

BenchmarkDC Executive Summary

for

North Carolina Supplemental Retirement Plans (for the 5 years ending December 31, 2020)

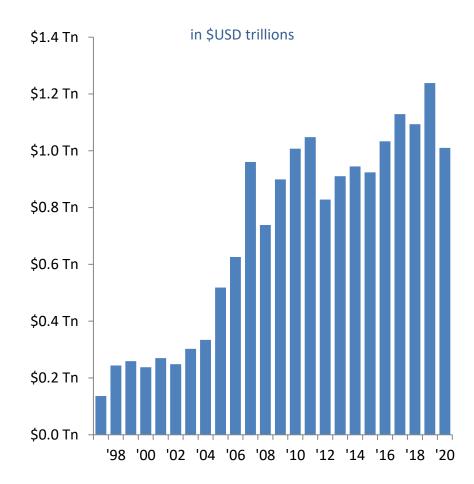


CEM has been helping plan sponsors understand their unique DC plans since 1997.

Our standardized metrics allows you to compare your DC plan offerings to other DC plans, monitor your investment options and understand your differences.

CEM's 2020 DC database consists of 103 U.S. large, blue chip corporate and government plans representing \$1,010 billion in assets and 8.1 million participants.

Participating Defined Contribution Benchmarking Assets



Your peer gro	up is comprised o	of 13 DC plans.	Their assets	ranged from \$	3.8 billion to \$18.
billion versus	your \$14.6 billion	. Your peer gr	oup is used	to benchmark y	our costs.

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

The names of the above fund sponsors in your peer group are confidential and may not be disclosed to third parties. All other information in this report is confidential and may not be disclosed to third parties without the express written mutual consent of CEM Benchmarking Inc. and North Carolina Supplemental Retirement Plans.

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	103
Plan assets			
- Smallest to largest	\$14.6 BN	\$3.8 BN - \$18.2 BN	\$72 mil - \$68.7 BN
- Median	\$14.6 BN	\$11.4 BN	\$6.8 BN
Account balance of average participant			
- Median	\$45,000	\$56,000	\$170,000
% retired or separated with assets in plan	26%	33%	34%
Average % of assets indexed	44%	59%	65%
Average # of investment options	12	14	15
Corporate, Public	Public	0 Corp, 13 Public	80 Corp, 23 Public

Your investment line up compared to your peer group average and the universe average.

You have 12 investment options compared to a peer average of 13.8 and a U.S. universe average of 15.0. Asset mix is a primary driver of long term returns. Asset mix depends on participant choices and the investment options available.

The default option is especially important because participants often both opt for, and remain in, 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). Target date funds are the default option for 92% of your peers and 86% 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 11.8 and a universe average of 10.3.

Type and number of investment options

	Your	Peer	Universe
	Plan	Average	Average
Stock Employer		0.0	0.6
Stock U.S.	4	4.8	5.1
Stock Non U.S. & Global	2	1.8	2.4
Bonds	3	2.6	2.7
Stable Value & GIC	1	0.8	0.7
Cash, Money Market		0.7	0.6
Target Date (GoalMaker service)	1	1.0	0.9
Balanced		0.6	0.7
Mutual Fund Window		0.5	0.1
Participant Brokerage Account		0.5	0.4
Real, Hedge, Other ex. Loans	1	0.5	0.8
Total*	12	13.8	15.0

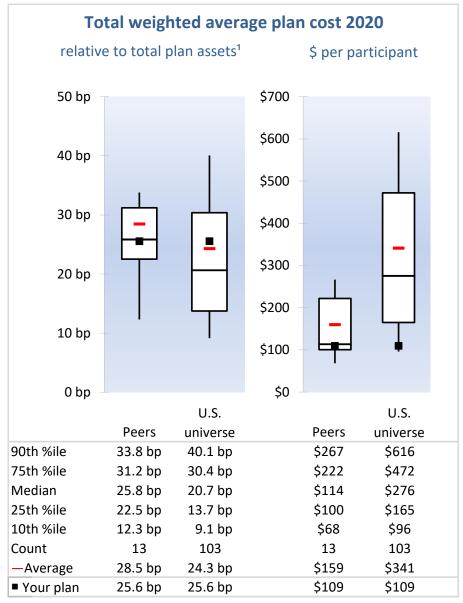
Target date families are treated as one option. You have 27 target date options compared to a peer average of 11.8 and a universe average of 10.3.

Default option

	Your	Peer	Universe
	Plan	Average	Average
Balanced		0%	4%
Target Date (GoalMaker service)	Yes	92%	86%
Managed account		0%	4%
Stable Value		0%	0%
Money Market		0%	0%
Other		0%	1%
No default option		8%	5%
Total		100%	100%

Your participants' weighted average total cost was 25.6 bps of total plan assets or \$109 per participant.

Your peers' weighted average total cost was 28.5 bps (0.285%) of total plan assets or \$159 per participant. Differences in costs are often caused by differences in participants' fund allocation and percentage of indexed assets. A better comparison is to our custom, peer based benchmark cost, which adjusts for these factors. Refer to page 9 for this comparison.



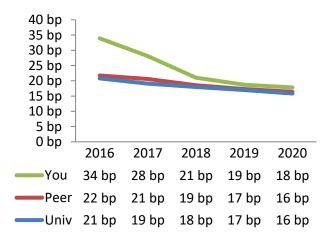
^{1.} One basis point (bp) is equal to 1/100th of 1%, or 0.01%

Your participants' weighted average total costs decreased from 47.2 bps of plan assets in 2016 to 25.6 bps in 2020.

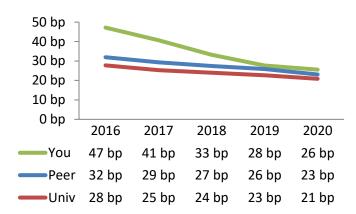
Your costs decreased primarily because your participants increased their holdings of indexed assets from 29% in 2016 to 44% in 2020.

During the same period, total plan costs decreased for the U.S. universe, from 27.8 bps of plan assets in 2016 to 20.9 bps in 2020. The primary reason for the decline is that indexed assets increased from 60% of total 'indexable assets' in 2016 to 66% in 2020.

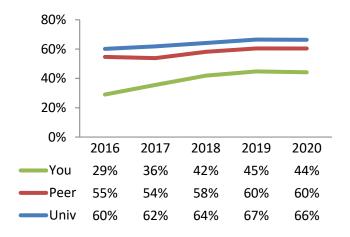
Average investment costs as a % of plan assets



Trend in total plan costs - % of assets



Indexed options as a % of indexable* assets



^{*} Indexable option types are those where both indexed and active management styles exist. Thus stable value funds are excluded from the calculation for the purpose of this comparison.

Your peer based benchmark cost allows you to understand why your costs are different.

CEM calculates a benchmark cost for your plan based on the median cost your peers pay for similar options. To compare target date funds, which include your GoalMaker service*, the custom benchmark cost is adjusted for the asset mix of these options.

Reasons for differences in actual vs. benchmark cost are summarized on the table on the right.

Your participants' weighted average

	\$000's	bps
Total actual cost	\$35,194	25.6 bp
Custom peer-based benchmark cost	\$38,704	28.1 bp
Difference	-\$3,510	-2.5 bp

Reasons for differences in actual vs. benchmark cost

Cumulative impact of differences in:	\$000's	bps
Fees paid for similar options	-\$4,184	-3.0 bp
Participants' allocation in indexed vs active options (your participants' 44% indexed vs peers' 59%)	\$4,990	3.6 bp
Fees paid for administrative services (your 7.7 bps of plan assets vs 10.7 bps for your peers)	-\$4,141	-3.0 bp
Assets in mutual fund windows	-\$176	-0.1 bp
Total explained	-\$3,510	-2.5 bp

^{*} 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.

Your target date funds were all below their benchmark costs. To benchmark the cost of each target date fund, we adjust for its unique asset mix and implementation style.

It is done in a two step process: The first step calculates a cost based on each Target Date's asset mix and implementation style using standard costs. The second step adjusts for your economies of scale using peer data.

Example of the benchmark cost calculation using your Pre Retirement AGG 21-25 - 2040 option

Asset Class	Yo	ou	Standa	rd Costs	Benchmark Co	st, bps
	%	%				Total
	Holding	Passive	Active	Indexed	Cost	Cost
	(A)	(B)	(C)	(D)	E=(1-B)xC+BxD	AxE
Stock U.S., broad/large cap	34%	100%	42 bp	3 bp	3 bp	1.0 bp
Stock U.S., mid/small cap	14%	29%	62 bp	4 bp	45 bp	6.3 bp
Stock non-U.S.	31%	0%	56 bp	6 bp	56 bp	17.2 bp
Stock emerging	9%	0%	85 bp	10 bp	85 bp	7.8 bp
Bonds core	2%	0%	31 bp	3 bp	31 bp	0.6 bp
TIPS	3%	100%	15 bp	3 bp	3 bp	0.1 bp
Stable value	0%		30 bp			
Cash	0%		10 bp			
Fixed income other	0%		46 bp	9 bp		
Commodities	3%	100%	75 bp	11 bp	11 bp	0.4 bp
REITs	3%	100%	54 bp	9 bp	9 bp	0.3 bp
Real estate	0%		112 bp			
Private equity	0%		195 bp			
Risk parity	0%		43 bp			
Other	0%		64 bp	17 bp		
First step benchmark cost (sum of	total cost c	olumn)				33.8 bp
Peer group based multiplier (adjust	ts for size e	conomies)				0.68
Benchmark cost = First step estima	ite cost x m	ultiplier				23.0 bp
Your actual cost						17.9 bp
Cost difference						-5.1 bp

The table below compares your investment options relative to your peers for cost, and the U.S. universe for performance and risk.

For more detailed analysis, refer to page 55.

Investment Option*		Co	st 202	0		Ne	t Ret	ırn 20	20	Net	Retu	rn 5-y	ear	Net V	alue A	Added	2020	Net Va	alue A	Added 5-y	eai		Risk	2020	
	Your	BM	Cost	Rank vs	. Peer		Univ	Rank v	s. Univ		Univ	Rank vs	. Univ		Univ	Rank vs	s. Univ		Univ	Rank vs. U	niv		Univ	Rank v	s. Univ
	Cost	Cost	diff.	Low	High	Your	Med	Low	High	Your	Med	Low	High	Your	Med	Low	High	Your	Med	Low F	ligh Y	'our	Med	Low	High
BR - NC Large Cap Passive	0.5 bp	1.3 bp	-0.8 bp			18.4%	18.4%			15.2%	15.2%			0.0%	0.0%			0.0%	0.0%						
MM - NC Large Cap Core	28.1 bp	27.7 bp	0.4 bp			25.2%	24.6%			n/a	16.0%			4.2%	1.7%			n/a	-0.3%						
BR - NC SMID Cap Passive	0.5 bp	3.0 bp	-2.5 bp			19.8%	32.1%			13.5%	13.7%			-0.2%	-0.1%			-0.1%	0.0%						
Multi-Manager - NC SMID Cap Core	31.0 bp	42.8 bp	-11.8 bp			19.2%	18.5%			n/a	12.3%			-0.8%	-0.8%			n/a	0.2%						
BR - NC International Passive fund	2.1 bp	5.0 bp	-2.9 bp			10.8%	11.2%			9.3%	9.1%			0.2%	0.2%			0.0%	0.3%						
MM - NC International Equity	32.1 bp	46.0 bp	-13.9 bp			14.2%	16.9%			10.8%	10.2%			3.5%	6.3%			1.6%	1.8%						
BR - NC Fixed Income Passive fund	2.0 bp	3.0 bp	-1.0 bp			7.4%	7.6%			4.3%	4.4%			-0.1%	0.0%			-0.1%	0.0%						
MM - NC Fixed Income	12.4 bp	19.0 bp	-6.6 bp			9.5%	8.9%			5.7%	5.3%			2.0%	1.4%			1.2%	0.7%						
BR - NC TIPS	2.5 bp	2.8 bp	-0.3 bp			8.4%	11.0%			n/a	5.0%			0.0%	0.0%			n/a	0.0%						
Galliard - NC Stable Value	27.3 bp	25.0 bp	2.3 bp			2.4%	2.2%			2.2%	2.2%			2.0%	1.2%			0.4%	0.6%						
BR - NC Inflation Sensitive	9.0 bp	17.0 bp	-8.0 bp			2.5%	2.5%			n/a	4.5%			0.2%	0.2%			n/a	0.0%						
GM - Pre Retirement - 0-5 CON 2020	15.2 bp	18.0 bp	-2.8 bp			11.3%	12.1%			n/a	9.0%			1.4%	-0.2%			n/a	-0.1%		5	5.4%	7.8%		
GM - Pre Retirement - 6-10 CON 2025	15.8 bp	20.9 bp	-5.1 bp			12.3%	13.3%			n/a	9.9%			1.4%	0.1%			n/a	0.1%		6	5.4%	9.0%		
GM - Pre Retirement - 11-15 CON 2030	15.8 bp	20.8 bp	-5.0 bp			11.8%	14.1%			n/a	10.5%			-1.4%	0.1%			n/a	0.0%		7	7.4%	10.3%		
GM - Pre Retirement - 16-20 CON 2035	16.4 bp	22.9 bp	-6.5 bp			14.0%	14.8%			n/a	11.1%			1.4%	0.1%			n/a	0.1%		8	3.9%	11.3%		
GM - Pre Retirement - 21-25 CON 2040	16.2 bp	22.4 bp	-6.2 bp			14.8%	15.5%			n/a	11.6%			1.2%	0.0%			n/a	0.0%		10	0.2%	12.5%		
6M - Pre Retirement - 26+ CON 2050	16.9 bp	22.7 bp	-5.8 bp			15.2%	16.3%			n/a	12.1%			1.2%	0.0%			n/a	0.1%		11	1.6%	13.6%		
GM - Pre Retirement - 0-5 MOD 2020	15.5 bp	19.2 bp	-3.7 bp			13.0%	12.1%			n/a	9.0%			1.3%	-0.2%			n/a	-0.1%		7	7.4%	7.8%		
GM - Pre Retirement - 6-10 MOD 2025	16.2 bp	22.0 bp	-5.8 bp			13.8%	13.3%			n/a	9.9%			1.3%	0.1%			n/a	0.1%		8	3.8%	9.0%		
GM - Pre Retirement - 11-15 MOD 2030	16.7 bp	22.1 bp	-5.4 bp			14.6%	14.1%			n/a	10.5%			1.3%	0.1%			n/a	0.0%		10	0.2%	10.3%		
GM - Pre Retirement - 16-20 MOD 2035	16.9 bp	23.1 bp	-6.2 bp			15.2%	14.8%			n/a	11.1%			1.2%	0.1%			n/a	0.1%		11	1.6%	11.3%		
GM - Pre Retirement - 21-25 MOD 2040	17.3 bp	22.9 bp	-5.6 bp			15.2%	15.5%			n/a	11.6%			1.2%	0.0%			n/a	0.0%		12	2.7%	12.5%		
GM - Pre Retirement - 26+ MOD 2050	17.7 bp	22.9 bp	-5.2 bp			15.6%	16.3%			n/a	12.1%			1.3%	0.0%			n/a	0.1%		13	3.7%	13.6%		
GM - Pre Retirement AGG 0-5 - 2020	15.3 bp	18.3 bp	-3.0 bp			18.4%	12.1%			n/a	9.0%			4.8%	-0.2%			n/a	-0.1%		8	3.7%	7.8%		
GM - Pre Retirement AGG 6-10 2025	16.6 bp	22.7 bp	-6.1 bp			17.5%	13.3%			n/a	9.9%			3.8%	0.1%			n/a	0.1%		11	1.3%	9.0%		
GM - Pre Retirement AGG 11-15 2030	17.3 bp	22.6 bp	-5.3 bp			16.5%	14.1%			n/a	10.5%			2.5%	0.1%			n/a	0.0%		12	2.7%	10.3%		
GM - Pre Retirement AGG 16-20 2035	17.8 bp	23.5 bp	-5.7 bp			15.9%	14.8%			n/a	11.1%			1.7%	0.1%			n/a	0.1%		13	3.6%	11.3%		
GM - Pre Retirement AGG 21-25 - 2040	17.9 bp	23.0 bp	-5.1 bp			15.3%	15.5%			n/a	11.6%			1.2%	0.0%			n/a	0.0%		14	4.2%	12.5%		
GM - Pre Retirement AGG 26+ 2050	17.9 bp	22.9 bp	-5.0 bp			15.3%	16.3%			n/a	12.1%			1.2%	0.0%			n/a	0.1%		14	4.2%	13.6%		
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BR = BlackRock; MM = MultiManager, NC = North Carolina, GM = GoalMaker

In the 'Rank' graphic, one colored square (Low) is a percentile ranking of 0% to 10%, two squares is 10.1% to 25%, three squares is 25.1% to 75%, 4 squares is 75.1% to 90%, and 5 squares (High) is 90.1% to 100%. Highlighting is not applied if there are fewer than 5 observations.

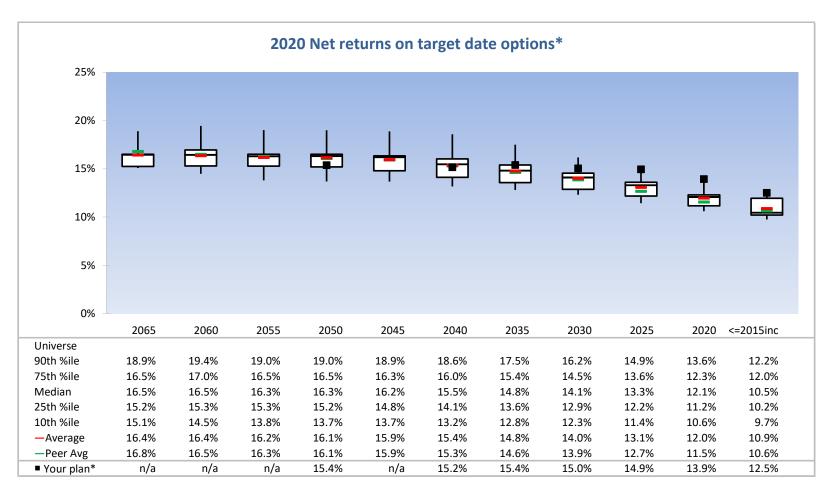
Continued - Comparions of investment option cost, peformance and risk

Investment Option		Co	st 202	20		Ne	et Ret	urn 20	20	Ne	t Retu	ırn 5-y	ear	Net V	alue /	Added	2020	Net \	/alue	Added	d 5-yr		Risk	2020	
	Your	BM	Cost	Rank vs.	Peer		Univ	Rank vs	. Univ		Univ	Rank v	s. Univ		Univ	Rank vs.	. Univ		Univ	Rank v	s. Univ		Univ	Rank v	s. Univ
	Cost	Cost	diff.	Low	-	Your			High	Your	Med	Low	High	Your	Med	Low	High	Your	Med	Low	High	Your	Med	Low	High
GM - Post Retirement - 0-5 CON 2015	15.1 bp	17.7 bp	-2.6 bp			10.4%	10.4%			n/a	7.9%			1.4%	-0.3%			n/a	-0.2%			4.7%	6.1%		
GM - Post Retirement - 6-10 CON 2005	15.0 bp	17.4 bp	-2.4 bp			9.8%	10.2%			n/a	7.5%			1.4%	0.1%			n/a	0.0%			4.3%	5.8%		
GM - Post Retirement - 11+ CON Income	14.6 bp	16.4 bp	-1.8 bp			9.5%	10.2%			n/a	7.5%			1.3%	0.1%			n/a	0.0%			4.1%	5.8%		
GM - Post Retirement 0-5 MOD 2015	15.1 bp	18.9 bp	-3.8 bp			12.4%	10.4%			n/a	7.9%			1.3%	-0.3%			n/a	-0.2%			6.6%	6.1%		
GM - Post Retirement 6-10 MOD 2005	14.6 bp	17.9 bp	-3.3 bp			11.4%	10.2%			n/a	7.5%			0.8%	0.1%			n/a	0.0%			5.9%	5.8%		
GM - Post Retirement 11+ MOD Income	14.6 bp	16.8 bp	-2.2 bp			10.9%	10.2%			n/a	7.5%			1.2%	0.1%			n/a	0.0%			5.4%	5.8%		
GM - Post Retirement AGG 0-5 2015	15.0 bp	20.4 bp	-5.4 bp			18.4%	10.4%			n/a	7.9%			5.6%	-0.3%			n/a	-0.2%			9.9%	6.1%		
GM - Post Retirement AGG 6-10 2005	15.0 bp	18.4 bp	-3.4 bp			17.8%	10.2%			n/a	7.5%			5.8%	0.1%			n/a	0.0%			8.0%	5.8%		
GM - Post Retirement AGG 11+ Income	14.9 bp	17.7 bp	-2.8 bp			17.3%	10.2%			n/a	7.5%			5.9%	0.1%			n/a	0.0%			7.2%	5.8%		

BR = BlackRock; MM = MultiManager, NC = North Carolina, GM = GoalMaker

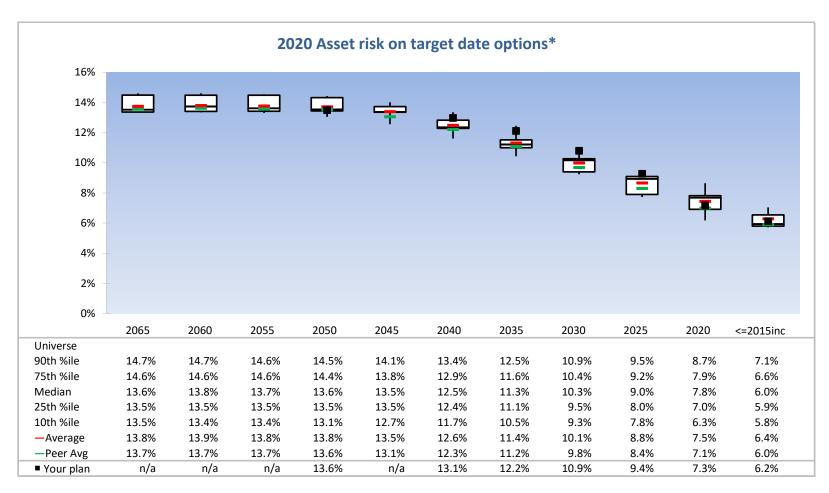
In the 'Rank' graphic, one colored square (Low) is a percentile ranking of 0% to 10%, two squares is 10.1% to 25%, three squares is 25.1% to 75%, 4 squares is 75.1% to 90%, and 5 squares (High) is 90.1% to 100%. Highlighting is not applied if there are fewer than 5 observations.

Comparisons of the net returns of your target date options* relative to the peers and the U.S. universe is shown below.



^{*}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.

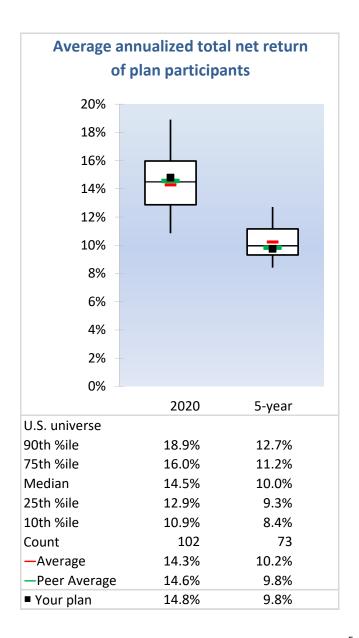
Comparisons of the asset risk or expected volatility of your target date options* relative to the peers and the U.S. universe is shown below.



^{*}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 participants' total weighted average 5-year net return was 9.8%. This compares to a U.S. median of 10.0%.

Participants' weighted average total net return measures the change in the average participants' account balance as a result of their collective fund allocations and returns on investment options, net of fees.



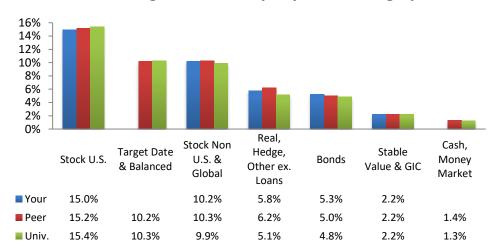
Differences in participants' weighted average net total return are a result of differences in their collective fund allocation and asset category returns.

The best performing asset category of the past 5 years was Stock U.S., which had an average category return of 15.4%. This compares to the poorest performing asset category return of 1.3%, which were Cash & Money Market assets.

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 fund allocation is compared to your peers and the U.S. universe on the table on the right.

Average net returns by major asset category



Participants' 5-year fund allocation**

		Peer	U.S.
	Your Plan	Average	Universe
Stock U.S.	34%	36%	32%
Target Date & Balanced*	24%	26%	28%
Stock Non U.S. & Global	10%	7%	7%
Stock Employer	0%	0%	10%
Real, Hedge, Other ex. Loans	2%	2%	2%
Bonds	8%	9%	7%
Stable Value & GIC	22%	18%	11%
Cash, Money Market	0%	2%	3%
Total	100%	100%	100%

^{*} The Target Date category includes your GoalMaker options. CEM first asked for the GoalMaker options to be provided separately in 2018 so the average in the table is understated. The GoalMaker portfolios are close to 45% of assets in recent years.

^{**} Excludes self-directed windows

High participation and high contribution rates result in more retirement assets for more members and are thus also important measures.

Participation and Contribution rates

	Your	Peer	Ra	nk vs.	Peers	
	Plan	Median	%ile	Low	Avg	High
Participation rates						
% of eligible employees that participate	33%	35%	36%			
% making voluntary contributions	100%	72%	100%			
% receiving maximum employer match	n/a	95%	n/a			
Contribution rates						
Employer contributions per active participant*	\$1,005	\$1,246	40%			
Employee contributions per active participant	\$1,963	\$3,327	25%			
Average account balance per participant	\$45,304	\$56,464	33%			

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

Services you provide, particularly education and advice, can improve participant success.

	Your Plan	Peer Average	Universe Average
Is individual financial counseling/investment advice available? If yes, is it provided via:	No	62% yes	74% yes
a. A computer-based model	n/a	0% yes	17% yes
b. Investment advisers	n/a	0% yes	3% yes
c. Both computer and investment advisers	n/a	100% yes	81% yes
Does your plan offer financial education via:			
a. Group meetings	Yes	100% yes	86% yes
b. Individual meetings	Yes	100% yes	74% yes
Do participants receive projections of annual income in retirement:			
a. In their participant statements	No	54% yes	31% yes
b. Online	Yes	100% yes	90% yes
c. Via separate communication	No	15% yes	34% yes
Does your plan have marketing campaigns to:			
a. Increase employee deferral rates?	Yes	85% yes	81% yes
b. Increase participation by eligible non-participants?	Yes	69% yes	79% yes
c. Educate on savers tax credit?	No	15% yes	25% yes