

Franklin Regional Retirement System

Preliminary Results of the January 1, 2018 Actuarial Valuation

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Linda L. Bournival, FSA
Consulting Actuary
KMS Actuaries, LLC



Purpose of Valuation

- Periodic review of system experience
 - Liabilities
 - Assets
- Review assumptions and methods
 - Appropriate
 - Consistent
 - Reasonable
 - Conform to Actuarial Standards of Practice (ASOPs)
- Develop annual appropriations
- Adopt new funding schedule
- Determine cost for various benefit options

Key Findings

- **Market Value of Assets (MVA)**
 - Returns for 2016 and 2017 exceeded expectations
 - \$10m asset gain on MV during 2-year period
- **Actuarial Value of Assets (AVA)**
 - 7.75% expected
 - 2016 and 2017 gains phased-in at 25% per year
 - Modest asset gain on AVA during 2-year period
- **Demographic experience loss of \$4.2m**
 - Losses
 - new entrants with past service
 - fewer retiree deaths than expected
 - Retirement decrement
 - Gains
 - Salary increases lower than expected
 - Termination, death and disability decrements
- **Funded Status changed from 71.4% to**
 - 73.2% before assumption changes - increased
 - 73.2% after recommended assumption changes - increased



System Assets and Returns

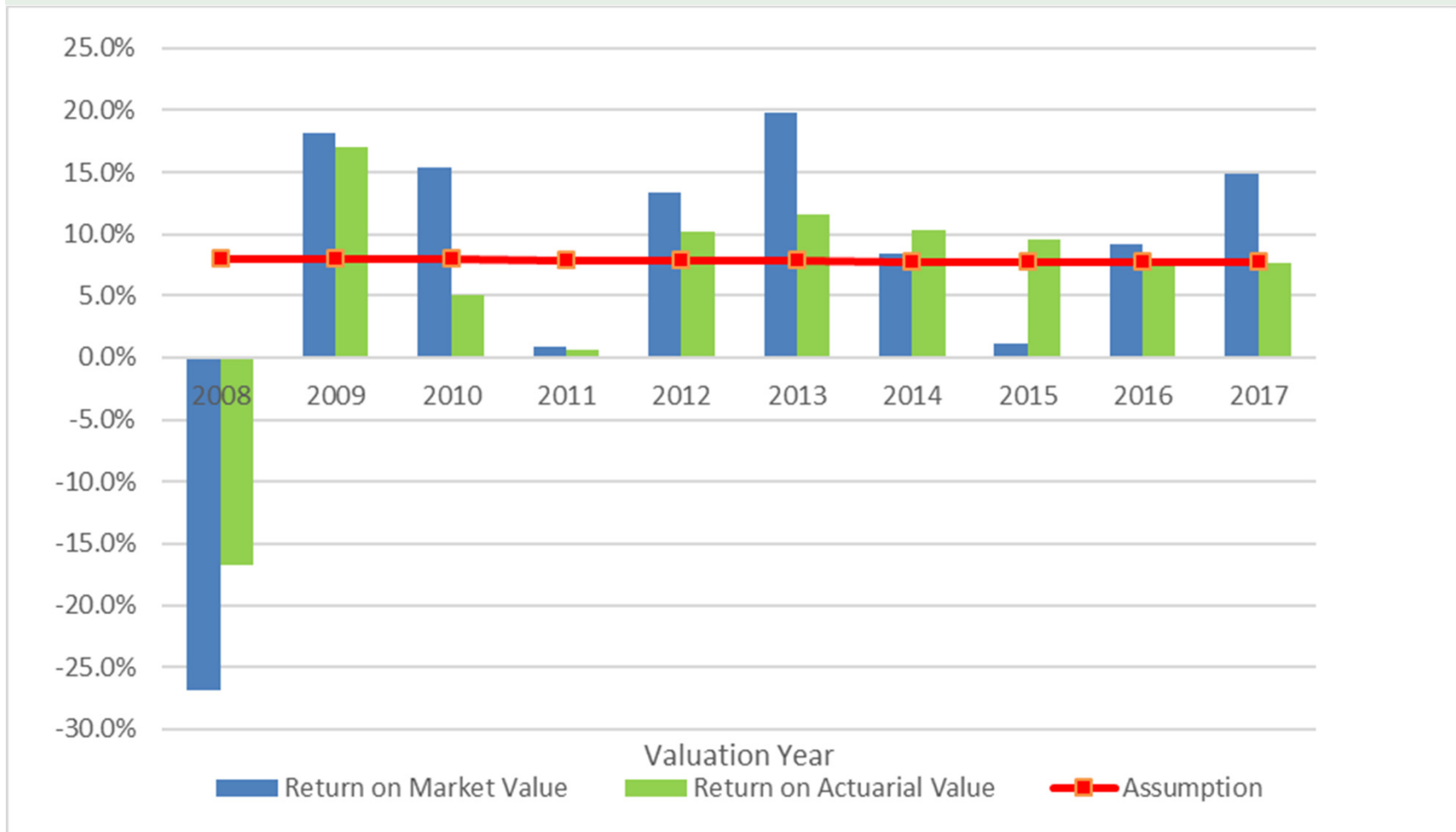
(in millions)

Calendar Year	2017	2016	2015
Market Value of Assets (MVA)	\$143.9	\$127.1	\$118.2
Market Value of Assets Return	14.91%	9.16%	1.11%
Gain/(Loss) – recognized over four years	\$9.0	\$1.0	(\$8.6)
Actuarial Value of Assets (AVA)	\$138.8	\$130.8	\$122.2
Actuarial Value of Assets Return	7.71%	8.03%	9.56%
AVA as Percentage of MVA	96.47%	102.91%	103.37%

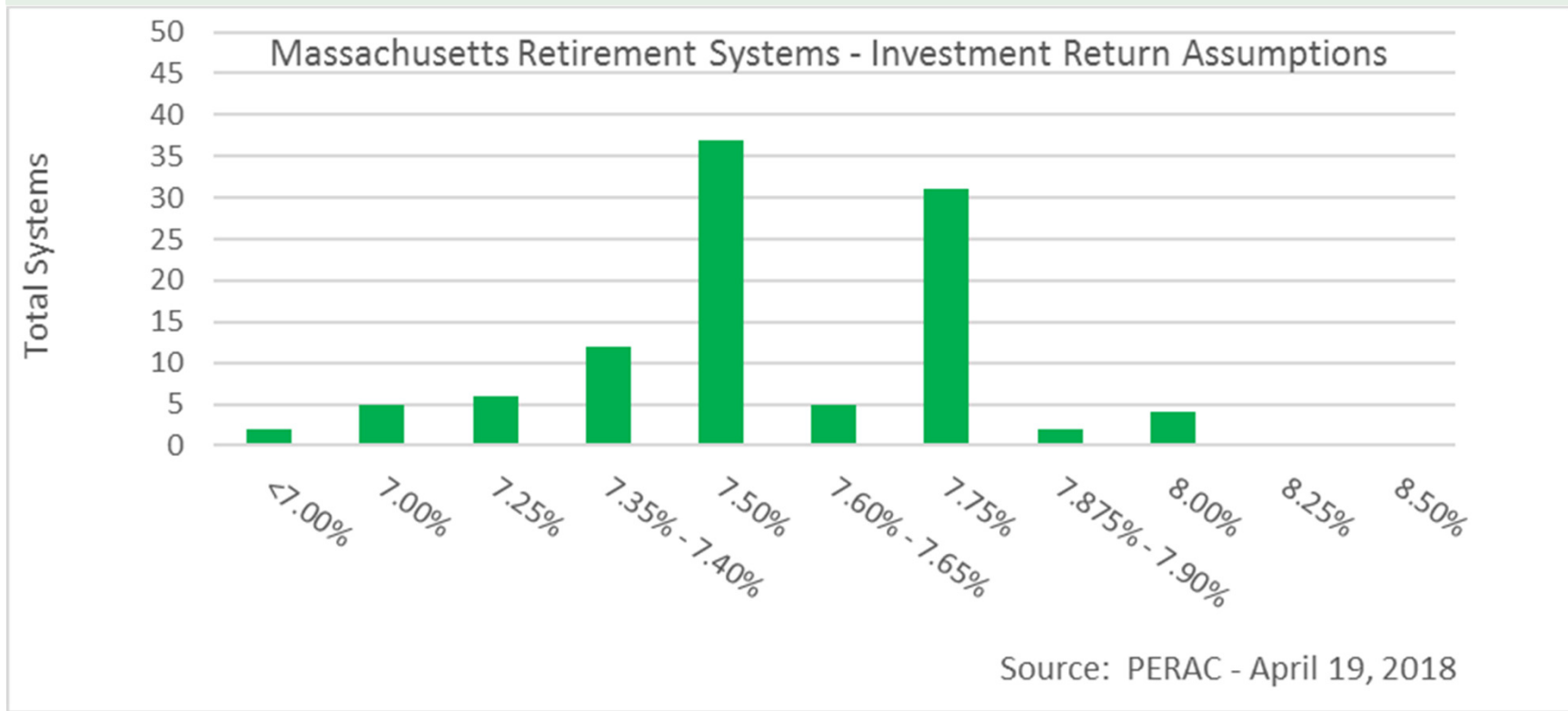
AVA is the MVA adjusted to phase-in investment gains and losses over a 4-year period, further constrained to be within 10% of the MVA. Investment gains and losses are the excess or deficiency of the expected returns over the actual returns.



Historical Rates of Return



Investment Return Assumptions



Plan Provisions

- Same as 2016 valuation
 - COLA Base of \$17,000
 - Chapter 176 of the Acts of 2011 continues to be reflected
 - Changes eligibility and benefit provisions for members hired after April 1, 2012
 - Impacts benefits for 425 current members
 - Previously, 314 members
 - Slight impact on Accrued Liability as of valuation
 - Normal Cost is lower for these members

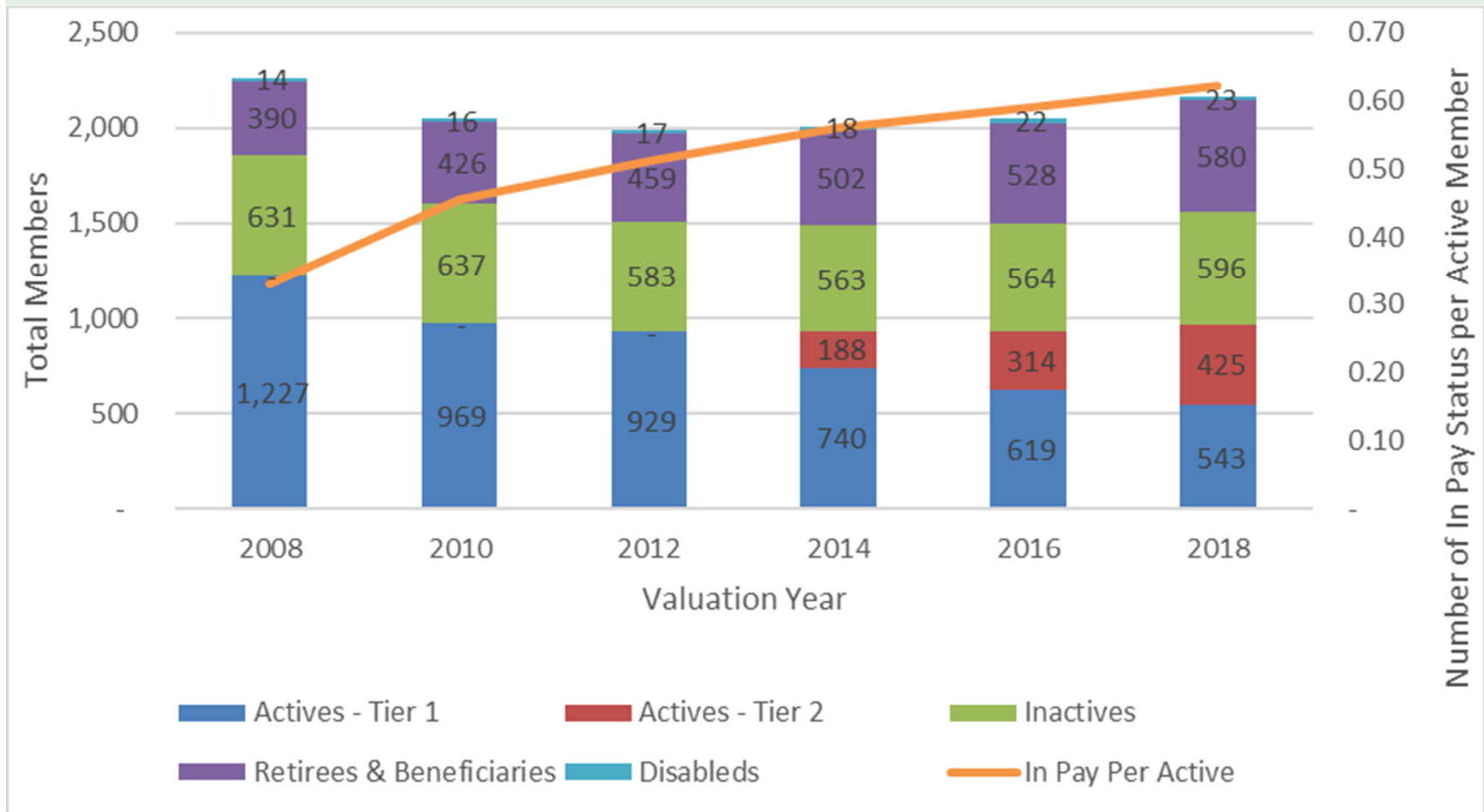
Membership

Valuation Date	January 1, 2018	January 1, 2016	Change
Active Members	968	933	3.8%
Retired Members & Beneficiaries	580	528	9.8%
Disabled Members	23	22	4.5%
Inactive Members	596	564	5.7%
Total Annual Salary	\$36,446,439	\$33,556,164	8.6%
Annual Pensions*	\$10,193,355	\$8,644,403	17.9%
Average Pensions	\$16,904	\$15,717	7.6%

* Includes State reimbursed COLAs.



Historical Membership Counts

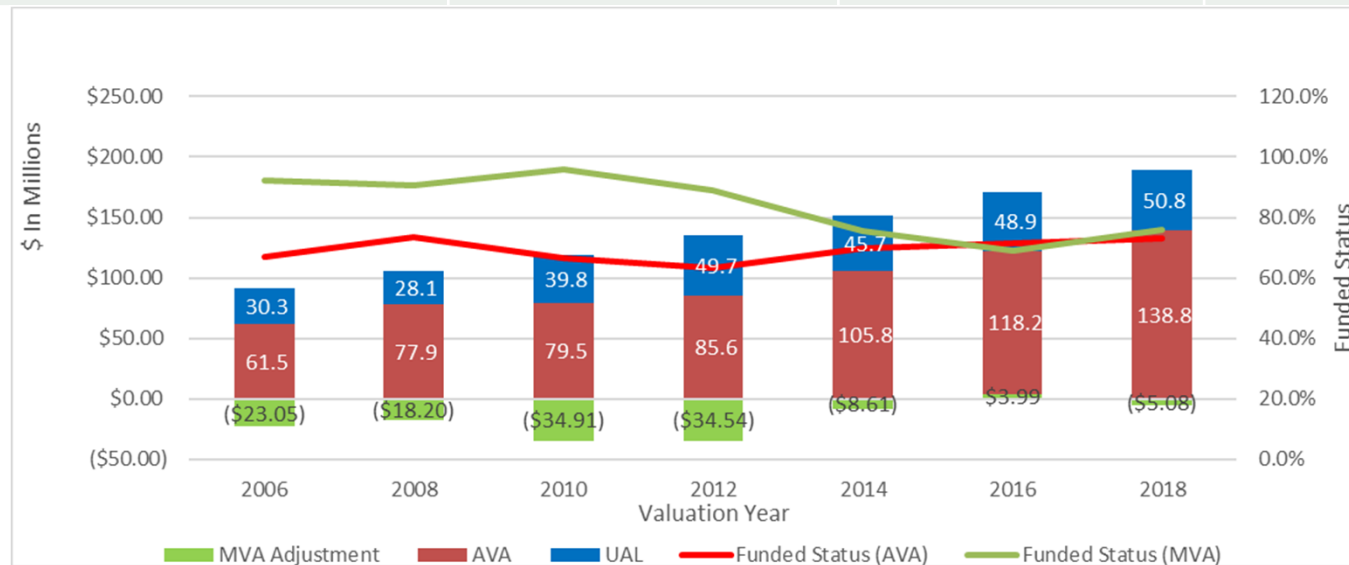


Prior Assumptions

- Investment Return
 - 7.75%
- Salary Scale
 - 6%-4.25%, varies by service – Group 1
 - 7%-4.75%, varies by service – Group 4
- Payroll Growth
 - 4% per year
- Expenses
 - \$450,000, added to normal cost
 - Increases 4% per year
- Mortality
 - RP-2000 Table for Healthy Lives, base year 2009, with full generational mortality using Scale BB

Historical Valuation Results

Valuation Date	January 1, 2018	January 1, 2016	Change
Actuarial Accrued Liability (AL)	\$189.6	\$171.1	10.8%
Actuarial Value of Assets (AVA)	138.8	122.2	13.6%
Unfunded Actuarial Liability (UAL)	\$50.8	\$48.9	3.9%
Funded Status = AVA/AL	73.2%	71.4%	2.5%



Franklin Regional Retirement System 2018 Actuarial Valuation Results

Change in Unfunded Liability

During the 2-Year Period 2016 – 2017

Unfunded Actuarial Accrued Liability (UAL), January 1, 2016	\$48.9
Expected UAL, January 1, 2018	47.0
Actual UAL, January 1, 2018	50.8
(Decrease)/Increase during 2016 – 2017	\$3.8
Increase due to Demographic Experience	\$4.2
Decrease due to Asset Investment Return greater than expected	(.3)
Decrease due to 2% COLA for 2018	(.3)
Increase due to change in retirement rates	.2
Total (Decrease) / Increase during 2016 – 2017	\$3.8

Dollars in millions



Recommended Assumptions

- Update retirement rates to reflect earlier retirements
- Investment Return
 - 7.625% - increases liabilities by \$2.366m
 - 7.50% - increases liabilities by \$4.896m
- Mortality and Mortality Improvement stays the same
- Salary Scale remains the same
- Expenses
 - Increase from \$450,000 to \$550,000
 - Based on last five years experience
- 3(8)(c) Transfers
 - Increase from \$466,500 to \$725,800

FY2020 Appropriation

- Funding Schedule C
- Annual Appropriations Equal the sum of:
 - Employer Normal Cost (includes expenses)
 - Amortization Payment to fully fund UAL by 2035
 - Amortization Payments to fully fund ERIs by 2020
 - 3(8)(c) Transfers
- Normal Cost increases annually by assumed payroll growth of 4%
- UAL payments increase by 4% per year
- 3(8)(c) Transfers are level

Valuation Date	January 1, 2018*
Employer Normal Cost	\$2,539,535
Amortization Payment	4,353,911
ERI 2002	0
ERI 2003	42,803
3(8)(c) Transfers	725,800
Total Appropriation	\$7,662,049
* Includes 2% COLA for 2018 and change to retirement rates	

FY2020 Appropriation – Schedule C

- Under Funding Schedule C
 - FY2020 Appropriation is 15.87% higher than FY2019
 - Fully funds UAL in 2035
 - Amortization payments increase by 4% annually
 - Negative amortization occurs through 2020

- Options
 - lengthen full funded period
 - Continue to limit annual increases to 5.5% per year

Fiscal Year	Appropriation	Increase over Prior Year
2020	7,662,049	15.87%
2019	6,612,848	5.50%
2018	6,268,103	5.50%
2017	5,941,329	3.74%
2016	5,727,313	-2.74%
2015	5,888,495	3.74%
2014	5,676,096	7.30%
2013	5,290,063	3.87%
2012	5,093,076	

FY2020 Appropriation – Schedule D

- Under Funding Schedule D
 - No change to investment return rate - 7.75%
 - FY2020 Appropriation is 5.50% higher than FY2019
 - Fully funds UAL in 2035
 - Annual increases are limited to 5.50% through 2028
 - Amortization payments increase by 4% annually thereafter
 - Negative amortization occurs through 2023

Fiscal Year	Appropriation	Increase over Prior Year
2020	6,976,555	5.50%
2019	6,612,848	5.50%
2018	6,268,103	5.50%
2017	5,941,329	3.74%
2016	5,727,313	-2.74%
2015	5,888,495	3.74%
2014	5,676,096	7.30%
2013	5,290,063	3.87%
2012	5,093,076	

FY2020 Appropriation – Schedule E

- Under Funding Schedule E
 - Investment return rate reduced to 7.625%
 - FY2020 Appropriation is 20.74% higher than FY2019
 - Fully funds UAL in 2035
 - Amortization payments increase by 4% annually
 - Negative amortization occurs through 2021

- Options
 - lengthen full funded period
 - Limit annual increases to 5.75% per year

Fiscal Year	Appropriation	Increase over Prior Year
2020	7,984,221	20.74%
2019	6,612,848	5.50%
2018	6,268,103	5.50%
2017	5,941,329	3.74%
2016	5,727,313	-2.74%
2015	5,888,495	3.74%
2014	5,676,096	7.30%
2013	5,290,063	3.87%
2012	5,093,076	

FY2020 Appropriation – Schedule F

- Under Funding Schedule F
 - Investment return rate reduced to 7.625%
 - FY2020 Appropriation is 5.75% higher than FY2019
 - Fully funds UAL in 2035
 - Annual increases are limited to 5.75% through 2031
 - Amortization payments increase by 4% annually thereafter
 - Negative amortization occurs through 2024

Fiscal Year	Appropriation	Increase over Prior Year
2020	6,993,087	5.75%
2019	6,612,848	5.50%
2018	6,268,103	5.50%
2017	5,941,329	3.74%
2016	5,727,313	-2.74%
2015	5,888,495	3.74%
2014	5,676,096	7.30%
2013	5,290,063	3.87%
2012	5,093,076	

FY2020 Appropriation – Schedule G

- Under Funding Schedule G
 - Investment return rate reduced to 7.50%
 - FY2020 Appropriation is 25.68% higher than FY2019
 - Fully funds UAL in 2035
 - Amortization payments increase by 4% annually
 - Negative amortization occurs through 2021

- Options
 - lengthen full funded period
 - Limit annual increases to 6.21% per year through 2035

Fiscal Year	Appropriation	Increase over Prior Year
2020	8,311,165	25.68%
2019	6,612,848	5.50%
2018	6,268,103	5.50%
2017	5,941,329	3.74%
2016	5,727,313	-2.74%
2015	5,888,495	3.74%
2014	5,676,096	7.30%
2013	5,290,063	3.87%
2012	5,093,076	

Changes to Assumptions and Methods for Consideration

- Maintain current schedule
- Shorten or lengthen period UAL is fully funded
 - If on or before 2030, payments can increase up to 4.5%
 - If after 2030, payments can not increase more than 4%
 - PERAC recommends 2035 and earlier
- Limit annual increases for specified period of time

Action Plan

- Discuss alternative assumptions
- Develop appropriation for FY2020
- Select Funding Schedule
- Finalize January 1, 2018 Valuation Report
- Prepare December 31, 2017 GASB 67/68 reports – based on January 1, 2018 valuation
- Other considerations?

Funding Schedules

- Funding Schedule C
 - Experience
 - 2% COLA for 2018
 - Update retirement rates
 - Investment return rate remains at 7.75%
- Funding Schedule D
 - Funding Schedule C
 - Limit annual increases to 5.50%
- Funding Schedule E
 - Funding Schedule C
 - Reduce investment return rate from 7.75% to 7.625%
- Funding Schedule F
 - Funding Schedule E
 - Limit annual increases to 5.75%
- Funding Schedule G
 - Funding Schedule C
 - Reduce investment return rate from 7.75% to 7.50%