

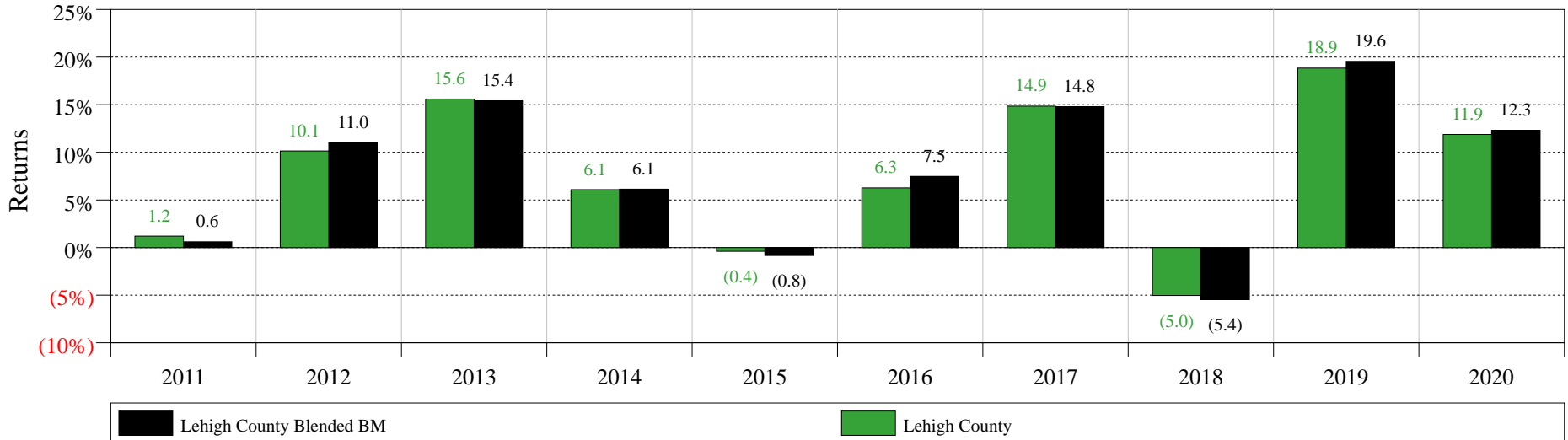
## Lehigh County Retirement Fund

### Net Portfolio Performance

Net Performance for 1 Quarter Ending December 31, 2020

	Ending Weight	Returns	Beginning Market Value	Ending Market Value
Domestic Equity	41.6%	15.69%	\$216,561,793	\$245,549,423
International Equity	18.0%	16.30%	\$91,217,727	\$106,104,457
Domestic Fixed Income	20.4%	1.00%	\$112,992,342	\$120,141,696
Alternative	16.2%	5.24%	\$88,045,742	\$95,514,662
Cash & Equivalents	3.8%	0.19%	\$19,815,213	\$22,613,280
<b>Total Portfolio</b>	<b>100.0%</b>	<b>10.29%</b>	<b>\$528,632,817</b>	<b>\$589,923,517</b>
<i>Lehigh County Blended BM</i>		<i>10.86%</i>		

Calendar Year Net of Fee Returns



# Lehigh County Retirement Fund

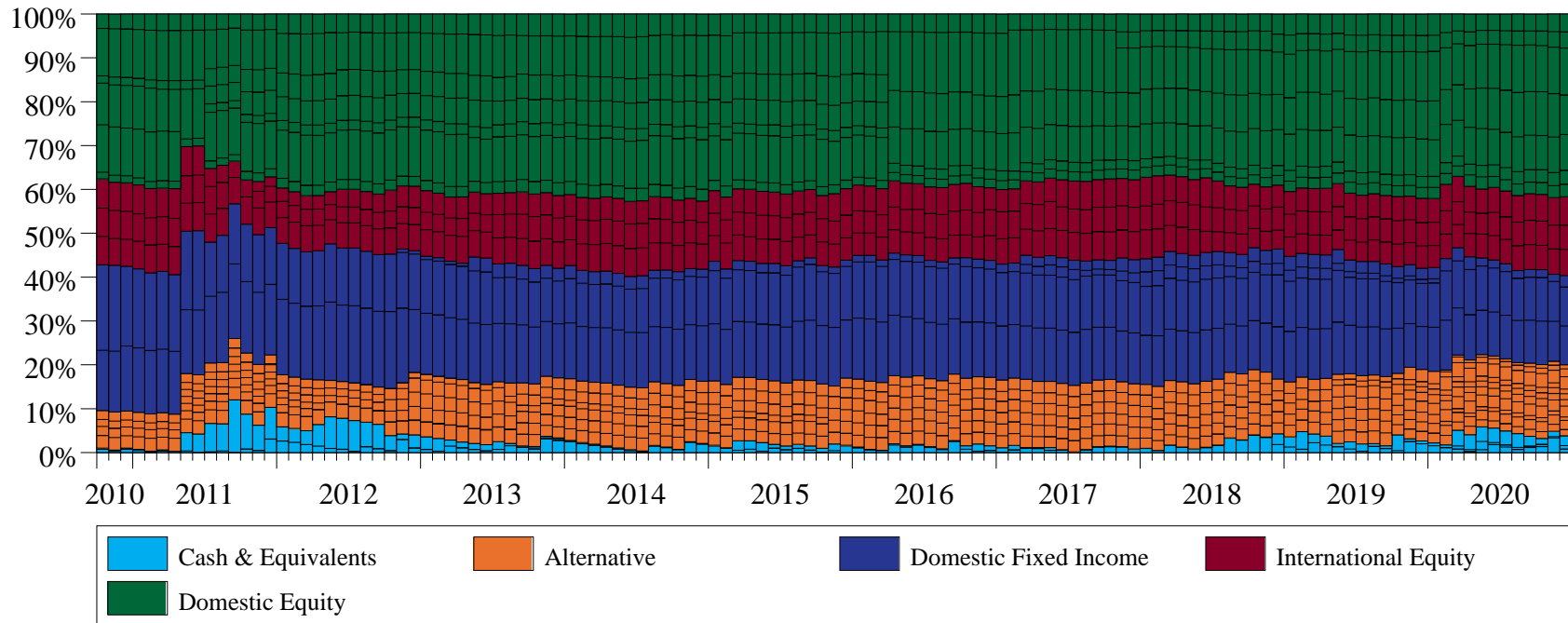
## Asset Allocation

1 Quarter Ending December 31, 2020

	Beginning Weight	Ending Weight	IPS Tgt Weight	Deviation
Domestic Equity	41.0%	41.6%	35.0%	6.6%
International Equity	17.3%	18.0%	15.0%	3.0%
Domestic Fixed Income	21.4%	20.4%	35.0%	(14.6%)
Alternative	16.7%	16.2%	10.0%	6.2%
Cash & Equivalents	3.7%	3.8%	5.0%	(1.2%)
<b>Total Portfolio</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	

	Beginning Market Value	Ending Market Value	Transfers
Domestic Equity	\$216,561,793	\$245,549,423	(\$5,000,000)
International Equity	\$91,217,727	\$106,104,457	\$0
Domestic Fixed Income	\$112,992,342	\$120,141,696	\$6,023,315
Alternative	\$88,045,742	\$95,514,662	\$2,790,081
Cash & Equivalents	\$19,815,213	\$22,613,280	(\$3,797,275)
<b>Total Portfolio</b>	<b>\$528,632,817</b>	<b>\$589,923,517</b>	<b>\$16,121</b>

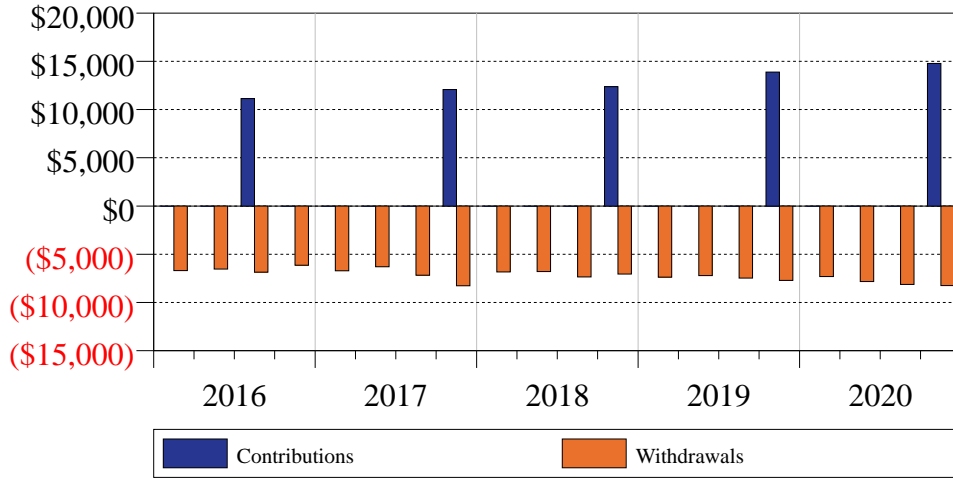
Actual Allocation for Since Inception Ended December 31, 2020



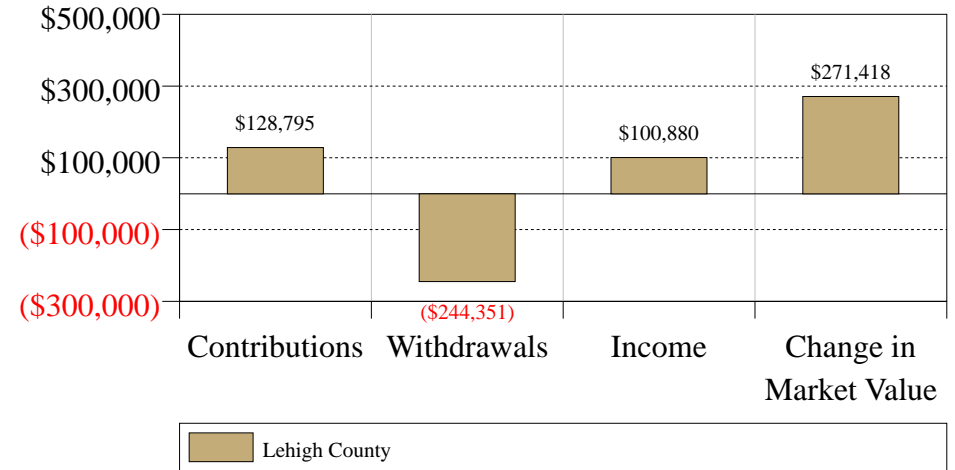
# Lehigh County Retirement Fund

## Historical Cash Flow

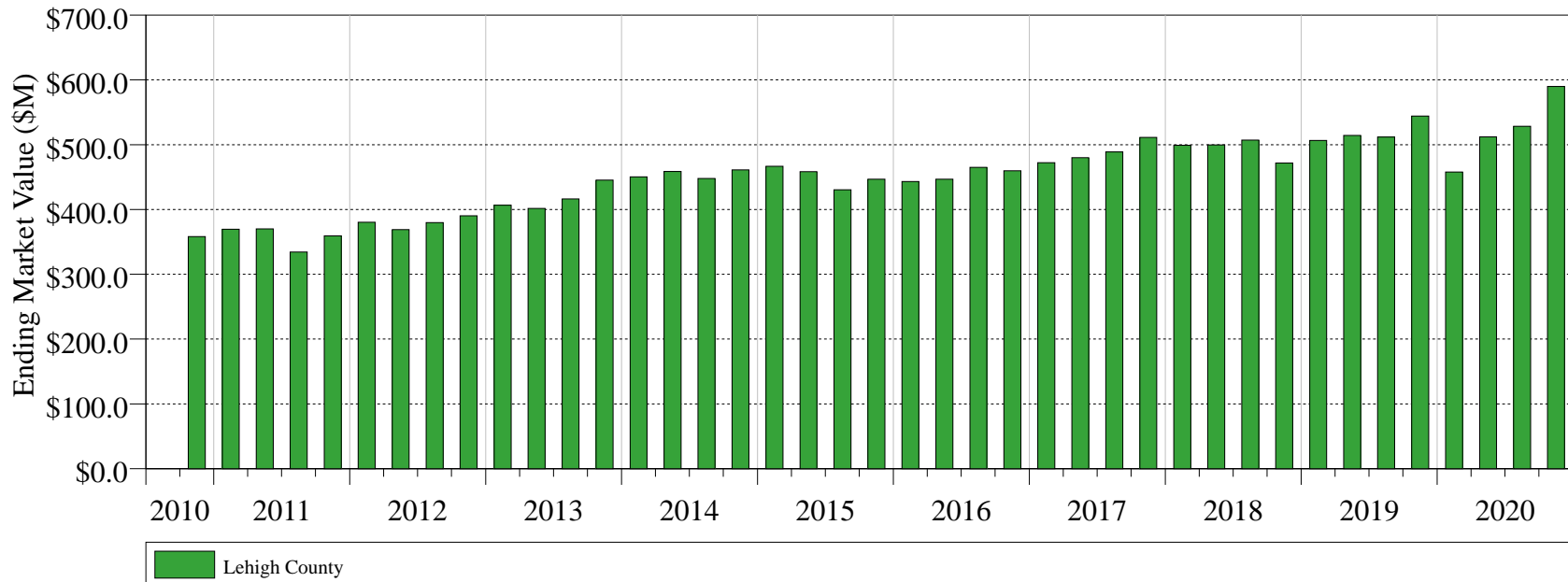
Quarterly Cash Flows for 5 Years (\$K)



Portfolio Appreciation (\$K) Since Inception



Ending Market Value Since Inception (July 1, 2010)



## Lehigh County Retirement Fund

### Manager Performance

1 Quarter Ending December 31, 2020

	Benchmark Name	Ending Weight	Returns	Excess Return	Beginning Market Value	Ending Market Value
Lomax Large Value	Russell:1000 Value	8.2%	16.15%	(0.11%)	\$41,640,016	\$48,362,884
Vanguard Instl Indx;Inst	S&P:500	10.7%	12.15%	0.00%	\$56,209,013	\$63,036,631
Invesco Eq-Wtd 500;R6	S&P 500 Eq Wt	4.1%	18.34%	(0.12%)	\$20,321,477	\$24,047,808
SGA Large Growth	Russell:1000 Growth	9.0%	10.13%	(1.27%)	\$52,687,518	\$53,022,390
Emerald Mid Growth	Russell:Midcap Growth	2.8%	18.87%	(0.15%)	\$13,976,730	\$16,614,128
Emerald Small Growth	Russell:2000 Growth	3.2%	25.52%	(4.09%)	\$14,905,030	\$18,708,735
Vanguard SC Val Idx;Ins	CRSP:U.S. Small Cap Value	3.7%	29.34%	0.02%	\$16,822,010	\$21,756,846
Vanguard Dev Mkt;Adm	FTSE:Dev AC ex US Idx	5.9%	16.93%	(0.12%)	\$29,920,563	\$35,005,933
American Funds EuPc;F-3	MSCI:ACWI ex US	6.5%	19.95%	2.94%	\$32,094,880	\$38,498,616
Vittoria Long/Short Intl	MSCI:ACWI ex US	5.5%	11.63%	(5.38%)	\$29,202,283	\$32,599,908
Agincourt Core Fixed	Blmbg:Aggregate Index	8.9%	0.85%	0.19%	\$51,843,042	\$52,285,741
CSMcKee Core Fixed	Blmbg:Aggregate Index	8.9%	1.15%	0.48%	\$51,701,083	\$52,297,425
Vanguard Sh-Tm Inv;Adm	Blmbg:Credit 1-3 Yr Bd	2.6%	0.98%	0.41%	\$9,448,218	\$15,558,530
Gabelli Merger Arbitrage	CS:Risk Arb	2.5%	5.18%	(6.10%)	\$13,864,002	\$14,582,099
AQR Alternative Risk Prem	CS:All Hedge Idx	1.5%	(6.90%)	(14.69%)	\$9,246,690	\$8,607,063
ALPS/CC Mgt CC S;I	Blmbg:Commdty Idx	0.8%	18.27%	8.11%	\$4,764,686	\$4,599,653
CBRE Clarion RE	FTSE:NAREIT All Eq Index	1.4%	12.21%	4.07%	\$8,378,688	\$8,401,895
Nuveen Pref Secs;I	S&P:US Pref Index	2.1%	6.29%	(0.65%)	\$11,712,322	\$12,449,363
Herzfeld CEF Debt Lending	Blmbg:Corp 1-3 Yr	2.8%	2.55%	1.88%	\$16,237,923	\$16,642,947
LEM Multifamily V	Cambridge:PE Real Estate	0.9%	3.59%	--	\$4,227,833	\$5,415,460
Citi Coupon Note	Citi Coupon Note Idx	1.1%	6.61%	6.61%	\$6,099,345	\$6,359,793
MS Digital Plus Note	MS Digital Plus Note Idx	1.3%	11.52%	11.52%	\$7,060,095	\$7,873,236
Vanguard Infl-Prot;Adm	Blmbg:TIPS 1-10 Yr	1.8%	1.62%	0.02%	\$6,454,158	\$10,583,150

## Lehigh County Employees' Retirement Plan Monthly Flash Report

	<i>Monthly Return January-2021</i>	<i>Market Value Beginning of Period</i>	<i>Market Value End of Period</i>
<b>Lomax Large Value</b>	<b>0.00%</b>	<b>\$48,327,293</b>	<b>\$48,329,665</b>
Russell 1000 Value	-0.92%		
<b>Vanguard Institutional Index</b>	<b>-1.01%</b>	<b>\$63,036,631</b>	<b>\$62,399,552</b>
S&P 500	-1.02%		
<b>Invesco Equally-Wtd S&amp;P 500 R6</b>	<b>-0.84%</b>	<b>\$24,047,808</b>	<b>\$23,846,142</b>
S&P 500 Equal Weighted Tr Usd	-0.81%		
<b>SGA Large Growth</b>	<b>-2.13%</b>	<b>\$53,018,233</b>	<b>\$51,889,457</b>
Russell 1000 Growth	-0.74%		
<b>Vanguard SCV Index</b>	<b>2.11%</b>	<b>\$21,756,846</b>	<b>\$22,215,690</b>
CRSP US Small Cap Value	2.10%		
<b>Emerald Mid Growth</b>	<b>2.26%</b>	<b>\$16,596,775</b>	<b>\$16,971,448</b>
Russell Mid-Cap Growth	-0.33%		
<b>Emerald Small Growth</b>	<b>1.37%</b>	<b>\$18,700,931</b>	<b>\$18,957,698</b>
Russell 2000 Growth	4.82%		
<b>American Funds Europacific Growth F3</b>	<b>-1.54%</b>	<b>\$38,498,616</b>	<b>\$37,904,707</b>
MSCI ACWI ex US	0.22%		
<b>Vanguard Developed Mkt Idx I</b>	<b>-1.18%</b>	<b>\$35,005,933</b>	<b>\$34,592,748</b>
FTSE AW ex US	0.22%		
<b>CS McKee Core Bond</b>	<b>-1.65%</b>	<b>\$52,073,795</b>	<b>\$51,216,329</b>
<b>Agincourt Core Bond</b>	<b>-0.84%</b>	<b>\$51,978,860</b>	<b>\$51,544,407</b>
Barclays Capital Aggregate	-0.72%		
<b>CBRE Clarion REITs</b>	<b>0.78%</b>	<b>\$8,361,552</b>	<b>\$8,427,160</b>
FTSE NAREIT Equity REITs	0.10%		
<b>Liquid Alternatives</b>	<b>0.72%</b>	<b>\$50,393,199</b>	<b>\$45,063,189</b>
Blended Alternatives Benchmark	0.27%		
<b>Vanguard ST Investment Grade</b>	<b>0.06%</b>	<b>\$15,534,656</b>	<b>\$15,544,424</b>
BbgBarc US Corp 1-3 Yr	0.03%		
<b>Defined Benefit Plan</b>	<b>0.01%</b>	<b>\$9,591,557</b>	<b>\$6,174,319</b>
<b>Payden Limited Maturity</b>	<b>0.07%</b>	<b>\$13,036,939</b>	<b>\$18,045,473</b>
30 Day MM Yield	0.01%		
<i>Weighted</i>			
<i>Rate of Return</i>	Portfolio	<b>\$519,959,626</b>	<b>\$513,122,409</b>
	Index		

### Assets Not Valued Daily

	<i>Market Value Beginning of Period</i>	<i>Market Value End of Period</i>
<b>Vittoria Intl Long/Short</b>	<b>\$29,126,311</b>	<b>\$29,126,311</b>
<b>Gabelli Merger Arbitrage</b>	<b>\$14,243,452</b>	<b>\$14,582,099</b>
<b>Herzfeld CEF Debt Lending</b>	<b>\$16,499,402</b>	<b>\$16,647,218</b>
<b>LEM Multifamily Fund V, L.P.</b>	<b>\$5,415,460</b>	<b>\$5,415,460</b>

<b>Grand Total</b>	<b>\$585,244,252</b>	<b>\$578,893,497</b>
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### 2021 YTD Performance

Net Portfolio	-0.52%
Index	-0.15%

Historical Returns

Net of Fee Returns

	Returns*
2020	12.3%
2019	18.9%
2018	(5.0%)
2017	14.9%
2016	6.3%
2015	(0.2%)
2014	6.1%
2013	15.6%
2012	10.1%
<b>2011</b>	<b>1.2%</b>
2010	10.7%
2009	16.9%
2008	(22.9%)
2007	7.5%
<b>2006</b>	<b>14.1%</b>
2005	6.3%
2004	9.3%
2003	20.0%
2002	(9.3%)
<b>2001</b>	<b>(3.3%)</b>

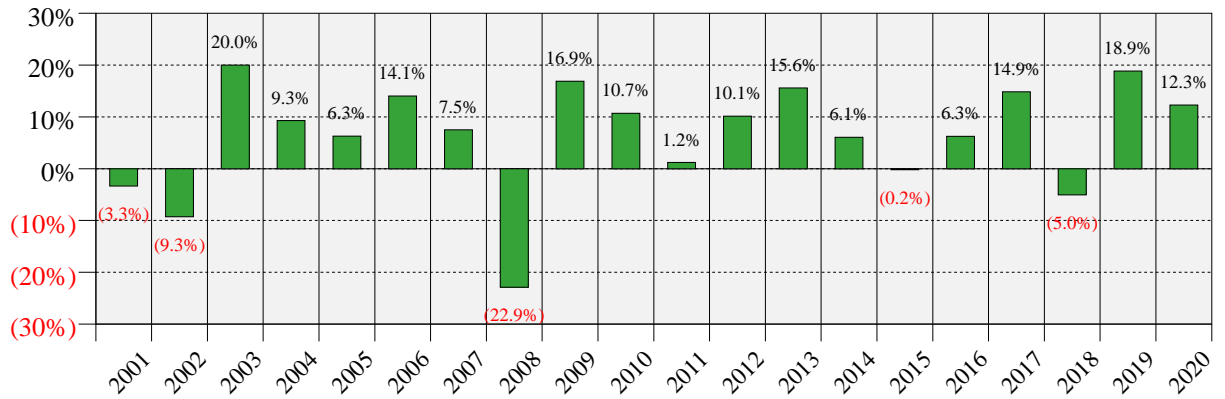
Net of Fee Returns for Periods Ended December 31, 2020

	Last 10 Years	Last 15 Years	Last 20 Years
Lehigh County (CR report)	7.8%	6.5%	5.9%

Net of Fee Returns for Periods Ended December 31, 2019

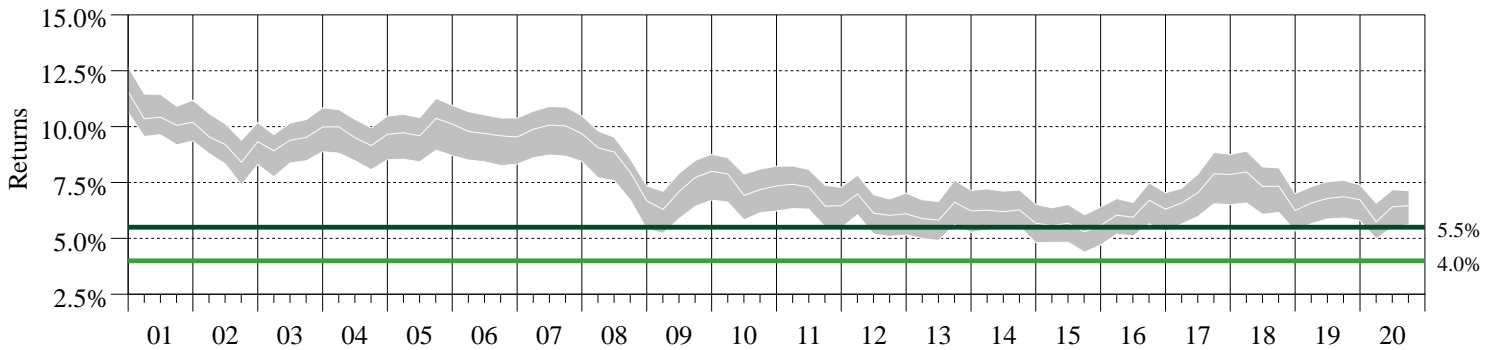
	10 Yrs. Ending 12/31/19	15 Yrs. Ending 12/31/19	20 Yrs. Ending 12/31/19
Lehigh County (CR report)	7.6%	6.1%	5.3%

Net of Fee Returns for Calendar Years



\*Bold and italicized returns indicate years to be rolled off in current year for 10 year, 15 year and 20 year measurements.

Rolling 15 Year Returns for 20 Years



Rolling 20 Year Returns for 20 Years

