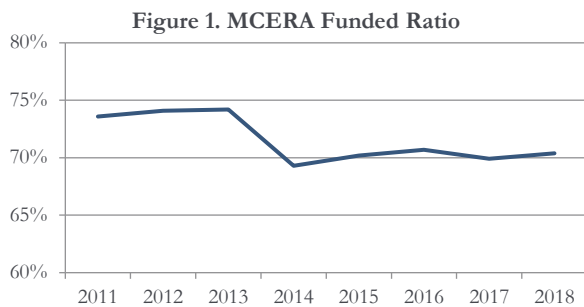
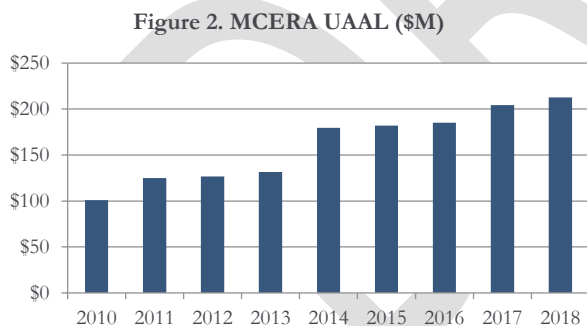


MCERA Unfunded Actuarial Accrued Liability (UAAL)

The health of a pension system is often measured by the funded ratio defined as the ratio of Assets to Liabilities. As of June 30, 2018, the MCERA funded ratio was 70.4%. Figure 1 below shows the funded ratio history.



The difference between the liabilities of a pension system and the assets available to pay those liabilities is referred to as the unfunded actuarial accrued liability (UAAL). The June 30, 2018 MCERA UAAL was \$212.6 M. Figure 2 below shows the history of the MCERA UAAL.



The 2010 UAAL amount of \$100 M is the result of a number of factors including benefit increases, retiree healthcare funding from the plan, previous funding policies and others. Since 2010, the UAAL has increased by approximately \$112 M. Approximately 93% of this increase results from changes in underlying assumptions

adopted by MCERA that were designed to make the projections more conservative. The major assumption changes are that MCERA is more conservative in our expected investment return and we expect our retirees to live longer meaning we pay more in benefits.

The remaining 7% of the increase in UAAL since 2010 is due to plan performance and negative amortization. Negative amortization occurs when UAAL payments are lower than the interest costs on the UAAL. MCERA changed its policy in 2012 to eliminate negative amortization in the future, but the previous UAAL still had some negative amortization until 2017.

While the UAAL and funded ratio are important measures of the health of a retirement system, it is also important to understand the direction of the plan. The UAAL and funding ratio tells us where a pension plan is at a certain date in very simple terms. Knowing where you are is important, but it is also important to have a plan for where you are going. Figure 3 below shows the MCERA plan to address the UAAL. Importantly, the UAAL is projected to reach \$0 in 2039, meaning the plan will be fully funded.

