



BenchmarkDC Executive Summary

for

North Carolina Supplemental Retirement Plans
(for the 5 years ending December 31, 2018)



Key Takeaways

Investment Line Up

- Your plan has 12 investment options (target date families are counted as one option) which compares to a peer average of 13.7 and a U.S. Universe average of 16.2.
- Your default option is Target Date (GoalMaker service), specifically the moderate risk GoalMaker asset allocation based on the number of years to retirement (at age 62). It is the default option for 85% of your peers and 82% of U.S. universe plans.

Fees

- Your total plan cost of 0.332% was below your benchmark cost of 0.346%. Your 0.014% lower cost reflects:
 - Saving 0.05% due to paying less for similar-style investment options.
 - Added cost of 0.04% due to active versus indexed options

Monitoring Investment Options

- A review of your individual investment options versus similarly styled options indicated a few options with differences relative to peers and the U.S universe in cost, returns, net value added and risk.

Total Plan Performance

- Your plan participants' average 5-year annualized net return was 4.2% versus a U.S. Universe of 5.0%. If we exclude the impact of company stock, your 5-year total net return was 4.2% versus a U.S. 5-year return of 4.7%. The primary driver was the higher weight in the stable value option - your 27% versus a U.S. average of 13%.

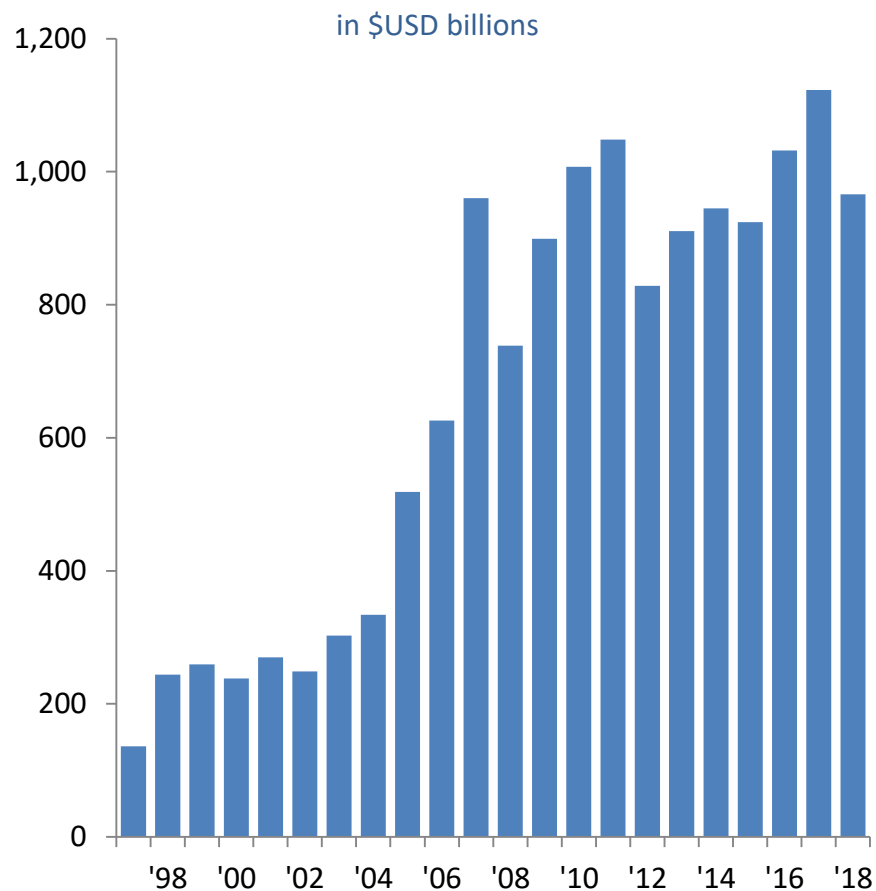
CEM has been benchmarking U.S. DC plans since 1997.

CEM's 2018 DC database consists of 118 U.S. large, blue chip corporate and government plans representing \$966 billion in assets and 7.4 million participants.

Plan assets range in size from \$89 million to \$59 billion. The median US DC plan has assets of \$5 billion and the average plan has assets of \$8 billion.

We also benchmark Australian DC plans. However, the regulatory and competitive environment is quite different than in the U.S. so their data is not included in this report's analysis.

Participating Defined Contribution Benchmarking Assets



By design, your peers are similar to your plan in assets and average account balance because these factors impact costs.

Comparison of plan characteristics

	Your plan	Peers	U.S. universe
# of plan sponsors	1	13	118
Plan assets			
- Smallest to largest	\$10.8 BN	\$2.6 BN - \$13.1 BN	\$89 mil - \$58.7 BN
- Median	\$10.8 BN	\$6.8 BN	\$5.3 BN
Account balance of average participant			
- Median	\$35,000	\$51,000	\$151,000
% retired or separated with assets in plan	23%	33%	37%
Average % of assets indexed	42%	55%	62%
Average # of investment options	12	14	16
Corporate, Public	Public	0 Corp, 13 Public	94 Corp, 24 Public

As the plan sponsor, choosing an investment line up and the default option are two of the most important decisions you make.

You have 12 investment options compared to a peer average of 13.7 and a U.S. universe average of 16.2. Asset mix is a primary driver of long-term returns. Asset mix depends on the investment options available.

The default option is especially important because participants will usually opt for the default investment option. Your default option is Target Date (GoalMaker service), specifically the moderate risk GoalMaker asset allocation based on the number of years to retirement (at age 62). It is the default option for 85% of your peers and 82% of U.S. universe plans.

GoalMaker is an asset allocation service that is provided to participants at no additional cost. A participant can utilize a profiling tool to be placed in one of GoalMaker's three risk profiles. The glidepath for each risk profile has nine age categories that move to and through retirement. A participant also can independently select one of GoalMaker's portfolios. Assets in each portfolio are rebalanced quarterly.

All of your GoalMaker portfolios have been included in this report as target date options for benchmarking purposes. Target date families are treated as one option. You have 27 target date options compared to a peer average of 12.4 and a universe average of 10.9.

Type and number of investment options

	Your Plan	Peer Average	Universe Average
Stock Employer		0.0	0.7
Stock U.S.	4	4.7	5.7
Stock Non U.S. & Global	2	1.8	2.7
Bonds	3	2.6	2.8
Stable Value & GIC	1	0.8	0.8
Cash, Money Market		0.7	0.6
Target Date (GoalMaker service)	1	1.0	1.0
Balanced		0.7	0.8
Mutual Fund Window		0.5	0.1
Participant Brokerage Account		0.5	0.4
Real, Hedge, Other ex. Loans	1	0.4	0.8
Total	12	13.7	16.2

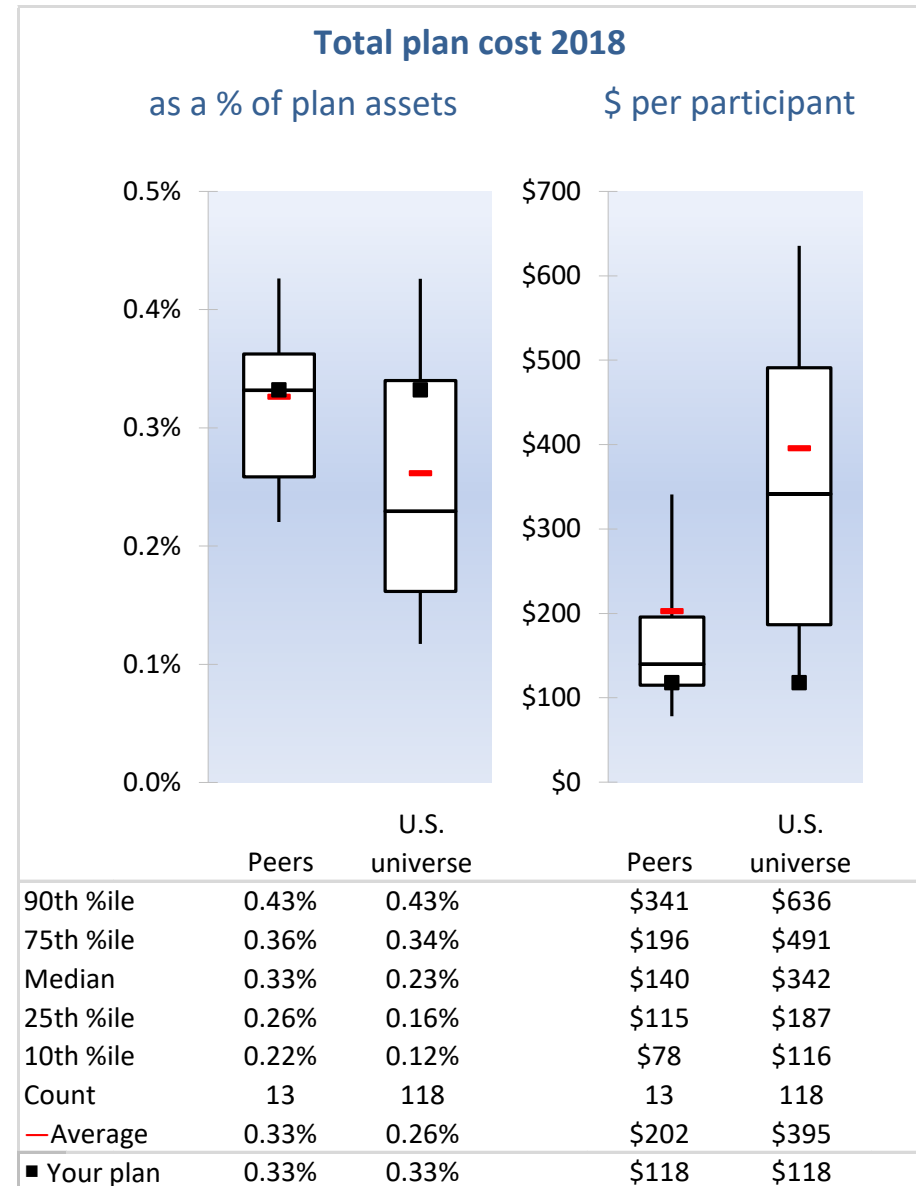
Default option

	Your Plan	Peer Average	U.S. Universe
Balanced		0%	8%
Target Date (GoalMaker service)	Yes	85%	82%
Managed account		0%	4%
Stable Value		0%	0%
Money Market		0%	0%
Other		0%	1%
No default option		15%	4%
Total		100%	100%

Your plan's total cost was 0.33% of total plan assets or \$118 per participant.

Your peers' average total cost was 0.33% of total plan assets or \$202 per participant.

As a fiduciary, it is very important that you assess whether your costs are reasonable. But comparing total plan costs provides only limited insight because differences in total cost primarily reflect differences in asset mix, plan size and average account balance.

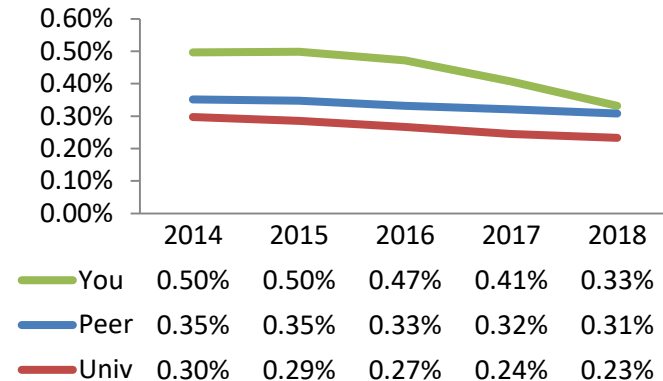


Your total plan costs decreased from 0.50% of plan assets in 2014 to 0.33% in 2018.

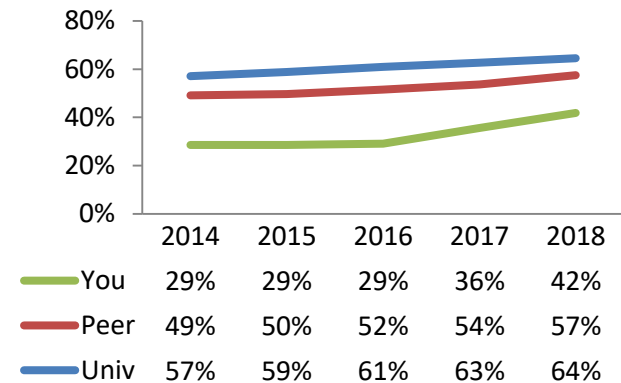
Your costs decreased primarily because your participants increased their holdings of indexed assets from 29% in 2014 to 42% in 2018.

During the same period, total plan costs decreased for the U.S. universe, from 0.30% of plan assets in 2014 to 0.23% in 2018. The primary reason for the decline is that indexed assets increased from 57% of total 'indexable assets' in 2014 to 64% in 2018.

Trend in total plan costs - % of assets



Indexed options as a % of indexable assets



Trend analysis is based on the 81 universe funds and 8 peers with 5 consecutive years of data.

Are your total plan costs reasonable?

CEM calculates a benchmark cost for your plan based on the median cost your peers pay for similar options. The exceptions are target date funds where we calculate a custom benchmark cost based on the asset mix of each target date fund. Your total plan cost was 0.33%. This was 0.01% below your peer-based benchmark cost of 0.35%.

Being high or low cost is neither good nor bad in and of itself. But as fiduciaries you should understand where and why you are paying more (or less) than peers and be comfortable that you are receiving value for what you are paying. Reasons for your plan's 0.01% savings are summarized in the table on the right.

Your total plan cost versus benchmark

	\$000's	%
Total plan cost	\$36,599	0.332%
Peer-based benchmark cost	\$38,100	0.346%
Cost savings	-\$1,501	-0.014%

Reasons for your plan's cost savings

Reason	\$000's	%
Paying less for similar-style investment options	-\$5,308	-0.048%
Added cost from active versus indexed options (your 42% indexed vs peer 55%).	\$3,873	0.035%
Higher administrative expenses (your 0.12% of plan assets vs peer 0.12%).	\$39	0.000%
Less assets in mutual fund windows	-\$105	-0.001%
Total cost savings	-\$1,501	-0.014%

The table below compares your investment options relative to your peers for cost, and the U.S. universe for performance and risk. Outlier characteristics are highlighted in red.

Investment Option	Cost 2018					Risk 2018					Net Return 2018					Net Value Added 2018					Net Return 5-year					Net Value Added 5-year				
	Your	BM	Excess	Rank vs. Peer		Univ		Rank vs. Univ		High	Univ		Rank vs. Univ		High	Univ		Rank vs. Univ		High	Univ		Rank vs. Univ		High	Univ		Rank vs. Univ		High
	Cost	Cost	Cost	Low	High	Your	Med	Low	High		Your	Med	Low	High		Your	Med	Low	High		Your	Med	Low	High		Your	Med	Low	High	
BlackRock - North Carolina Large Cap Passive Fund	0.02%	0.02%	-0.01%			--	--				-4.4%	-4.4%				0.0%	0.0%				8.4%	8.5%				-0.1%	0.0%			
Multit-Manager - North Carolina Large Cap Core Fund	0.29%	0.28%	0.02%			--	--				-3.3%	-4.2%				1.5%	0.1%				n/a	8.4%				n/a	-0.1%			
BlackRock - North Carolina SMID Cap Passive Fund	0.02%	0.03%	-0.02%			--	--				-10.0%	-9.2%				0.0%	0.1%				5.1%	5.3%				0.1%	0.1%			
Multi-Manager - North Carolina SMID Cap Core Fund	0.39%	0.44%	-0.05%			--	--				-11.3%	-10.2%				-1.3%	0.2%				n/a	4.1%				n/a	-1.0%			
BlackRock - North Carolina International Passive fund	0.04%	0.06%	-0.02%			--	--				-13.9%	-14.4%				-0.1%	0.2%				0.8%	0.9%				-0.3%	0.1%			
Multi-Mgr - North Carolina International Equity Fund	0.34%	0.50%	-0.16%			--	--				-14.7%	-15.0%				-0.9%	-1.0%				1.8%	1.2%				0.7%	0.3%			
BlackRock - North Carolina Fixed Income Passive fund	0.03%	0.04%	-0.01%			--	--				-0.1%	0.0%				-0.1%	0.0%				2.4%	2.5%				-0.1%	0.0%			
Multi-Mgr - North Carolina Fixed Income Fund	0.14%	0.25%	-0.11%			--	--				0.0%	-0.3%				0.0%	-0.3%				3.0%	2.6%				0.4%	0.1%			
BlackRock - North Carolina TIPS Fund	0.03%	0.03%	-0.01%			--	--				n/a	-1.3%				n/a	0.0%				n/a	1.7%				n/a	0.0%			
Galliard - North Carolina Stable Value Fund	0.31%	0.30%	0.01%			--	--				2.3%	2.2%				-0.3%	0.2%				2.0%	1.9%				0.5%	0.9%			
BlackRock - North Carolina Inflation Sensitive Fund	0.10%	0.14%	-0.04%			--	--				-4.5%	-4.8%				0.7%	0.2%				n/a	0.3%				n/a	-0.1%			
GM - Pre Retirement - 0-5 CON 2020	0.17%	0.25%	-0.07%			5.4%	8.0%				-1.7%	-4.2%				-0.2%	-0.1%				n/a	3.9%				n/a	-0.1%			
GM - Pre Retirement - 6-10 CON 2025	0.18%	0.26%	-0.09%			6.4%	9.3%				-2.3%	-5.1%				0.0%	0.0%				n/a	4.3%				n/a	-0.1%			
GM - Pre Retirement - 11-15 CON 2030	0.18%	0.27%	-0.09%			7.4%	10.5%				-2.9%	-5.8%				0.1%	-0.1%				n/a	4.5%				n/a	-0.1%			
GM - Pre Retirement - 16-20 CON 2035	0.19%	0.28%	-0.10%			8.9%	11.5%				-3.7%	-6.6%				0.2%	0.0%				n/a	4.6%				n/a	-0.1%			
GM - Pre Retirement - 21-25 CON 2040	0.18%	0.28%	-0.10%			10.2%	12.6%				n/a	-7.3%				n/a	0.0%				n/a	4.7%				n/a	-0.1%			
GM - Pre Retirement - 26+ CON 2050	0.19%	0.29%	-0.10%			11.6%	13.4%				n/a	-8.1%				n/a	0.0%				n/a	4.9%				n/a	-0.1%			
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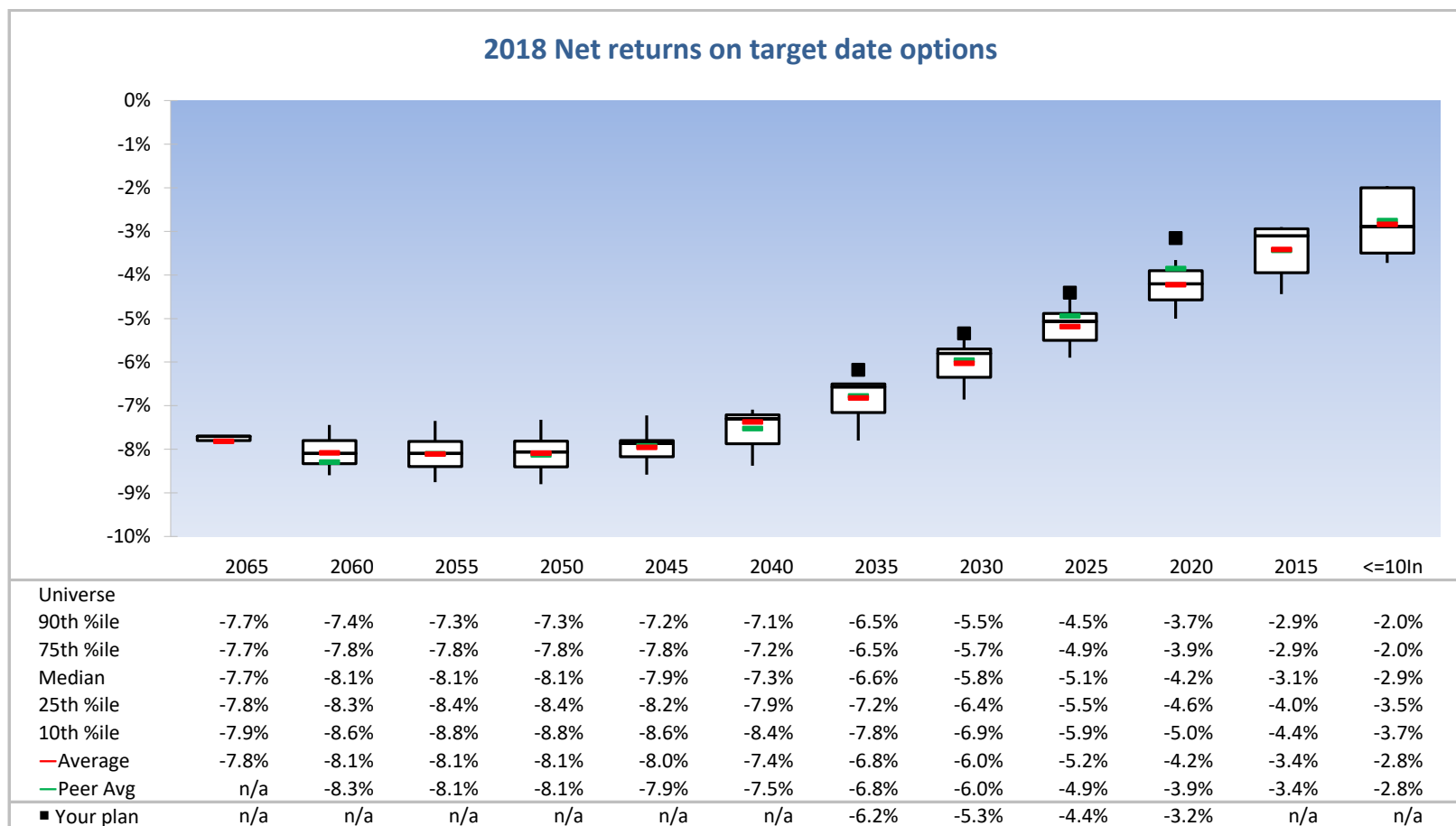
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Continued - Comparisons of investment option cost, performance and risk

Investment Option	Cost 2018						Risk 2018						Net Return 2018						Net Value Added 2018						Net Return 5-year						Net Value Added 5-yr					
	Your	BM	Excess	Rank vs. Peer			Your	Univ	Rank vs. Univ			Your	Univ	Rank vs. Univ			Your	Univ	Rank vs. Univ			Your	Univ	Rank vs. Univ			Your	Univ	Rank vs. Univ							
	Cost	Cost	Cost	Low	High		Your	Med	Low	High		Your	Med	Low	High		Your	Med	Low	High		Your	Med	Low	High		Your	Med	Low	High						
GM - Post Retirement - 0-5 CON 2015	0.17%	0.23%	-0.06%	<div><div></div></div>			4.7%	6.6%	<div><div></div></div>			n/a	-3.1%	<div><div></div></div>			n/a	-0.1%	<div><div></div></div>			n/a	4.0%	<div><div></div></div>			n/a	-0.1%	<div><div></div></div>							
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GM - Post Retirement - 11+ CON Income	0.16%	0.22%	-0.06%	<div><div></div></div>			4.1%	5.9%	<div><div></div></div>			n/a	-2.9%	<div><div></div></div>			n/a	0.0%	<div><div></div></div>			n/a	3.4%	<div><div></div></div>			n/a	-0.1%	<div><div></div></div>							
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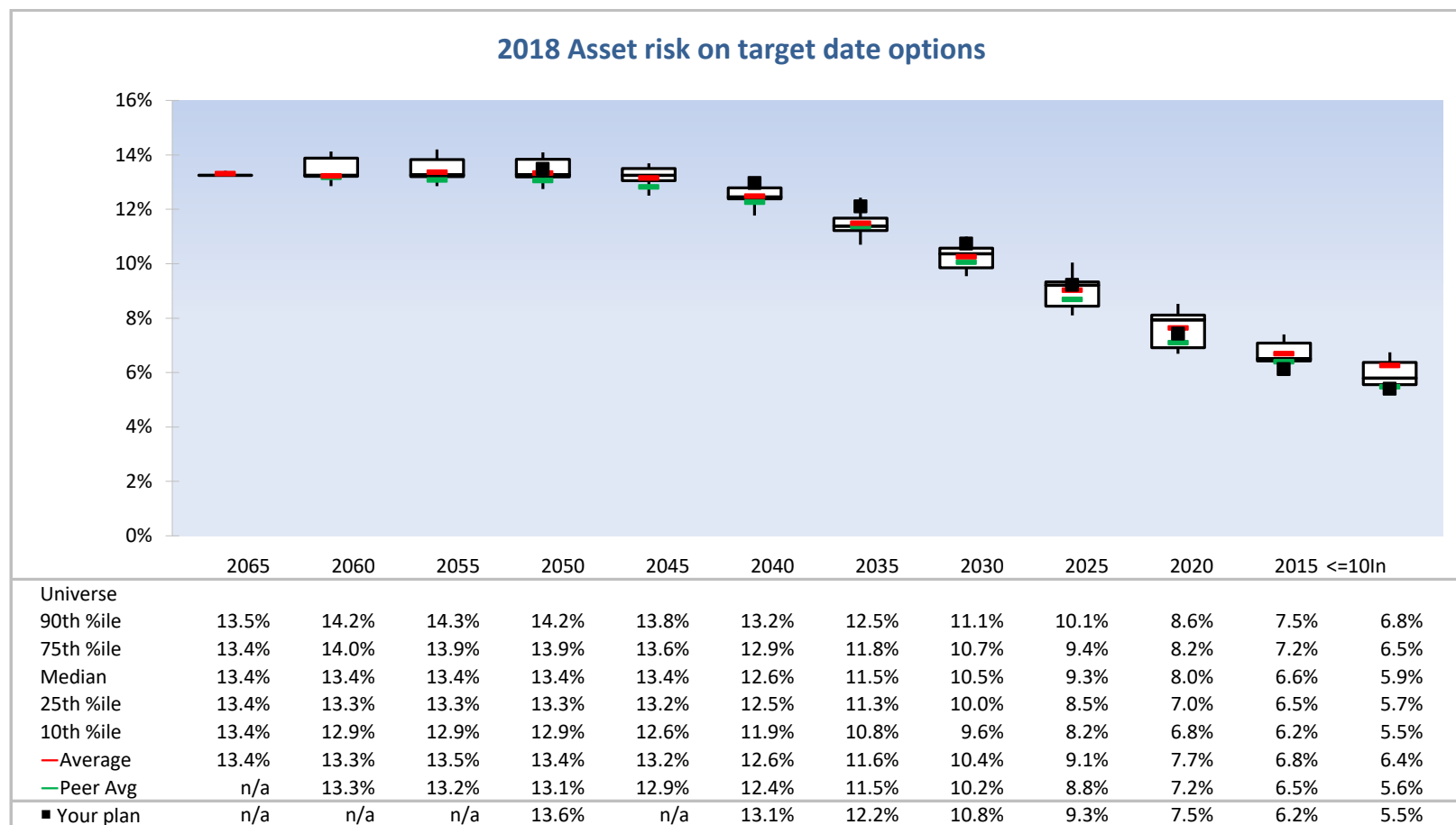
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Comparisons of the net returns of your target date options* relative to the peers and the U.S. universe.



* Your GoalMaker options have been assigned target date equivalent years based on the estimated term of the option. For example, GoalMaker options with 21-25 year horizons have been assigned 2040 for comparison purposes.

Comparisons of the asset risk of your target date options* relative to the peers and the U.S. universe.

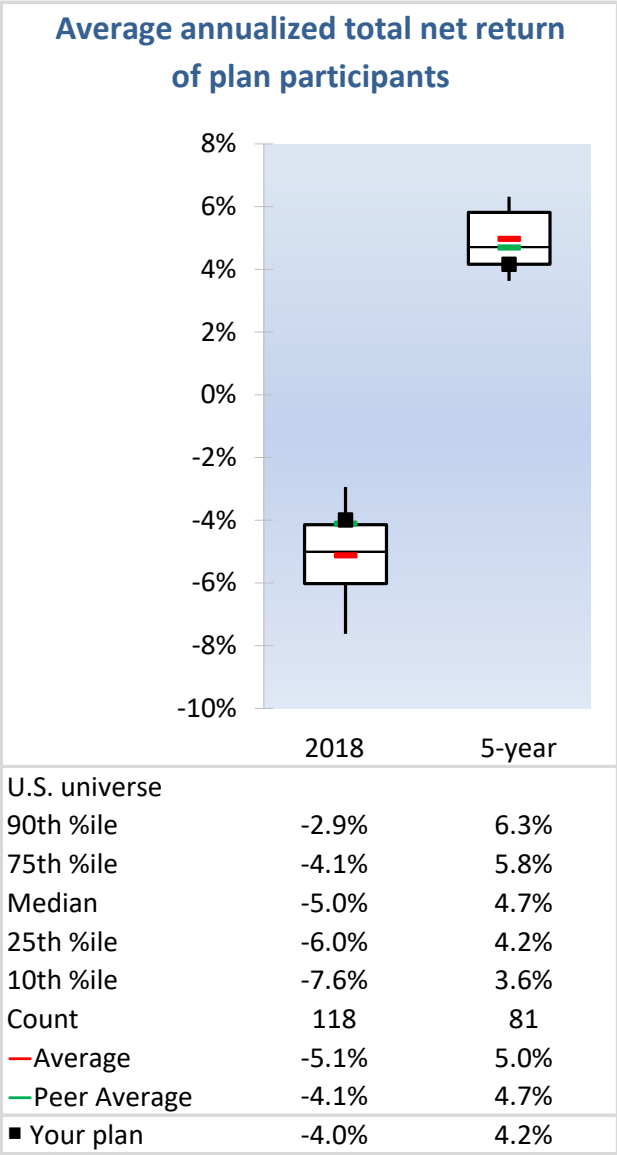


* Your GoalMaker options have been assigned target date equivalent years based on the estimated term of the option. For example, GoalMaker options with 21-25 year horizons have been assigned 2040 for comparison purposes.

Your plan participants' average 5-year total net return was 4.2%.

Average total net return measures the change in the average participants' account balance as a result of their weighted investment returns.

As a fiduciary, it is important to understand why the average total net return performance of your plan differs from other plans over time.



Differences in net total return are a result of differences in asset mix and asset category returns.

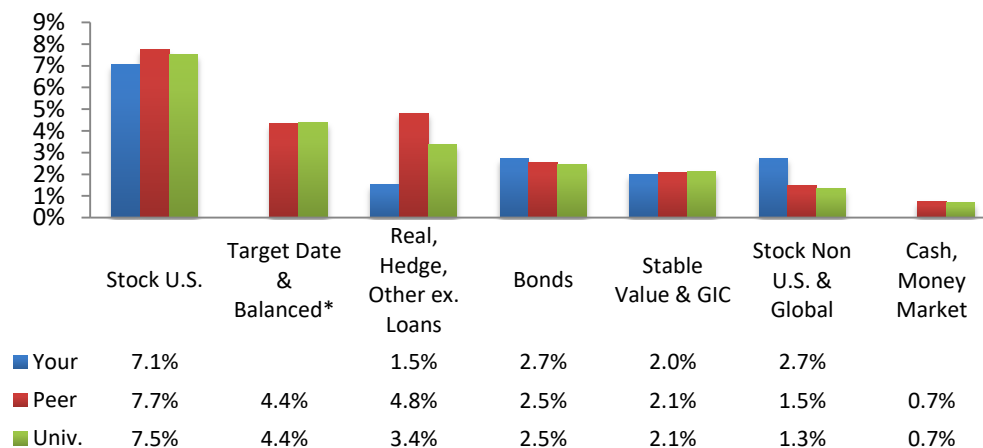
The best performing asset category of the past 5 years was Stock U.S., which had an average category return of 7.5%. This compares to the poorest performing asset category return of 0.7%, which was Cash, Money Market.

Differences in asset category return reflects both investment option performance and the mix of styles (for example broad, mid cap) in the category.

Your 5 year asset mix is compared to your peers and the U.S. universe on the table on the right.

Average net returns by major asset category

(5-years ending Dec 2018, annualized)



5 year Average Asset Mix*

	Your Plan	Peer Average	U.S. Universe
Stock U.S.	40%	39%	32%
Stock Employer	0%	0%	12%
Target Date & Balanced **	5%	21%	25%
Real, Hedge, Other ex.	3%	2%	1%
Bonds	11%	12%	7%
Stable Value & GIC	27%	17%	13%
Stock Non U.S. & Global	14%	8%	7%
Cash, Money Market	0%	2%	3%
Total	100%	100%	100%

* Excludes self-directed windows

** CEM first asked for the GoalMaker options to be provided separately in 2018 so the average in the table is understated. The GoalMaker portfolios make up close to 40% of the assets.

High participation and high contribution rates result in more retirement assets for more members and can be useful for evaluating DC plan success.

Participation and Contribution rates

	Your Plan	Peer Median	Rank vs. Peers			
			%ile	Low	Avg	High
Participation rates						
% of eligible employees that participate	33%	37%	33%	<div><div></div><div></div><div></div><div></div><div></div></div>		
% making voluntary contributions	100%	72%	100%	<div><div></div><div></div><div></div><div></div><div></div></div>		
% receiving maximum employer match	n/a	91%	n/a	<div><div></div><div></div><div></div><div></div><div></div></div>		
Contribution rates (annual)						
Employer contributions per active participant*	\$899	\$1,148	30%	<div><div></div><div></div><div></div><div></div><div></div></div>		
Employee contributions per active participant	\$1,560	\$3,041	27%	<div><div></div><div></div><div></div><div></div><div></div></div>		
Average account balance per participant	\$34,728	\$50,691	33%	<div><div></div><div></div><div></div><div></div><div></div></div>		

* Law Enforcement Officers receive employer contributions of 5% by state statute. Other state employers may provide a match or contribution.

Services you provide, particularly education and advice, are key to participant success factors, and also impact costs.

	Your Plan	Peer Average	Universe Average
Is individual financial counseling/investment advice available?	No	54% yes	72% yes
If yes, is it provided via:			
a. A computer-based model	n/a	0% yes	17% yes
b. Investment advisers	n/a	0% yes	2% yes
c. Both computer and investment advisers	n/a	100% yes	80% yes
Does your plan offer financial education via:			
a. Group meetings	Yes	100% yes	84% yes
b. Individual meetings	Yes	100% yes	65% yes
Do participants receive projections of annual income in retirement:			
a. In their participant statements	No	38% yes	30% yes
b. Online	Yes	100% yes	89% yes
c. Via separate communication	Yes	23% yes	38% yes
Does your plan have marketing campaigns to:			
a. Increase employee deferral rates?	Yes	92% yes	81% yes
b. Increase participation by eligible non-participants?	Yes	67% yes	72% yes
c. Educate on savers tax credit?	No	42% yes	22% yes
d. Improve diversification from employer stock?	No	0% yes	38% yes