Modeling of Various Hypothetical Employer Contribution Rates Requested by TFIR Based on 2014 Actuarial Valuation

University of California Retirement Plan

UCRS Advisory Board

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Disclaimer

- These contribution scenarios were requested by TFIR and not proposed by Segal
- The hypothetical modeling that follows was authorized by UCOP, at the request of TFIR
- Segal remains a neutral party to these proposals
- Projections based on plan terms in effect as of July 1, 2014

Terminology Issue: ARC vs. ADC

- This presentation refers to the Total Funding Policy Contribution as the "ARC"
  - "ARC" stands for "Annual Required Contribution"
  - Defined under old accounting standards GASB Statements 25 and 27
  - Technically an expense measure but based on the actuarial funding policy amount
- New GASB Statements 67 and 68 use "ADC" to refer to funding policy amounts
  - "ADC" stands for "Actuarially Determined Contribution"
- Segal believes the new terminology is more accurate
  - Makes clear this amount is actuarially determined
  - Avoids inference that this amount is "required"
  - Also consistent with GASB disclosures
- This presentation still uses old "ARC" terminology
  - Consider changing to "ADC" terminology either now or in the near future

Modeling of Various Hypothetical Employer Contribution Rates

- Rates modeled are those requested by TFIR
  - Employer rates shown are in addition to member contributions
- Contribution rate scenarios modeled:
  - 14% of covered payroll maximum employer contribution rate for all years
  - Total Funding Policy Contribution ("ARC") for all years
  - ARC for 2015/2016 followed by 14% of covered payroll maximum employer contribution rate thereafter
  - ARC for 2015/2016 and 2016/2017 followed by 14% of covered payroll maximum employer contribution rate thereafter
- Total of employer and member contribution rates are assumed to be no greater than the total Funding Policy Contribution rate for any year in the projection
  - Exception is that future employer contributions are set to be at least as much as the member contributions each year, in accordance with the UCRP Funding Policy
- All projections reflect "borrowing" of $700 million to reach ARC during 2014/2015

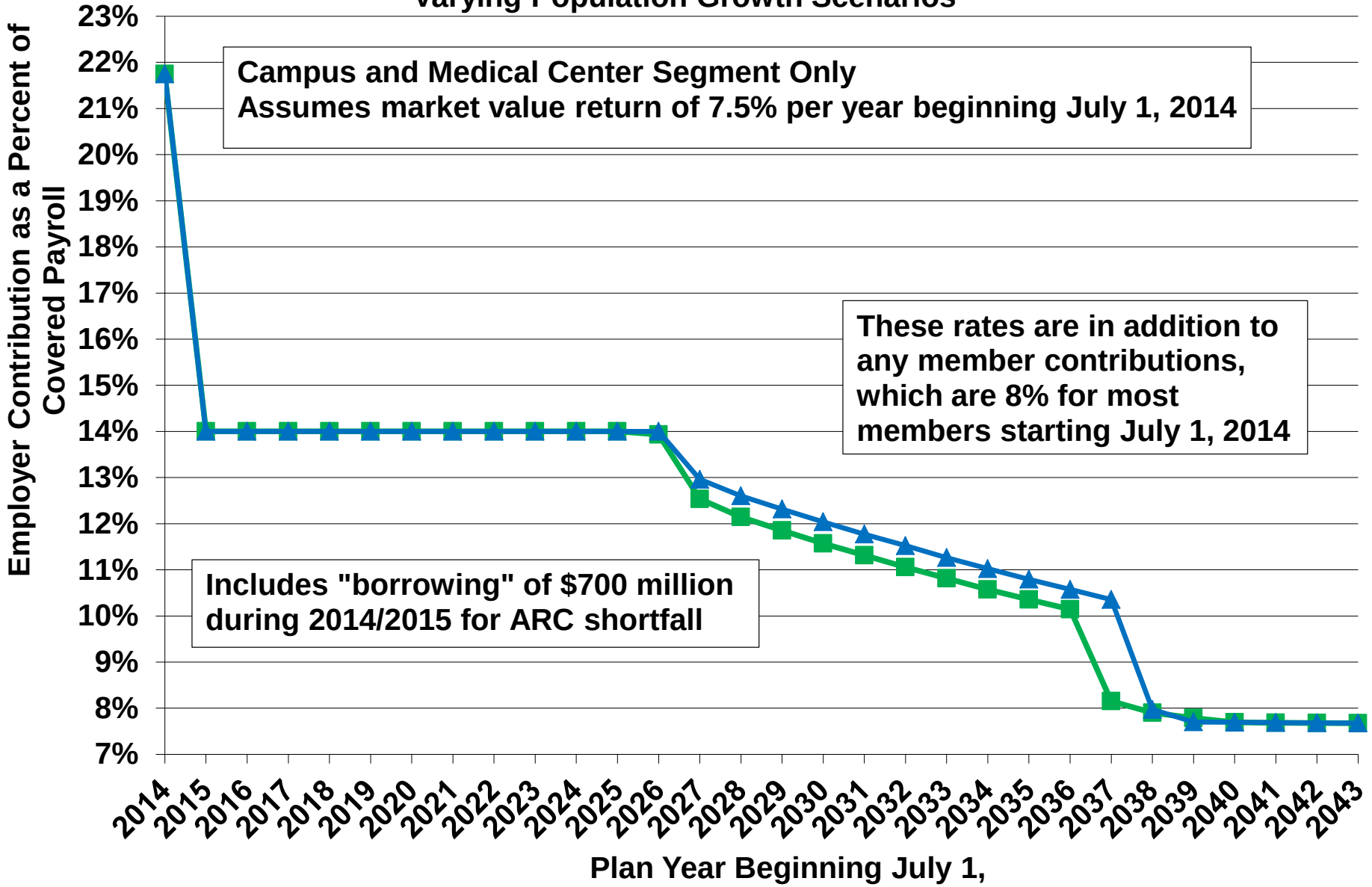
Modeling of Various Hypothetical Employer Contribution Rates

- Under the baseline scenario without any assumption changes, the hypothetical "borrowing" amounts to get to ARC during 2015/2016 and 2016/2017 are estimated to be as follows:

$ in Millions	2015/2016	2016/2017
ARC Shortfall	$641	$457

- Projection results may change significantly from year to year depending on actual experience, including future market returns
- Next three slides model the 14% of covered payroll maximum employer contribution rate scenario
  - Includes both 0% and 0.7% per year active member population growth
  - Results show higher employer contribution rates under 0% scenario
  - Full funding reached in approximately same time period
  - All other scenarios modeled are based on the 0.7% growth assumption
- Contribution rates are modeled along with the corresponding funded ratios and UAAL amounts

University of California Retirement Plan
Comparison of 14% Maximum Hypothetial Employer Contributions
Varying Population Growth Scenarios



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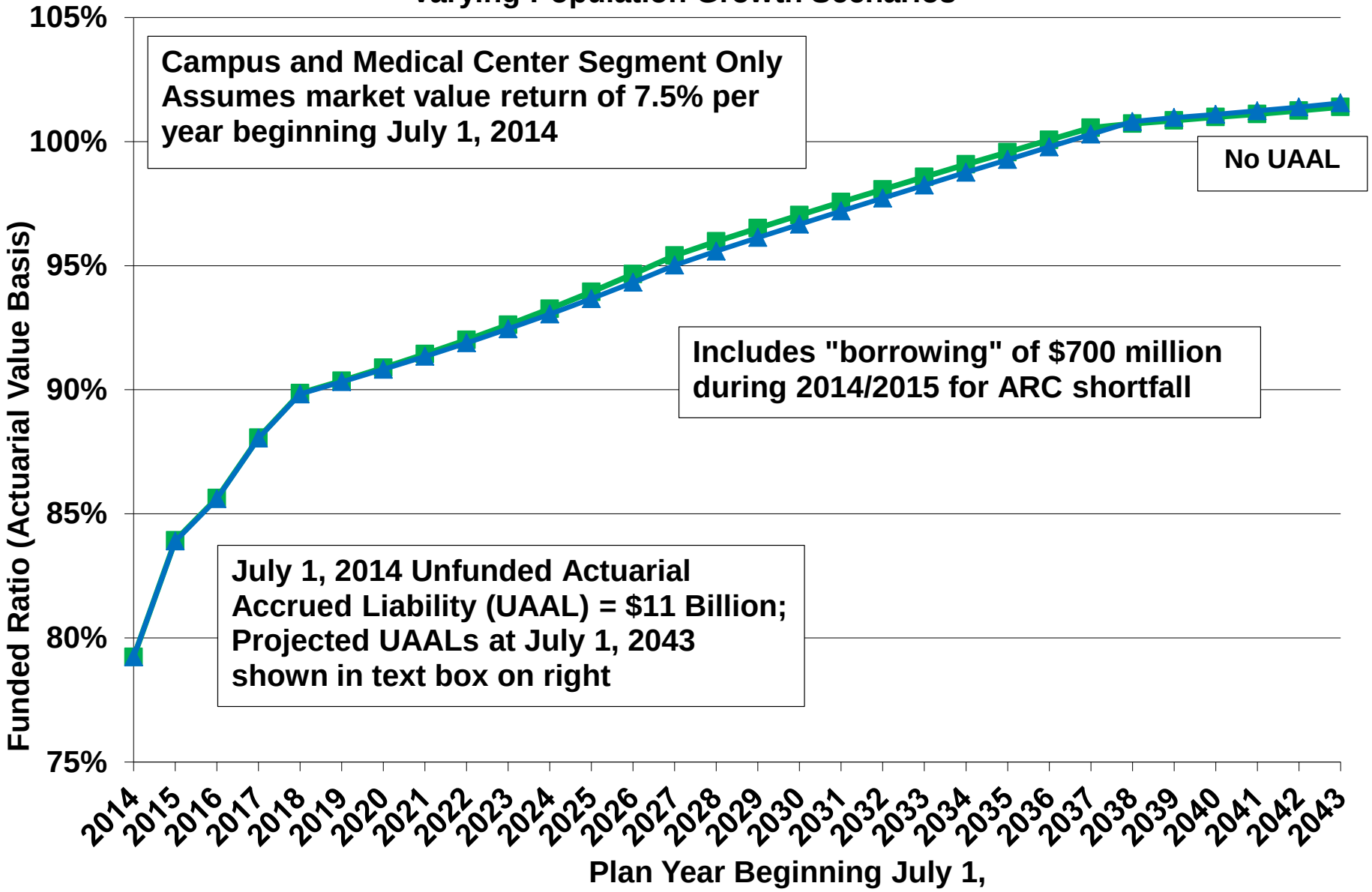
University of California Retirement Plan
Funded Ratio Based on 14% Maximum Hypothetical Employer Contributions
Varying Population Growth Scenarios



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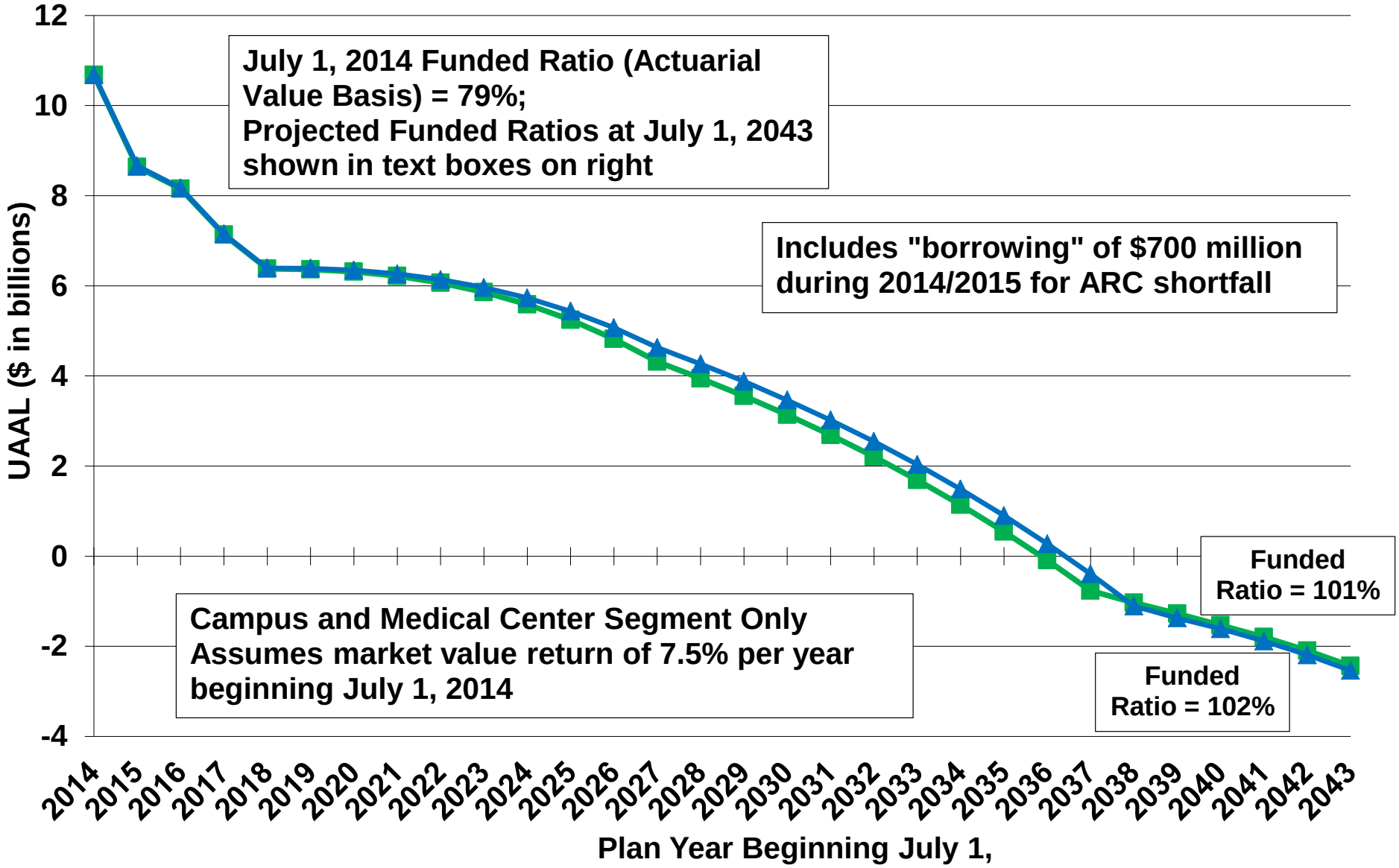
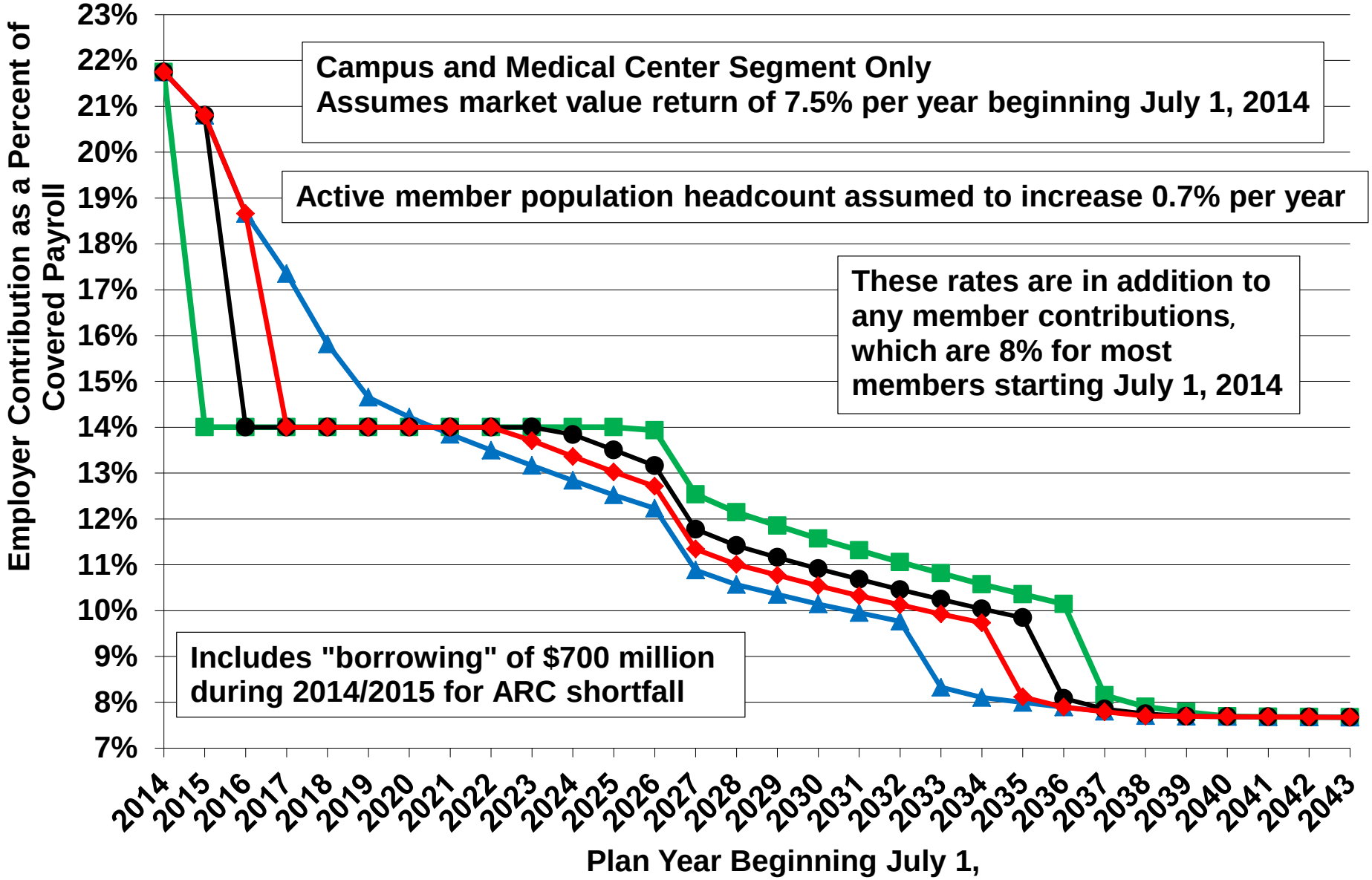
University of California Retirement Plan
UAAL Based on 14% Maximum Hypothetical Employer Contributions
Varying Population Growth Scenarios



Modeling of Various Hypothetical Employer Contribution Rates w/ 0.7% Active Population Growth

- Next slides contain results for the following four contribution rate scenarios modeled under the 0.7% population growth assumption only:
  - 14% of covered payroll maximum employer contribution rate for all years
  - Total Funding Policy Contribution ("ARC") for all years
  - ARC for 2015/2016 followed by 14% of covered payroll maximum employer contribution rate thereafter
  - ARC 2015/2016 and 2016/2017 followed by 14% of covered payroll maximum employer contribution rate thereafter
- Contribution rates are modeled along with the corresponding funded ratios and UAAL amounts

University of California Retirement Plan
Comparison of Various Hypothetial Employer Contributions



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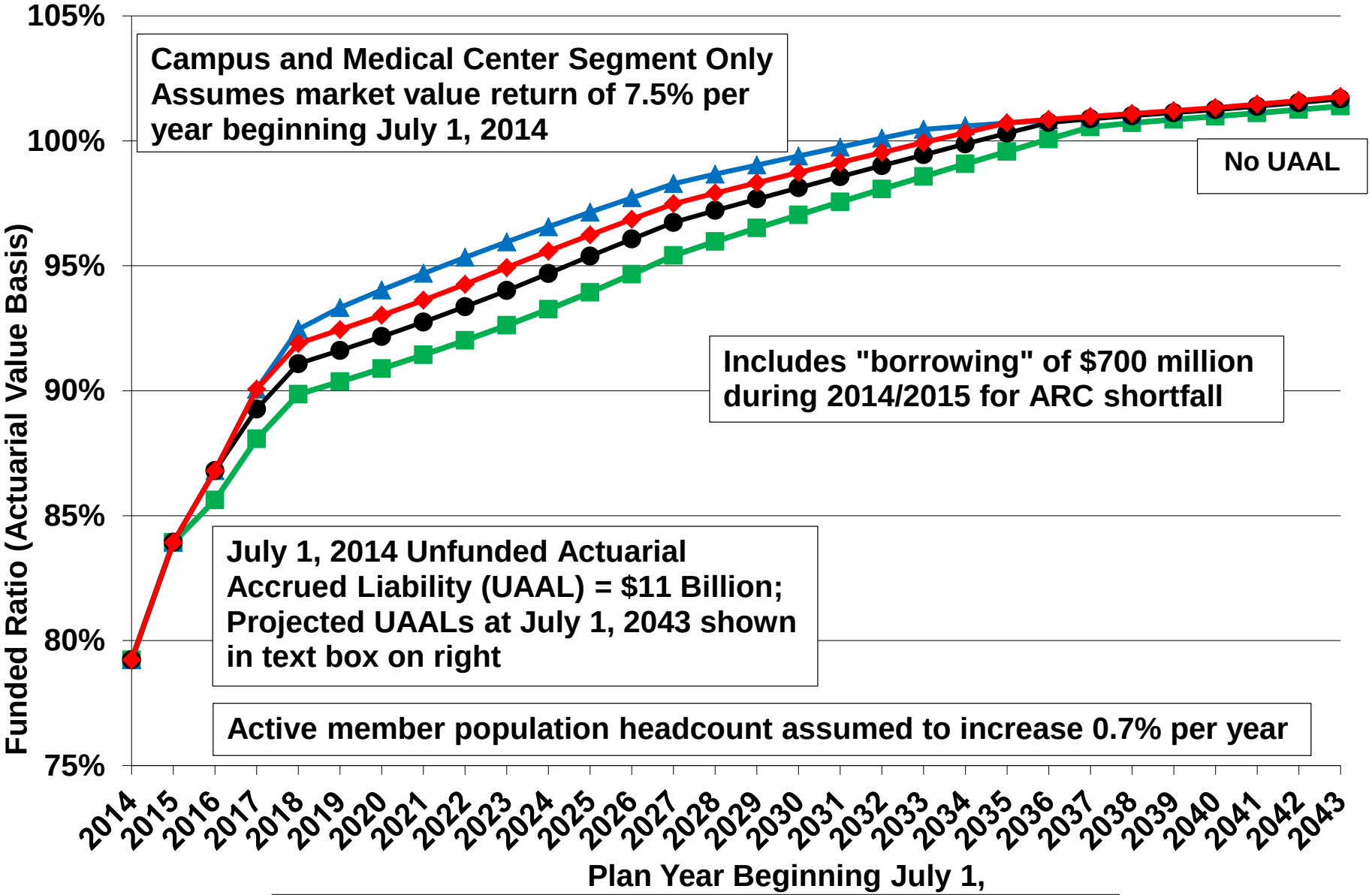
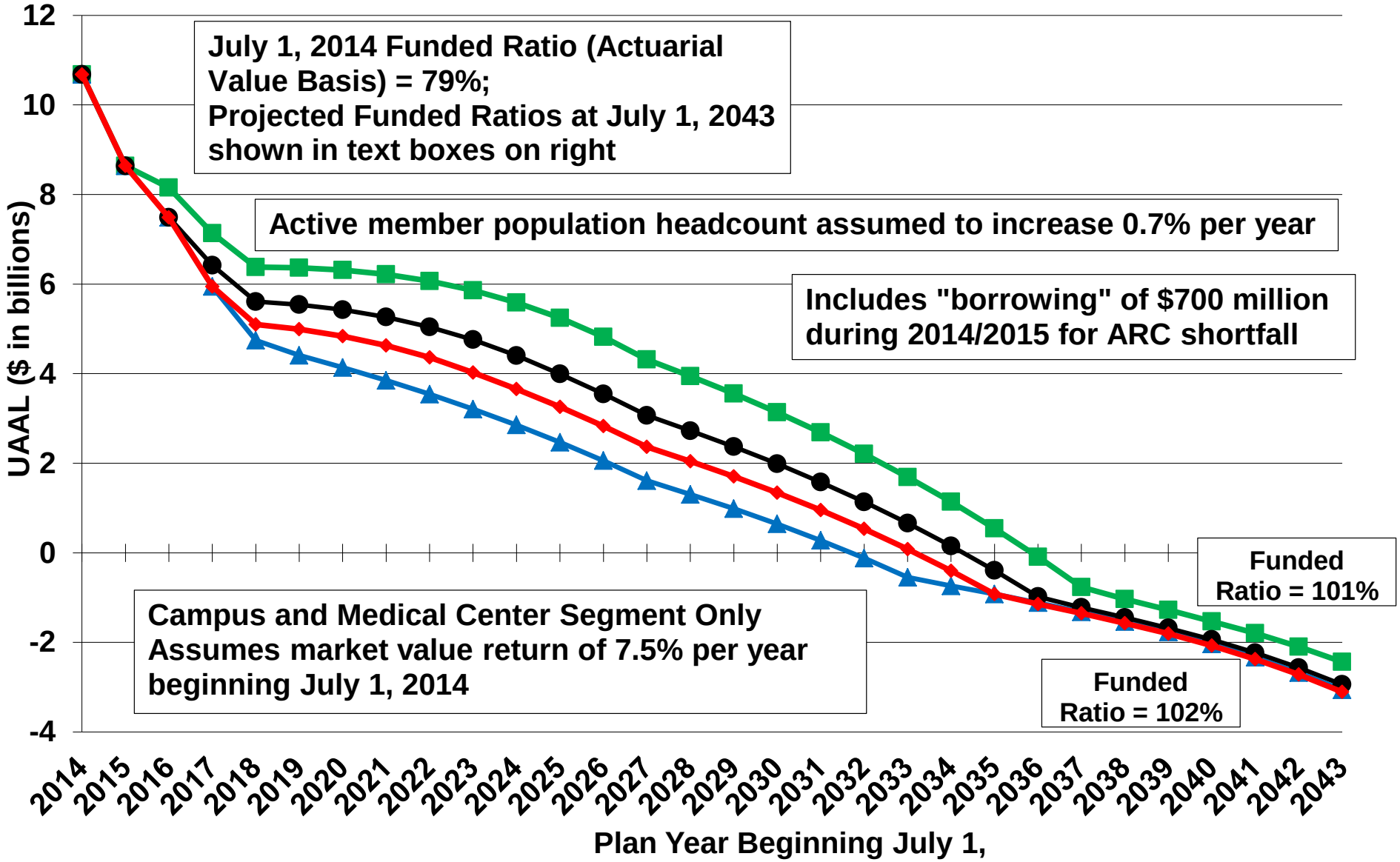
University of California Retirement Plan
Funded Ratio Based on Various Hypothetical Employer Contributions



University of California Retirement Plan
UAAL Based on Various Hypothetical Employer Contributions



Assumptions and Methods Used in Projections

- Unless otherwise noted, the projections were made using generally accepted actuarial practices and are based on the July 1, 2014 actuarial valuation results, including the participant data and actuarial assumptions on which that valuation was based. Here are some of the important assumptions used in the projection:
  - Campus and medical center segment only
  - 7.50% market value return per year starting July 1, 2014
  - 3.50% inflation assumption per year starting July 1, 2014
  - Reflects 2013 Tiers starting July 1, 2013
    - Projections based on plan terms in effect as of July 1, 2014
  - Member rates currently in effect stay at that level throughout the projection
  - Approved/projected employer rate and “borrowing” is as shown in the modeling
    - “Borrowing” of $700 million to reach ARC during 2014/2015 is included in all scenarios
  - Active member population headcount increases by either 0.7% or 0% per year
  - Demographics for future new entrants are assumed to be the same as those for members hired during the two years prior to July 1, 2014

Other Information

- Projections, by their nature, are not a guarantee of future results. The modeling projections are intended to serve as illustrations of future financial outcomes that are based on the information available to us at the time the modeling is undertaken and completed, and the agreed-upon assumptions and methodologies described herein. Emerging results may differ significantly if the actual experience proves to be different from these assumptions or if alternative methodologies are used. Actual experience may differ due to such variables as demographic experience, the economy, stock market performance and the regulatory environment.
- All calculations were completed under the supervision of John Monroe, ASA, MAAA, Enrolled Actuary who is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.