

Media Workshop

Media Tool Kit and Q&A

Sept. 18, 2018

Media Toolkit: Plan Types

Defined Benefit (DB): provides beneficiaries predefined, guaranteed benefit based on based on years of service, final salary, age, and benefit formula; risk borne largely by employer

Example: 2% @ 60 provides 2% of final compensation * years of service

—Final salary \$50,000

—Years of service 30

Year 1 benefit: $\$50,000 * 2\% * 25 = \$25,000$

Typically contains annual COLA

Defined Contribution (DC): provides beneficiaries benefit that is not pre-determined and is dependent upon the account balance at retirement; risk borne largely by beneficiary

Actuarial Basis: assets and accrued liability as they are determined by the pension systems themselves

Market Basis: market value of assets; discounts future benefit payments for the time value of money using the yield on 20-year United States Treasury bonds

Media Toolkit: Assets and Liabilities

Market Value of Assets (MVA): current or estimated value of assets, other property

Actuarial Value (AVA): Assets “smoothed” to minimize effects of volatility (Note: CalPERS no longer uses.)

Actuarial Accrued Liability (AAL): present value of fully projected benefits attributable to service credit earned (or accrued) as of the valuation date; typically “Entry Age Normal Accrued Liability”

—CalPERS defines as: “projected benefits are determined for all members and the associated liabilities are spread in a manner that produces level annual cost as a percentage of pay in each year from the member’s entry age to their assumed retirement age on the valuation date.”

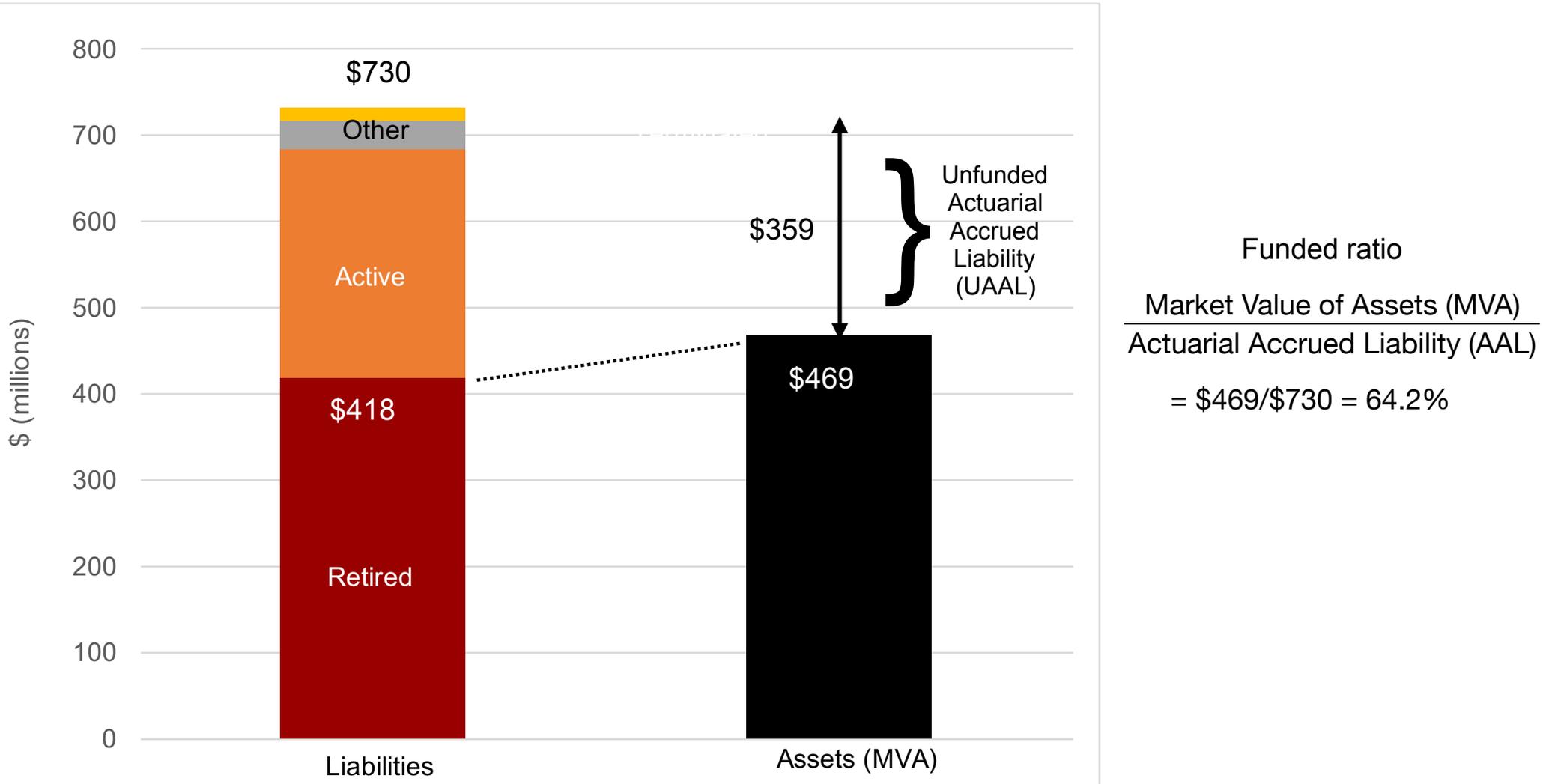
$$\text{Funded ratio} = \frac{\text{Market Value of Assets (MVA)}}{\text{Actuarial Accrued Liability (AAL)}}$$

Unfunded Actuarial Accrued Liability (UAAL): excess of the total actuarial accrued liability over the market value of plan assets (aka “Pension Debt”)

Discount Rate: assumed rate of return and rate at which future liabilities are discounted

Risk Free Rate: generally assumed to be U.S. 20-Year Treasury yield, currently just over 2.5%

Media Toolkit: Actuarial Terms, Palo Alto Miscellaneous Plan, 2016



Media Toolkit: Contribution Rates and Contributions

Actuarial

Contribution Rates

- Typically expressed as a percentage of payroll
- Employer: typically set annually to achieve full-funding over time
- Employee: typically set in statute to a maximum amount

Contribution Amounts: sum of contribution rates * payroll

(Covered) Payroll: individual or aggregate payroll on which contribution rates are determined

Normal Cost: cost of projected benefits allocated to the current plan year

Unfunded Liability Contribution: cost of reducing unfunded liability to zero

Amortization period: time period over which Unfunded Actuarial Liability is reduced to zero

Annual Required Contribution (ARC): employer's contribution to fully fund system

Media Toolkit: Contribution Rates and Contributions, Palo Alto Miscellaneous Plan, 2016

	Fiscal Year 2017-18	Fiscal Year 2018-19
Normal Cost Contribution as a Percentage of Payroll		
Total Normal Cost	17.623%	17.697%
Employee Contribution ¹	7.584%	7.480%
Employer Normal Cost	10.039%	10.217%
Projected Annual Payroll for Contribution Year	\$ 78,211,742	\$ 82,332,567
Estimated Employer Contributions Based On Projected Payroll		
Total Normal Cost	\$ 13,783,255	\$ 14,570,395
Employee Contribution ¹	5,931,579	6,158,476
Employer Normal Cost	7,851,676	8,411,919
Unfunded Liability Contribution	15,765,273	18,392,618
% of Projected Payroll (illustrative only)	20.157%	22.339%
Estimated Total Employer Contribution	\$ 23,616,949	\$ 26,804,537
% of Projected Payroll (illustrative only)	30.196%	32.556%

Source: CalPERS, MISCELLANEOUS PLAN OF THE CITY OF PALO ALTO (CalPERS ID: 6373437857) Annual Valuation Report as of June 30, 2016, <https://www.calpers.ca.gov/docs/actuarial-reports/2016/palo-alto-city-miscellaneous-2016.pdf>, retrieved Sept. 17, 2017.

Media Toolkit: Metrics

$$\text{Unfunded liability per member} = \frac{\text{AAL - MVA, or UAAL}}{\text{Number of active, retired, vested members}}$$

$$\text{Unfunded liability per capita} = \frac{\text{AAL - MVA, or UAAL}}{\text{Number of persons}}$$

$$\text{Unfunded liability per household} = \frac{\text{AAL - MVA, or UAAL}}{\text{Number of occupied housing units}}$$