Faculty Salary Analysis prepared for UTK Faculty Senate

PREPARED BY K. BAKER AND L. J. GROSS FOR THE FACULTY SENATE
BUDGET AND PLANNING COMMITTEE – MARCH 2018
Objectives:

1. Provide a comparison of average faculty salaries for units and ranks across UTK faculty, along with salary ranges.
2. Provide a comparison of average faculty salaries at UTK to appropriate peer groups.
3. Provide a historical comparison of average salaries to UTK peer groups.

Take-Homes from Last year:

1. There has been considerable progress across much of UTK towards having faculty salaries that are comparable to those at Top 25 institutions.
2. The progress has been very heterogeneous across UTK with some units/ranks advancing a great deal in this metric and others falling further behind.
3. The causes of the heterogeneity are not clear, given the consistency of salary enhancements across UTK over the past 10 years, nor is it clear whether the heterogeneity was intentional or not.
The data/columns received by the committee include:
1. College/Department/Rank (eg. Haslam College of Business/Economics/Full Professor)
2. UTK Average, Minimum and Maximum Salaries by rank, and all ranks; number of positions
3. Average, Minimum and Maximum Salaries by rank for Comparable Peer Institutions
4. Cost to increase Average UTK Salary to match Average Comparable Peer Salary, by rank
5. Ratio of UTK Average Salary to Average Comparable Peer Salary, by rank
6. Average, Minimum and Maximum Salaries, by rank, for Aspirational Peer Institutions
7. Cost to increase Average UTK Salary to match Average Aspirational Peer Salary, by rank
8. Ratio of UTK Average Salary to Average Aspirational Peer Salary, by rank
## Data at a Glance

### College Cost to Ratio Increase to UTK Avg to Rank Average Number Minimum Maximum Average Number Minimum Maximum RU/VH Avg RU/VH Avg

#### Agricultural Sciences & Natural Resources

<table>
<thead>
<tr>
<th>Rank</th>
<th>Comparable Peer</th>
<th>Cost to Increase to UTK Avg to Comp Avg</th>
<th>Aspirational Peer</th>
<th>Cost to Increase to Aspr P Avg</th>
<th>Ratio</th>
<th>Cost to Increase to Aspr Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>Average</td>
<td>Number</td>
<td>Minimum</td>
<td>Maximum</td>
<td>Average</td>
<td>Number</td>
</tr>
<tr>
<td>Professor</td>
<td>114,746</td>
<td>1,007</td>
<td>61,509</td>
<td>258,211</td>
<td>440,009</td>
<td>0.95</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>86,660</td>
<td>506</td>
<td>48,684</td>
<td>142,100</td>
<td>98,748</td>
<td>0.95</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>78,587</td>
<td>421</td>
<td>50,319</td>
<td>120,000</td>
<td>177,139</td>
<td>0.90</td>
</tr>
<tr>
<td>All Ranks</td>
<td>99,527</td>
<td>1,934</td>
<td>715,896</td>
<td>0.95</td>
<td>107,747</td>
<td>1,981</td>
</tr>
</tbody>
</table>

#### Agricultural and Resource Economics

<table>
<thead>
<tr>
<th>Rank</th>
<th>Comparable Peer</th>
<th>Cost to Increase to UTK Avg to Comp Avg</th>
<th>Aspirational Peer</th>
<th>Cost to Increase to Aspr P Avg</th>
<th>Ratio</th>
<th>Cost to Increase to Aspr Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>130,502</td>
<td>65</td>
<td>79,558</td>
<td>257,274</td>
<td>146,016</td>
<td>0.81</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>96,837</td>
<td>25</td>
<td>63,235</td>
<td>135,000</td>
<td>14,648</td>
<td>0.85</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>87,441</td>
<td>34</td>
<td>52,160</td>
<td>120,000</td>
<td>46,098</td>
<td>0.82</td>
</tr>
<tr>
<td>All Ranks</td>
<td>111,908</td>
<td>124</td>
<td>206,762</td>
<td>0.84</td>
<td>118,247</td>
<td>114</td>
</tr>
</tbody>
</table>

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**Note:** all data refers to 2016-2017 Academic Year

**Note:** full dataset provided in report in Appendix
Issues with Data

1. **Change in Comparison Groups**
   - Old data: compared UTK against Three Peer Groups
     1. Research Universities – Very High (63 total schools - 64,725 faculty)
     2. Top 25 Universities (actually 22 total schools – 29,169 faculty)
     3. THEC (16 total schools – 14,259 faculty)
   - New data: compares UTK against Three Peer Groups
     1. Research 1: Doctoral – Highest Research (presumably 63 schools – 63,835 faculty)
     2. Comparable Peers (11 schools – 10,081 faculty)
     3. Aspirational Peers (6 schools – 8,875 faculty)

Note: List of schools in each group provided as an Appendix to our report
Issues with Data

2. **UTK Comparison Peer Groups Don’t Perfectly Match-up Against UTIA Peer Groups**
   - **UTK Peer Groups**
     1. Research 1: Doctoral – Highest Research
     2. Comparable Peers (10 schools)
     3. Aspirational Peers (6 schools)
   - **UTIA Peer Groups**
     1. Comparable Peers (13 schools)
     2. Aspirational Peers (6 schools)

Our analysis uses **UTK** Peer data, so take results regarding UT Ag departments with a grain of salt
UTIA Comparable Peers vs. UTK Comparable Peers

UTIA Comparable Peers: Maryland, Miss State, Arkansas, Rutgers, Oklahoma St., Georgia

UTK Comparable Peers: LSU, Clemson, Nebraska, Virginia Tech, Kentucky, Missouri, Auburn

N.C. State, Iowa State, South Carolina, Alabama
UTIA Aspirational Peers vs. UTK Aspirational Peers

UTIA Aspirational Peers
- Ohio St.
- Illinois

UTK Aspirational Peers
- Florida
- Wisconsin
- Michigan St.
- Purdue
- Georgia
- Minnesota
UTK Salaries Versus R1, Peer and Aspirational

<table>
<thead>
<tr>
<th>Position</th>
<th>UTK</th>
<th>Peer</th>
<th>Aspirational</th>
<th>R1 - Highest Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full</td>
<td>$141,512</td>
<td>$140,641</td>
<td>$141,335</td>
<td></td>
</tr>
<tr>
<td>Associate</td>
<td>$96,638</td>
<td>$91,704</td>
<td>$96,075</td>
<td>$82,987</td>
</tr>
<tr>
<td>Assistant</td>
<td>$80,806</td>
<td>$82,987</td>
<td>$84,978</td>
<td></td>
</tr>
<tr>
<td>Total (All)</td>
<td>$111,987</td>
<td>$117,196</td>
<td>$112,770</td>
<td>$141,987</td>
</tr>
</tbody>
</table>
One Year Salary Increases, by Rank, UTK vs. R1

### UTK Salary Increases from 2015-16 AY to 2016-17 AY

<table>
<thead>
<tr>
<th>Rank</th>
<th>2015-16 AY Salary</th>
<th>2016-17 AY Salary</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>$108,304</td>
<td>$111,987</td>
<td>3.4%</td>
</tr>
<tr>
<td>Full Professor</td>
<td>$137,736</td>
<td>$141,512</td>
<td>2.74%</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>$93,288</td>
<td>$96,638</td>
<td>3.6%</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>$79,169</td>
<td>$80,806</td>
<td>2.07%</td>
</tr>
</tbody>
</table>

### R1 Salary Increases from 2015-16 AY to 2016-17 AY

<table>
<thead>
<tr>
<th>Rank</th>
<th>2015-16 AY Salary</th>
<th>2016-17 AY Salary</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>$110,317</td>
<td>$112,770</td>
<td>2.2%</td>
</tr>
<tr>
<td>Full Professor</td>
<td>$137,923</td>
<td>$141,335</td>
<td>2.47%</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>$93,433</td>
<td>$96,075</td>
<td>2.83%</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>$82,764</td>
<td>$84,978</td>
<td>2.68%</td>
</tr>
</tbody>
</table>
UTK Average Salary Comparison, by College

Data is average of all ranks (Full, Associate and Assistant)
Ratio of UTK to R1 Salaries, by College

- Haslam College of Business: 109
- Engineering: 109
- Law: 80
- University: 99
- Architecture & Design: 117
- Communication & Information: 112
- Arts & Sciences: 100
- Social Work: 106
- Ag Sciences & Nat Resources: 89
- Nursing: 97
- Ed, Health & Human Sciences: 96
UTK Salaries by Department, Avg of All Ranks

Data is averaged of all ranks
Ratio of UTK to R1 Salaries, by Department

Data is averaged of all ranks
Take-Homes:

• The change in peer groups from those used in previous years is of concern due to the great reduction in number of comparison institutions, associated large reduction in number of faculty in the comparison groups, and the biases inherent in making unit/rank comparisons using such limited data. **We recommend that for the purposes of faculty salary comparisons, the UTK administration focus on comparisons to the larger group of R1 and not on the “officially designated” peer groups.**

• The overall average salary of UTK faculty has significantly improved over the past decade, relative to R1, and **this improvement continued over the past year** during which the average UTK salary increased by 3.4% and the overall R1 average salary increased by 2.2%.

• **There is tremendous variation across UTK in how different Colleges and Departments compare to R1 peers.** Whether the heterogeneity of progress over the past was planned or unintentional is not clear. While lifting average salaries for every unit relative to peer institutions may have been a goal, in the metrics analyzed here it has not been realized.