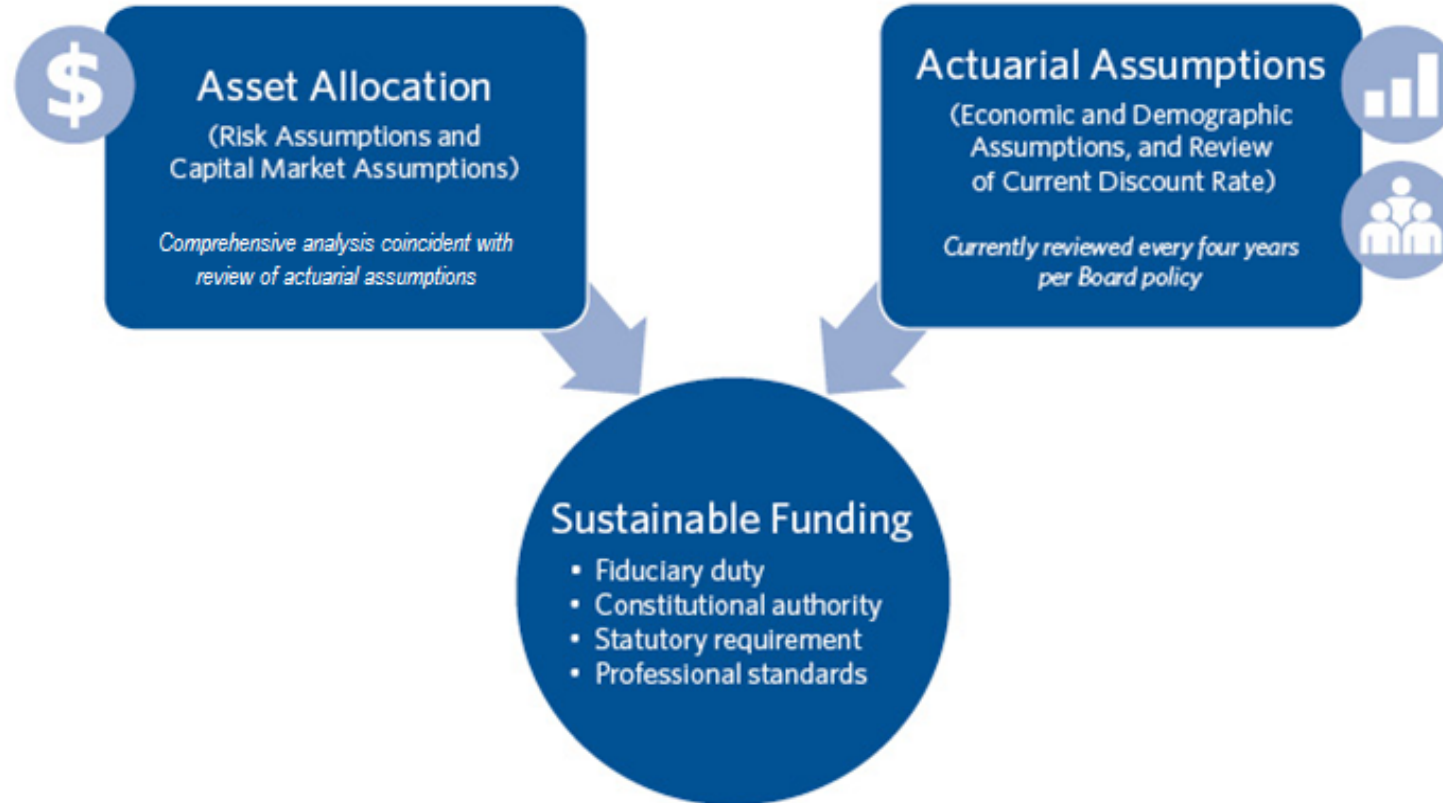


Review of PERF Actuarial Assumptions

Finance & Administration Committee
September 14, 2021

Overview



Decisions Needed

- Two Types of Assumptions to select
 - Economic
 - Price inflation, wage inflation, payroll growth, investment return
 - Demographic
 - How long members work
 - What benefit will members receive (service retirement, disability retirement, death benefits, refund of contributions)
 - How long will retirees live
 - Assumptions based largely on CalPERS recent experience
 - Future outlook also considered

COVID-19 Considerations

- Data through June 30, 2019, was used to analyze recent experience
- No impact of COVID-19 in the data used
- System experience from July 1, 2019, through June 30, 2021, was impacted by COVID-19
 - Somewhat higher number of deaths
 - Impact on retirement patterns
 - We will see some gains and losses in the June 30, 2021, actuarial valuations that will impact results
- Assumption changes recommended in this study apply to valuations dated June 30, 2021, and later
- No compelling reason to assume COVID-19 will affect experience beyond this point

Economic Assumptions

- Price Inflation – Expected annual increase in CPI-U
 - Analysis – forecasts of future inflation by various sources have decreased
 - **Recommendation - Reduce from 2.50% to 2.25%**
- Wage Inflation – Price inflation plus productivity increase
 - Analysis – no material decline in recent CalPERS wage inflation
 - **Recommendation - Keep at 2.75%**
- Payroll Growth – Wage inflation plus/minus other factors
 - Analysis – no reason to believe payroll will grow differently than wage inflation
 - **Recommendation - Keep at 2.75%**

Economic Assumptions (continued)

- Long-term Expected Return on Assets
 - Used to determine the discount rate
 - Equal to price inflation plus real rate of return net of investment and administrative expenses
 - Expected real rate of return depends on asset allocation
 - Asset allocation outside the scope of the experience study

Demographic Assumptions

- Service Retirement
 - Analysis – some groups had more retirements than expected (CHP), others had fewer
 - ***Cost impact - Recommended rates will increase contribution rates for CHP by roughly 1% of payroll. Most other groups (except public agency safety) will experience a small decrease in contribution rates***

Demographic Assumptions

- Merit and Seniority Salary Increases
 - Analysis – several groups experienced higher than expected pay increases. Others were closer to the actuarial assumptions
 - ***Cost impact – Revised assumptions will result in increases to contribution rates for CHP (2-3% of payroll), many of the safety groups (around 1% of payroll), and state miscellaneous (around 1% of payroll). Other groups will experience minimal changes in costs.***

Demographic Assumptions

- Termination of Employment
 - Terminations with vested benefits
 - Analysis – some groups had more vested terminations than expected, others had fewer
 - ***Cost impact - Recommended rates will have minimal impact on employer contributions***
 - Terminations with refund
 - Analysis – some groups had more terminations with refund than expected, others had fewer
 - ***Cost impact - Recommended rates will have minimal impact on employer contributions***

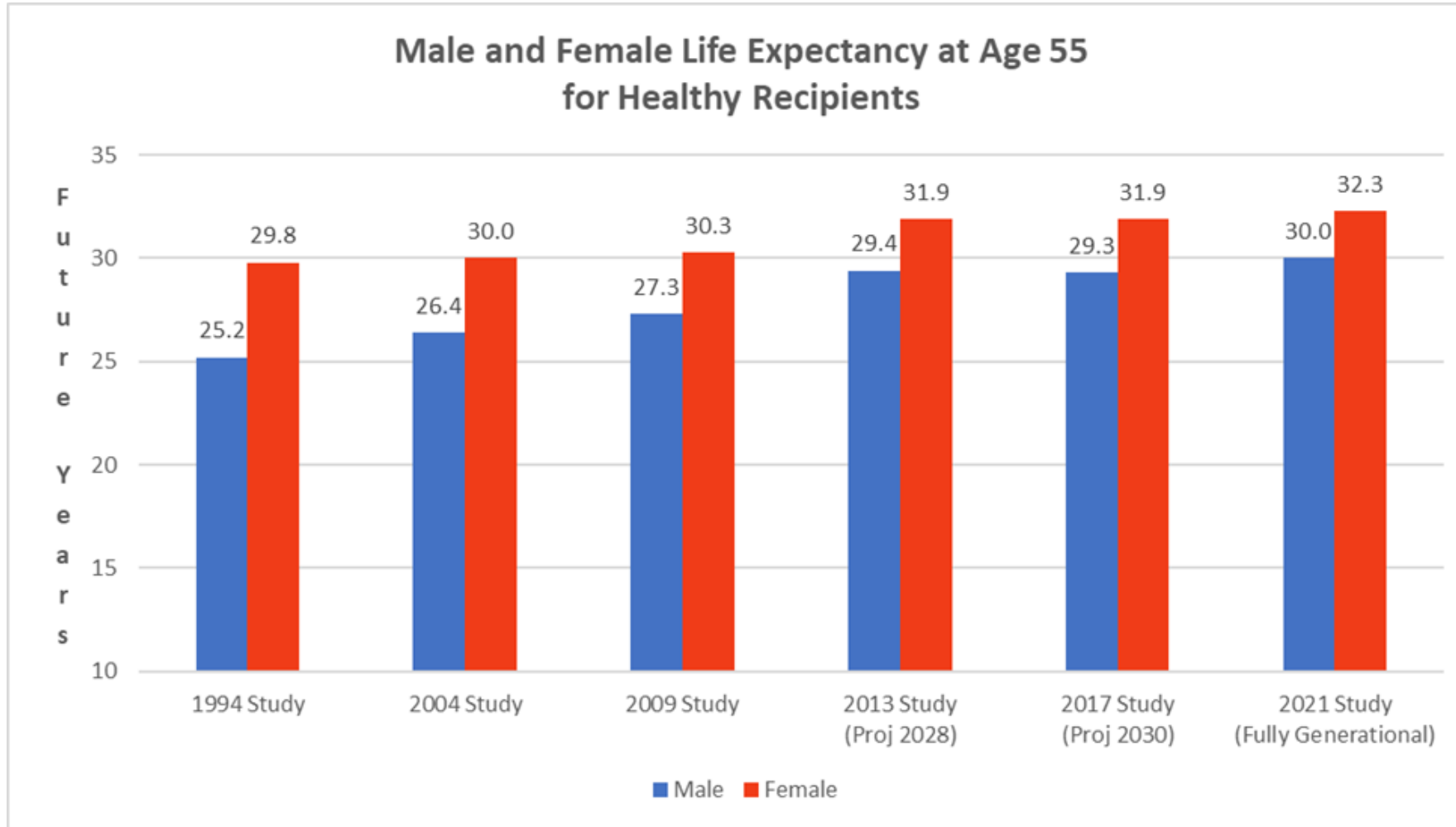
Demographic Assumptions

- Disability Retirement
 - Non-industrial disability retirement
 - Analysis – actual non-industrial disability retirements were less than expected in most cases
 - **Cost impact – Minimal cost impacts for all groups**
 - Industrial disability retirement
 - Analysis – experience was relatively close to the current assumptions for most groups
 - **Cost impact – Minimal cost impacts for all groups**

Demographic Assumptions

- Mortality
 - Proposed assumptions are based on data from CalPERS and the Society of Actuaries
 - Rates for healthy lives are based upon benefit weighted data
 - Inclusion of expected future mortality improvement through fully generational projection using 80% of Scale MP-2020
 - ***Cost impact - Slightly higher contribution rates for most groups (less than 1% of payroll in most cases)***

Demographic Assumptions



Demographic Assumptions

- Mortality

Life expectancy (in years) for service retirees

Attained Age	Current Assumptions (includes 15-year projection w/ Scale MP-2016)		Proposed Benefit Weighted Assumptions (includes fully generational projection w/ Scale MP-2020)	
	Male	Female	Male	Female
50	33.7	36.2	34.8	37.1
55	29.3	31.9	30.0	32.3
60	25.0	27.5	25.4	27.5
65	20.9	23.2	20.9	23.0
70	16.9	18.9	16.7	18.5

Impact on PEPRA Normal Costs

- Recommended demographic assumptions will increase Normal Cost for most PEPRA groups
 - The impacts range from 0.1% to 1.3%
 - Most groups are under 1%
 - Attachment 2 provides estimated Normal Cost increases for PEPRA members by group
 - Some PEPRA member groups may experience an increase in the required member contribution rate as a result of these demographic assumption changes
 - Increases occur if the base Normal Cost increases by more than 1%
 - Possible changes to economic assumptions will also be factored into this determination

Next Steps

- November Board Meeting
 - Investment Committee adopts new asset allocation targets and ranges
 - Board adopts new actuarial assumptions