset Allocation Product option based on information they input regarding personal financial characteristics and retirement goals and their associated risk/return strategy. Participants are also solely responsible for reviewing and updating the information they input and AAG makes no representations as to the completeness, accuracy and/or timeliness of the information.
- In order to have been included in the average IROR for the "Asset Allocation Product" a participant must have (1) been enrolled in the Plan for the represented time period observed in this report and (2) have at least 95% of their account invested in one of the available Asset Allocation Product investment options as of the date shown in these materials. Participants with less than 95% in any specific Asset Allocation Product investment option are shown in the No Investment Allocation Assistance group.

No Investment Allocation Assistance

- In order to have been included in the average IROR for the "No Investment Allocation Assistance" a participant had to have been enrolled in the Plan for the represented time period observed in this report.



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