Overview

A joint Administration-Academic Senate Committee has undertaken the planning and execution of an equity study on ladder rank faculty salaries. The analyses presented focus on regression models that go beyond the annual residual analysis conducted in the past (1997-2014) and include evaluation of rate of progression through the ranks. The methodology used and results for the analyses at the whole campus level are available in the campus report. Results of the school level analyses are available in separate reports for each of 14 Schools/Units. SOM faculty continue to be excluded from this study due to the differences in compensation associated with participation in the COMP plan.

Methodology (see campus level report)

Results

1. Salary data for all ladder rank faculty plotted as a function of rank/step/gender and rank/step ethnicity.
2. Multiple regression analysis of salary vs rank/step. As indicated in Table 1, the simplest model with only demographic variables shows women earn salaries that are 14% lower, Asian and URM faculty earn 4%, compared to their colleagues who are white and male. However, only 2% of salary variation is explained by this model. As control factors are added to the model, salary differences change with women and Asian faculty earning 3% more, and URM faculty earn 1% less, compared to white male faculty. The percentage of salary variation explained by the model increases to 92%.
Table 1.

<table>
<thead>
<tr>
<th>Submodel</th>
<th>R-sq</th>
<th>Significant Variables</th>
<th>Salary Difference</th>
<th>Salary Difference</th>
<th>Salary Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Women vs White Men</td>
<td>Asian vs White Men</td>
<td>URM vs White Men</td>
</tr>
<tr>
<td>1 Demography</td>
<td>0.02</td>
<td>-</td>
<td>-14.3%</td>
<td>-4.2%</td>
<td>-3.6%</td>
</tr>
<tr>
<td>2 Demography, Experience</td>
<td>0.64</td>
<td>Experience***</td>
<td>-3.9%</td>
<td>3.8%</td>
<td>-6.8%</td>
</tr>
<tr>
<td>3 Demog, Exper, Field</td>
<td>0.71</td>
<td>Experience***, Field***</td>
<td>1.3%</td>
<td>6.3%</td>
<td>-6.6%</td>
</tr>
<tr>
<td>4 Demog, Exper, Field, Rank</td>
<td>0.92</td>
<td>Exper*,Rank***</td>
<td>1.7%</td>
<td>3.3%</td>
<td>0.4%</td>
</tr>
<tr>
<td>5 Demog, Exper, Field, Rank¹</td>
<td>0.92</td>
<td>Exper**,Rank***</td>
<td>2.9%</td>
<td>3.1%</td>
<td>-0.6%</td>
</tr>
</tbody>
</table>

* p<0.05, ** p<0.01, *** p<0.001  
¹ Final model corrected for collinearity.

3. Progress Rate plotted as a function of gender and ethnicity

Graph 3: Salary by Progress and Gender - Physical Sciences

Salary

- $60,000
- $80,000
- $100,000
- $120,000
- $140,000
- $160,000
- $180,000
- $200,000
- $220,000
- $240,000
- $260,000
- $280,000
- $300,000

Progress (in years)

Slower than normative  →  Progress (in years)  →  Faster than normative

Asst Male
Asst Female
Assoc Male
Assoc Female
Full Male
Full Female
4. Progress Rate Analysis: The results indicate there isn’t a statistically significant difference in progression rate means by gender when compared to white male faculty. URM faculty, however, progress approximately four and a half years slower (p=0.01).

Table 2. Progress Rate (in years) Comparison

<table>
<thead>
<tr>
<th>Comparison</th>
<th>n</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Male</td>
<td>87</td>
<td>1.97</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women vs White Male</td>
<td>26</td>
<td>0.88</td>
<td>1.03</td>
<td>111</td>
<td>0.3059</td>
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<tr>
<td>URM vs White Male</td>
<td>4</td>
<td>-4.50</td>
<td>2.57</td>
<td>89</td>
<td>0.0118</td>
</tr>
<tr>
<td>Asian vs White Male</td>
<td>28</td>
<td>2.54</td>
<td>0.58</td>
<td>113</td>
<td>0.5599</td>
</tr>
</tbody>
</table>