Executive Summary of the Economic Status of the Faculty 2007-2008 Report—Revised

In July 2008, the Senate Committee on the Economic Status of the Faculty released a preliminary report for 2007-08.

This revised report reflects updated peer comparisons and adjusts the CPI comparisons. May 3, 2009

Introduction

This Executive Summary is meant to cover the most salient portions of the full Economic Status of the Faculty 2007-08 Report. It is the consensus of the Senate Committee on the Economic Status of the Faculty (SCESF) that having a condensed summary of the full report will lead to a wider dissemination of this information to the faculty-at-large. Covered in this report are the following areas:

• Comparisons with Growth in the Consumer Price Index (CPI)
• Comparisons with Peers Universities Using Data from the AAU Data Exchange
• Comparisons with Peers Universities Using AAUP Survey Data
• Variability in Average Salary Increases by Rank and School/Area
• Trends in Variability Over Time
• Variability by Gender

The Summary concludes with the Committee’s Recommendations and Questions for the Administration for 2007-08.

Comparisons with Growth in the Consumer Price Index (CPI)

Comparisons with the CPI indicate that:

a) for all ranks combined, the mean FY 2008 percentage salary increase was less than the percentage increases in the U.S. city-average CPI and Philadelphia CPI.

b) for each rank, the median FY 2008 percentage salary increase was lower than the percentage increases in the U.S. city-average CPI and the Philadelphia CPI.

c) mean salary percentage increases were below the percentage increases in the U.S. city average CPI and the Philadelphia CPI for full professors and associate professors, and

d) unlike in prior years (see prior reports), the mean percentage increases for associate professors did not exceed the faculty guideline upper boundary of 6.0% (Deans must consult with the Provost about any individual increases above 6%).

Average academic base salary percentage increases of continuing Penn standing faculty members by rank in comparison with the Consumer Price Index (CPI) and Penn Budget Guidelines

<table>
<thead>
<tr>
<th>Group/Condition</th>
<th>Mean FY 2007-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Professors</td>
<td>3.0%</td>
</tr>
<tr>
<td>Associate Professors</td>
<td>4.5%</td>
</tr>
<tr>
<td>Assistant Professors</td>
<td>3.8%</td>
</tr>
<tr>
<td>All Three Ranks</td>
<td>4.7%</td>
</tr>
<tr>
<td>U.S. City Average CPI</td>
<td>5.0%</td>
</tr>
<tr>
<td>Philadelphia CPI Growth</td>
<td>5.1%</td>
</tr>
<tr>
<td>Budget Guidelines</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

NOTES: Academic base salary percentage increases pertain to all Penn standing faculty members who continued in employment at the University during the periods of time reported. Excluded were members of the Faculty of Medicine except basic scientists, all Clinician Educators from four other schools (Dental Medicine, Veterinary Medicine, Nursing, and Social Policy & Practice) that have such positions, faculty who were on unpaid leave of absence, faculty who had chosen phased retirement, and Deans of all schools. FY 2007-08 CPI growth for the U.S. and for Philadelphia is based on a change in CPI from June 2007 to June 2008.

Comparisons with Peers Universities Using Data from the AAU Data Exchange

The best currently available salary data from other institutions of higher education are provided by the American Association of Universities (AAU) Data Exchange. The AAU is comprised of 60 public and private research universities in the United States and two in Canada. The AAU includes several Ivy League institutions (e.g., Penn, Brown, Harvard, Princeton, Cornell, and Yale), other private universities (e.g., Brandeis, Rice, Emory, Vanderbilt), public flagship universities (e.g., Penn State University and the University of Michigan, Virginia, and Maryland), and other public universities (e.g., Michigan State, University of California Davis, and University of California Irvine). Please refer to the AAU website for a complete list of member institutions: www.aau.edu/

Salary Comparisons: Penn’s Competitive Standing

The most meaningful comparisons of mean faculty salaries at Penn with those at other universities in the AAU Data Exchange are broken out by academic field and rank. The last 16 school/areas, Penn’s mean faculty salaries for all ranks in 2007-08 are in the upper third of the distribution for AAU institutions. In fact, mean faculty salaries are at least in the top quartile of AAU institutions for all three ranks in all schools/areas except full professors in Dental Medicine where Penn’s salaries ranked 10th of 38 in fall 2007; and assistant professors in Dental Medicine, where Penn’s salaries ranked 11th of 36; Humanities (SAS), where Penn’s salaries ranked 19th of 56; and Natural Sciences (SAS), where Penn’s salaries ranked 18th of 57.

Rank of mean salary levels for Penn faculty members by academic field in comparison with universities participating in the AAU Data Exchange.

For the full 2007-2008 report, including the tables mentioned above, see www.upenn.edu/almanac/volumes/s56/n01/contents.html.
Full professor salary comparisons: Percentage differences in mean academic base salary levels of Penn full professors in comparison with salary levels of full professors at a sample of comparable research universities

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<tr>
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<tbody>
<tr>
<td>Harvard</td>
<td>12.1%</td>
<td>+11.4%</td>
<td>11.7%</td>
</tr>
<tr>
<td>Stanford</td>
<td>4.2%</td>
<td>-10.7%</td>
<td>6.0%</td>
</tr>
<tr>
<td>Princeton</td>
<td>4.6%</td>
<td>+4.6%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Chicago</td>
<td>3.5%</td>
<td>3.8%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Yale</td>
<td>1.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>$149.9K</td>
<td>$156.5K</td>
<td>$163.3K</td>
</tr>
</tbody>
</table>

NOTE: Penn academic base mean salaries are based on standing faculty members at the rank of professor. Excluded are all members of the Faculty of Medicine except basic scientists, and members of faculty who have been promoted in rank, and market adjustments for faculty members with generous salary offers from other institutions. Therefore, a comparison of the median increase awarded to faculty members of a particular rank and school with the salary guideline only gives an indication of the extent to which the guideline was implemented in that particular instance.

The variability in average salary increases by rank and school/area is shown in the table below. It should be recognized that the salary increase guideline of 3% for FY 2008 is just that, a guideline, and pertains to an aggregate of all increases for all ranks combined for each of Penn’s schools (i.e., merit increases for continuing faculty members, special increases for faculty members who have been promoted in rank, and market adjustments for faculty members with generous salary offers from other institutions). Therefore, a comparison of the median increase awarded to faculty members of a particular rank and school with the salary guideline only gives an indication of the extent to which the guideline was implemented in that particular instance.

With respect to full professors, in four of the 14 schools/areas (Dental Medicine, Medicine-Basic Science, Social Policy & Practice, and Veterinary Medicine), median salary increases for FY 2008 were within half a percentage point of the general guideline of 3.0% (i.e., between 2.5% and 3.5%), while three were lower than 2.5% (Humanities (SAS), Natural Science (SAS), and Social Science (SAS)), and the other seven were above 3.5% (Annenberg, Design, Engineering & Applied Science, Graduate School of Education, Law, Nursing, and Wharton).

With respect to associate professors, in six (Dental Medicine, Design, Engineering & Applied Science, Medicine-Basic Science, Social Science (SAS), and Veterinary Medicine) of the 12 schools/areas (data describing Annenberg and Law are not published because of the small number of faculty at this rank), the median salary increase for FY 2008 was within half a percentage point of the general guideline of 3% (i.e., between 2.5% and 3.5%), while two were lower than 2.5% (Humanities (SAS), Natural Science (SAS)) and the other four were above 3.5% (Graduate School of Education, Nursing, Social Policy & Practice, and Wharton).

With respect to assistant professors, in two (Dental Medicine and Design) of the 12 schools/areas (data for Annenberg and Social Policy & Practice are not published because of the small number of faculty at this rank) the median salary increases for FY 2008 were within half a percentage point of the general guideline of 3% (i.e., between 2.5% and 3.5%), while three were lower than 2.5% (Humanities (SAS), Natural Science (SAS), Social Science (SAS)), and the other seven were above 3.5% (Engineering & Applied Science, Graduate School of Education, Law, Medicine-Basic Science, Nursing, Veterinary Medicine, and Wharton).

The variability in average salary levels by rank is shown in the table below. The table below shows mean and median faculty salaries by rank for all schools combined for each of four years: 2004-05 through 2007-08. In FY 2008, mean salaries were 1% higher for full professors, 1% higher for assistant professors and 16% higher for associate professors than for assistant professors. After weightings the data to reflect differences in the distribution of faculty across schools by rank, mean salaries of full professors were 85% higher than for assistant professors and mean salaries of associate professors were 26% higher than assistant professors.

### Mean and median academic base salary levels of Penn standing faculty members who continued in rank by rank

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<tbody>
<tr>
<td><strong>Full Professor</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>141,863</td>
<td>148,154</td>
<td>154,314</td>
<td>160,865</td>
</tr>
<tr>
<td>Median</td>
<td>129,850</td>
<td>143,000</td>
<td>143,000</td>
<td>148,000</td>
</tr>
<tr>
<td><strong>Associate Professor</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>94,513</td>
<td>84,100</td>
<td>87,550</td>
<td>94,336</td>
</tr>
<tr>
<td>Median</td>
<td>70,524</td>
<td>69,374</td>
<td>87,223</td>
<td>94,513</td>
</tr>
<tr>
<td><strong>Assistant Professor</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>81,664</td>
<td>86,704</td>
<td>91,784</td>
<td>75,500</td>
</tr>
<tr>
<td>Median</td>
<td>60,564</td>
<td>69,100</td>
<td>74,336</td>
<td>55,500</td>
</tr>
</tbody>
</table>

### Trends in Variability Over Time

The variability (i.e., the Inter Quartile Range, IQR) of median salaries for Penn’s 14 school/areas increased between FY 2005 and FY 2008 for all professors. This is evidence of ongoing rapidly increasing disparity of faculty salaries across Penn’s 14 schools/areas. Schools/areas offering higher median salaries apparently also offer higher annual percentage increases. That is, the increases in the IQR are not just proportional to the increase in salary levels from one year to the next, but the disparities among schools/areas in median salaries are growing in percentage terms as well as in dollars.

These data indicate that, in general, differences in median faculty salaries between lower paying schools/areas and higher paying schools/areas have been, and continue to be, slowly increasing both in dollar amount and in percentage difference. As noted in prior SCESF reports, variability among schools/areas is no doubt a product, to a considerable extent, of market forces in the hiring of faculty members and the relative wealth of schools (i.e., financial ability to support faculty salaries). The relative wealth of schools available for supporting faculty salaries is, in major part, a function of how much income a school is able to earn and the level of non-faculty expenditures it regards as essential.

### Variability by Gender

In response to recommendations in previous reports, this report includes two tables describing gender differences in faculty salaries.

#### First Quartile (Q1), Median (Md.), and Third Quartile (Q3) Percentage Salary Increases of Faculty who Continued in Rank by Gender and Rank: 2007-08

<table>
<thead>
<tr>
<th>Rank</th>
<th>Gender</th>
<th>Q1 (%)</th>
<th>Median (%)</th>
<th>Q3 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full Professor</strong></td>
<td>Men</td>
<td>2.0%</td>
<td>3.0%</td>
<td>4.4%</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>2.0%</td>
<td>3.7%</td>
<td>5.1%</td>
</tr>
<tr>
<td><strong>Associate Professor</strong></td>
<td>Men</td>
<td>2.0%</td>
<td>3.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>2.0%</td>
<td>3.0%</td>
<td>4.4%</td>
</tr>
<tr>
<td><strong>Assistant Professor</strong></td>
<td>Men</td>
<td>2.2%</td>
<td>3.6%</td>
<td>5.0%</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>2.0%</td>
<td>3.5%</td>
<td>4.8%</td>
</tr>
</tbody>
</table>

The general pattern seems to be approximately equal salary increases in percentage terms. The range of differences for the male versus female percentage increases by ranks-quaetiles in FY 2008 was -0.7 to 0.2. In three cases the percentage increases in FY 2008 lower for women than for men: the first, second, and third quartiles for assistant professors.

\[\text{\textsuperscript{5}}\] This information is presented only at the aggregate level because for a number of school/areas-rank cells the number of one gender (generally female) is fairly low.

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SCESF Recommendations and Questions to the Administration for 2007-2008

In accordance with Faculty Senate policy, following are recommendations and questions for the administration that arose in the SCESF discussions, including some updates on the status of recommendations made in previous SCESF reports:

1. Accuracy of Information

As indicated in prior reports and in conversations with the Provost’s Office, the SCESF continues to have concerns about the accuracy of data and information in the tables produced by the Office of Institutional Research and Analysis. During the process of completing the first version of the 2007-08 report, the SCESF learned of errors in the data provided to the SCESF for the 2006-07 report and made necessary revisions. In the process of completing this second version of the 2007-08 report, the Office of Institutional Research and Analysis informed the SCESF of challenges in reconstructing the previously supplied tables for 2007-08. According to the Office of Institutional Research and Analysis, these challenges likely reflect the sensitivity of the data to criteria for selecting faculty to include in the analyses.

SCESF Recommendation

The SCESF recommends that the Provost’s Office and the Office of Institutional Research and Analysis identify and adopt the selection criteria and other procedures that are needed to ensure the accuracy and consistency of all future faculty salary data.

The Provost, the Office of the Vice President for Institutional Affairs, and the Assistant Vice President for Institutional Research and Analysis accept this recommendation and are committed to resolving these issues effectively.

2. Timeliness of Information Provided to the SCESF

Over the past several years, the SCESF has struggled to obtain timely faculty salary data. The administration’s current procedures for providing data on the characteristics of Penn’s faculty are complex and require substantial time to complete.

SCESF Recommendation

The SCESF recommends that the Provost continue efforts to develop the Faculty Database Information System in order to easily provide accurate academic base salary data for faculty in all schools. The SCESF also recommends that the Provost’s Office establish a timeline to ensure that the Office of Institutional Research and Analysis provides the necessary tables to the SCESF by the end of each calendar year, so that the SCESF may issue its report each January.

The Provost Office will meet with the SCESF prior to setting salary guidelines, starting in 2009-10.

The Provost agrees to meet with members of SCESF prior to the time the salary increase is announced for the following year.

4. Salary Competitiveness

To provide high-quality instruction, research, and service, the University must maintain and attain faculty salaries at levels that are highly competitive with salaries provided by peer universities, while simultaneously sustaining other components of university operations.

SCESF Recommendations

a. Mean salaries at Penn have fallen behind the comparison groups in the AAU Data Exchange in a number of areas. The SCESF recommends that priority be placed on increasing mean salaries to competitive levels for the faculty groups that have fallen behind.

NOTE: Faculty Senate recommendations and questions for the administration have been updated from prior SCESF reports.
The Provost agrees to explore reasons for the competitive standing of Penn’s salaries in particular fields identified by the Committee, and to work with the school deans to take corrective actions that may be justified and financially feasible.

b. Even though priority should be placed on regaining Penn’s competitive level in the academic fields identified above, the SCESF recommends that equal priority be given to recognizing in advance and rewarding with salary increases distinguished performance of faculty members who choose not to seek, or use, attractive offers of external appointment to negotiate salary increases. We note that there is room for improvement for faculty in many of the ranks by school/area comparisons. Moreover, the gaps in mean salaries between full professors at Penn and full professors at Stanford, Princeton, Chicago, and Yale increased between 2005-06 and 2007-08. The question arises whether the University can keep and attract the highest-quality faculty members unless faculty salaries are in the top group.

The Provost will closely scrutinize market conditions as the basis for salary recommendations of the schools and departments, recognizing that deans and chairs must balance needs to attract distinguished faculty, retain those with outside offers, and treat comparably distinguished faculty equally. The President and Provost remain committed to further enhancing Penn’s ability to offer highly competitive faculty salaries, while recognizing that some of our peers enjoy greater financial resources than Penn, and may also have more developed faculties in some fields of study. We seek, through strategic investments in faculty recruiting and compensation, to consolidate our competitive advantages and address or competitive shortcomings.

5. Salary Equity

Inequity among individual faculty salaries by rank within departments (and schools that are organized as single departments) must be identified and eliminated. Only 20% of all continuing standing faculty and 18% of continuing full professors received percentage salary increases for FY 2008 that were above the growth in the CPI (Phil.) for the same period. This finding suggests that many faculty members who have performed at a satisfactory level have received salary increases less than growth in the CPI. This circumstance is not surprising given that the University’s budget guideline (3.0%) was 40% less than the increase in the Philadelphia CPI (5.1%) and that the overall mean salary increase percentage for all ranks combined over this period was less than the growth in the Philadelphia CPI (4.7% versus 5.1%). Nonetheless, this finding represents an effective reduction in salary in terms of purchasing power for these faculty.

SCESF Recommendations

a. The SCESF recommends that the Provost and Deans give further consideration to decreasing instances when faculty members who have performed at least at a satisfactory level are awarded salary increases that are below the annual growth in the CPI (Phil.). In making this recommendation, we recognize that the feasibility of awarding increases to faculty members with satisfactory performance at least as great as growth in the CPI depends on the difference between funds available for salary increases and the CPI growth percentage—of which the positive difference, the greater the feasibility of providing salary increases of at least the CPI growth percentage.

The Provost agrees to give this matter further consideration. When increases in the available salary pool are comparable to the percentage increase in the CPI, Deans and Department Chairs may have difficulty regarding especially meritorious faculty performance while also granting increases at or above the growth in CPI to all faculty members who are performing at a satisfactory level. Cost considerations, meanwhile, limit the extent to which the aggregate salary pool can exceed the growth in CPI.

b. The SCESF also requests support from the Provost to meet with Deans of particular schools to further understand processes for determining salary increases and communicating salary increases to faculty, as well as the forces that contribute to low percentage increases for faculty in the school. The committee is especially interested in understanding forces that contribute to differences across schools in the percentage of faculty who receive salary increases at or above the rate of inflation.

The Provost believes that Deans have been responsive to such requests in the past and encourages their cooperation with the Committee.

6. Gender Equity

Average salaries are lower for women than for men faculty, especially for full professors, even after weighting the data to reflect differences in the gender distribution of faculty by school and area. The suggestion of gender inequity in faculty salaries is troubling.

The SCESF recommends that the Provost’s Office place priority on identifying the causes of observed gender differences in salaries and addressing disparities identified as not attributable to legitimate forces.

The Progress Report on Gender Equity completed this year included a follow-up analysis indicating general equity in salaries once individual departments and affiliations, time in rank, and other factors are taken into consideration.

7. Completeness of Data

Previous SCESF reports requested that Tables 6, 7, and 8 in the full report, tables that provide percentage salary increases by rank, school, and quartile, be adapted to show a two- or three-year average for cases where the number of faculty is 10 or less (as quartiles would be based on two people). This recommendation has not yet been implemented. The SCESF also recommends that future reports show not only percentage salary increases by rank and school, but also actual average salary levels by rank and school.

SCESF Recommendation

Implement the procedure for providing information for small cells in Tables 6, 7, and 8 by averaging data over two or three years for the 2008-09 report. Provide an additional table to the SCESF for the 2008-09 report that summarizes average salary levels by rank and school.

The Provost’s Office agrees to explore these requests with the Office of Institutional Research and Analysis.

8. Faculty Benefits

As faculty benefits at Penn compared with peer institutions have not been examined since the 1998-99 report, the SCESF requests that the Provost’s office provide this information for next year in accordance with what was done in the 1998-99 report. Furthermore, going forward, we believe that, as recommended in prior reports, benefits be looked at roughly every five years. Although the Provost indicated previous SCESF reports that this was a reasonable request, we believe that this process has not yet been initiated.

SCESF Recommendations

Undertake the report on faculty benefits in 2008-09. The time is limited for a report on faculty benefits this academic year, the Provost agrees to work with the Vice President for Human Resources to undertake such a study next academic year, and every five years thereafter.

9. Competitiveness of Salaries at the ‘Top End’

The SCESF has previously expressed concern about the low relative spread in salaries at the full professor level, as low spread may indicate a problem in attracting faculty at the upper end of the scale. Table 10 provides continued evidence of this problem, as the spread in full professor salaries as a ratio to median salary is comparable to that for assistant professors. Moreover, the spread in full professor salaries remained virtually unchanged between 2004-05 and 2007-08. In previous reports, the SCESF requested that the Provost continue monitoring this situation and advise the committee as to what efforts are being made to allow Penn’s “top end” to stay competitive.

SCESF Recommendation

As in previous reports, we emphasize that ongoing monitoring of the competitiveness of “top end” salaries is important and should be continued.

The Provost’s Office, in reviewing proposed salary increases, will continue to monitor salaries and increases at the upper end of the distribution of full professors. As noted above, however, when increases in the available salary pool are limited, deans and chairs may have great difficulty rewarding especially meritorious faculty performance while also granting increases at or above the growth in CPI to all faculty members who are performing at a satisfactory level.

10. Information For Putting Individual Salary Increases into Perspective

As stated in the previous SCESF report, one important objective of the SCESF is to improve information to faculty members about salary levels and changes. However, when receiving notification of their salaries for the next academic year, faculty generally do not have information to help them put their salary increases into some broader perspective, and the next SCESF report will not be available to help with that perspective for almost a year. Because of lags in information processing, information about how their salary changes fit into the broader distribution of salary changes at the University or even school level cannot be provided at the time of the salary increase notification. But, at a minimum, it would seem possible and desirable for salary notification letters to provide not only the new salary level, but also the percentage change in salary that that level implies.

SCESF Recommendation

The Provost’s Office should consider implementing a procedure so that all faculty salary letters include the percentage change, as well as the level, of the new salary.

The Provost considers this a reasonable recommendation and will discuss its implementation with the Deans.

Members of the 2008-09 Senate Committee on Economic Status of the Faculty

Laurie Perma (GSE) Chair
Ann O’Sullivan (Nursing)
David Pope (SEAS)
Daniel Raft (Wharton)
Sarah Kagan (Nursing)
Larry Gladney (SAS), Ex-Officio
Sherry Adams (Dental Medicine), Ex-Officio
Harvey Rubin, (Medicine), Ex-Officio

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