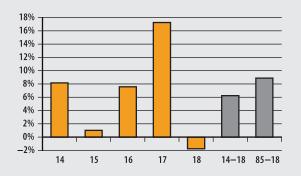
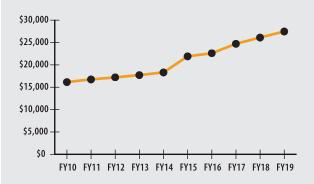
City Hall, Room 3 375 Merrimack Street Lowell, MA 01852-5998 Phone 978-674-4094 Fax 978-446-7019



INVESTMENT RETURN (2014-2018, 5 YEAR AND 34 YEAR AVERAGES)







INVESTMENT RETURN HISTORY

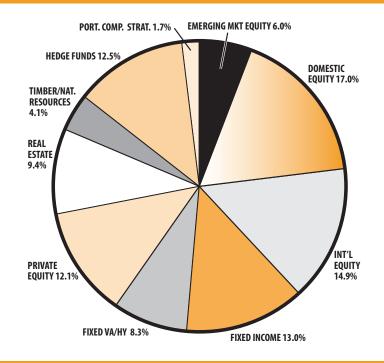
<u>34 years 2018</u>	<u>33 years 2017</u>	<u>32 years 2016</u>
8.90%	9.24%	8.99%
<u>10 years 2018</u>	<u>10 years 2017</u>	<u>10 years 2016</u>
8.88%	5.36%	4.86%
<u>5 years 2018</u>	<u>5 years 2017</u>	<u>5 years 2016</u>
6.26%	9.65%	8.94%

Board Members Bryan Perry, David Keene, Joseph Mahoney*, William Desrosiers, Michael Brennan *indicates Chairperson Board Administrator Shannon Dowd Board Meeting Usually the last Thursday of the month at 1:00 am

ACTUARIAL

► Funded Ratio		56.0%
Date of Last Valuation		1/1/17
Actuary		KMS
Assumed Rate of Return		7.75%
Funding Schedule		4.0% Increasing Phase-In
Year Fully Funded		2036
Unfunded Liability		\$269.8 M
 Total Pension Appropriation (Fiscal 2019) 		\$27.4 M
	ACTIVE	RETIRED
Number of Members	1,693	1,226
Total Payroll/Benefit	\$92.8 M	\$35.9 M
Average Salary/Benefit	\$54,800	\$29,300
► Average Age	47	72
Average Service	13.1 years	NA

ASSET ALLOCATION (12/31/18)



EARNED INCOME OF DISABILITY RETIREES (2017)

Number of Disability Retirees	166
Number Who Reported Earnings	53
Number of Excess Earners	3
Total Amount of Refund Due	\$53,957.53

▶ 2018 Return	-1.74%
▶ 2018 Market Value	\$368.0 M
▶ 2014-2018 (Annualized)	6.26 %
▶ 1985-2018 (Annualized)	8.90%