

November 30, 2023



North Carolina Supplemental Retirement Plans

NC SMID Cap Core Fund

SMID Cap Value Manager Search

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NC Supplemental Retirement Plans Investment Structure

The diagram below depicts the menu of investment options, by asset category, currently offered to the Plans' participants.

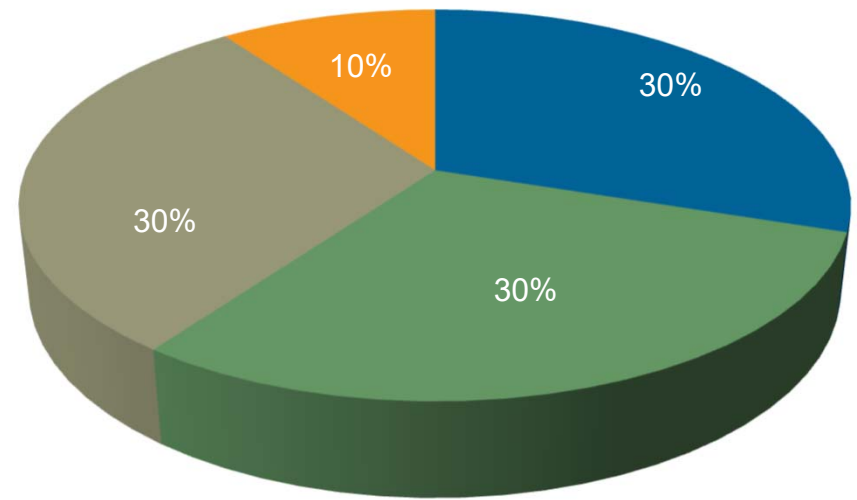


North Carolina SMID Cap Core Fund

Recent Fund Changes

- The North Carolina SMID Cap Core Fund is an actively managed option designed to complement the North Carolina SMID Cap Passive Fund
- The option employs actively managed value, core, and growth strategies along with a 10% passive sleeve to manage liquidity
- The Board terminated Wedge, an underlying SMID Value manager, due to a combination of investment team turnover, asset flow concerns, and performance out of line with expectations
- The Board directed a search to evaluate active SMID Value managers to replace Wedge
- The Board also directed assets be invested in a passive BlackRock Russell 2500 Value index fund in the interim while Staff and Callan completed the search process

Legacy Option

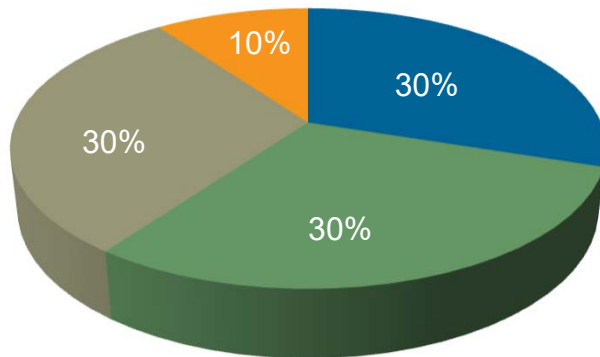


- Wedge SMID Value
- Earnest SMID Core
- Brown SMID Growth
- BlackRock SMID Core Passive

North Carolina SMID Cap Core Fund

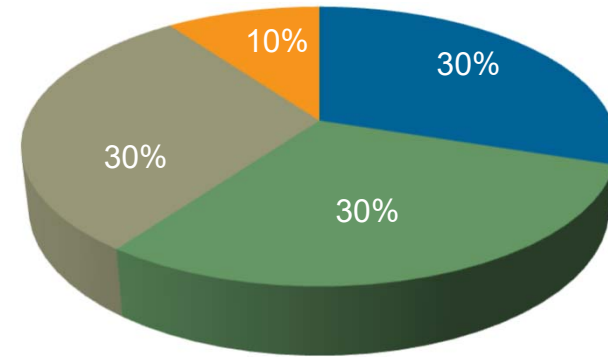
Alternate Manager Structures

**90% Active SMID Cap Equity
(Recommended Mix 1)**



- AB SMID Value
- Earnest SMID Core
- Brown SMID Growth
- BlackRock SMID Core Passive

**60% Active SMID Cap Equity
(Mix 2)**



- BlackRock SMID Value Passive
- Earnest SMID Core
- Brown SMID Growth
- BlackRock SMID Core Passive

- Mix 1 employs active SMID Value manager in an asset class that has historically added value net of fees on a consistent basis*
- Mix 2 employs passive SMID Value fund which has lower fees
- Both options are designed to be style neutral, with equal allocations to value and growth managers
- Both options retain active SMID Core and SMID Growth allocations

*Additional information on p.7

Alternative SMID Cap Core Fund Structures

Participant Option-Level Data

Manager	Legacy Structure	Mix 1 (Recommended - AB)	Mix 2 (BlackRock)
	% of SMID	% of SMID	% of SMID
Wedge (active value)	30%	--	--
AB (active value)	--	30%	--
BlackRock (passive value)	--	--	30%
Earnest (active core)	30%	30%	30%
Brown (active growth)	30%	30%	30%
BlackRock (passive core)	10%	10%	10%
Total	100.00%	100.00%	100.00%

Statistics (10 years ending 9/30/23)***	Russell 2500	Legacy*	Mix 1*	Mix 2*
Standard Deviation	20.2%	19.1%	19.2%	18.9%
Gross Excess Return (annualized)	--	1.45%	1.69%	1.39%
Net Excess Return (annualized)	--	1.07%	1.31%	1.12%
Up Market Capture	100%	104.0%	108.3%	103.4%
Down Market Capture	100%	94.7%	95.4%	94.7%
Tracking Error	--	2.3%	2.1%	2.2%
Weighted Median Market Cap (billion)	5.1	6.5	6.3	6.6
Estimated Investment Mgmt Fees**	--	0.385%	0.381%	0.268%

- Both Mix 1 and Mix 2 feature lower fees than the legacy option
- The AB option improves excess returns with higher standard deviation
- The improved performance of active management more than offsets the higher fee for the recommended Mix 1

*Hypothetical portfolio data, assuming 30% Earnest, 30% Brown, 10% Russell 2500 Index, and then 30% to Wedge (Legacy), AB (Mix 1), and Russell 2500 Value Index (Mix 2)

**Estimates using 3/31/23 market value of \$959,897,683

***Additional time periods can be found on p.8

Callan

Appendix

Active Management Performance

Empirical Data Suggests SMID Cap Equity is a Good Hunting Ground for Alpha

Style Group	Benchmark	Annualized Historical Gross Excess Returns
SMID Cap Value	Russell 2500 Value	0.59%
SMID Cap Core	Russell 2500	0.33%
SMID Cap Growth	Russell 2500 Growth	0.31%

Based on 20 years of rolling 3 year median manager returns (Period Q1 2001- Q4 2020)

- The median active manager has outperformed its benchmark across the various style groups
- The following pages contain additional detail on active manager performance by style from Callan's manager peer groups

Alternative SMID Cap Core Fund Structures

Participant Option-Level Data

Manager	Legacy Structure	Mix 1 (Recommended - AB)	Mix 2 (BlackRock)
	% of SMID	% of SMID	% of SMID
Wedge (active value)	30%	--	--
AB (active value)	--	30%	--
BlackRock (passive value)	--	--	30%
Earnest (active core)	30%	30%	30%
Brown (active growth)	30%	30%	30%
BlackRock (passive core)	10%	10%	10%
Total	100.00%	100.00%	100.00%

Statistics (5 years ending 9/30/23)***	Russell 2500	Legacy*	Mix 1*	Mix 2*
Standard Deviation	27.5%	26.0%	26.1%	25.7%
Gross Excess Return (annualized)	--	1.40%	1.79%	1.66%
Net Excess Return (annualized)	--	1.02	1.41%	1.39%
Up Market Capture	100%	99.5%	103.1%	99.6%
Down Market Capture	100%	95.2%	95.6%	94.4%
Tracking Error	--	2.7%	2.7%	2.7%
Weighted Median Market Cap (billion)	5.1	6.5	6.3	6.6
Estimated Investment Mgmt Fees**	--	0.385%	0.381%	0.268%

- Both Mix 1 and Mix 2 feature lower fees than the legacy option
- The AB option improves excess returns with higher standard deviation
- The improved performance of active management more than offsets the higher fee for the recommended Mix 1

*Hypothetical portfolio data, assuming 30% Earnest, 30% Brown, 10% Russell 2500 Index, and then 30% to Wedge (Legacy), AB (Mix 1), and Russell 2500 Value Index (Mix 2)

**Estimates using 3/31/23 market value of \$959,897,683

***Additional time periods can be found on [p.13](#)

Smid Cap Value Equity Style vs. Russell 2500 Value

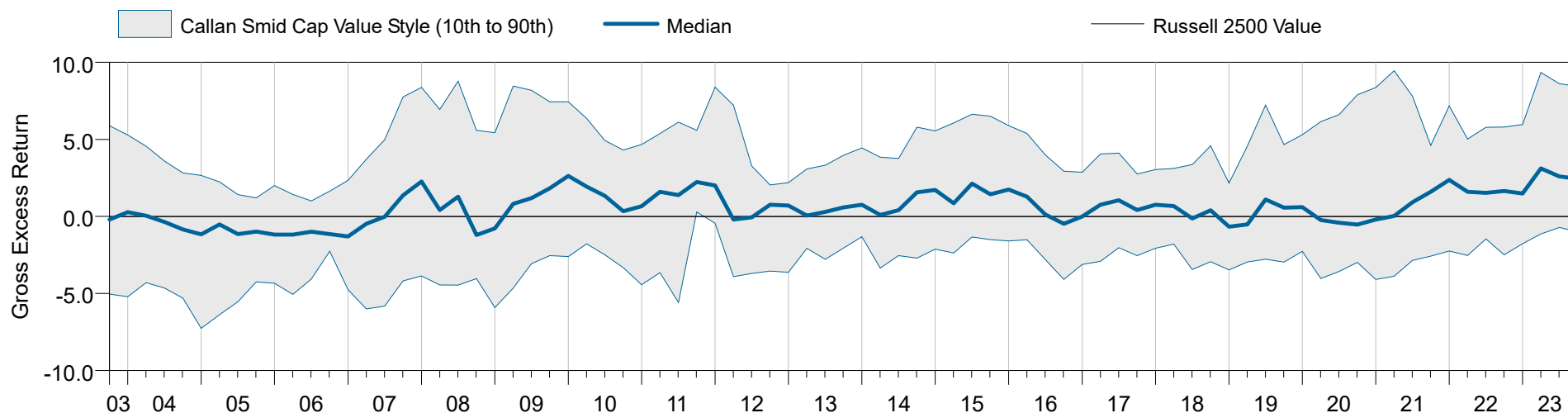
How often Manager Beat Benchmark by more than Fee Hurdle in Rolling 3-Year Periods over last 20 Years

Fee Hurdle	0.35%	0.40%	0.45%	0.50%	0.55%	0.60%	0.65%	0.70%	0.75%	0.80%
Median	58%	58%	53%	53%	53%	50%	49%	46%	45%	40%
45th Percentile	71%	68%	68%	64%	63%	59%	56%	56%	56%	54%
40th Percentile	78%	78%	76%	75%	74%	73%	71%	70%	70%	68%
35th Percentile	85%	85%	85%	83%	83%	79%	78%	78%	78%	76%
30th Percentile	89%	89%	86%	86%	86%	84%	84%	83%	83%	83%
25th Percentile	93%	93%	91%	90%	90%	90%	88%	88%	86%	85%

Average Annualized 3-Year Excess Return (gross) – Median Manager:

0.59%

Rolling 3-Year Gross Excess Return relative to Russell 2500 Value for 20 Years ended September 30, 2023



Smid Cap Equity Style vs. Russell 2500

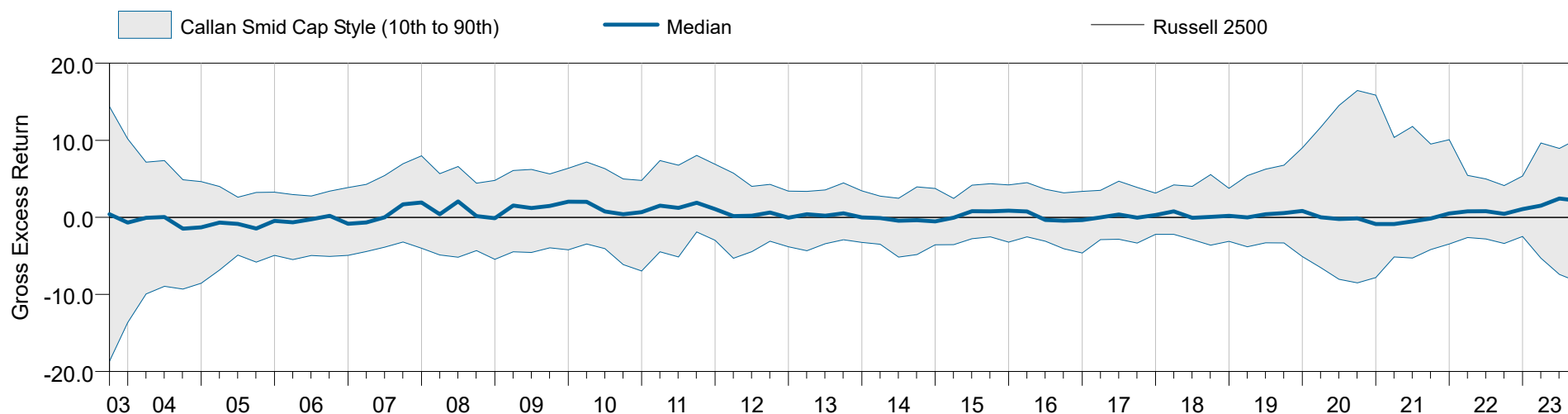
How often Manager Beat Benchmark by more than Fee Hurdle in Rolling 3-Year Periods over last 20 Years

Fee Hurdle	0.35%	0.40%	0.45%	0.50%	0.55%	0.60%	0.65%	0.70%	0.75%	0.80%
Median	45%	44%	38%	38%	34%	34%	33%	31%	31%	24%
45th Percentile	69%	64%	61%	59%	56%	51%	50%	50%	49%	44%
40th Percentile	88%	88%	86%	86%	86%	83%	80%	78%	76%	74%
35th Percentile	93%	93%	93%	93%	91%	89%	88%	88%	88%	86%
30th Percentile	100%	99%	99%	99%	99%	99%	98%	96%	95%	94%
25th Percentile	100%	100%	100%	100%	100%	100%	99%	99%	99%	99%

Average Annualized 3-Year Excess Return (gross) – Median Manager:

0.33%

Rolling 3-Year Gross Excess Return relative to Russell 2500 for 20 Years ended September 30, 2023



Smid Cap Growth Equity Style vs. Russell 2500 Growth

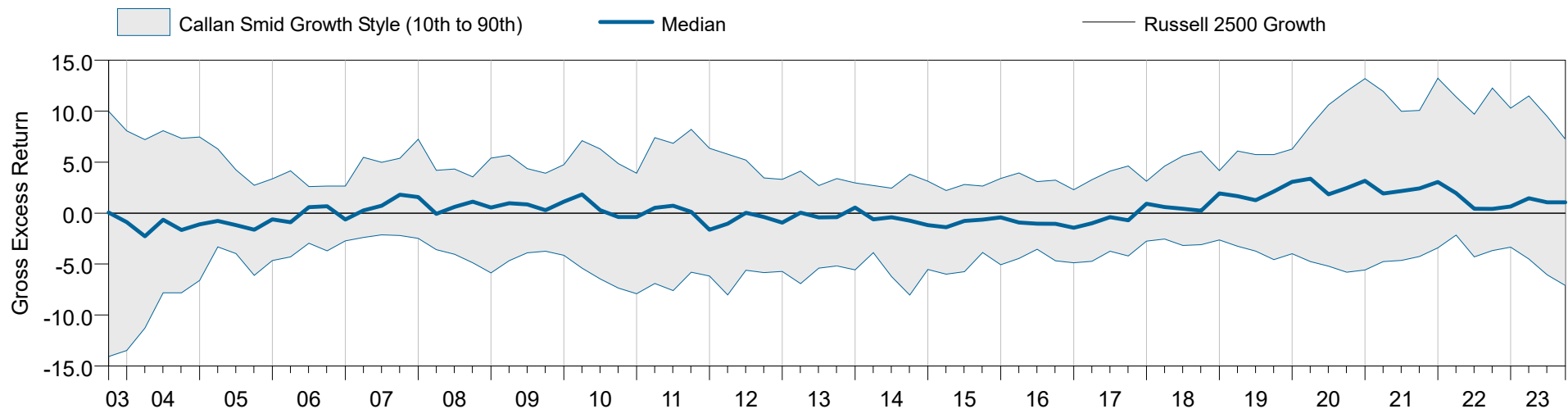
How often Manager Beat Benchmark by more than Fee Hurdle in Rolling 3-Year Periods over last 20 Years

Fee Hurdle	0.35%	0.40%	0.45%	0.50%	0.55%	0.60%	0.65%	0.70%	0.75%	0.80%
Median	48%	48%	44%	44%	43%	39%	35%	34%	31%	31%
45th Percentile	58%	56%	56%	55%	54%	54%	53%	51%	51%	51%
40th Percentile	66%	64%	64%	64%	64%	64%	64%	61%	60%	60%
35th Percentile	80%	78%	78%	78%	78%	74%	71%	70%	70%	69%
30th Percentile	91%	86%	86%	86%	85%	84%	83%	80%	76%	74%
25th Percentile	98%	98%	98%	98%	96%	96%	94%	93%	93%	93%

Average Annualized 3-Year Excess Return (gross) – Median Manager:

0.31%

Rolling 3-Year Gross Excess Return relative to Russell 2500 Growth for 20 Years ended September 30, 2023



A Guide to Our Active vs. Passive Data

This publication contains two charts for each category of active managers. The top table shows the percentage of rolling 3-year periods in which managers in various percentiles beat their benchmark by more than a certain fee hurdle. Percentages 50% and above are shaded in green.

The bottom chart displays the gross excess return for all the managers in Callan's database for specific asset class categories across the distribution spectrum, from the 10th percentile to the 90th percentile.

Large Cap Core Equity Style vs. S&P 500

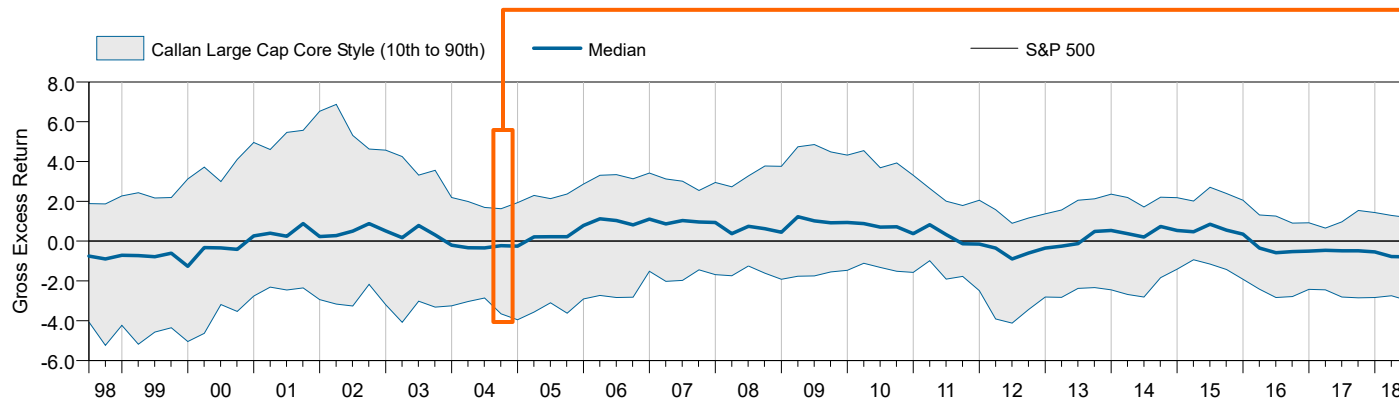
How often Manager Beat Benchmark by more than Fee Hurdle in Rolling 3-Year Periods over last 20 Years

Fee Hurdle	0.25%	0.30%	0.35%	0.40%	0.45%	0.50%	0.55%	0.60%	0.65%	0.70%
Median	51%	49%	46%	40%	40%	36%	31%	30%	29%	29%
45th Percentile	61%	61%	60%	59%	59%	55%	54%	49%	41%	39%
40th Percentile	66%	65%	65%	65%	64%	64%	64%	61%	60%	59%
35th Percentile	79%	75%	71%	69%	69%	68%	68%	66%	65%	65%
30th Percentile	85%	84%	84%	80%	79%	79%	78%	76%	73%	70%
25th Percentile	95%	94%	93%	89%	86%	85%	83%	83%	81%	79%

Average Annualized 3-Year Excess Return (gross) – Median Manager: 0.18%

This data point indicates that managers in the 40th percentile beat the benchmark by at least 0.35% in 65% of the rolling 3-year periods over the last 20 years.

Rolling 3-Year Gross Excess Return relative to S&P 500 for 20 Years ended June 30, 2018



This data range shows that in the 4th quarter of 2004, the median manager in Callan's database reported gross excess returns over the benchmark of -0.25%, with returns ranging from 1.94% for managers in the 10th percentile to -3.95% for those in the 90th percentile.

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