

# 2014 Update of Total Remuneration Study for General Campus Ladder Rank Faculty Presentation of Final Results

Prepared for the University of California

**JULY 30, 2014**

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Section 1

# Background and Context

## Background and Context

- As part of an ongoing effort to assess market competitiveness of total remuneration for general campus Ladder Rank Faculty (“LRF”), The University of California Office of the President (UCOP) asked Mercer to collect, analyze, and summarize both compensation and benefits data, and prepare a presentation on study findings
- This year’s study considers salaries, benefit valuation and aggregate compensation and benefits findings for general campus LRF against the Comparison 8 (“Comp 8”) institutions

### Study Objectives

- Generate a comprehensive and valid evaluation of UC’s current competitive position for total remuneration for general campus LRF;
- Facilitate a better understanding of how competitiveness of total remuneration varies by faculty rank;
- Compare 2009 results versus those of 2014; and
- Evaluate the effect of Post-7/2013 New Tier Benefits on total remuneration.

## Background and Context

- **Study Population - UC Data**

- Study population, compensation and demographic data used were provided by Academic Personnel as of 10/1/2013
- Data reflect salary increases allocated to UC LRF in July 2013

- **Study Timing**

- UC salary increases effective July 1, 2014, were not included because there was insufficient notice to model them as part of this study
  - Similarly, salary data from Comparison 8 institutions pertain to Fall 2013 and do not include those increases already planned to take effect in Fall, 2014

- **Study Calculations**

- When calculations are rolled up into “All General Campus LRF,” each rank is weighted based on number of incumbents per rank
  - Market cash compensation has been weighted based on the methodology outlined on page 53
- When calculations are based on specific faculty ranks, data is representative of a simple average of all incumbents within that rank

- **Study Nomenclature**

- Total remuneration consists of cash compensation and the value of the employer-provided portion of retirement, and health & welfare benefits

# Background and Context

- **Study Headcount**

- Total headcount data for general campus LRF at the University of California were provided by Academic Personnel from payroll data
- Includes 7,305 LRF from general campus designations
  - Excluded from the study:
    - Individuals without salary
    - Individuals who were ineligible for UCRP
    - Health Sciences faculty
      - Health Sciences include Medicine, Dentistry, Nursing, Optometry, Pharmacy, Public Health and Veterinary Medicine
    - Law School faculty
      - Assistant Professor and Associate Professor ranks are not utilized by UC Law Schools and untenured law faculty are appointed as Acting Professors with two-year appointments
      - Not all comparators have law schools
    - Other faculty titles considered equivalent rank
      - Equivalent ranks include: Astronomers and Agronomists who do not jointly hold a professorial title; Lecturers with Security of Employment or Potential Security of Employment; and Supervisors of Physical Education

## Background and Context

- **Study Peer Group**

- The comparison institutions, shown below, were originally developed by an advisory committee that consisted of members from the former California Postsecondary Education Commission (CPEC), the State Legislative Analyst's Office, the State Department of Finance, UC Academic Senate leadership, and UCOP administrative leadership
- The same eight comparison institutions have been used in previous studies for LRF

### Comparison 8 Academic Institutions (“Comp 8”)

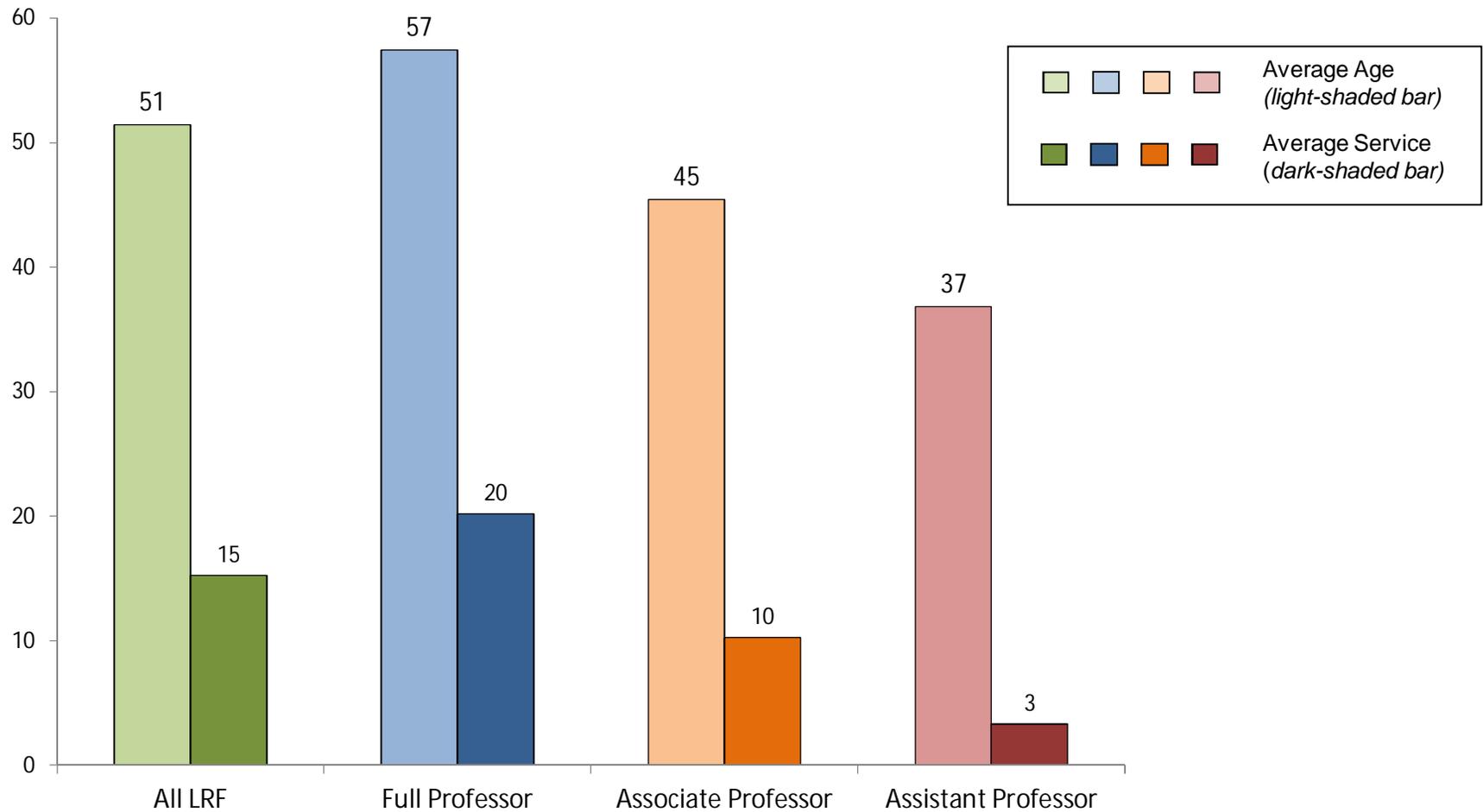
Harvard University  
MIT  
Stanford University  
SUNY - Buffalo

University of Illinois – Urbana-Champaign  
University of Michigan – Ann Arbor  
University of Virginia  
Yale University

# Background and Context

- **Study Demographics**

- Population demographics (age and service) for 2014 are shown below

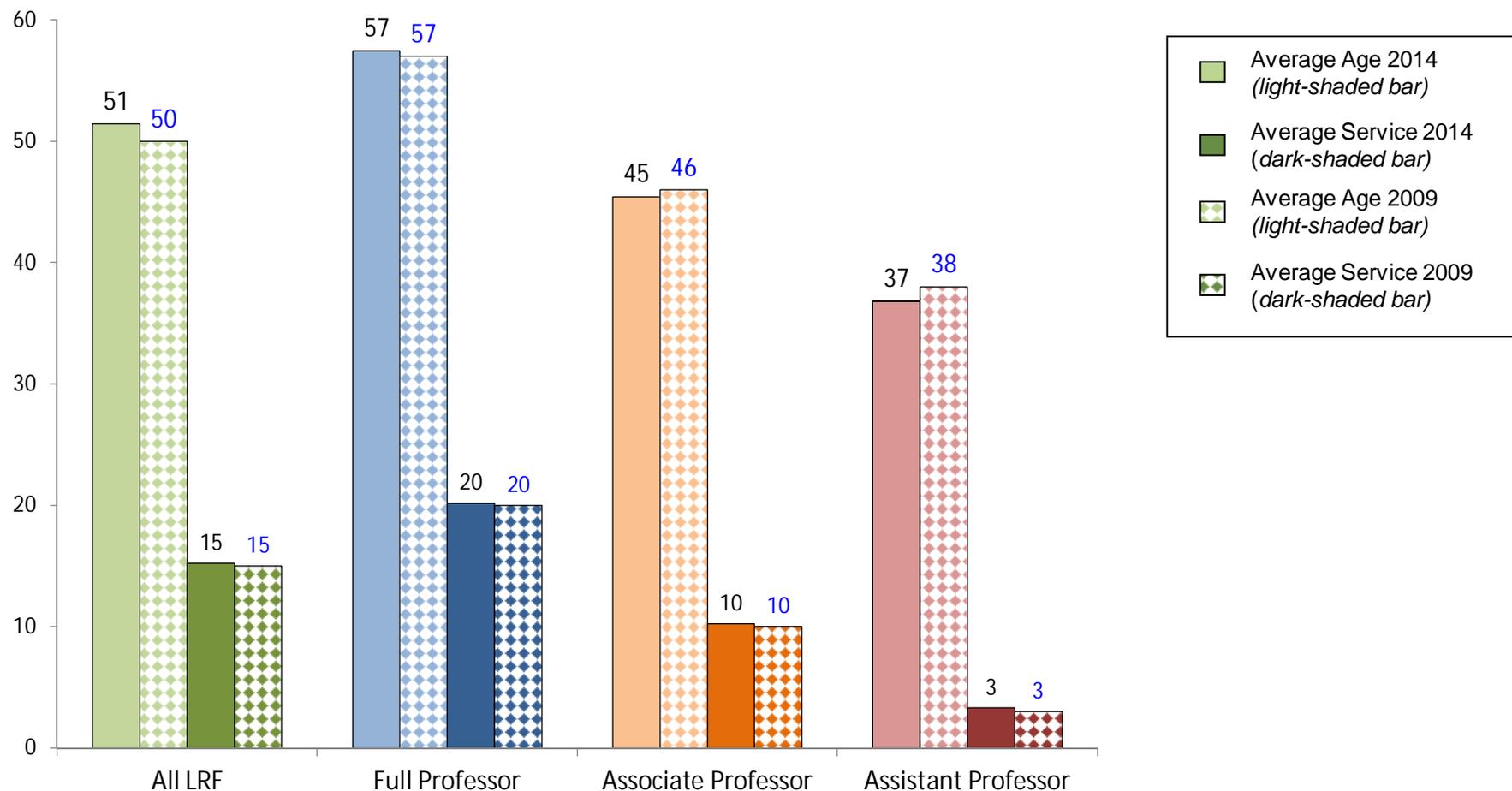


MERCER Note: All general campus LRF data were provided by Academic Personnel as of 10/1/2013 (age and service calculated as of 10/1/2013).

# Background and Context

- Study Demographics - 2014 versus 2009 Study Faculty**

- Population demographics (age and service) between 2014 and 2009 are shown below



Note: Numbers in blue represent 2009 study demographics of general campus LRF population.

All general campus LRF data were provided by Academic Personnel as of 10/1/2013 (age and service calculated as of 10/1/2013).

# Background and Context

## • Presentation of Results

- Two sets of results are presented to compare UC to the market, and UC’s study results from 2009 and 2014
  - An evaluation of the effect of Post-7/2013 New Tier benefits on total remuneration is included in Section 2D of this report

| Comparison                                    | Description / Components  |  |
|---|---|--|
| <b>1. Market vs. UC</b>                       | <ul style="list-style-type: none"> <li>• Comparison is representative of current new hire salary, health, and welfare plans available in the market (Comp 8) versus UC’s current plan available to new hires (“New Tier”)               <ul style="list-style-type: none"> <li>– Market plans do not include plans closed to new members (“grandfathered”<sup>1</sup> plans)</li> </ul> </li> </ul> |  |
|   | <ul style="list-style-type: none"> <li>• What’s in “Market”               <ul style="list-style-type: none"> <li>– Salaries – Market average</li> <li>– H&amp;W Benefits design – Market plans</li> <li>– Weighted H&amp;W Benefit elections<sup>2</sup></li> <li>– Retirement design – Market plans</li> </ul> </li> </ul>   | <ul style="list-style-type: none"> <li>• What’s in “UC”               <ul style="list-style-type: none"> <li>– Salaries - UC as of October 2013</li> <li>– H&amp;W Benefits design – UC as of January 2014</li> <li>– Actual H&amp;W Benefit employee elections<sup>2</sup></li> <li>– Retirement design - New Tier retirement plan (Post-7/2013)</li> </ul> </li> </ul> |
| <b>2. UC 2009 Results vs. UC 2014 Results</b> | <ul style="list-style-type: none"> <li>• Comparison is representative of how plan designs since 2009 have impacted total remuneration positioning against market</li> </ul>   |  |
|   | <ul style="list-style-type: none"> <li>• 2009 Study               <ul style="list-style-type: none"> <li>– Represents UC 2009 cash compensation, H&amp;W benefits and retirement plan designs</li> </ul> </li> </ul>  | <ul style="list-style-type: none"> <li>• 2014 Study               <ul style="list-style-type: none"> <li>– Represents UC Post-7/2013 cash compensation, H&amp;W benefits and retirement plan designs</li> </ul> </li> </ul>  |

<sup>1</sup> More information about grandfathered plans can be found in Section 4A.

<sup>2</sup> Market H&W benefit elections weighted based on reported usage; UC H&W benefits elections are actual elections by UC faculty, effective January 2014.

## Background and Context

- **Positioning Figures (Difference from the Market Average)**

- The positioning figures (or differences) shown in the following section are based on the following formula:
  - $[(UC - Market)/Market]$
  - Figures have been rounded to the nearest whole percentage
- Colors have been used to represent varying degrees of positioning as follows:

|                   |  |  |  |  |  |
|-------------------|--|--|--|--|--|
| <b>Summaries:</b> | <br>10% or more below | <br>Between -6% and -9% | <br>Between -5% below and +5% above | <br>Between +6% and +9% | <br>10% or more above |
|-------------------|--|--|--|--|--|

|                     |  |  |  |  |  |
|---------------------|--|--|--|--|--|
| <b>Data Tables:</b> | <br>10% or more below | <br>Between -6% and -9% | <br>Between -5% below and +5% above | <br>Between +6% and +9% | <br>10% or more above |
|---------------------|--|--|--|--|--|

Section 2A

# Study Findings

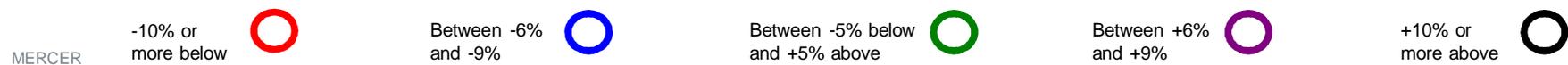
## Summary of Results – Market versus UC

# Study Findings

## Summary of Results – Market versus UC

|                          | Summary <sup>1</sup> | Observations  |
|--------------------------|----------------------|---|
| <b>Cash Compensation</b> | <b>-12%</b>          | <ul style="list-style-type: none"> <li>Cash compensation is below market average, indicating UC has room to increase salaries versus the peer group</li> <li>Cash compensation is below market average for all three ranks</li> </ul> |

<sup>1</sup> All figures shown have been rounded to the nearest whole percentage.



# Study Findings

## Summary of Results – Market versus UC

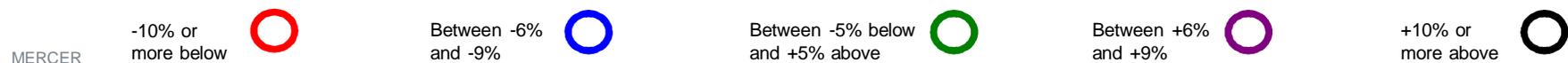
| Summary <sup>1</sup> | Observations |
|----------------------|--------------|
|----------------------|--------------|

### Health & Welfare Benefits



- Overall, the health & welfare benefits position to market is driven by the following:
  - UC’s below market medical and dental benefits value (-2%) is driven by higher employee contributions at higher pay levels compared to market
    - UC’s medical plan compares favorably to market before employee contributions are taken into account
    - The highest salary band for UC (over \$151,000) has the highest employee contributions relative to market and lowers positioning against market
      - Six of the Comp 8 institutions vary employee contributions by pay level, but UC is unique in having two bands over \$100,000
    - UC’s dental benefit values (11% of the total health & welfare value) are above market due to the absence of contributions at UC
  - UC’s long-term disability benefit value is substantially below market and reduces the health & welfare values by about 3%
  - The absence of a dependent tuition program at UC reduces the value of health and welfare benefits by about 3%
  - Tax gross ups (Appendix D) also have an impact on lower pay-to-market value as higher pay levels at Comp 8 institutions may result in higher marginal tax rates and, therefore, a higher gross-up for some faculty

<sup>1</sup> All figures shown have been rounded to the nearest whole percentage.

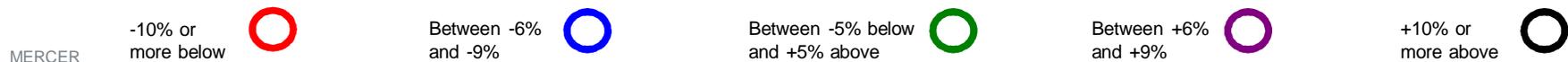


# Study Findings

## Summary of Results – Market versus UC

| Summary <sup>1</sup>  | Observations  |
|---|---|
| <p><b>Retirement Benefits (DB/DC)</b></p>  | <ul style="list-style-type: none"> <li>• UC retirement benefits are close to market with market positioning of retirement values affected by three factors:               <ul style="list-style-type: none"> <li>– UC plan design is more generous than those at the Comp 8 institutions</li> <li>– However, UC’s cash compensation, upon which the benefit is based, is lower than market, which reduces the retirement values</li> <li>– UC’s values are further offset by employee contributions to the plan</li> </ul> </li> <li>• UC has one of two defined benefit plans valued in the report               <ul style="list-style-type: none"> <li>– Three other institutions have a choice of DB plan and a DC plan but their defined contribution plan has been valued</li> <li>– The DC plan was valued to be consistent with the 2009 survey methodology</li> </ul> </li> <li>• The retirement benefit values for Assistant and Associate Professor ranks are significantly below market               <ul style="list-style-type: none"> <li>– These values are heavily discounted because of the longer time required to achieve retirement age, reflecting the younger average age for these ranks, as well as a higher probability of attrition before retirement age is reached</li> </ul> </li> </ul> |

<sup>1</sup> All figures shown have been rounded to the nearest whole percentage.

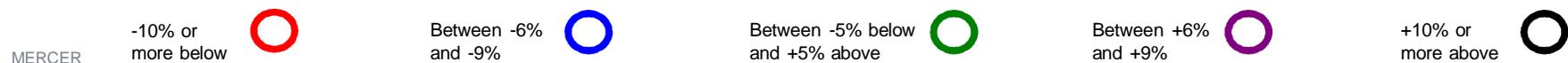


# Study Findings

## Summary of Results – Market versus UC

| Summary <sup>1</sup>   | Observations   |
|--|--|
| <p><b>Retiree Health (Medical, Life, Dental)</b></p> <p> <b>+61%</b></p>  | <ul style="list-style-type: none"> <li>• UC's retiree health benefits are significantly higher than market values               <ul style="list-style-type: none"> <li>– Employer-provided retiree health benefit values make up only approximately 2% of total remuneration</li> <li>– UC is one of the few institutions to have subsidized retiree dental, which increases the overall competitive level; only three of the Comp 8 institutions provide subsidized retiree dental</li> </ul> </li> </ul> |
| <p><b>Total Retirement (Includes Retirement Benefits and Retiree Medical &amp; Life)</b></p> <p> <b>+6%</b></p> | <ul style="list-style-type: none"> <li>• Overall, UC's total retirement values are above market</li> <li>• Key factors impacting this market positioning are:               <ul style="list-style-type: none"> <li>– Above market DB plan design, although this is offset by lower-than-market compensation</li> <li>– Subsidized retiree medical and dental plans that provide both pre- and post-65 benefits</li> </ul> </li> </ul>  |

<sup>1</sup> All figures shown have been rounded to the nearest whole percentage.

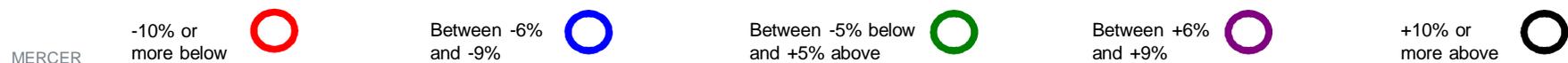


# Study Findings

## Summary of Results – Market versus UC

|                           | Summary <sup>1</sup> | Observations   |
|---------------------------|----------------------|--|
| <b>Total Remuneration</b> | <b>-10%</b>          | <ul style="list-style-type: none"> <li>UC's above market positioning for total retirement is essentially offset by below market positioning for health &amp; welfare benefits</li> <li>Therefore, UC's lower-than-market cash compensation positioning is the contributing factor to total remuneration being behind market in comparison to it's peers</li> </ul> |

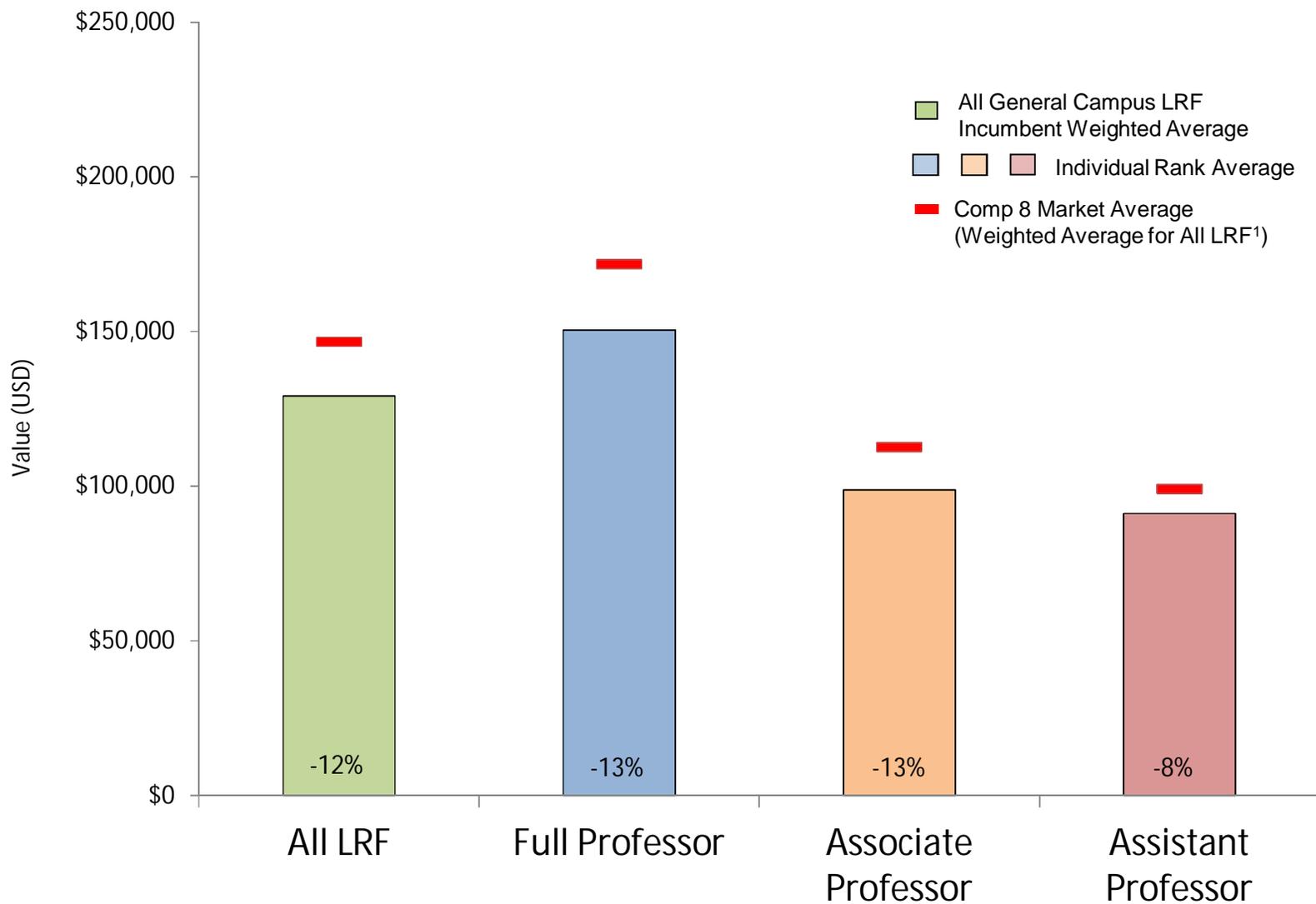
<sup>1</sup> All figures shown have been rounded to the nearest whole percentage.



# Study Findings

## Cash Compensation – Market versus UC

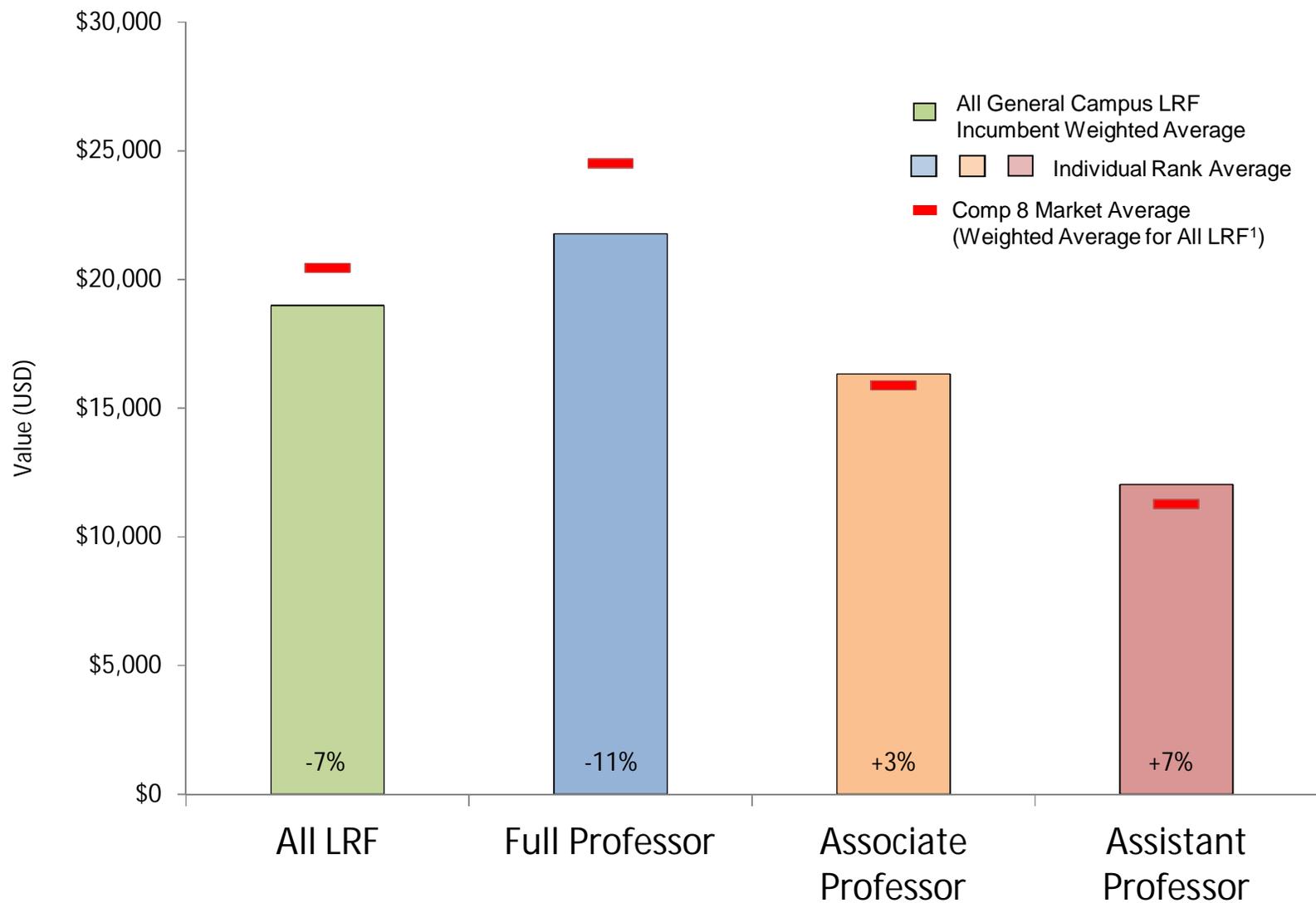
(Data effective October 1, 2013)



# Study Findings

## Health & Welfare Benefits – Market versus UC

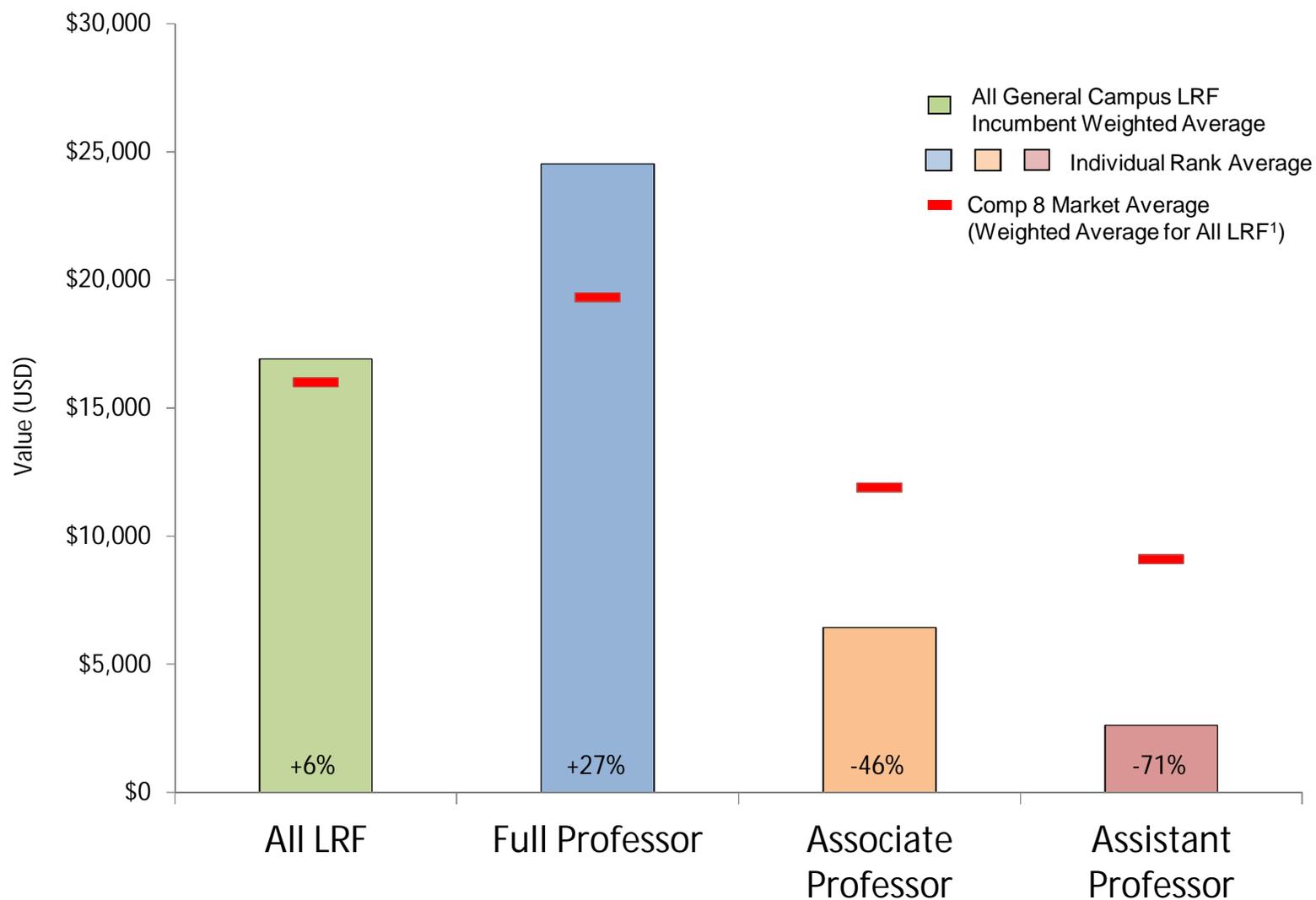
(Data effective October 1, 2013)



# Study Findings

## Total Retirement – Market versus UC

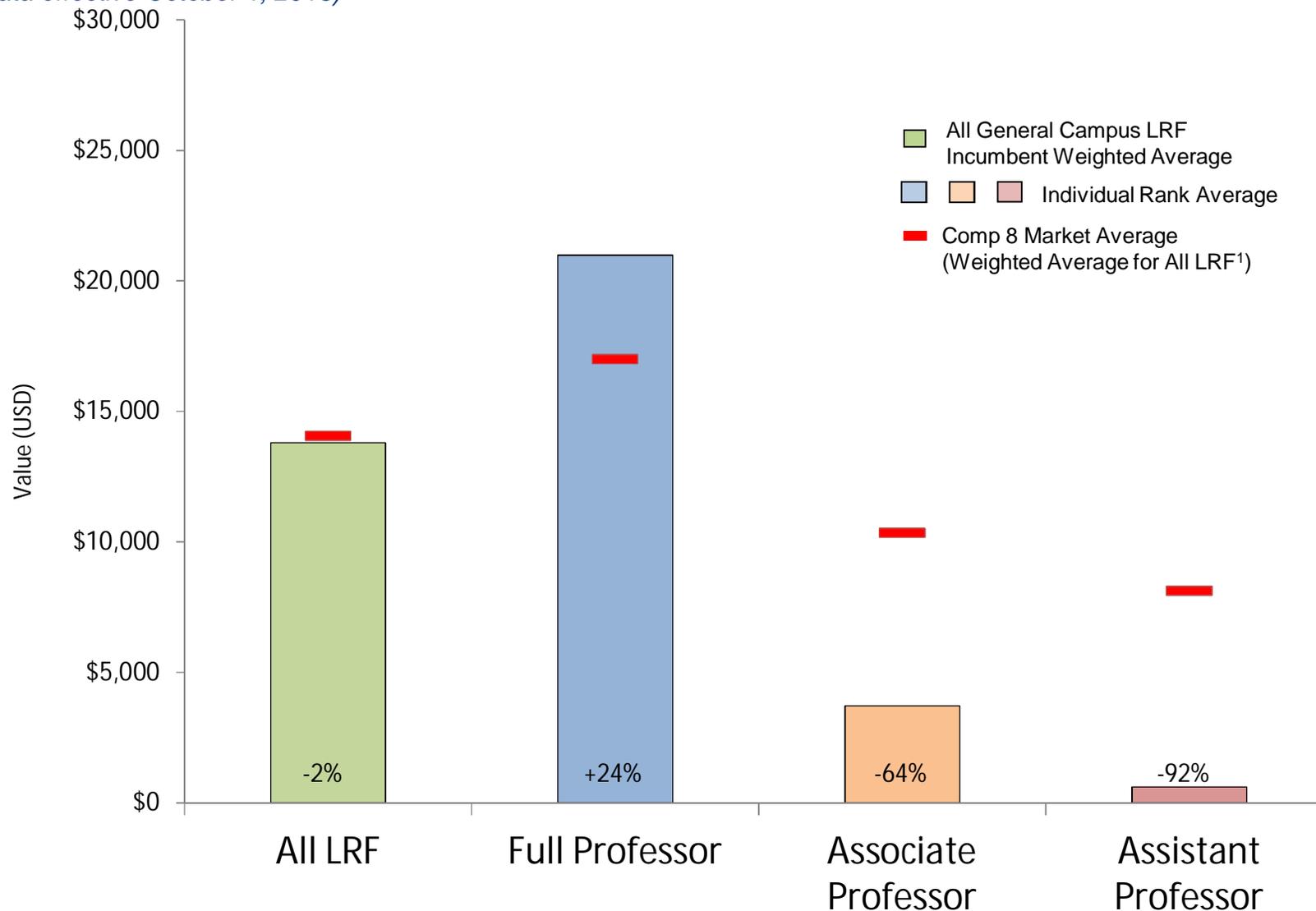
(Data effective October 1, 2013)



# Study Findings

## Retirement Benefits (DB/DC) – Market versus UC

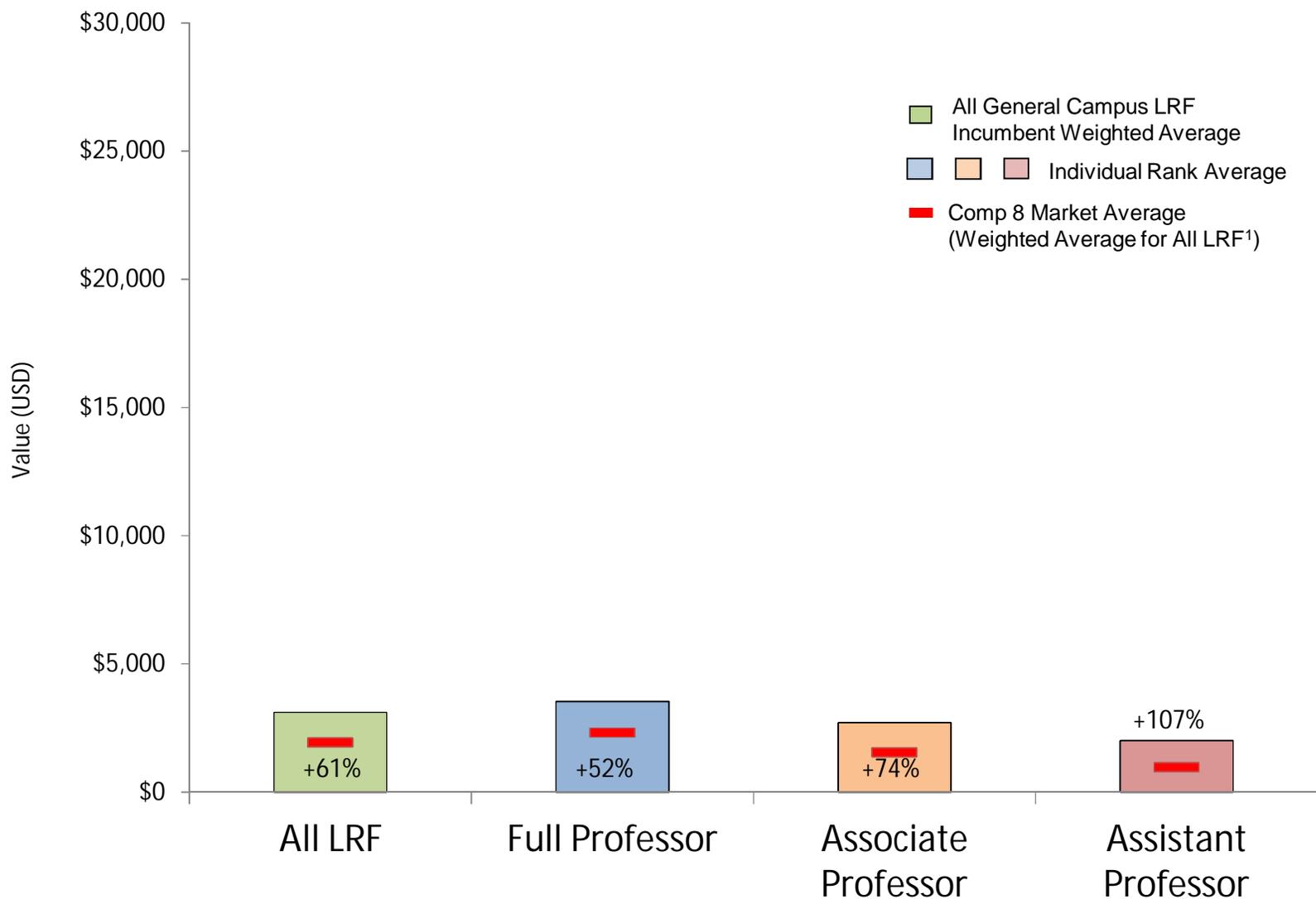
(Data effective October 1, 2013)



# Study Findings

## Retiree Health (Medical, Dental, Life) – Market versus UC

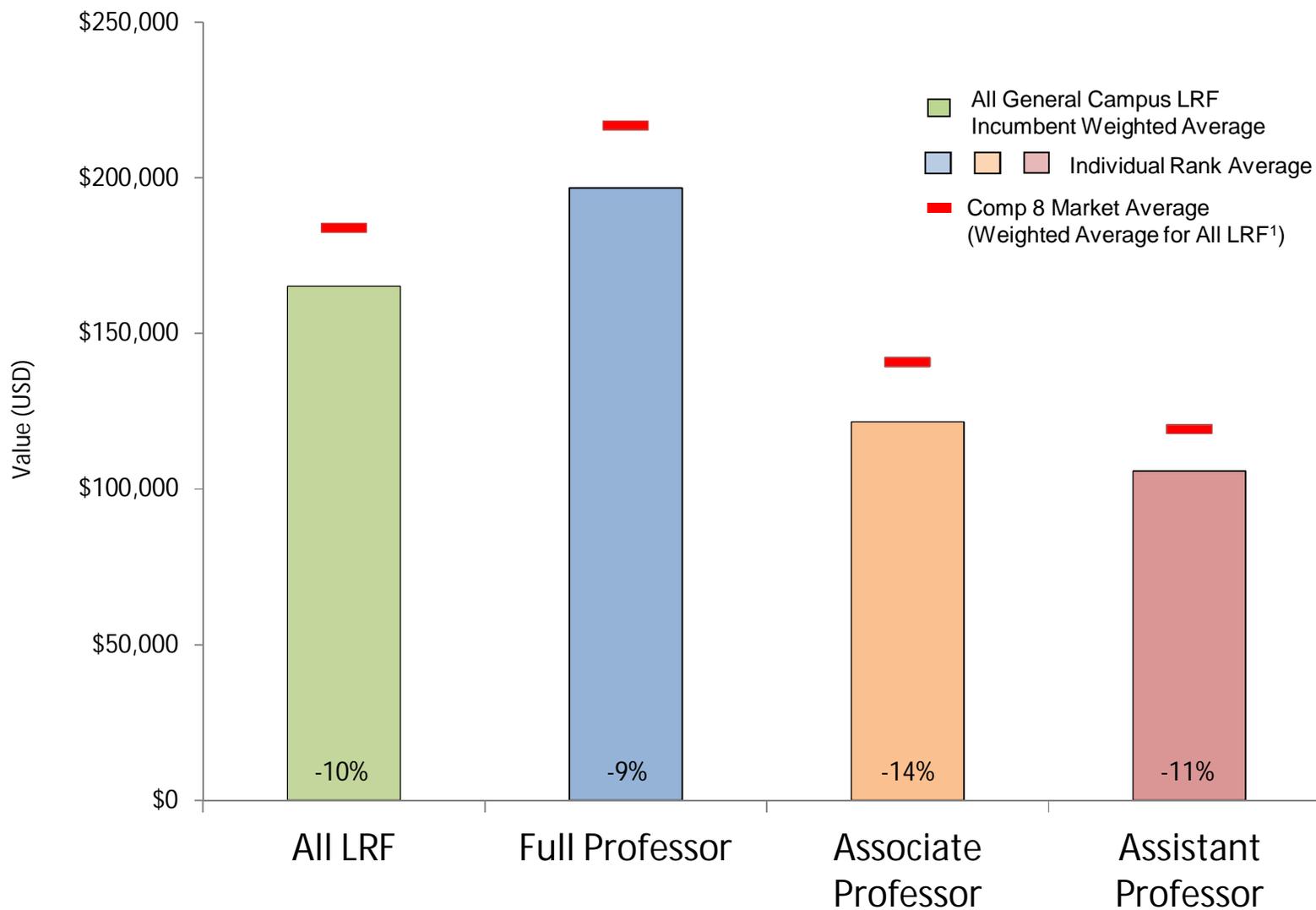
(Data effective October 1, 2013)



# Study Findings

## Total Remuneration – Market versus UC

(Data effective October 1, 2013)



Section 2B

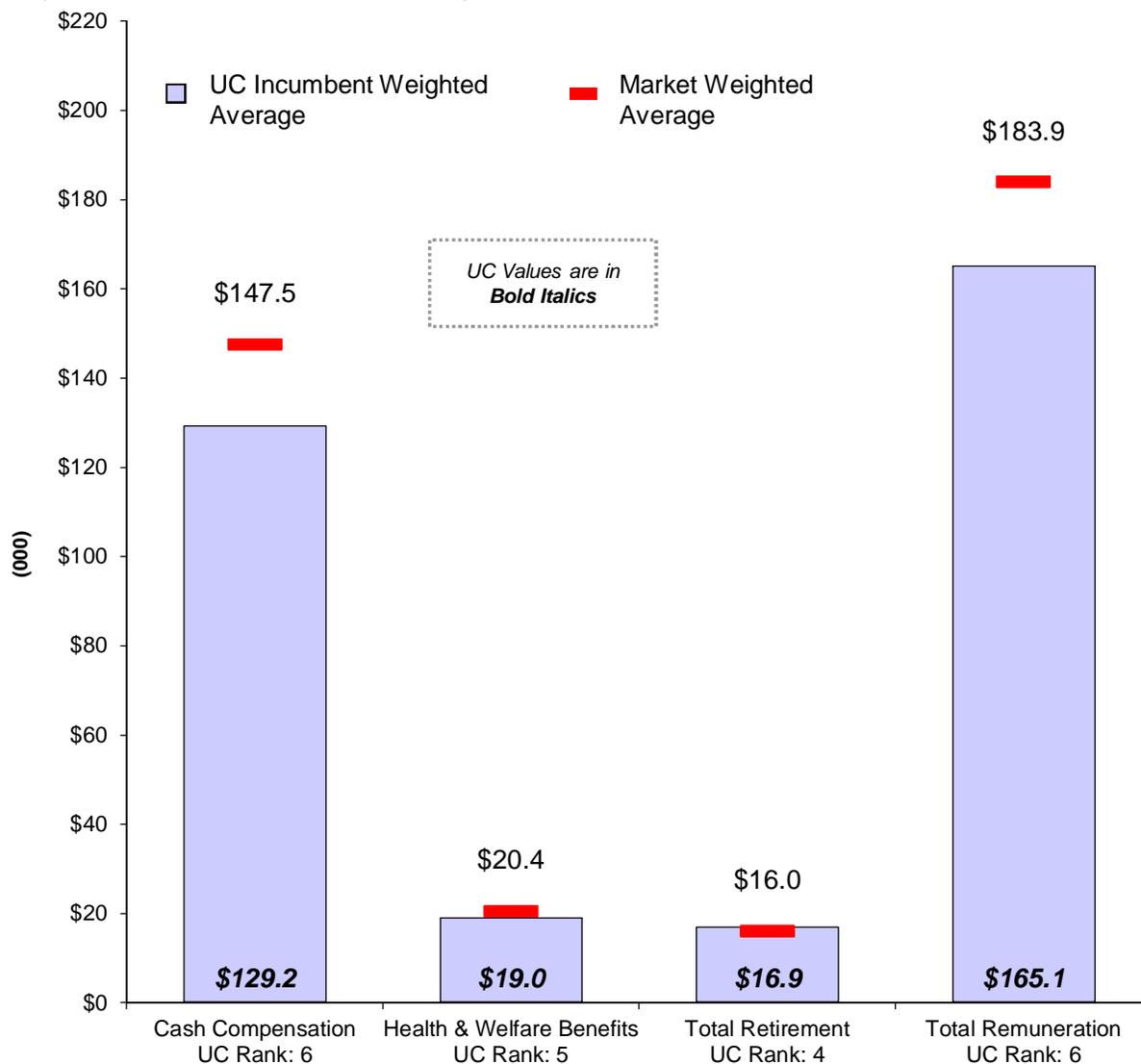
# Study Findings

## Detail by Rank: Market Competitive Analysis

# Study Findings: Detail by Rank

## All General Campus LRF - Market versus UC

(Data effective October 1, 2013)



### • Observations

- Overall, UC's total remuneration positioning for all LRF is 10% below market, driven predominantly by lower salaries compared to the peer group with smaller differences between the health & welfare, and total retirement benefits of the comparators
  - Cash compensation is 12% below market
  - Health & welfare is 7% below market
  - Total retirement is 6% above market

# Study Findings: Detail by Rank

## All General Campus LRF - Market versus UC

(Data effective October 1, 2013)

### • Observations

- The differences between UC and the market for health & welfare, and total retirement benefits nearly offset one another, leaving cash compensation as the major contributor to UC's below market positioning for total remuneration

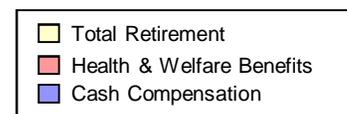
| Element of Remuneration              | Averages         |                  | Difference from Market <sup>1</sup> |
|--------------------------------------|------------------|------------------|-------------------------------------|
|                                      | Market Weighted  | UC               |                                     |
| <b>Cash Compensation</b>             | <b>\$147,473</b> | <b>\$129,235</b> | <b>-12%</b>                         |
| <b>Health &amp; Welfare Benefits</b> | <b>\$20,442</b>  | <b>\$18,988</b>  | <b>-7%</b>                          |
| Medical & Dental                     | \$18,104         | \$17,717         | -2%                                 |
| Life Insurance <sup>2</sup>          | \$331            | \$332            | 0%                                  |
| Dependent Care / Health Care FSA     | \$191            | \$180            | -6%                                 |
| Long-term Disability                 | \$1,299          | \$759            | -42%                                |
| Dependent Tuition                    | \$517            | \$0              | n/a                                 |
| <b>Total Retirement</b>              | <b>\$15,999</b>  | <b>\$16,914</b>  | <b>+6%</b>                          |
| Retirement (DB / DC)                 | \$14,066         | \$13,808         | -2%                                 |
| Retiree Health (Med, Life, Dental)   | \$1,934          | \$3,107          | +61%                                |
| <b>Total Remuneration</b>            | <b>\$183,914</b> | <b>\$165,137</b> | <b>-10%</b>                         |



<sup>1</sup> All positioning figures shown are rounded to the nearest whole percentage.

<sup>2</sup> Includes pre-retirement survivor benefits.

|                                    |                                     |                                      |                                       |                                      |
|------------------------------------|-------------------------------------|--------------------------------------|---------------------------------------|--------------------------------------|
| <span style="color: red;">■</span> | <span style="color: blue;">■</span> | <span style="color: green;">■</span> | <span style="color: purple;">■</span> | <span style="color: black;">■</span> |
| 10% or more below                  | Between -6% and -9%                 | Between -5% below and +5% above      | Between +6% and +9%                   | 10% or more above                    |

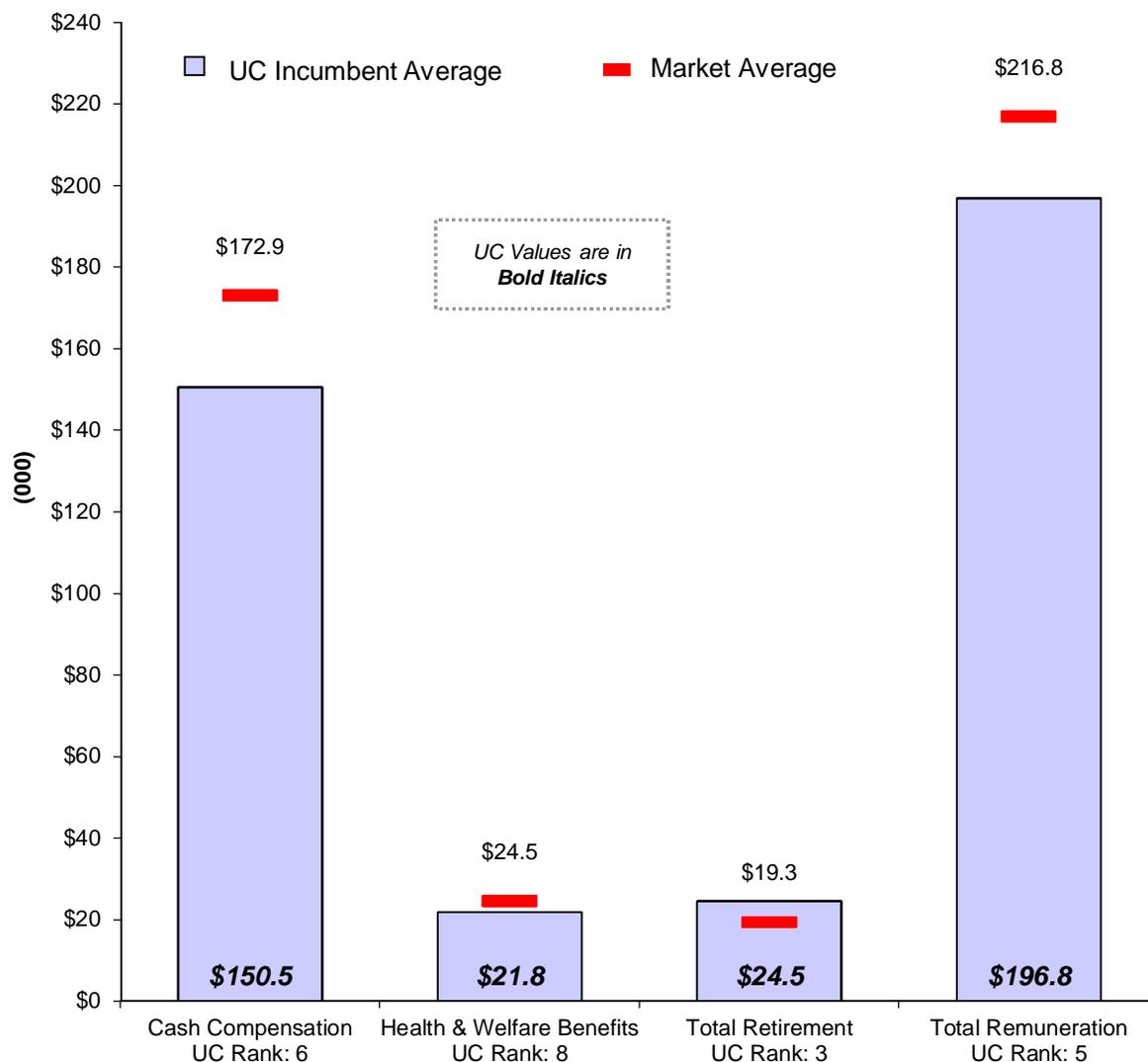


*Total Remuneration in Bold Blue Italics*

# Study Findings: Detail by Rank

## Full Professors - Market versus UC

(Data effective October 1, 2013)



### • Observations

- Overall, total remuneration positioning for Full Professors is 9% below market, driven predominantly by lower than market salaries while being offset slightly by above-market total retirement benefits
  - Cash compensation is 13% below market
  - Health & welfare is 11% below market
  - Higher medical employee contributions at the higher pay levels reduces the value and competitiveness of the health & welfare benefit as a part of total remuneration
  - Total retirement is 27% above market

# Study Findings: Detail by Rank

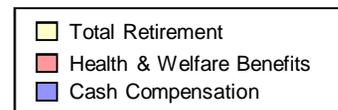
## Full Professors – Market versus UC

(Data effective October 1, 2013)

### • Observations

- Total remuneration for full professors is lower-than-market driven by lower salaries and health and welfare benefits, while retirement benefit values are higher than market

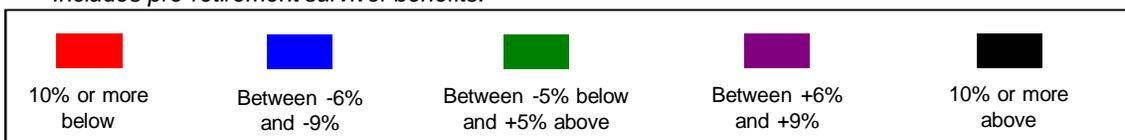
| Element of Remuneration              | Averages         |                  | Difference from Market <sup>1</sup> |
|--------------------------------------|------------------|------------------|-------------------------------------|
|                                      | Market           | UC               |                                     |
| <b>Cash Compensation</b>             | <b>\$172,939</b> | <b>\$150,455</b> | <b>-13%</b>                         |
| <b>Health &amp; Welfare Benefits</b> | <b>\$24,507</b>  | <b>\$21,772</b>  | <b>-11%</b>                         |
| Medical & Dental                     | \$21,492         | \$20,079         | -7%                                 |
| Life Insurance <sup>2</sup>          | \$459            | \$444            | -3%                                 |
| Dependent Care / Health Care FSA     | \$175            | \$169            | -4%                                 |
| Long-term Disability                 | \$1,825          | \$1,080          | -41%                                |
| Dependent Tuition                    | \$556            | \$0              | n/a                                 |
| <b>Total Retirement</b>              | <b>\$19,315</b>  | <b>\$24,524</b>  | <b>+27%</b>                         |
| Retirement (DB / DC)                 | \$16,991         | \$20,987         | +24%                                |
| Retiree Health (Med, Life, Dental)   | \$2,324          | \$3,537          | +52%                                |
| <b>Total Remuneration</b>            | <b>\$216,761</b> | <b>\$196,751</b> | <b>-9%</b>                          |



*Total Remuneration in Bold Blue Italics*

<sup>1</sup> All positioning figures shown are rounded to the nearest whole percentage.

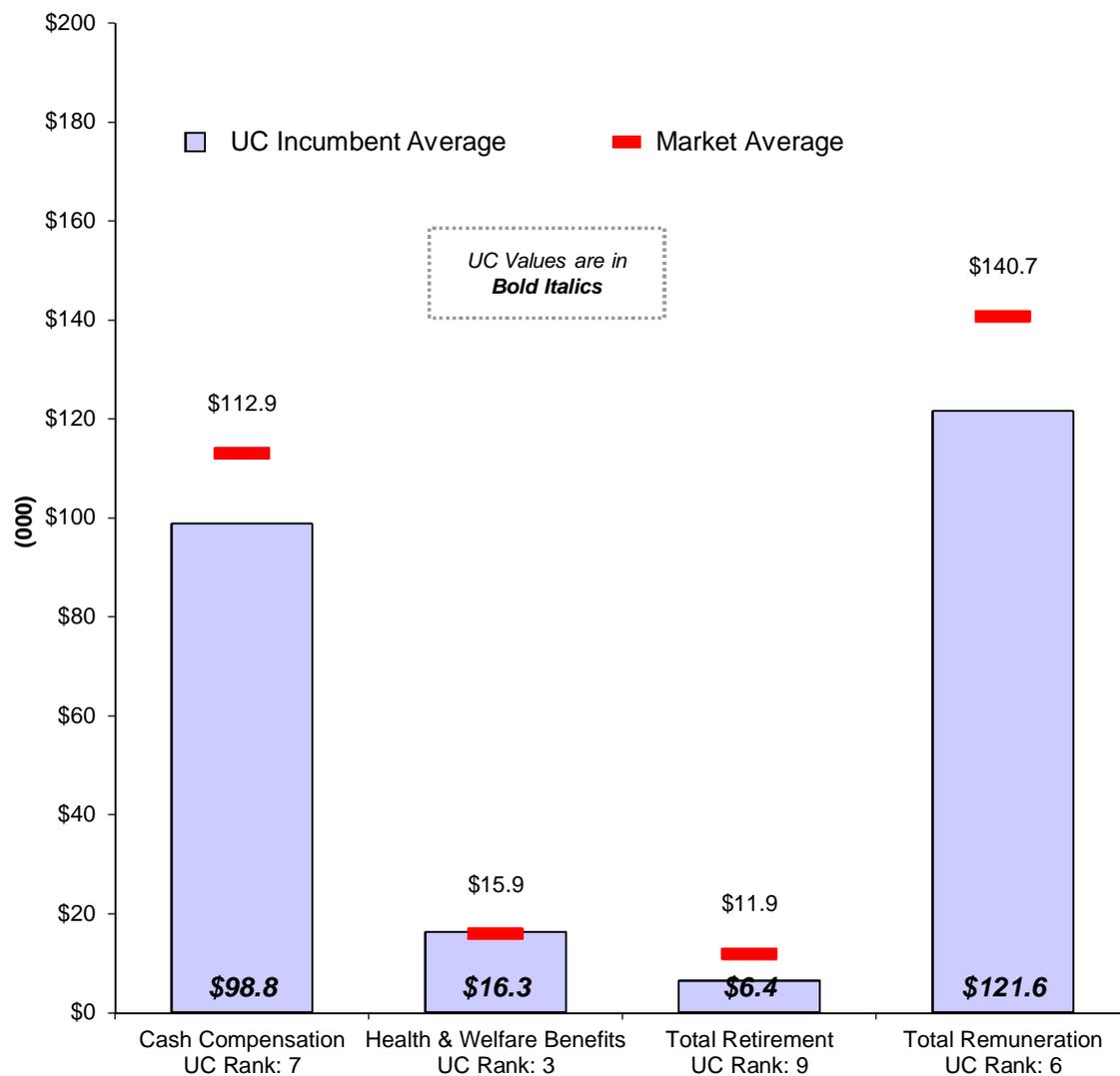
<sup>2</sup> Includes pre-retirement survivor benefits.



# Study Findings: Detail by Rank

## Associate Professors - Market versus UC

(Data effective October 1, 2013)



### • Observations

- Overall, total remuneration positioning for Associate Professors is 14% below market, driven by both lower-than-market salaries and retirement values
  - Cash compensation is 13% below market
  - Health & welfare is 3% above market
  - Total retirement is 46% below market

# Study Findings: Detail by Rank

## Associate Professors – Market versus UC

(Data effective October 1, 2013)

### • Observations

- Despite at market positioning for health & welfare benefits, both cash compensation and total retirement leave UC behind market overall

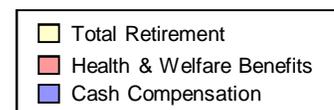
| Element of Remuneration              | Averages         |                  | Difference from Market <sup>1</sup> |
|--------------------------------------|------------------|------------------|-------------------------------------|
|                                      | Market           | UC               |                                     |
| <b>Cash Compensation</b>             | <b>\$112,944</b> | <b>\$98,804</b>  | <b>-13%</b>                         |
| <b>Health &amp; Welfare Benefits</b> | <b>\$15,884</b>  | <b>\$16,328</b>  | <b>+3%</b>                          |
| Medical & Dental                     | \$14,304         | \$15,553         | +9%                                 |
| Life Insurance <sup>2</sup>          | \$154            | \$183            | +19%                                |
| Dependent Care / Health Care FSA     | \$233            | \$214            | -8%                                 |
| Long-term Disability                 | \$616            | \$378            | -39%                                |
| Dependent Tuition                    | \$578            | \$0              | n/a                                 |
| <b>Total Retirement</b>              | <b>\$11,895</b>  | <b>\$6,434</b>   | <b>-46%</b>                         |
| Retirement (DB / DC)                 | \$10,341         | \$3,724          | -64%                                |
| Retiree Health (Med, Life, Dental)   | \$1,554          | \$2,710          | +74%                                |
| <b>Total Remuneration</b>            | <b>\$140,723</b> | <b>\$121,566</b> | <b>-14%</b>                         |

<sup>1</sup> All positioning figures shown are rounded to the nearest whole percentage.

<sup>2</sup> Includes pre-retirement survivor benefits.

|   |   |   |   |   |
|---|---|---|---|---|
|  |  |  |  |  |
| 10% or more below   | Between -6% and -9%   | Between -5% below and +5% above   | Between +6% and +9%   | 10% or more above   |

MERCER

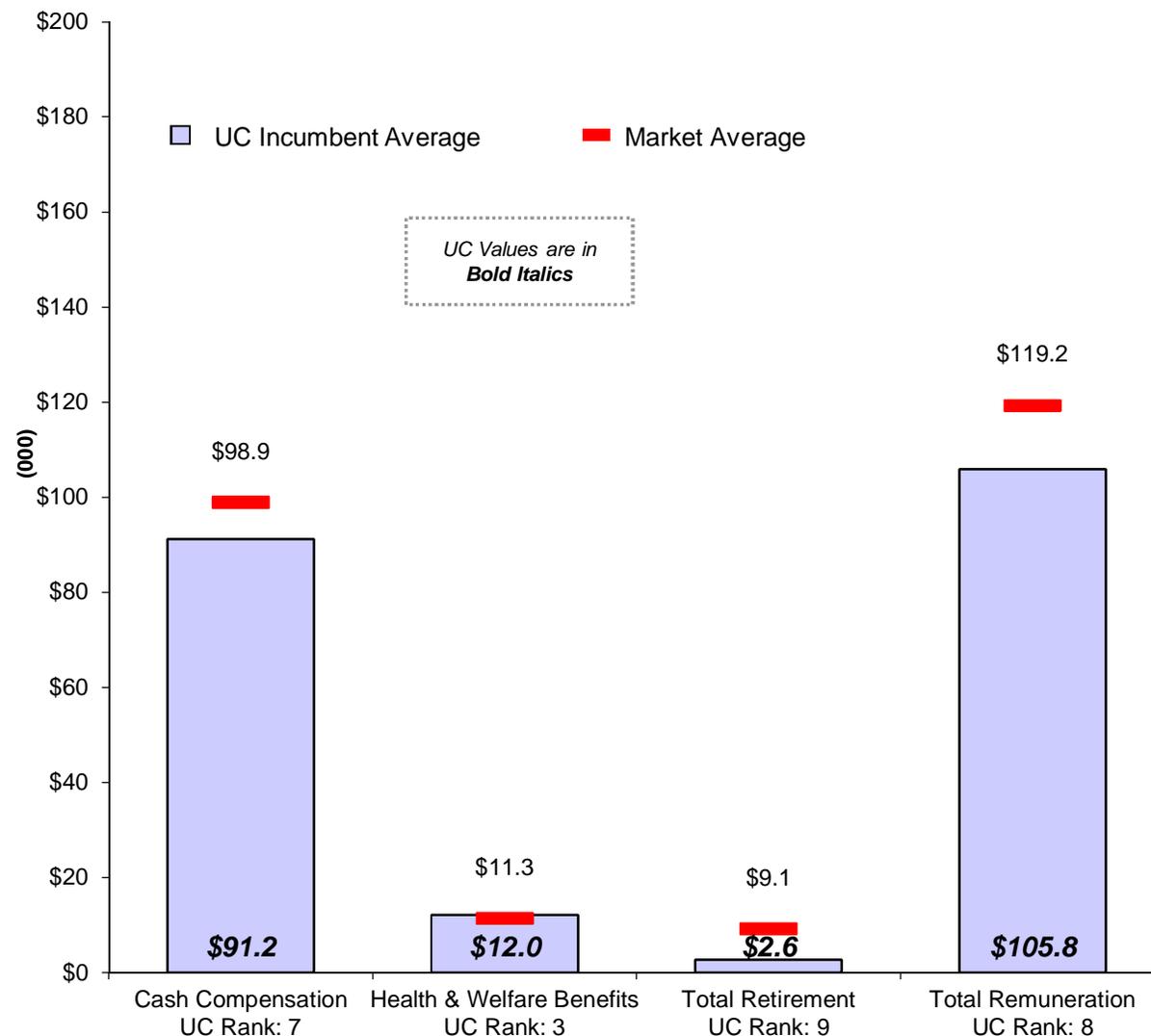


*Total Remuneration in Bold Blue Italics*

# Study Findings: Detail by Rank

## Assistant Professors - Market versus UC

(Data effective October 1, 2013)



### • Observations

- Overall, total remuneration positioning for Associate Professors is 11% below market, driven by below-market salaries and a below-market total retirement benefit
- Cash compensation is 8% below market
- Health & welfare is 7% above market
- Total retirement is 71% below market

# Study Findings: Detail by Rank

## Assistant Professors – Market versus UC

(Data effective October 1, 2013)

### • Observations

- Similar to Associate Professors, above market health & welfare is not enough to offset below market total retirement and overall total remuneration positioning

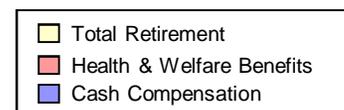
| Element of Remuneration              | Averages         |                  | Difference from Market <sup>1</sup> |
|--------------------------------------|------------------|------------------|-------------------------------------|
|                                      | Market           | UC               |                                     |
| <b>Cash Compensation</b>             | <b>\$98,855</b>  | <b>\$91,155</b>  | <b>-8%</b>                          |
| <b>Health &amp; Welfare Benefits</b> | <b>\$11,281</b>  | <b>\$12,038</b>  | <b>+7%</b>                          |
| Medical & Dental                     | \$10,472         | \$11,687         | +12%                                |
| Life Insurance <sup>2</sup>          | \$92             | \$111            | +21%                                |
| Dependent Care / Health Care FSA     | \$191            | \$175            | -8%                                 |
| Long-term Disability                 | \$249            | \$65             | -74%                                |
| Dependent Tuition                    | \$277            | \$0              | n/a                                 |
| <b>Total Retirement</b>              | <b>\$9,097</b>   | <b>\$2,624</b>   | <b>-71%</b>                         |
| Retirement (DB / DC)                 | \$8,126          | \$612            | -92%                                |
| Retiree Health (Med, Life, Dental)   | \$970            | \$2,013          | +107%                               |
| <b>Total Remuneration</b>            | <b>\$119,233</b> | <b>\$105,817</b> | <b>-11%</b>                         |

<sup>1</sup> All positioning figures shown are rounded to the nearest whole percentage.

<sup>2</sup> Includes pre-retirement survivor benefits.

|                                    |                                     |                                      |                                       |                                      |
|------------------------------------|-------------------------------------|--------------------------------------|---------------------------------------|--------------------------------------|
| <span style="color: red;">■</span> | <span style="color: blue;">■</span> | <span style="color: green;">■</span> | <span style="color: purple;">■</span> | <span style="color: black;">■</span> |
| 10% or more below                  | Between -6% and -9%                 | Between -5% below and +5% above      | Between +6% and +9%                   | 10% or more above                    |

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*Total Remuneration in Bold Blue Italics*

Section 2C

# Study Findings

Summary of Results: 2009 versus 2014

## Study Findings

### Summary of Observations – 2009 versus 2014

- Some significant observations on the differences between 2009 and 2014 results
  - Total remuneration for all UC LRF has remained flat, whereas the market has risen by approximately 10%
  - From 2009 to 2014, cash compensation fell further below market from 10% below to 12% below
  - The re-introduction of employee contributions for retirement benefits reduced the value of employer-provided retirement benefits dollar-for-dollar
  - Cash compensation as a percent of total remuneration has increased, for example cash compensation for UC Assistant Professors now represents 86% of total remuneration, up from 75% in the 2009 study
- The UC total remuneration mix has changed significantly between 2009 and 2014
  - The mix of UC total remuneration is defined as the percentage of the total remuneration value made up by each element; cash compensation, health & welfare and retirement benefits
  - In 2009, UC cash compensation represented 68% of total remuneration and total benefits represented 32% of total remuneration
  - In 2014, UC cash compensation increased to 78% of total remuneration, whereas total benefits decreased to 22%
    - The 2014 mix for UC's total remuneration is similar to the mix for the market
    - Findings indicate there has been a shift in UC total remuneration distribution away from benefits to cash compensation

## Study Findings

### Summary of Observations – 2009 versus 2014

- Total benefits (total remuneration minus cash compensation) decreased from 18% above market to 1% below market
  - Changes to retirement plan designs since 2009 have reduced positioning against market
    - Total retirement decreased from 33% above market to 6% above market
      - Employee contributions to the DB plan were re-introduced after the 2009 study
      - DB plan changed eligibility to receive benefits from age 50 with 5 years of service to age 55 with 5 years of service; additionally, the targeted retirement age changed from 60 to 65
      - These changes reduced the retirement plan competitive positioning from 29% above market in 2009 to 2% lower than market in 2014
    - Retiree medical changed from 100% of maximum subsidized amount after 20 years of service to 100% of maximum subsidized amount at age 65 with 20 years of service
      - Eligibility for any subsidy changed from 10 years of service to age 55 with 10 years of service
      - Change to a flat \$3,000 for out-of-state retirees for retiree health (assumed at 10% of total retirements per UC estimate)
    - Although Mercer does not have access to the details for the Comp 8 institutions from the 2009 Study, we have observed that many institutions have continued to reduce the subsidy provided for retiree health, dental, life insurance and vision over the last five years
      - Despite the changes to the UC retiree health plan, the competitive position has improved from 2009 to 2014, which would indicate this trend is also prevalent for the Comp 8 institutions
  - Health and welfare benefits fell from 6% above market in 2009 to 7% below market in 2014
    - This was primarily caused by higher employee medical contributions at higher salary bands compared to the market

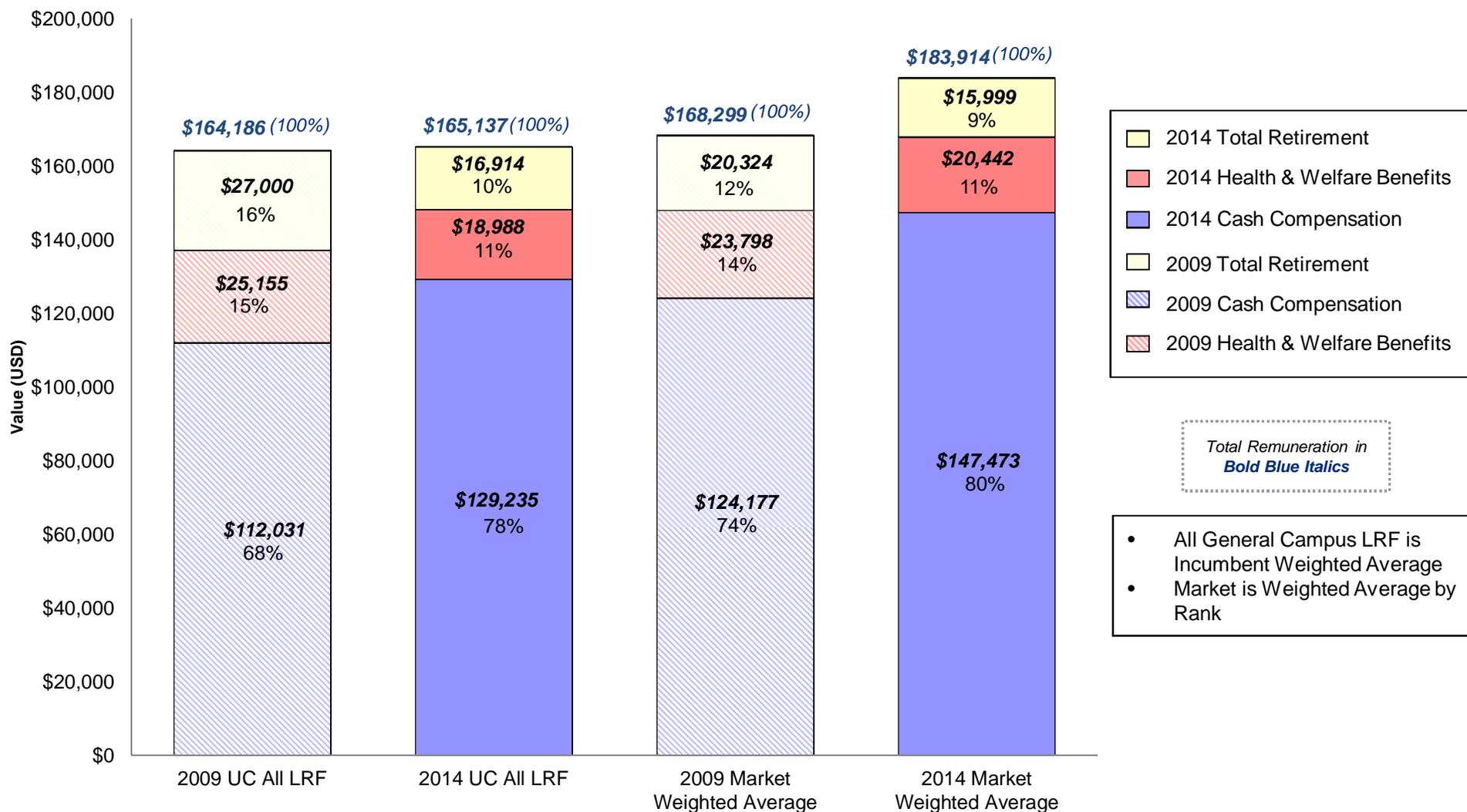
## Study Findings

### Summary of Observations – 2009 versus 2014

- The following pages provide a graphical comparison of the change in competitive positioning since 2009
- Each stacked bar shows the value of individual components (cash compensation, health & welfare, and retirement) in 2009 and in 2014, and compared to the market in 2009 and 2014
- The change in the composition of total remuneration can be derived by comparing the percentages of total remuneration shown in each column
  - Due to rounding, percentages may not add up to 100%
  - No inflation adjustment was made to 2009 figures
- Data representative of 2009 have been collected from the *2009 Update of Total Remuneration Study for Campus & UCOP & Medical Centers* report dated October 1, 2009
- Data representative of 2014 are the same as those represented in Section 2B of this report

# Study Findings: 2009 versus 2014 All General Campus LRF – Pay Mix

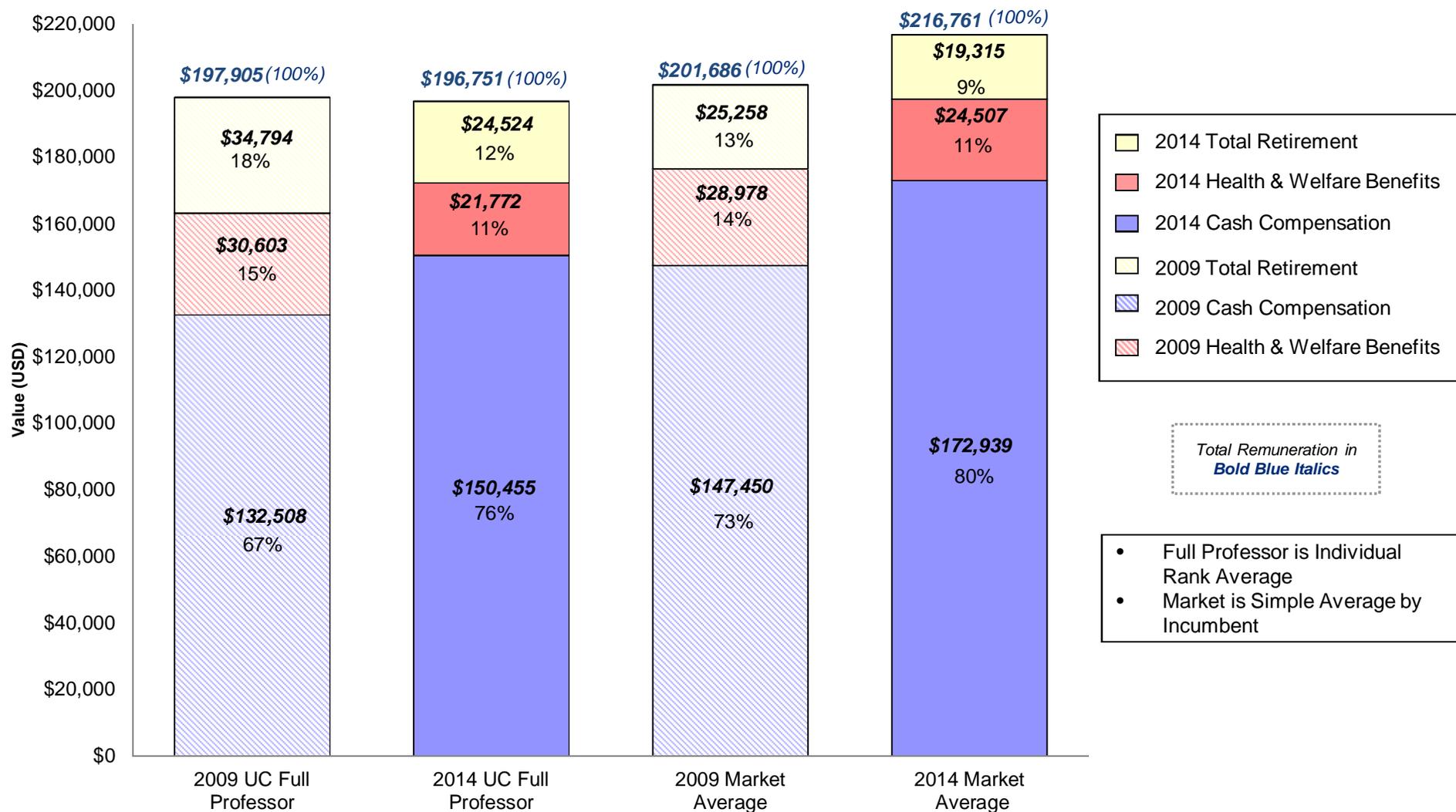
(Data effective October 1, 2013)



MERCER Note: 2014 UC All LRF represents UC All New Tier data as represented in section 2B of this report. Total Retirement reported for 2009 is the sum of Total Retirement (DB/DC), Retiree Medical and Retiree Life. 2009 data represent values found on page 35 of the 2009 Update of Total Remuneration Study for Campus & UCOP and Medical Centers dated October 1, 2009 and therefore not adjusted for inflation. Percentages may not add to 100% due to rounding.

# Study Findings: 2009 versus 2014 Full Professors – Pay Mix

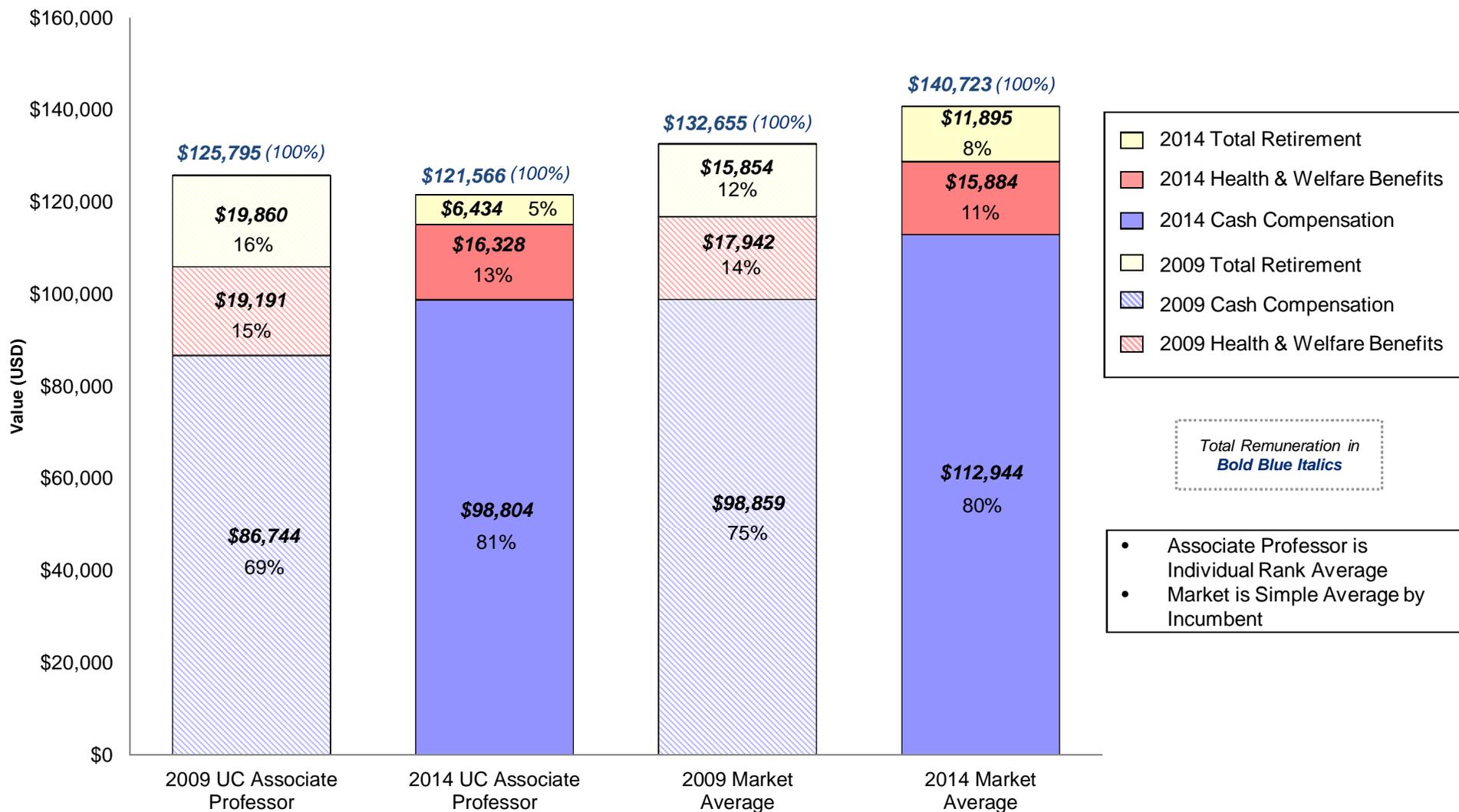
(Data effective October 1, 2013)



MERCER Note: 2014 UC All LRF represents UC All New Tier data as represented in section 2B of this report.. Total Retirement reported for 2009 is the sum of Total Retirement (DB/DC), Retiree Medical and Retiree Life. 2009 data represent values found on page 35 of the 2009 Update of Total Remuneration Study for Campus & UCOP and Medical Centers dated October 1, 2009 and therefore not adjusted for inflation. Percentages may not add to 100% due to rounding.

# Study Findings: 2009 versus 2014 Associate Professors – Pay Mix

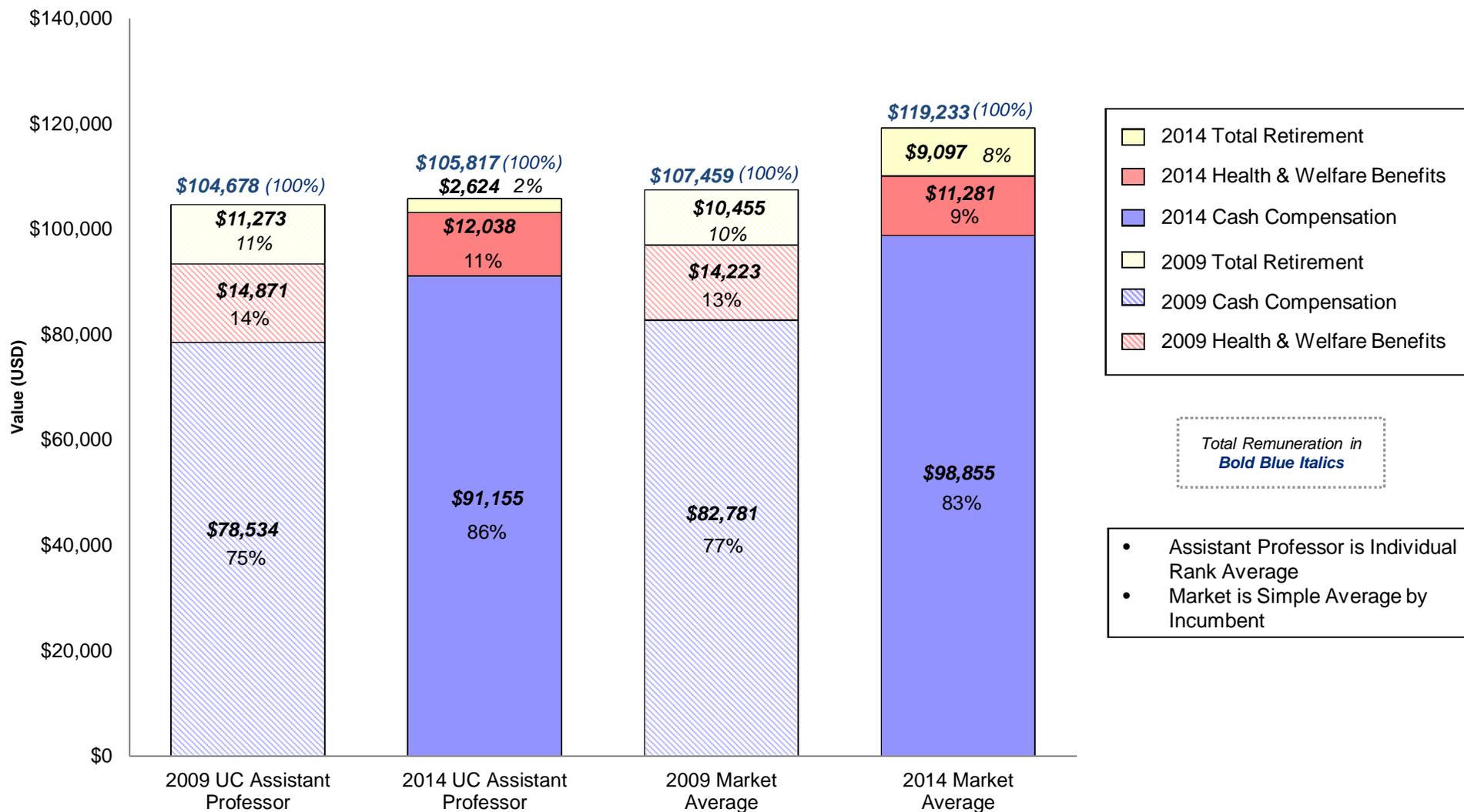
(Data effective October 1, 2013)



Note: 2014 UC All LRF represents UC All New Tier data as represented in section 2B of this report.. Total Retirement reported for 2009 is the sum of Total Retirement (DB/DC), Retiree Medical and Retiree Life. 2009 data represents value found on page 35 of the 2009 Update of Total Remuneration Study for Campus & UCOP and Medical Centers dated October 1, 2009 and therefore not adjusted for inflation. Percentages may not add to 100% due to rounding.

# Study Findings: 2009 versus 2014 Assistant Professors – Pay Mix

(Data effective October 1, 2013)



- 2014 Total Retirement
- 2014 Health & Welfare Benefits
- 2014 Cash Compensation
- 2009 Total Retirement
- 2009 Cash Compensation
- 2009 Health & Welfare Benefits

Total Remuneration in  
***Bold Blue Italics***

- Assistant Professor is Individual Rank Average
- Market is Simple Average by Incumbent

MERCER *Note: 2014 UC All LRF represents UC All New Tier data as represented in section 2B of this report.. Total Retirement reported for 2009 is the sum of Total Retirement (DB/DC), Retiree Medical and Retiree Life. 2009 data represent values found on page 35 of the 2009 Update of Total Remuneration Study for Campus & UCOP and Medical Centers dated October 1, 2009 and therefore not adjusted for inflation. Percentages may not add to 100% due to rounding.*

Section 2D

## Study Findings

Summary of Results: Impact of the New Tier  
on Total Remuneration

## Background and Context

- **Presentation of Results**

- To evaluate the effect of Post-7/2013 New Tier benefits on total remuneration, the following section has been developed to compare UC’s New Tier to UC’s Old Tier
  - The study takes into consideration the UC-approved increase in the defined benefit employee contribution to 8% for the Pre-7/2013 Tier, effective as of July 1, 2014
  - An evaluation of results comparing UC to both the market and the 2009 study are included in Sections 2A-C of this report
- The results are based on two separate valuations both of which include all faculty and are displayed as follows:

| Comparison                            | Description / Components   |  |
|---------------------------------------|--|--|
|                                       | <ul style="list-style-type: none"> <li>• Comparison assumes all faculty are in pre-July 2013 plans (“UC Old Tier”) versus all faculty are in plans currently available to new hires (“UC New Tier”)</li> </ul>   |  |
| <b>3. UC Old Tier vs. UC New Tier</b> | <ul style="list-style-type: none"> <li>• What’s in “UC Old Tier”               <ul style="list-style-type: none"> <li>– Salaries – as of October 2013</li> <li>– H&amp;W benefit design – as of January 2014</li> <li>– Actual H&amp;W benefits employee elections<sup>1</sup></li> <li>– Retirement design – Old Tier retirement plan (Pre-7/2013)</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• What’s in “UC New Tier”               <ul style="list-style-type: none"> <li>– Salaries – as of October 2013</li> <li>– H&amp;W benefits design – as of January 2014</li> <li>– Actual H&amp;W benefits employee elections<sup>1</sup></li> <li>– Retirement design – New Tier retirement plan (Post-7/2013)</li> </ul> </li> </ul> |

MERCER <sup>1</sup> UC H&W benefits elections are actual elections by UC faculty, effective January 2014.

# Background and Context

- **Positioning Figures (Difference from UC Old Tier)**

- The positioning figures (or differences) shown in this section are based on the following formula:
  - $[(UC\ New\ Tier - UC\ Old\ Tier) / UC\ Old\ Tier]$
  - Figures been rounded to the nearest whole percentage
  - The results labeled “UC New Tier” in this section are the same as results labeled as “UC” in section 2B
- Colors have been used to represent varying degrees of positioning as follows:

|                   |  |  |  |  |  |
|-------------------|--|--|--|--|--|
| <b>Summaries:</b> | <br>10% or more below | <br>Between -6% and -9% | <br>Between -5% below and +5% above | <br>Between +6% and +9% | <br>10% or more above |
|-------------------|--|--|--|--|--|

|                     |   |   |   |   |   |
|---------------------|---|---|---|---|---|
| <b>Data Tables:</b> | <br>10% or more below | <br>Between -6% and -9% | <br>Between -5% below and +5% above | <br>Between +6% and +9% | <br>10% or more above |
|---------------------|---|---|---|---|---|

# Study Findings

## Summary of Results - Impact of the New Tier on Total Remuneration

|                                      | Summary <sup>1</sup> | Observations   |
|--------------------------------------|----------------------|--|
| <b>Cash Compensation</b>             | 0%                   | <ul style="list-style-type: none"> <li>The salaries used for both comparisons are the same</li> </ul>                      |
| <b>Health &amp; Welfare Benefits</b> | 0%                   | <ul style="list-style-type: none"> <li>The health &amp; welfare benefits used for both comparisons are the same</li> </ul> |

<sup>1</sup> All figures shown have been rounded to the nearest whole percentage.

# Study Findings

## Summary of Results - Impact of the New Tier on Total Remuneration

|  | Summary <sup>1</sup> | Observations  |
|--|----------------------|---|
| <p><b>Retirement Benefits (DB)</b></p> | <p><b>-16%</b></p>   | <ul style="list-style-type: none"> <li>• All New Tier retirement benefit values are lower than Old Tier due to the changes in plan design</li> <li>• The most significant changes to design that reduce the values include:               <ul style="list-style-type: none"> <li>– Removing inactive COLA for separation benefits</li> <li>– Changing the targeted retirement age assumptions from 60 to 65</li> <li>– Increasing the minimum retirement age from age 50 to 55</li> <li>– Offsetting these factors, the New Tier benefit requires a lower employee contribution (7%) than the Old Tier (8%)</li> </ul> </li> <li>• Earlier career ranks are more significantly impacted by the elimination of COLA for separation benefits and the change in retirement ages</li> </ul> |

<sup>1</sup> All figures shown have been rounded to the nearest whole percentage.

# Study Findings

## Summary of Results - Impact of the New Tier on Total Remuneration

| Summary <sup>1</sup>  | Observations  |
|---|---|
| <p><b>Retiree Health (Medical, Life, Dental)</b></p> <p><b>-23%</b></p>   | <ul style="list-style-type: none"> <li>All New Tier retiree health is lower than Old Tier, primarily due to:               <ul style="list-style-type: none"> <li>Changing retiree health eligibility requirements from service to age and service</li> <li>Change to a flat \$3,000 for out-of-state retirees for retiree health (assumed at 10% of total retirements per UC estimate)</li> <li>Delayed eligibility for maximum benefits, from 20 years of service to age 65 and 20 years of service</li> </ul> </li> <li>The impact of these changes is greater on the associate and assistant professor ranks</li> </ul> |
| <p><b>Total Retirement (Includes Retirement Benefits and Retiree Medical, Life &amp; Dental)</b></p> <p><b>-17%</b></p> | <ul style="list-style-type: none"> <li>All New Tier total retirement is lower than Old Tier given combined changes that have lowered values compared to the previous plan design</li> <li>The impact of these changes is greater on the associate and assistant professor ranks mainly due to the fact that many full professors are already eligible for benefits in both scenarios</li> </ul>   |

<sup>1</sup> All figures shown have been rounded to the nearest whole percentage.

# Study Findings

## Summary of Results - Impact of the New Tier on Total Remuneration

|                           | Summary <sup>1</sup>  | Observations  |
|---------------------------|---|---|
| <b>Total Remuneration</b> |  -2% | <ul style="list-style-type: none"><li>• While the impact of the New Tier on total retirement varies by rank, the impact on total remuneration is almost the same for all ranks</li><li>• This reflects the proportion retirement values represent of total remuneration<ul style="list-style-type: none"><li>– Cash compensation, which is unchanged, still represents the majority of total remuneration value</li></ul></li></ul> |

<sup>1</sup> All figures shown have been rounded to the nearest whole percentage.

# Study Findings: Impact of New Tier on Total Remuneration

## All General Campus LRF – UC Old Tier versus UC New Tier

(Data effective October 1, 2013)

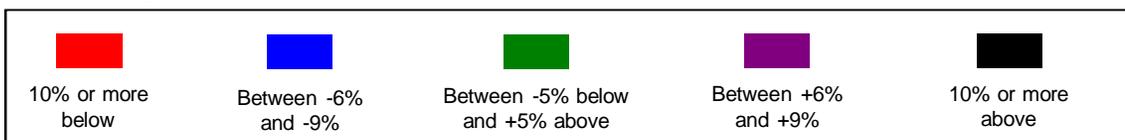
### • Observations

- Changes to retirement plans have contributed to lower values in the current programs, and have resulted in overall lower total remuneration positioning

| Element of Remuneration              | UC Averages      |                  | Difference from Old Tier <sup>1</sup> |
|--------------------------------------|------------------|------------------|---------------------------------------|
|                                      | Old Tier         | New Tier         |                                       |
| <b>Cash Compensation</b>             | <b>\$129,235</b> | <b>\$129,235</b> | <b>0%</b>                             |
| <b>Health &amp; Welfare Benefits</b> | <b>\$18,988</b>  | <b>\$18,988</b>  | <b>0%</b>                             |
| Medical & Dental                     | \$17,717         | \$17,717         | 0%                                    |
| Life Insurance <sup>2</sup>          | \$332            | \$332            | 0%                                    |
| Dependent Care / Health Care FSA     | \$180            | \$180            | 0%                                    |
| Long-term Disability                 | \$759            | \$759            | 0%                                    |
| Dependent Tuition                    | \$0              | \$0              | n/a                                   |
| <b>Total Retirement</b>              | <b>\$20,483</b>  | <b>\$16,914</b>  | <b>-17%</b>                           |
| Retirement (DB)                      | \$16,448         | \$13,808         | -16%                                  |
| Retiree Health (Med, Life, Dental)   | \$4,036          | \$3,107          | -23%                                  |
| <b>Total Remuneration</b>            | <b>\$168,706</b> | <b>\$165,137</b> | <b>-2%</b>                            |

<sup>1</sup> All positioning figures shown are rounded to the nearest whole percentage.

<sup>2</sup> Includes pre-retirement survivor benefits.



# Study Findings: Impact of New Tier on Total Remuneration Full Professors – UC Old Tier versus UC New Tier

(Data effective October 1, 2013)

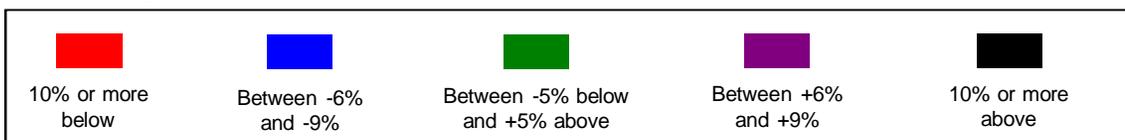
## • Observations

- Changes to retirement plans have contributed to lower values in the current programs, and have resulted in overall lower total remuneration positioning

| Element of Remuneration              | UC Averages      |                  | Difference from Old Tier <sup>1</sup> |
|--------------------------------------|------------------|------------------|---------------------------------------|
|                                      | Old Tier         | New Tier         |                                       |
| <b>Cash Compensation</b>             | <b>\$150,455</b> | <b>\$150,455</b> | <b>0%</b>                             |
| <b>Health &amp; Welfare Benefits</b> | <b>\$21,772</b>  | <b>\$21,772</b>  | <b>0%</b>                             |
| Medical & Dental                     | \$20,079         | \$20,079         | 0%                                    |
| Life Insurance <sup>2</sup>          | \$444            | \$444            | 0%                                    |
| Dependent Care / Health Care FSA     | \$169            | \$169            | 0%                                    |
| Long-term Disability                 | \$1,080          | \$1,080          | 0%                                    |
| Dependent Tuition                    | \$0              | \$0              | n/a                                   |
| <b>Total Retirement</b>              | <b>\$28,850</b>  | <b>\$24,524</b>  | <b>-15%</b>                           |
| Retirement (DB)                      | \$24,434         | \$20,987         | -14%                                  |
| Retiree Health (Med, Life, Dental)   | \$4,416          | \$3,537          | -20%                                  |
| <b>Total Remuneration</b>            | <b>\$201,078</b> | <b>\$196,751</b> | <b>-2%</b>                            |

<sup>1</sup> All positioning figures shown are rounded to the nearest whole percentage.

<sup>2</sup> Includes pre-retirement survivor benefits.



# Study Findings: Impact of New Tier on Total Remuneration Associate Professors – UC Old Tier versus UC New Tier

(Data effective October 1, 2013)

## • Observations

- Delayed retirement eligibility and removal of COLA from separation benefit had a significant impact to retirement values at this rank, and have resulted in overall lower total remuneration positioning

| Element of Remuneration              | UC Averages      |                  | Difference from Old Tier <sup>1</sup> |
|--------------------------------------|------------------|------------------|---------------------------------------|
|                                      | Old Tier         | New Tier         |                                       |
| <b>Cash Compensation</b>             | <b>\$98,804</b>  | <b>\$98,804</b>  | <b>0%</b>                             |
| <b>Health &amp; Welfare Benefits</b> | <b>\$16,328</b>  | <b>\$16,328</b>  | <b>0%</b>                             |
| Medical & Dental                     | \$15,553         | \$15,553         | 0%                                    |
| Life Insurance <sup>2</sup>          | \$183            | \$183            | 0%                                    |
| Dependent Care / Health Care FSA     | \$214            | \$214            | 0%                                    |
| Long-term Disability                 | \$378            | \$378            | 0%                                    |
| Dependent Tuition                    | \$0              | \$0              | n/a                                   |
| <b>Total Retirement</b>              | <b>\$9,286</b>   | <b>\$6,434</b>   | <b>-31%</b>                           |
| Retirement (DB)                      | \$5,485          | \$3,724          | -32%                                  |
| Retiree Health (Med, Life, Dental)   | \$3,800          | \$2,710          | -29%                                  |
| <b>Total Remuneration</b>            | <b>\$124,418</b> | <b>\$121,566</b> | <b>-2%</b>                            |

<sup>1</sup> All positioning figures shown are rounded to the nearest whole percentage.

<sup>2</sup> Includes pre-retirement survivor benefits.

|   |   |   |   |   |
|---|---|---|---|---|
|  |  |  |  |  |
| 10% or more below   | Between -6% and -9%   | Between -5% below and +5% above   | Between +6% and +9%   | 10% or more above   |



# Study Findings: Impact of New Tier on Total Remuneration Assistant Professors – UC Old Tier versus UC New Tier

(Data effective October 1, 2013)

## • Observations

- Delayed retirement eligibility and removal of COLA from separation benefit had a significant impact to retirement values at this rank, resulting in the lowest overall total retirement positioning among the three faculty ranks

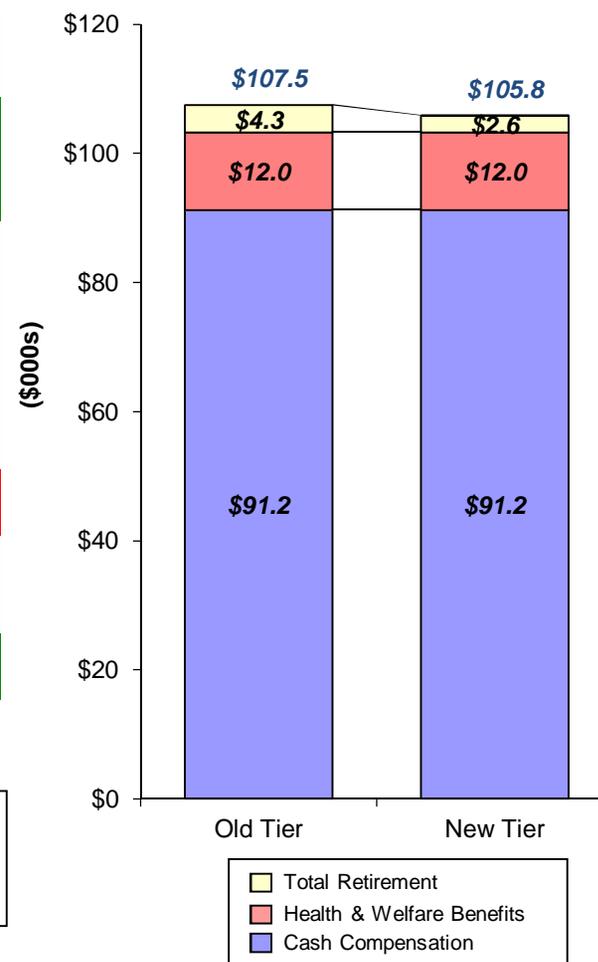
| Element of Remuneration              | UC Averages      |                  | Difference from Old Tier <sup>1</sup> |
|--------------------------------------|------------------|------------------|---------------------------------------|
|                                      | Old Tier         | New Tier         |                                       |
| <b>Cash Compensation</b>             | <b>\$91,155</b>  | <b>\$91,155</b>  | <b>0%</b>                             |
| <b>Health &amp; Welfare Benefits</b> | <b>\$12,038</b>  | <b>\$12,038</b>  | <b>0%</b>                             |
| Medical & Dental                     | \$11,687         | \$11,687         | 0%                                    |
| Life Insurance <sup>2</sup>          | \$111            | \$111            | 0%                                    |
| Dependent Care / Health Care FSA     | \$175            | \$175            | 0%                                    |
| Long-term Disability                 | \$65             | \$65             | 0%                                    |
| Dependent Tuition                    | \$0              | \$0              | n/a                                   |
| <b>Total Retirement</b>              | <b>\$4,292</b>   | <b>\$2,624</b>   | <b>-39%</b>                           |
| Retirement (DB)                      | \$1,396          | \$612            | -56%                                  |
| Retiree Health (Med, Life, Dental)   | \$2,897          | \$2,013          | -31%                                  |
| <b>Total Remuneration</b>            | <b>\$107,485</b> | <b>\$105,817</b> | <b>-2%</b>                            |

<sup>1</sup> All positioning figures shown are rounded to the nearest whole percentage.

<sup>2</sup> Includes pre-retirement survivor benefits.

|   |   |   |   |   |
|---|---|---|---|---|
|  |  |  |  |  |
| 10% or more below   | Between -6% and -9%   | Between -5% below and +5% above   | Between +6% and +9%   | 10% or more above   |

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Section 4A

# Appendix A

## Methodology Overview

# Methodology Overview

## Cash Compensation

- **Cash Compensation**

- For general campus LRF included in the study, all incumbent data were provided to Mercer by Academic Personnel and include faculty salary increases effective July 2013
  - July 1, 2014 salary increases were not included because we had insufficient notice to model them
- Data for general campus LRF include on-scale, off-scale and above-scale salary; all other cash compensation was excluded
  - Academic year pay rate was used for analyses
  - If a faculty member is on a fiscal year pay rate then the following conversion equation was used:  
 $0.86 * \text{fiscal year pay rate} = \text{academic year pay rate}$ , where  $0.86 = 1/1.16$

### Cash Compensation Elements

#### Included

- Ongoing Cash Compensation
  - On-scale, off-scale and above-scale salary

#### Not Included<sup>1,2</sup>

- Stipends
- Summer Salary
- Faculty Recruitment Allowances (relocation)
- Honoraria and Awards

<sup>1</sup> These forms of additional compensation are generally not a part of ongoing compensation and payment for services performed but are used to offset expenses (e.g., relocation), or are temporarily given for additional responsibilities. These items are not included in regular competitive cash compensation surveys.

<sup>2</sup> These data are excluded for both UC and the Comparison 8 institutions.

# Methodology Overview

## Cash Compensation

- **Cash Compensation Market Data**

- Market data were provided by Academic Personnel and represent the 2013-14 academic year salaries (or estimate) of the Comp 8 institutions, using a traditional methodology as specified in an agreement between UC and the former California Postsecondary Education Commission (CPEC)
- The average salary by faculty rank across all Comparison 8 institutions was provided as follows:
  - Full Professor: \$172,939
  - Associate Professor: \$112,944
  - Assistant Professor: \$98,855
- Additional commentary regarding Comparison 8 market data
  - Averages were not adjusted for cost of living
  - Averages weighted by CPEC methodology as outlined on the next page
  - Cash compensation data for Stanford and Yale were not available
    - As such, average salaries for 2013-2014 for these two institutions were estimated by multiplying the 2012-13 salaries by the average of the percentage increases in the 2010-11, 2011-12, and 2012-13 academic years

# Methodology Overview

## Cash Compensation

- **Cash Compensation Market Data (continued)**

- The market composite positioning included in this report differs slightly from comparable figures that have been reported by Academic Personnel using the “traditional methodology” as specified in an agreement between UC and the former California Postsecondary Education Commission
  - The differences were accounted for by three factors:
    - First, the traditional methodology includes adjustments (weightings by rank) in the generation of a final composite salary average for UC; the UC average is generated by weighting the Comp 8 (Market) staffing pattern by rank by 25% and UC’s own staffing pattern by rank by 75%
      - The weightings are used because UC has a higher proportion of full professors than the Comp 8; the Comp 8 has a higher proportion of assistant and associate professors than UC
    - Second, the traditional methodology involves calculations using only summary data of total salary and FTE (full-time equivalency) by rank for the Comp 8, while the UC averages derived in this report use data sets containing records of individual faculty with salaries adjusted to full-time academic-year rates
    - Third, the traditional methodology calculates a lag based on the formula  $(\text{Market} - \text{UC})/\text{UC}$ ; the market positioning figures provided in this report are based on the formula  $(\text{UC} - \text{Market})/\text{Market}$

# Methodology Overview

## Benefits Study Elements

- Elements of benefits include employer-funded value of:

### Health & Welfare Benefits<sup>1</sup>

#### Included

- Medical and Dental
- Life Insurance, including supplemental life<sup>3</sup>
- Long-term Disability (LTD)
- Flexible Spending Accounts
- Vision
- Dependent Tuition Reimbursement

#### Not Included<sup>2</sup>

- Hearing
- Long-term Care
- Employee Education Assistance
- Other work/life benefits (e.g., wellness programs, onsite fitness facility, etc.)

### Retirement Benefits

#### Included

- Defined Benefit Plans
- Defined Contribution Plans
- Retiree Medical and Life Insurance

<sup>1</sup> Benefits included are those that have substantial value and which can be fairly compared.

<sup>2</sup> Not included since values of these benefits are either not material for the entire population or complete competitive valuation data were not readily available. Additional forms of direct compensation and government-required programs are not included. The following items are also not valued: severance pay, supplemental unemployment benefits, travel accident, optional individual accident coverage, matching donations, meals or meal allowances, work and family benefits, bereavement leave, jury leave, or other types of leave which are viewed as providing a relatively immaterial additional value for the population as a whole.

<sup>3</sup> Life insurance includes pre-retirement survivor benefits.

# Methodology Overview

## Benefits Valuation

- Benefits valuation methodology is similar to the one used in both the 2007/2008 Study and 2009 Update
- Benefits are being valued based on:
  - The Comp 8 Peer Group
  - 2014 benefit plan provisions<sup>1</sup>
- In valuing the benefit programs for each Comparison 8 institution, the compensation for benefit purposes was determined by the following formula:
  - $[(\text{Institution A, Full Professor average market salary} / \text{UC Full Professor average salary}) * \text{UC employee salary}]$
- The following pages provide a summary of valuation methodologies by benefit categories
  - Appendices B - D specify the approach for each benefit element and any associated caveats

<sup>1</sup> 2014 benefit plan provisions have been used for all institutions with the exception of the employee contribution to Yale's post-65 medical retiree plan, which could not be confirmed in time for this study. It has been assumed that the current post-65 retiree medical plan is 100% employee paid based upon the fact that no subsidy was reported in 2013.

# Methodology Overview

## Benefits Valuation

- **For Health & Welfare Benefits:**

- Study estimates the replacement value of benefits to a new hire, not the cost of benefits
- Values reflect as close a substitution as possible to the benefit provided by the employer
  - For example, it has been assumed that employees will replace their life insurance benefits with the same amount of coverage
- Values for health care plans are calculated assuming that all employees participate in the plans offered, even when they are voluntary
- Values for health care plans are based upon actual employee elections
- Health plan participation is based on actual employee election data
  - For employees without reported or missing elections coverage, UC has provided faculty medical plan enrollment and premiums by pay band as of 1/1/2014
    - Mercer used these data to determine the percentages within each medical election level by pay band and then applied those percentages to employees with missing medical election coverage (e.g., valuation will be weighted based on proportion of other faculty within each medical level)
    - See Appendix B for table of election assumptions
- Results for UC are displayed in two ways:
  - Post 7/2013 benefits for all faculty members regardless of actual eligibility
  - Benefits programs based on current tier for each faculty member
  - Assumption: in Pre-7/2013 versus Post-7/2013 all benefits and cash compensation remain the same except for DB and Retiree Medical (in order to show the effect of the change in the plans)

# Methodology Overview

## Benefits Valuation

- **For Health & Welfare Benefits (continued):**

- The employer-provided value of healthcare benefits for active employees is calculated based on the equivalent value of expected claims net of deductible, employee-paid coinsurance, and employee-paid co-pays (maximums and out-of-pocket limits reflected in value)
- Disability benefits payable from defined benefit retirement plans are valued as part of the long-term disability benefit
- Pre-retirement survivor benefits are included in the life insurance values
- Employer paid value is defined as the total benefit value minus employee contributions
- Includes vision and life insurance for retirees
- Optional employer subsidized life insurance and long-term disability plans are valued
- Value of long-term disability is net of social security offset and with social security eligibility assumed at 100%
- We have assumed 100% participation in 100% employer paid health and welfare programs
- Participation in optional employer partly paid programs is based on assumptions outlined in the Appendices

# Methodology Overview

## Benefits Valuation

- **For Defined Benefit Retirement Plans:**
  - Calculated using the Projected Unit Credit method
    - Projected Unit Credit is an actuarial methodology that calculates the present value of the benefit earned as a result of the current year of service under the plan's benefit formula using expected service as of the valuation date and pay that is projected to retirement
  - Expected retirement benefits payable at retirement age are valued
  - Separation benefits payable from retirement plans are also included
    - Decrements are applied to reflect the likelihood of termination prior to retirement
  - Post-retirement survivor benefits are included in the defined benefit values
  - We assume new hire plans; grandfathered plans were not included
    - If new hires have a choice between defined benefit and defined contribution, we assume defined contribution
  - Key assumptions were based on the actuarial assumptions used by the Regents' actuary (Segal) for UCRP
  - Salary increase is a flat 4% annual rate as in the 2009 study
    - Differs from assumptions used by Segal in the actuarial valuation
  - Plans available to new hires are valued
  - Grandfathered and frozen plans at Comp 8 are excluded
  - For UC, post 7/2013 tier plans are included in the comparison against the Comp 8
    - A comparison of pre 7/2013 versus post 7/2013 plans has also been included
  - UC's retirement assumptions for faculty were used on both UC and any Comparator 8 plans
    - Based on UC experience and expected experience documented in Appendix C

# Methodology Overview

## Benefits Valuation

- **For Defined Contribution Benefits:**

- Defined contribution plan values include employer contributions to 401(k), 403(b) and after-tax savings
- We assume new hire plans; grandfathered plans were not included
  - If new hires have a choice between defined benefit and defined contribution, we assume defined contribution
- Employer contributions to any other defined contribution plan such as profit sharing, money purchase pension and noncontributory savings are also included
- For voluntary matched savings plans, it is assumed employee plan participation and contributions vary by pay level
  - Participation is based on an agreed to schedule of participation and contribution rates using compensation and level of match, or compensation and maximum matched employee contribution percentage
  - Full employer non-matching contributions have been included
- Employer contribution adjusted for age/service eligibility and future non-vested termination

# Methodology Overview

## Benefits Valuation

- **For Retiree Medical Benefits:**

- Calculated using the Projected Unit Credit method
- Generic claims distribution and utilization data are used
- Retiree contributions are subtracted
- Medicare Part B reimbursement by employer is valued when provided
- For UC faculty, UC's retirement assumptions for faculty were used
  - Based on UC experience and expected experience documented in Appendix B
- The product of age and service factors are used to determine the percentage of the employer subsidy earned toward the cost of retiree health benefits
  - The factors are applied as follows:
    - Age 56 (10%) up to age 65 (100%) at 10% increments per year; and
    - Ten years of service (50%) up to 20 years (100%) at 5% increments per year
    - Full benefit earned at age 65 (100%) with 20 years of service (100%)
    - For example:
      - At age 56 with 10 years of service, the factor is 5% (10% x 50%)
      - At age 60 with 15 years of service, the factor is 37.5% (50% x 75%)

# Methodology Overview

## Benefits Valuation

- **For Retiree Medical Benefits (continued):**
  - Maximum UC contribution is modeled out to 2018 (70% non-Medicare Exchange/70% Medicare Exchange of blended premiums) for general campus LRF
  - Key assumptions were based on the actuarial assumptions used by the Regents' actuary for UCRP
  - Salary increase is a flat 4% annual rate as in the 2009 study
    - Differs from assumptions used by Segal in the actuarial valuation
  - Plans available to new hires are valued
  - Grandfathered and frozen plans at Comp 8 are excluded
  - It is assumed that all employees are covered by the Post-7/2013 tier provisions
    - Actual provisions for each employee, based on date of hire, are used when comparing Pre- and Post-7/2013 tier plans

Section 4B

## Appendix B

# Assumptions for the Valuation of Benefits: Health & Welfare

# Assumptions for the Valuation of Benefits

## Life Insurance – Active Employees

- For this study, the benefits values were estimated using the following approaches:

| 1. Life Insurance: Active Employees             |  |                 |               |                          |                 |                     |                          |                 |                     |                          |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
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| Actuarial Cost Method                           | One-year term cost   |                 |               |                          |                 |                     |                          |                 |                     |                          |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
| Total Benefit Value                             | Value of employer-paid life insurance and optional life insurance; Mercer added optional life using participation methodology as indicated below. Mercer used own rates since 2009 Aon Hewitt assumptions are not available.   |                 |               |                          |                 |                     |                          |                 |                     |                          |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   | Varies by pay level; see table below   |                 |               |                          |                 |                     |                          |                 |                     |                          |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   | <table border="1"> <thead> <tr> <th>Pay Range</th> <th colspan="3">&lt; \$43,000</th> <th colspan="3">\$43,000 - \$62,999</th> <th colspan="3">\$63,000 - \$82,999</th> </tr> </thead> <tbody> <tr> <td>Optional Life Insurance Population (% of Total)</td> <td>Male</td> <td colspan="2">76%</td> <td>Male</td> <td colspan="2">79%</td> <td>Male</td> <td colspan="2">82%</td> </tr> <tr> <td></td> <td>Female</td> <td colspan="2">50%</td> <td>Female</td> <td colspan="2">50%</td> <td>Female</td> <td colspan="2">50%</td> </tr> <tr> <td></td> <td></td> <td>Multiple of Pay</td> <td>Participation</td> <td>Cumulative Participation</td> <td>Multiple of Pay</td> <td>Participation</td> <td>Cumulative Participation</td> <td>Multiple of Pay</td> <td>Participation</td> <td>Cumulative Participation</td> </tr> <tr> <td rowspan="5">Optional Life Insurance Participation</td> <td>First 2x</td> <td>70.0%</td> <td></td> <td>1.40</td> <td>First 2x</td> <td>80.0%</td> <td></td> <td>1.60</td> <td>First 2x</td> <td>90.0%</td> <td></td> <td>1.80</td> </tr> <tr> <td>Next 1x</td> <td>56.0%</td> <td></td> <td>1.96</td> <td>Next 1x</td> <td>64.0%</td> <td></td> <td>2.24</td> <td>Next 1x</td> <td>72.0%</td> <td></td> <td>2.52</td> </tr> <tr> <td>Next 1x</td> <td>28.0%</td> <td></td> <td>2.24</td> <td>Next 1x</td> <td>32.0%</td> <td></td> <td>2.56</td> <td>Next 1x</td> <td>36.0%</td> <td></td> <td>2.88</td> </tr> <tr> <td>Next 4x</td> <td>7.0%</td> <td></td> <td>2.52</td> <td>Next 4x</td> <td>8.0%</td> <td></td> <td>2.88</td> <td>Next 4x</td> <td>9.0%</td> <td></td> <td>3.24</td> </tr> <tr> <td>Next 2x</td> <td>1.5%</td> <td></td> <td>2.55</td> <td>Next 2x</td> <td>1.5%</td> <td></td> <td>2.91</td> <td>Next 2x</td> <td>2.0%</td> <td></td> <td>3.28</td> </tr> <tr> <td>Additional 1x</td> <td>1.4%</td> <td></td> <td></td> <td>Additional 1x</td> <td>1.5%</td> <td></td> <td></td> <td>Additional 1x</td> <td>1.8%</td> <td></td> <td></td> </tr> </tbody> </table><br><table border="1"> <thead> <tr> <th>Pay Range</th> <th colspan="3">\$83,000 - 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\$62,999 |                          |                 | \$63,000 - \$82,999 |                          |  | Optional Life Insurance Population (% of Total) | Male | 76% |  | Male | 79% |  | Male | 82% |  |  | Female | 50% |  | Female | 50% |  | Female | 50% |  |  |  | Multiple of Pay | Participation | Cumulative Participation | Multiple of Pay | Participation | Cumulative Participation | Multiple of Pay | Participation | Cumulative Participation | Optional Life Insurance Participation | First 2x | 70.0% |  | 1.40 | First 2x | 80.0% |  | 1.60 | First 2x | 90.0% |  | 1.80 | Next 1x | 56.0% |  | 1.96 | Next 1x | 64.0% |  | 2.24 | Next 1x | 72.0% |  | 2.52 | Next 1x | 28.0% |  | 2.24 | Next 1x | 32.0% |  | 2.56 | Next 1x | 36.0% |  | 2.88 | Next 4x | 7.0% |  | 2.52 | Next 4x | 8.0% |  | 2.88 | Next 4x | 9.0% |  | 3.24 | Next 2x | 1.5% |  | 2.55 | Next 2x | 1.5% |  | 2.91 | Next 2x | 2.0% |  | 3.28 | Additional 1x | 1.4% |  |  | Additional 1x | 1.5% |  |  | Additional 1x | 1.8% |  |  | Pay Range | \$83,000 - \$103,999 |  |  | \$104,000 - \$126,999 |  |  | \$127,000 - \$146,999 |  |  | Optional Life Insurance Population (% of Total) | Male | 85% |  | Male | 88% |  | Male | 91% |  |  | Female | 50% |  | Female | 60% |  | Female | 70% |  |  |  | Multiple of Pay | Participation | Cumulative Participation | Multiple of Pay | Participation | Cumulative Participation | Multiple of Pay | Participation | Cumulative Participation | Optional Life Insurance Participation | First 2x | 100.0% |  | 2.00 | First 2x | 100.0% |  | 2.00 | First 2x | 100.0% |  | 2.00 | Next 1x | 80.0% |  | 2.80 | Next 1x | 84.0% |  | 2.84 | Next 1x | 88.0% |  | 2.88 | Next 1x | 40.0% |  | 3.20 | Next 1x | 52.0% |  | 3.36 | Next 1x | 64.0% |  | 3.52 | Next 4x | 10.0% |  | 3.60 | Next 4x | 28.0% |  | 4.48 | Next 4x | 46.0% |  | 5.36 | Next 2x | 2.0% |  | 3.64 | Next 2x | 21.5% |  | 4.91 | Next 2x | 41.0% |  | 6.18 | Additional 1x | 2.0% |  |  | Additional 1x | 21.4% |  |  | Additional 1x | 41.0% |  |  | Pay Range | \$147,000 - \$188,999 |  |  | \$189,000 - \$209,999 |  |  | \$210,000 + |  |  | Optional Life Insurance Population (% of Total) | Male | 94% |  | Male | 97% |  | Male | 100% |  |  | Female | 80% |  | Female | 90% |  | Female | 100% |  |  |  | Multiple of Pay | Participation | Cumulative Participation | Multiple of Pay | Participation | Cumulative Participation | Multiple of Pay | Participation | Cumulative Participation | Optional Life Insurance Participation | First 2x | 100.0% |  | 2.00 | First 2x | 100.0% |  | 2.00 | First 2x | 100.0% |  | 2.00 | Next 1x | 92.0% |  | 2.92 | Next 1x | 96.0% |  | 2.96 | Next 1x | 100.0% |  | 3.00 | Next 1x | 76.0% |  | 3.68 | Next 1x | 88.0% |  | 3.84 | Next 1x | 100.0% |  | 4.00 | Next 4x | 64.0% |  | 6.24 | Next 4x | 82.0% |  | 7.12 | Next 4x | 100.0% |  | 8.00 | Next 2x | 61.0% |  | 7.46 | Next 2x | 81.0% |  | 8.73 | Next 2x | 100.0% |  | 10.00 | Additional 1x | 60.0% |  |  | Additional 1x | 80.0% |  |  | Additional 1x | 100.0% |  |  |
| Pay Range                                       | < \$43,000   |                 |               | \$43,000 - \$62,999      |                 |                     | \$63,000 - \$82,999      |                 |                     |                          |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
| Optional Life Insurance Population (% of Total) | Male   | 76%             |               | Male                     | 79%             |                     | Male                     | 82%             |                     |                          |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   | Female   | 50%             |               | Female                   | 50%             |                     | Female                   | 50%             |                     |                          |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   |  | Multiple of Pay | Participation | Cumulative Participation | Multiple of Pay | Participation       | Cumulative Participation | Multiple of Pay | Participation       | Cumulative Participation |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
| Optional Life Insurance Participation           | First 2x   | 70.0%           |               | 1.40                     | First 2x        | 80.0%               |                          | 1.60            | First 2x            | 90.0%                    |  | 1.80  |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   | Next 1x  | 56.0%           |               | 1.96                     | Next 1x         | 64.0%               |                          | 2.24            | Next 1x             | 72.0%                    |  | 2.52  |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   | Next 1x  | 28.0%           |               | 2.24                     | Next 1x         | 32.0%               |                          | 2.56            | Next 1x             | 36.0%                    |  | 2.88  |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   | Next 4x  | 7.0%            |               | 2.52                     | Next 4x         | 8.0%                |                          | 2.88            | Next 4x             | 9.0%                     |  | 3.24  |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   | Next 2x  | 1.5%            |               | 2.55                     | Next 2x         | 1.5%                |                          | 2.91            | Next 2x             | 2.0%                     |  | 3.28  |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
| Additional 1x                                   | 1.4%   |                 |               | Additional 1x            | 1.5%            |                     |                          | Additional 1x   | 1.8%                |                          |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
| Pay Range                                       | \$83,000 - \$103,999   |                 |               | \$104,000 - \$126,999    |                 |                     | \$127,000 - \$146,999    |                 |                     |                          |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
| Optional Life Insurance Population (% of Total) | Male   | 85%             |               | Male                     | 88%             |                     | Male                     | 91%             |                     |                          |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   | Female   | 50%             |               | Female                   | 60%             |                     | Female                   | 70%             |                     |                          |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   |  | Multiple of Pay | Participation | Cumulative Participation | Multiple of Pay | Participation       | Cumulative Participation | Multiple of Pay | Participation       | Cumulative Participation |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
| Optional Life Insurance Participation           | First 2x   | 100.0%          |               | 2.00                     | First 2x        | 100.0%              |                          | 2.00            | First 2x            | 100.0%                   |  | 2.00  |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   | Next 1x  | 80.0%           |               | 2.80                     | Next 1x         | 84.0%               |                          | 2.84            | Next 1x             | 88.0%                    |  | 2.88  |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   | Next 1x  | 40.0%           |               | 3.20                     | Next 1x         | 52.0%               |                          | 3.36            | Next 1x             | 64.0%                    |  | 3.52  |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   | Next 4x  | 10.0%           |               | 3.60                     | Next 4x         | 28.0%               |                          | 4.48            | Next 4x             | 46.0%                    |  | 5.36  |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   | Next 2x  | 2.0%            |               | 3.64                     | Next 2x         | 21.5%               |                          | 4.91            | Next 2x             | 41.0%                    |  | 6.18  |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
| Additional 1x                                   | 2.0%   |                 |               | Additional 1x            | 21.4%           |                     |                          | Additional 1x   | 41.0%               |                          |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
| Pay Range                                       | \$147,000 - \$188,999  |                 |               | \$189,000 - \$209,999    |                 |                     | \$210,000 +              |                 |                     |                          |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
| Optional Life Insurance Population (% of Total) | Male   | 94%             |               | Male                     | 97%             |                     | Male                     | 100%            |                     |                          |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   | Female   | 80%             |               | Female                   | 90%             |                     | Female                   | 100%            |                     |                          |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   |  | Multiple of Pay | Participation | Cumulative Participation | Multiple of Pay | Participation       | Cumulative Participation | Multiple of Pay | Participation       | Cumulative Participation |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
| Optional Life Insurance Participation           | First 2x   | 100.0%          |               | 2.00                     | First 2x        | 100.0%              |                          | 2.00            | First 2x            | 100.0%                   |  | 2.00  |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   | Next 1x  | 92.0%           |               | 2.92                     | Next 1x         | 96.0%               |                          | 2.96            | Next 1x             | 100.0%                   |  | 3.00  |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   | Next 1x  | 76.0%           |               | 3.68                     | Next 1x         | 88.0%               |                          | 3.84            | Next 1x             | 100.0%                   |  | 4.00  |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   | Next 4x  | 64.0%           |               | 6.24                     | Next 4x         | 82.0%               |                          | 7.12            | Next 4x             | 100.0%                   |  | 8.00  |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
|   | Next 2x  | 61.0%           |               | 7.46                     | Next 2x         | 81.0%               |                          | 8.73            | Next 2x             | 100.0%                   |  | 10.00   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
| Additional 1x                                   | 60.0%  |                 |               | Additional 1x            | 80.0%           |                     |                          | Additional 1x   | 100.0%              |                          |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
| Employer-paid Benefit Value                     | Total Benefit Value less employee contributions required for optional life insurance   |                 |               |                          |                 |                     |                          |                 |                     |                          |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |
| Employer AD&D and continuation upon disability  | Mercer does not value as a standard benefit. Mercer developed premium rates and used Life Insurance methodology (covered amount times premium rate), which were grossed up where applicable.   |                 |               |                          |                 |                     |                          |                 |                     |                          |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |       |  |      |          |       |  |      |          |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |         |      |  |      |               |      |  |  |               |      |  |  |               |      |  |  |           |                      |  |  |                       |  |  |                       |  |  |   |      |     |  |      |     |  |      |     |  |  |        |     |  |        |     |  |        |     |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |       |  |      |         |      |  |      |         |       |  |      |         |       |  |      |               |      |  |  |               |       |  |  |               |       |  |  |           |                       |  |  |                       |  |  |             |  |  |   |      |     |  |      |     |  |      |      |  |  |        |     |  |        |     |  |        |      |  |  |  |                 |               |                          |                 |               |                          |                 |               |                          |                                       |          |        |  |      |          |        |  |      |          |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |      |         |       |  |      |         |       |  |      |         |        |  |       |               |       |  |  |               |       |  |  |               |        |  |  |

# Assumptions for the Valuation of Benefits

## Life Insurance – Future Retirees

- For this study, the benefits values were estimated using the following approaches:

| <b>2. Life Insurance: Future Retirees</b> |  |
|---|--|
| Actuarial Cost Method                     | Use projected unit credit methodology consistent with 2009 study |
| Key Economic Assumptions                  | 7.5% discount rate; 4.0% salary increase                         |
| Assumed Retirement Age                    | Mercer used rates assumed for DB plan (see page 66)              |
| Benefit Value                             | Service Cost   |

# Assumptions for the Valuation of Benefits

## Health Care Benefits – Active Employees

- For this study, the benefits values were estimated using the following approaches:

| 3. Health Care Benefits: Active Employees |   |               |              |                  |        |  |  |               |            |             |        |           |        |       |      |       |       |                      |      |       |       |       |       |                       |         |       |       |       |       |            |         |       |      |       |       |
|---|---|---------------|--------------|------------------|--------|--|--|---------------|------------|-------------|--------|-----------|--------|-------|------|-------|-------|----------------------|------|-------|-------|-------|-------|-----------------------|---------|-------|-------|-------|-------|------------|---------|-------|------|-------|-------|
| Total Benefit Value <sup>1,2</sup>        | Equivalent of expected claims net of deductible, employee-paid coinsurance, and employee-paid copays (maximums and out-of-pocket limits reflected in value)   |               |              |                  |        |  |  |               |            |             |        |           |        |       |      |       |       |                      |      |       |       |       |       |                       |         |       |       |       |       |            |         |       |      |       |       |
| Employer-paid Value                       | Total benefit value minus employee contributions  |               |              |                  |        |  |  |               |            |             |        |           |        |       |      |       |       |                      |      |       |       |       |       |                       |         |       |       |       |       |            |         |       |      |       |       |
| Employee Coverage Election Assumptions    | Mercer used actual elections by employee as provided by UC benefits team as opposed to standard percentage assumptions across elections   |               |              |                  |        |  |  |               |            |             |        |           |        |       |      |       |       |                      |      |       |       |       |       |                       |         |       |       |       |       |            |         |       |      |       |       |
| Plan Weighting                            | If institution offers more than one plan, each plan was separately valued and weighted by employee elections to determine actual value for the study  |               |              |                  |        |  |  |               |            |             |        |           |        |       |      |       |       |                      |      |       |       |       |       |                       |         |       |       |       |       |            |         |       |      |       |       |
| Flexible Benefit Dollars                  | If institution provides flexible benefit dollars; employee contribution equals plan price tag minus employer-provided flex dollars  |               |              |                  |        |  |  |               |            |             |        |           |        |       |      |       |       |                      |      |       |       |       |       |                       |         |       |       |       |       |            |         |       |      |       |       |
| Vision Benefits                           | Used Mercer methodology (see page 59)   |               |              |                  |        |  |  |               |            |             |        |           |        |       |      |       |       |                      |      |       |       |       |       |                       |         |       |       |       |       |            |         |       |      |       |       |
| Hearing Benefits                          | Not included in value as Mercer is unable to value hearing benefits and benefit is nominal  |               |              |                  |        |  |  |               |            |             |        |           |        |       |      |       |       |                      |      |       |       |       |       |                       |         |       |       |       |       |            |         |       |      |       |       |
| Employees without Elections               | <p>UC provided faculty medical plan enrollment and premiums by pay band as of 1/1/2014. Mercer used these data to determine the percentages within each medical election levels by pay band and then applied that percentage to employees with blank medical election coverage (e.g., valuation was weighted based on proportion of other faculty within each medical level).</p> <table border="1"> <thead> <tr> <th rowspan="2">Pay Band</th> <th rowspan="2">Medical Plan</th> <th colspan="4">Medical Election</th> </tr> <tr> <th>Employee Only</th> <th>EE + Child</th> <th>EE + Spouse</th> <th>Family</th> </tr> </thead> <tbody> <tr> <td>&lt;\$51,000</td> <td>Kaiser</td> <td>64.4%</td> <td>5.7%</td> <td>12.9%</td> <td>17.0%</td> </tr> <tr> <td>\$51,000 - \$101,000</td> <td>HNBG</td> <td>40.3%</td> <td>11.0%</td> <td>13.9%</td> <td>34.7%</td> </tr> <tr> <td>\$101,000 - \$151,000</td> <td>UC Care</td> <td>30.1%</td> <td>12.2%</td> <td>15.5%</td> <td>42.3%</td> </tr> <tr> <td>&gt;\$151,000</td> <td>UC Care</td> <td>26.7%</td> <td>7.1%</td> <td>29.0%</td> <td>37.1%</td> </tr> </tbody> </table> | Pay Band      | Medical Plan | Medical Election |        |  |  | Employee Only | EE + Child | EE + Spouse | Family | <\$51,000 | Kaiser | 64.4% | 5.7% | 12.9% | 17.0% | \$51,000 - \$101,000 | HNBG | 40.3% | 11.0% | 13.9% | 34.7% | \$101,000 - \$151,000 | UC Care | 30.1% | 12.2% | 15.5% | 42.3% | >\$151,000 | UC Care | 26.7% | 7.1% | 29.0% | 37.1% |
| Pay Band                                  | Medical Plan  |               |              | Medical Election |        |  |  |               |            |             |        |           |        |       |      |       |       |                      |      |       |       |       |       |                       |         |       |       |       |       |            |         |       |      |       |       |
|   |   | Employee Only | EE + Child   | EE + Spouse      | Family |  |  |               |            |             |        |           |        |       |      |       |       |                      |      |       |       |       |       |                       |         |       |       |       |       |            |         |       |      |       |       |
| <\$51,000                                 | Kaiser  | 64.4%         | 5.7%         | 12.9%            | 17.0%  |  |  |               |            |             |        |           |        |       |      |       |       |                      |      |       |       |       |       |                       |         |       |       |       |       |            |         |       |      |       |       |
| \$51,000 - \$101,000                      | HNBG  | 40.3%         | 11.0%        | 13.9%            | 34.7%  |  |  |               |            |             |        |           |        |       |      |       |       |                      |      |       |       |       |       |                       |         |       |       |       |       |            |         |       |      |       |       |
| \$101,000 - \$151,000                     | UC Care   | 30.1%         | 12.2%        | 15.5%            | 42.3%  |  |  |               |            |             |        |           |        |       |      |       |       |                      |      |       |       |       |       |                       |         |       |       |       |       |            |         |       |      |       |       |
| >\$151,000                                | UC Care   | 26.7%         | 7.1%         | 29.0%            | 37.1%  |  |  |               |            |             |        |           |        |       |      |       |       |                      |      |       |       |       |       |                       |         |       |       |       |       |            |         |       |      |       |       |

1 Medical benefits vary based on the plan each faculty member chooses.

2 Claims data differ for those using HMO plans versus PPO plans. Differences in claims data were incorporated into the individual analyses for the UC population.

# Assumptions for the Valuation of Benefits

## Health Care Benefits – Future Retirees

- For this study, the benefits values were estimated using the following approaches:

| 4. Health Care Benefits: Future Retirees |   |
|--|---|
| Actuarial Cost Method                    | Used projected unit credit methodology consistent with 2009 study   |
| Key Economic Assumptions                 | 7.5% discount rate; 4.0% salary increase  |
| Health Care Trend                        | Non-Medicare (HMO & PPO): 7.5% reducing 0.2% per year to 5% after 2028  |
|  | Medicare (HMO): 8.5% reducing 0.25% per year to 5% after 2028   |
|  | Medicare (PPO): 7.5% reducing, reducing to 7% after one year, then 0.2% per year until 5.6% in 2023; then reducing 0.1% per year until 5% for all future years after 2028 |
|  | Part B Premium: 6.8% reducing 0.2% per year until 6% in 2019; then reducing 0.1% per year until 5% for all future years after 2028  |
|  | Dental: 5% per year   |
|  | Wellness: Constant for one year; then increasing by 3% per year thereafter  |
| Assumed Retirement Age                   | Mercer used rates assumed for DB plan (see page 66)   |
| Benefit Value                            | Mercer valued the benefit as medical plan less the employee contributions   |
| Employee Coverage Election Assumptions   | Employee Only: 55%, Employee + spouse: 45%  |
| Benefit Value Adjustment                 | Adjusted to reflect service eligibility   |
| Other                                    | Post-65 value reflects coordination with Medicare and are net of Medicare; Mercer removed 2.5% post-retirement aging factor   |
| Vision Benefits                          | Used Mercer methodology (see page 59)   |
| Hearing Benefits                         | Not included in value as Mercer is unable to value hearing benefits and benefit is nominal  |

# Assumptions for the Valuation of Benefits

## Long-Term Disability

- For this study, the benefits values were estimated using the following approaches:

| 5. Long-term Disability                     |  |                      |                       |                       |                       |                       |                       |  |   |      |     |      |     |      |      |        |     |        |     |        |      |
|---|--|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---|------|-----|------|-----|------|------|--------|-----|--------|-----|--------|------|
| Actuarial Cost Method                       | One-year term cost   |                      |                       |                       |                       |                       |                       |  |   |      |     |      |     |      |      |        |     |        |     |        |      |
| Other Components                            | Includes payments made after the first six months of disability regardless of source   |                      |                       |                       |                       |                       |                       |  |   |      |     |      |     |      |      |        |     |        |     |        |      |
| Total Benefit Value                         | Net of social security offset; assumes 100% eligibility  |                      |                       |                       |                       |                       |                       |  |   |      |     |      |     |      |      |        |     |        |     |        |      |
| Employer-paid Value                         | Total value minus employee contributions   |                      |                       |                       |                       |                       |                       |  |   |      |     |      |     |      |      |        |     |        |     |        |      |
|   | Value of contributory plans reduced to reflect less than 100% participation; Mercer used assumptions as outlined below:  |                      |                       |                       |                       |                       |                       |  |   |      |     |      |     |      |      |        |     |        |     |        |      |
| Participation Assumption <sup>1</sup>       | <table border="1"> <thead> <tr> <th>Pay Range</th> <th colspan="2">&lt; \$43,000</th> <th colspan="2">\$43,000 - \$62,999</th> <th colspan="2">\$63,000 - \$82,999</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Contributory LTD Participation (% of Total)</td> <td>Male</td> <td>92%</td> <td>Male</td> <td>93%</td> <td>Male</td> <td>94%</td> </tr> <tr> <td>Female</td> <td>38%</td> <td>Female</td> <td>46%</td> <td>Female</td> <td>52%</td> </tr> </tbody> </table>            | Pay Range            | < \$43,000            |                       | \$43,000 - \$62,999   |                       | \$63,000 - \$82,999   |  | Contributory LTD Participation (% of Total) | Male | 92% | Male | 93% | Male | 94%  | Female | 38% | Female | 46% | Female | 52%  |
|   | Pay Range  | < \$43,000           |                       | \$43,000 - \$62,999   |                       | \$63,000 - \$82,999   |                       |  |   |      |     |      |     |      |      |        |     |        |     |        |      |
|   | Contributory LTD Participation (% of Total)  | Male                 | 92%                   | Male                  | 93%                   | Male                  | 94%                   |  |   |      |     |      |     |      |      |        |     |        |     |        |      |
|   |  | Female               | 38%                   | Female                | 46%                   | Female                | 52%                   |  |   |      |     |      |     |      |      |        |     |        |     |        |      |
|   | <table border="1"> <thead> <tr> <th>Pay Range</th> <th colspan="2">\$83,000 - \$103,999</th> <th colspan="2">\$104,000 - \$126,999</th> <th colspan="2">\$127,000 - \$146,999</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Contributory LTD Participation (% of Total)</td> <td>Male</td> <td>95%</td> <td>Male</td> <td>96%</td> <td>Male</td> <td>97%</td> </tr> <tr> <td>Female</td> <td>60%</td> <td>Female</td> <td>68%</td> <td>Female</td> <td>76%</td> </tr> </tbody> </table> | Pay Range            | \$83,000 - \$103,999  |                       | \$104,000 - \$126,999 |                       | \$127,000 - \$146,999 |  | Contributory LTD Participation (% of Total) | Male | 95% | Male | 96% | Male | 97%  | Female | 60% | Female | 68% | Female | 76%  |
|   | Pay Range  | \$83,000 - \$103,999 |                       | \$104,000 - \$126,999 |                       | \$127,000 - \$146,999 |                       |  |   |      |     |      |     |      |      |        |     |        |     |        |      |
|   | Contributory LTD Participation (% of Total)  | Male                 | 95%                   | Male                  | 96%                   | Male                  | 97%                   |  |   |      |     |      |     |      |      |        |     |        |     |        |      |
|   |  | Female               | 60%                   | Female                | 68%                   | Female                | 76%                   |  |   |      |     |      |     |      |      |        |     |        |     |        |      |
|   | <table border="1"> <thead> <tr> <th>Pay Range</th> <th colspan="2">\$147,000 - \$188,999</th> <th colspan="2">\$189,000 - \$209,999</th> <th colspan="2">\$210,000 +</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Contributory LTD Participation (% of Total)</td> <td>Male</td> <td>98%</td> <td>Male</td> <td>99%</td> <td>Male</td> <td>100%</td> </tr> <tr> <td>Female</td> <td>84%</td> <td>Female</td> <td>92%</td> <td>Female</td> <td>100%</td> </tr> </tbody> </table>        | Pay Range            | \$147,000 - \$188,999 |                       | \$189,000 - \$209,999 |                       | \$210,000 +           |  | Contributory LTD Participation (% of Total) | Male | 98% | Male | 99% | Male | 100% | Female | 84% | Female | 92% | Female | 100% |
| Pay Range                                   | \$147,000 - \$188,999  |                      | \$189,000 - \$209,999 |                       | \$210,000 +           |                       |                       |  |   |      |     |      |     |      |      |        |     |        |     |        |      |
| Contributory LTD Participation (% of Total) | Male   | 98%                  | Male                  | 99%                   | Male                  | 100%                  |                       |  |   |      |     |      |     |      |      |        |     |        |     |        |      |
|   | Female   | 84%                  | Female                | 92%                   | Female                | 100%                  |                       |  |   |      |     |      |     |      |      |        |     |        |     |        |      |
| Plan Weighting                              | If company offers more than one plan, each plan was separately valued and weighted by employee elections to determine actual value for study; Mercer weighted additional plans based on participation assumptions as outlined above.   |                      |                       |                       |                       |                       |                       |  |   |      |     |      |     |      |      |        |     |        |     |        |      |

# Assumptions for the Valuation of Benefits

## Vision Benefits

- Assumptions:
  - All covered get exams
  - 50% of adults elect to get contacts, 25% of children
  - 50% of children require frames/lenses or contacts
  - 50% of adults ages 20 – 40 require frames/lenses or contacts
  - 70% of adults ages 41 – 50 require frames/lenses or contacts
  - 85% of adults ages 50+ require frames/lenses or contacts
- Each of the below pieces are weighted based on assumed utilizations to create total value:
  - Value of frames/lenses for each covered family member =  $[(\text{average cost of exam} - \text{copay}) + (\text{average cost of frames up to maximum covered} - \text{copay})] / [(\text{years between new frames}) + (\text{average cost of lenses up to maximum covered} - \text{Copay})]$  – Deductible times coinsurance
  - Value of contacts for each covered family member =  $[(\text{average cost of exam} - \text{copay}) + (\text{average cost of contacts up to maximum covered} - \text{copay})]$  - Deductible times coinsurance
  - Value of Laser for each covered family member =  $[(\text{average cost of exam} - \text{copay}) + (\text{average cost of laser up to maximum covered} - \text{copay})]$  – Deductible times coinsurance

Section 4C

## Appendix C

# Assumptions for the Valuation of Benefits: Retirement

# Assumptions for the Valuation of Benefits

## Retirement

- For this study, the retirement values were estimated using the following approaches:

| Retirement Item                           | Pre 7/2013 Methodology  | Post 7/2013 Methodology   |
|---|---|---|
| <b>1. Defined Benefit Pension</b>         |   |   |
| Actuarial Cost Method                     | Projected Unit Credit (PUC)   | Projected Unit Credit (PUC)   |
| Key Economic Assumptions                  | 7.5% discount rate; 4.0% salary increase  | 7.5% discount rate; 4.0% salary increase  |
| Assumed Retirement Age                    | The UC Pre 7/2013 tier calculations use the Pre 7/2013 assumptions as detailed on page 68   | Both the UC and Comp 8 Post 7/2013 tier calculations use the Post 7/2013 assumptions as detailed on page 68   |
| Benefit Value                             | Service Cost  | Service Cost  |
| <b>2. Defined Contribution (non-401k)</b> |   |   |
| Benefit Value                             | Employer contribution adjusted for age/service eligibility and future non-vested termination. Participation in plan varies by salary and match rate | Employer contribution adjusted for age/service eligibility and future non-vested termination. Participation in plan varies by salary and match rate |
|   | Age/service eligibility adjustment  | Age/service eligibility adjustment  |
|   | Future non-vested termination adjustment  | Future non-vested termination adjustment  |
| <b>3. Defined Contribution (401k)</b>     |   |   |
| Benefit Value                             | Employer contribution adjusted for age/service eligibility and future non-vested termination. Participation in plan varies by salary and match rate | Employer contribution adjusted for age/service eligibility and future non-vested termination. Participation in plan varies by salary and match rate |
|   | Age/service eligibility adjustment  | Age/service eligibility adjustment  |
|   | Future non-vested termination adjustment  | Future non-vested termination adjustment  |
| <b>4. Pension Survivor Income</b>         |   |   |
| Actuarial Cost Method                     | Projected Unit Credit   | Projected Unit Credit   |
| Key Economic Assumptions                  | 7.5% discount rate; 4.0% salary increase  | 7.5% discount rate; 4.0% salary increase  |
| Benefit Value                             | Service Cost  | Service Cost  |

# Assumptions for the Valuation of Benefits

## Pension Summary

|   | Pre 7/2013 Assumptions  | Post 7/2013 Assumptions  |
|---|---|--|
| Eligibility for Plan Membership             | Immediate   | Immediate  |
| Highest Average Plan Compensation (HAPC)    | Highest average salary rate over any consecutive 36 month period; salaries limited by IRC 401(a)(17)  | Highest average salary rate over any consecutive 36 month period; salaries limited by IRC 401(a)(17)   |
| Social Security Covered Compensation (SSCC) | --  | --   |
| Basic Benefit Formula                       | Benefit payable at age 60: 2.5% (HAPC less \$133) x service up to 40 years (For members with Social Security, HAPC is reduced by \$133 to account for the University's contribution to Social Security)<br>415(m) plan pays excess above IRC 415(b) | Benefit payable at age 65: 2.5% x HAPC x service up to 40 years. Maximum benefit is the IRS maximum<br><br>415(m) plan pays excess above IRC 415(b)      |
| Maximum Accrual Factor                      | 2.5% * HAPC (less \$133 if W/SS)  | 2.5% HAPC  |
| Maximum Benefit                             | 100% HAPC (less \$133 if W/SS); subject to IRS limits   | 100% HAPC; subject to IRS limits   |
| Form of Payment                             | Annuity or lump sum cash out  | Annuity only (no lump sum cash out)  |
| Subsidized Survivor Benefits                | Yes   | No   |
| Post-Retirement COLA                        | 100% of first 2% of inflation; 0% on next 2% of inflation; 75% on amounts over 4% of inflation (maximum 6% per year) Valuation assumption is 2% per year  | 100% of first 2% of inflation; 0% on next 2% of inflation; 75% on amounts over 4% of inflation (maximum 6% per year) Valuation assumption is 2% per year |

# Assumptions for the Valuation of Benefits

## Pension Summary

|  | Pre 7/2013 Assumptions  | Post 7/2013 Assumptions   |
|--|---|---|
| <b>Early Retirement Benefits</b>                               |   |   |
| Eligibility for Retirement Benefits                            | Age 50 with 5 or more years of UCRP service credit  | Age 55 with 5 or more years of UCRP service credit  |
| Accrued Benefit Reduction                                      | 5.6% per year between age 50 and age 60   | 5.6% per year between age 55 and age 65   |
| Social Security Supplement (if W/SS)                           | Temporary annuity of 2.5%* \$133 * UCRP service credit * early retirement reduction factor to age 65  | None  |
| Eligibility  | 5 years   | 5 years   |
| Vested Benefit   | Accrued Benefit   | Accrued Benefit   |
|  | Cost of living adjustments (COLA) apply to highest average pay during deferral period<br>COLA = lesser of actual inflation or 2% compounded annually during deferral period   | No COLA during deferral period  |
| <b>Disability</b>  |   |   |
| Eligibility  | 2 years   | 5 years   |
| Disability Income Benefit (prior to retirement crossover date) | Percent of monthly final salary as of disability date, based on years of service as of disability date credit minus a reduction for Social Security benefits (\$106.40) (Percent ranges from 15% at 2 years to 40% at 12 or more years) | Percent of monthly final salary as of disability date, based on years of service as of disability date credit (Percent ranges from 13.1% at 5 years service to 25% at 12 or more years) |
|  | Payments begin at disability and end at a retirement crossover date   | Payments begin at disability and end at a retirement crossover date   |
|  | Cost of living adjustments begin 1 year after payments commence<br>COLA = same as post-retirement COLA  | Cost of living adjustments begin 1 year after payments commence<br>COLA = same as post-retirement COLA  |

# Assumptions for the Valuation of Benefits

## Pension Summary

|   | Pre 7/2013 Assumptions   | Post 7/2013 Assumptions  |
|---|--|--|
| <b>Employee Contribution</b>                          |  |  |
| Current   | 8% as of July 2014   | 7% of pay (no \$228 offset)  |
| Baseline Assumption (used for current UCRP valuation) | Pretax   | Pretax   |
| <b>Survivor Benefits</b>                              | <ul style="list-style-type: none"> <li>• \$7,500 lump sum death benefit, regards of member's age or retirement status or eligibility at death</li> <li>• Pre-Retirement Deaths:               <ul style="list-style-type: none"> <li>• 2 years of service credit, but prior to early retirement eligibility: 25% of final salary, less \$106.40 reduction for SS Benefits after 3 months, to eligible child or age 60+ spouse*</li> <li>• While eligible to retire: 50% (w/o SS) or 25% (w/SS) of members basic retirement income (BRI) at death plus remaining 50% (w/o SS) or 75% (w/ SS) of BRI converted to J&amp;S 100% form payable to surviving spouse or domestic partner as the only contingent annuitant, as if member retired on date of death. For member's w/SS, there is also the temporary Social Security Supplement payable to the surviving spouse/DP until the member would have been age 65. If the Member died while an active member and the surviving spouse/DP is age 60+ then the greater of the above death-while-eligible benefit and the prior-to-retirement eligibility income amount is paid.</li> <li>• If there is no surviving spouse/DP the survivor benefit is not paid</li> </ul> </li> <li>• Post-Retirement Deaths:               <ul style="list-style-type: none"> <li>• 50% (w/ SS) or 25% (w/o SS) of member's BRI plus 0%, 50%, 66.67% or 100% of the remaining 50% (w/ SS0) or 75% (w/o SS) of BRI, actuarially reduced for one of the optional forms chosen at retirement, payable to a surviving spouse or contingent annuitant</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• \$7,500 lump sum death benefit, regards of member's age or retirement status or eligibility at death</li> <li>• Pre-Retirement Deaths:               <ul style="list-style-type: none"> <li>• 2 years of service credit, but prior to early retirement eligibility: 15% of final salary to eligible child or age 60+ spouse</li> <li>• While eligible to retire: Member's BRI converted to J&amp;S 100% form payable to surviving spouse or domestic partner as the only contingent annuitant, as if member retired on date of death</li> <li>• If there is no surviving spouse/DP the survivor benefit is not paid</li> </ul> </li> <li>• Post-Retirement Deaths:               <ul style="list-style-type: none"> <li>• 0%, 50%, 66.67% or 100% of the member's BRI, actuarially reduced for one of the optional forms chosen at retirement, payable to a surviving spouse or contingent annuitant</li> </ul> </li> </ul> |

MERCER \*Eligible Child = Until age 18, or age 22 if full-time student or if disabled as long as disability continues. "Age 60+ Spouse" means "Eligible Spouse" = Has care of Eligible Child, is disabled or attains age 60. Payments to Eligible Spouses continue for the life of the spouse or Eligible Child, whichever is longer.

# Assumptions for the Valuation of Benefits

## Retiree Medical

|   | Pre 7/2013 Assumptions |      | Post 7/2013 Assumptions |      |
|---|------------------------|------|-------------------------|------|
| <b>Eligibility Age</b>                      |                        | 50   |                         | 55   |
| <b>Eligibility Factor</b>                   |                        |      |                         |      |
| <i>Membership Date &lt; 1/1/1990</i>        |                        |      |                         |      |
| Retirement Ages:                            |                        |      |                         |      |
| 50-55                                       | 10+                    | 100% |                         |      |
| 55+   | 5+                     | 100% |                         |      |
| <i>Membership Date 1/1/1990 – 6/30/2013</i> |                        |      |                         |      |
| Service at Retirement                       | 10                     | 50%  | 10                      | 50%  |
|   | 11                     | 55%  | 11                      | 55%  |
|   | 12                     | 60%  | 12                      | 60%  |
|   | 13                     | 65%  | 13                      | 65%  |
|   | 14                     | 70%  | 14                      | 70%  |
|   | 15                     | 75%  | 15                      | 75%  |
|   | 16                     | 80%  | 16                      | 80%  |
|   | 17                     | 85%  | 17                      | 85%  |
|   | 18                     | 90%  | 18                      | 90%  |
|   | 19                     | 95%  | 19                      | 95%  |
| MERCER                                      | 20                     | 100% | 20                      | 100% |

# Assumptions for the Valuation of Benefits

## Retiree Medical

|                   | Pre 7/2013 Assumptions | Post 7/2013 Assumptions  |      |
|-------------------|------------------------|--|------|
| Age at Retirement | --                     | 50-55  | 0%   |
|                   |                        | 56   | 10%  |
|                   |                        | 57   | 20%  |
|                   |                        | 58   | 30%  |
|                   |                        | 59   | 40%  |
|                   |                        | 60   | 50%  |
|                   |                        | 61   | 60%  |
|                   |                        | 62   | 70%  |
|                   |                        | 63   | 80%  |
|                   |                        | 64   | 90%  |
|                   |                        | 65+  | 100% |
|                   |                        | Age and service factors are multiplied together to form eligibility factors matrix |      |
|                   |                        | Percentage of maximum UC contribution  |      |

# Assumptions for the Valuation of Benefits

## Retiree Medical

| Pre 7/2013 Assumptions              |  | Post 7/2013 Assumptions  |                                   |  |
|-------------------------------------|--|--|-----------------------------------|--|
| <b>Employer Contribution Policy</b> |  |  |                                   |  |
| Maximum UC Contribution             | Same as post 7/2013  | % of Blended Premium Target in 2013 used in valuation calculations |                                   |  |
|                                     |  | Non- Medicare Exchange   | Medicare Exchange (eff. 1/1/2014) |  |
|                                     |  | Calendar Year  | < Age 65 % of Blended Premiums    | % of Medicare Premiums*  |
|                                     |  | 2010   | 84%                               | 92%  |
|                                     |  | 2011   | 81%                               | 89%  |
|                                     |  | 2012   | 78%                               | 86%  |
|                                     |  | 2013   | 75%                               | 83%  |
|                                     |  | 2014   | 72%                               | 80%  |
|                                     |  | 2015   | 70%                               | 77%  |
|                                     |  | 2016   | 70%                               | 74%  |
|                                     |  | 2017   | 70%                               | 71%  |
|                                     |  | <b>2018</b>  | <b>70%</b>                        | <b>70%</b>   |
| Part B Premium Reimbursement        | <ul style="list-style-type: none"> <li>If net maximum UC contribution &gt; rate for plan chosen by Medicare Exchange retiree, then difference will be used to reimburse retiree for all or portion of standard Medicare Part B premium</li> <li>Cap \$104.90 for 2014</li> </ul> |  |                                   | <ul style="list-style-type: none"> <li>For Medicare-eligible retirees with all covered family members living outside of CA, UC will fund an HRA, which retirees will use to purchase individual coverage on an Exchange administered by OneExchange. UC maximum contribution is \$3,000 per member.</li> <li>Per UC Actuary recommendation, Mercer will use 10% out-of-state coverage for HRA benefit for Medicare-eligible retirees</li> </ul>                                |
|                                     |  |  |                                   | <ul style="list-style-type: none"> <li>N/A if Medicare Exchange but can use HRA to pay Part B premium</li> <li>It is not assumed that the maximum \$3,000 HRA contribution will increase with medical inflation</li> <li>For in-state retirees, will value using medical plan minus employee contribution</li> <li>For out-of-state retirees will value using UC maximum contribution of \$3,000 per member</li> <li>Blended premium rate is based on in-state only</li> </ul> |

## Assumptions for the Valuation of Benefits Pension and Retiree Medical

| Retirement Rates for Faculty | Pre 7/2013 Assumptions* |      | Post 7/2013 Assumptions |      |
|------------------------------|-------------------------|------|-------------------------|------|
|                              | Age                     | Rate | Age                     | Rate |
|                              | <=49                    | 0%   | <=49                    | 0%   |
|                              | 50                      | 2%   | 50                      | 1%   |
|                              | 51                      | 1%   | 51                      | 0.5% |
|                              | 52                      | 1%   | 52                      | 0.5% |
|                              | 53                      | 1%   | 53                      | 0.5% |
|                              | 54                      | 1%   | 54                      | 0.5% |
|                              | 55                      | 2%   | 55                      | 1%   |
|                              | 56                      | 2%   | 56                      | 1%   |
|                              | 57                      | 2%   | 57                      | 1%   |
|                              | 58                      | 2%   | 58                      | 1%   |
|                              | 59                      | 3%   | 59                      | 1.5% |
|                              | 60                      | 5%   | 60                      | 4%   |
|                              | 61                      | 5%   | 61                      | 3%   |
|                              | 62                      | 5%   | 62                      | 3%   |
|                              | 63                      | 5%   | 63                      | 3%   |
|                              | 64                      | 7%   | 64                      | 4%   |
|                              | 65                      | 9%   | 65                      | 16%  |
|                              | 66                      | 10%  | 66                      | 13%  |
|                              | 67                      | 11%  | 67                      | 13%  |
|                              | 68                      | 12%  | 68                      | 15%  |
|                              | 69                      | 15%  | 69                      | 15%  |
|                              | 70                      | 15%  | 70                      | 15%  |
|                              | 71                      | 12%  | 71                      | 12%  |
|                              | 72                      | 12%  | 72                      | 12%  |
|                              | 73                      | 12%  | 73                      | 12%  |
|                              | 74                      | 12%  | 74                      | 12%  |
|                              | >=75                    | 100% | >=75                    | 100% |

Section 4D

## Appendix D

# Assumptions for the Valuation of Benefits: Other Benefit Items

# Assumptions for the Valuation of Benefits

## Other Benefit Items

- For this study, other benefit items were estimated using the following approaches:

|  |  |
|--|--|
| <b>1. Benefit Programs Valued</b>  |  |
| Benefit Program offered to new hires   | Included in value  |
| Pre 7/2013 Benefits  | Not Included   |
| <b>2. Pay for Time Not Worked (Short-term Disability, Holidays, Vacations)</b> |  |
| Benefit Value  | These benefit areas are only in the Benefits Index comparisons, they are not included in the benefit values to develop total compensation values   |
| Short-term disability  | Includes payments during the first six months of disability (sick leave, salary contribution, LTD if less than six month waiting period); One-year term costing value                      |
| Holidays   | Each day value as 1/261 of annual pay  |
| Vacations  | Assumes all prior year vacation taken, value based on current year of service eligibility; each day valued as 1/261 of annual pay  |
| <b>3. Total Compensation Benefit Value Adjustments</b>                         |  |
| Calculating Total Compensation   | Benefit values for total compensation comparison are tax adjusted (i.e., grossed up) to determine salary equivalent benefit values   |
| Tax Gross Up   | Mercer grossed up benefits after annual amount determined by marginal tax rate. Employee contributions subtracted before or after gross up based on taxation of contribution.              |
| <b>4. Tuition Reimbursement*</b>   |  |
| Other  | Assumes values by rank used in 2009 study (Asst Prof = \$277, Assoc Prof = \$499, Full Prof = \$480) for each Comp 8 institution adjusted for higher education inflation rate <sup>1</sup> |
| <b>5. Statistics</b>   |  |
| Summary statistics   | Uses average values for the market   |
| Summary statistics   | Includes zeros in averages   |
| <b>6. Other Survivor Income</b>  |  |
| Actuarial Cost Method  | One-year term cost   |

