Executive Summary of the 2016 SCESF Report on the Economic Status of the Faculty

I. Introduction

This Executive Summary provides an overview of the 2016 Report of the Senate Committee on the Economic Status of the Faculty (SCESF). The Report is based on data provided to the Committee by the Office of the Vice Provost for Faculty and the Office of the Executive Vice President, in combination with information the Committee has assembled from other sources. The 2016 Report covers Fiscal Year (FY) 2015, from July 1, 2014 through June 30, 2015.

The full 2016 Report is published in *Almanac* at www.upenn.edu/almanac/v62/n24/pdf/esf-long.pdf and includes the full publicly available dataset provided to the Committee by the Vice Provost's office. The data tables included within this Executive Summary retain the numbering system used in the full Report for consistency and ease of comparison.

This Executive Summary focuses on key observations and issues of concern identified by the Committee upon review of these data as well as issues raised during direct discussions with the Vice Provost, Anita Allen, the Vice President for Human Resources, Jack Heuer, and the Vice President for Budget and Management Analysis, Bonnie Gibson. The Committee met seven times to discuss the data and assemble the report, including one session with Vice Provost Allen, one with Vice President Gibson. The report concludes with the Committee's recommendations to the University administration for maintaining and improving the economic status of the faculty at Penn.

II. Merit Raises for Penn Faculty in Fiscal Year 2015

a. Inclusion of All Standing Faculty. SCESF was provided FY 2015 academic base salary data for 1,241 members of the tenure line faculty (716 Professors, 262 Associate Professors and 263 Assistant Professors), 48% of the 2,566 standing faculty. Data on academic base salaries of Clinician-Educators in the Standing Faculty from Medicine, Dental Medicine, Veterinary Medicine, Nursing, and Social Policy and Practice were not provided to the Committee, nor were data provided for tenure line faculty in clinical departments. This year SCESF requested that the FY 2015 adjusted academic base salary data include all tenure line faculty members, including those in clinical departments in Medicine. Despite support from the Dean of the Perelman School of Medicine and the Medical Faculty Senate, the Provost did not provide SCESF with the academic portion of the base salaries of these standing faculty. SCESF will continue to request these data in the future in order to achieve its mission to report on the economic status of all Standing Faculty at Penn.

b. Process for Setting and Adjusting Faculty Salaries. Each year a target salary increase percentage, the result of discussions of the Budget Steering Committee, a senior administrative body, is published in Almanac, and described as a merit increase based on market trends and economic conditions.

Table 1

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

Group/Condition/Metric		FY 2014-2015
Professor	Mean Median	4.1% 3.0%
Associate Professor	Mean Median	5.1% 3.0%
Assistant Professor	Mean Median	3.6% 3.0%
All Three Ranks	Mean Median	4.2% 3.0%
U.S. City Average CPI Growth	Mean	0.1%
Philadelphia CPI Growth	Mean	0.2%
Budget Guidelines	Mean	3.0%

NOTES: All salaries are converted to a nine-month base. Academic base salary increases pertain to all Penn standing faculty members with an appointment at the time of the fall census for both years. Faculty members on paid leave or unpaid leave are reported at their full salaries.

Excluded are all members of the Faculty of Perelman except basic scientists, all Clinician Educators from four schools (Dental Medicine, Veterinary Medicine, Nursing and Social Policy & Practice), faculty members on phased retirement, and Deans of all schools.

FY 2014-2015 CPI growth for the US and for Philadelphia are based on a change in CPI from June 2014 to June 2015.

The salary pool combines faculty and staff; faculty salaries comprise one-third of the total. The Budget Steering Committee aims to set competitive salary increases for faculty and staff, defined as targeting the 75th percentile in rankings of comparable institutions. For staff, these comparisons involve Greater Philadelphia area market data, with guidance from Human Resources. For faculty, these comparisons should include salaries of faculty at peer institutions, but SCESF was informed that such comparisons are not used. Since 2003, the salary parameters published in *Almanac* have been identical for faculty and staff, despite differences in their relevant comparison groups. Annually, SCESF is provided benchmarking data for Penn faculty relative to the Ivy Plus institutions and 62 public and private research universities in the United States and Canada (Tables 4 and 5). SCESF proposes that these data be used to estimate market trends and set the target salary increase percentage for faculty.

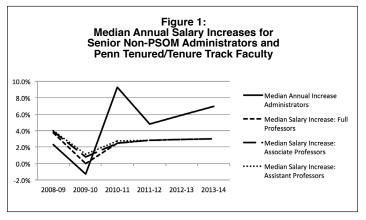
c. Actual Annual Salary Increases. Once the University-wide target has been set, annual salary increases for individual faculty members are determined by department chairs and deans. Any increases below 1.0% or above 5.0% require review by the Provost's office.

Actual annual salary increases for FY 2015 are summarized in Table 1. The median salary increase was 3.0% at all ranks. Table 9 (see full Report) reveals salary compression at the associate professor level. The median salary for associate professors is less than the mean salary for assistant professors. Compared to median salaries for assistant professors earn only 11% more.

d. Widening Gap Between Faculty and Senior Administrative Salaries. In light of concerns raised in last year's SCESF Report on the widening gap between merit increases for faculty and administrators at Penn (http://www.upenn.edu/almanac/volumes/v61/n32/pdf/042815-supplement-execsummary.pdf), this year's Committee also reviewed publicly available data from Form 990 tax reporting (see http://www.citizenaudit.org/231352685/). We extracted salary data for a "typical" senior administrator at Penn, defined as individuals named in the Form 990 report, excluding those with a University of Pennsylvania Health System focus. The "typical" senior administrators at Penn received a median raise of 6.9% for FY 2015, up from a median of 5.9% in FY 2014. In contrast, the median salary increase for faculty continuing in rank was 3% in both years (see Figure 1). The data suggest that since Penn tightened its belt in response to the economic downturn of 2008-2009 in Fiscal Year 2010, members of the senior administration have enjoyed sustained annual salary increases that are nearly double those of the faculty.

III. Salary Comparisons: Penn's Competitive Standing

To evaluate Penn faculty salaries relative to peers in the higher education market, SCESF compared academic salaries at Penn to those at 60 public and private research universities in the United States and two in Canada (Table 4 in the full Report), and to those at a set of highly competitive private research universities, including Ivy League schools and other premier private universities (Stanford, Chicago, etc.). We provide comparisons of mean academic base salaries for full, associate and assistant professors at Penn to this more relevant elite peer group in Table 5. In addition, we show Penn faculty average salaries relative to the average salary of faculty in this premier peer group (Figure 2). Among these comparable private research universities, Penn assistant professors are generally ranked at or near the top of the group since 2006. These competi-



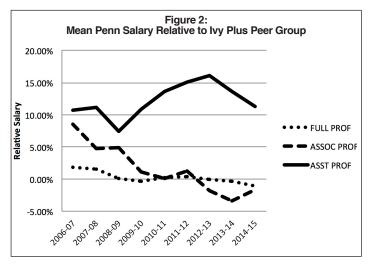


Table 5
Percentage differences in mean academic base salary levels of Professors at a sample of comparable research universities for Academic Years 2009-2010 through 2014-2015

Full Professors ean Academic Base Salaries: Percentage Differenc

Mean Academic Base Salaries: Percentage Differences"							
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	
Stanford	6.6%	7.6%	7.6%	10.9%	11.9%	13.6%	
Columbia	10.9%	9.3%	8.9%	13.5%	12.1%	13.4%	
Chicago	8.2%	8.7%	8.9%	8.9%	9.6%	10.0%	
Princeton	6.4%	6.2%	6.7%	7.0%	7.2%	9.3%	
Harvard	12.4%	10.7%	9.3%	8.6%	7.7%	8.1%	
Yale	2.4%	1.1%	-0.7%	-0.4%	-0.1%	0.5%	
Penn	\$170.1	\$175.1	\$181.6	\$187.0	\$192.3	\$197.5	
MIT	-5.4%	-5.3%	-5.4%	-4.4%	-3.3%	-1.8%	
Duke	-5.5%	-6.7%	-3.5%	-3.6%	-3.1%	-2.1%	
Dartmouth	า -9.4%	-9.9%	-10.7%	-10.5%	-9.5%	-9.6%	
Cornell	-8.8%	-9.9%	-10.9%	-14.5%	-14.2%	-14.2%	
Brown	-14.3%	-13.9%	-13.7%	-14.0%	-14.4%	-14.6%	

NOTES: Penn academic base mean salaries are based on standing faculty members at the rank of professor. Excluded are all members of the Faculty of Perelman except basic scientists, and all standing faculty members who are appointed as Clinician Educators. Data Source: AAUP Salary Surveys.

*Universities are ordered from highest to lowest percentage difference for full professors as of 2014-2015. For each year reported, the difference between the Penn mean salary and the mean salary for a comparison university was computed as a percentage of the Penn salary.

Associate Professors						
Mean Academic Base Salaries: Percentage Differences	3					

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Columbia	6.2%	8.9%	6.1%	12.9%	21.6%	21.2%
Stanford	12.9%	12.7%	11.4%	15.2%	17.3%	13.0%
MIT	0.7%	2.3%	2.1%	4.5%	6.4%	7.0%
Princeton	6.1%	7.4%	5.0%	10.1%	8.5%	6.2%
Harvard	6.1%	7.3%	2.6%	1.4%	3.6%	2.3%
Duke	-6.9%	-7.6%	-2.8%	2.3%	1.1%	1.3%
Penn	\$110.2	\$112.5	\$117.8	\$117.3	\$119.5	\$125.2
Chicago	-3.3%	-3.2%	-3.1%	0.3%	-0.5%	-0.7%
Cornell	-1.3%	-2.8%	-4.1%	-5.6%	-3.5%	-5.5%
Yale	-10.7%	-7.7%	-7.8%	-3.6%	-1.0%	-6.3%
Dartmouth	-5.0%	-4.6%	-7.9%	-4.9%	-4.9%	-9.6%
Brown	-16.6%	-14.0%	-15.7%	-11.9%	-10.0%	-10.3%

Assistant Professors Mean Academic Base Salaries: Percentage Differences

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2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
-1.8%	-3.2%	-2.2%	-4.2%	-0.4%	2.4%
\$102.3	\$106.8	\$112.3	\$116.2	\$118.0	\$119.6
-1.7%	-6.4%	-8.5%	-8.5%	-5.8%	-4.4%
-9.8%	-9.0%	-11.8%	-9.0%	-6.0%	-4.6%
2.1%	-2.6%	-2.2%	-2.4%	-3.0%	-5.3%
-2.2%	-5.9%	-8.6%	-11.6%	-10.5%	-6.1%
-12.2%	-18.4%	-14.5%	-16.3%	-12.3%	-11.9%
-14.3%	-15.0%	-16.1%	-16.7%	-13.8%	-12.5%
-9.8%	-9.6%	-13.6%	-15.8%	-16.6%	-13.6%
-18.9%	-20.0%	-20.1%	-23.1%	-20.3%	-16.3%
-16.3%	-18.1%	-20.1%	-18.9%	-18.7%	-16.7%
-23.3%	-24.3%	-26.7%	-26.0%	-24.7%	-22.8%
	2009-10 -1.8% \$102.3 -1.7% -9.8% 2.1% -2.2% -12.2% -14.3% -9.8% -18.9% -16.3%	2009-10 2010-11 -1.8% -3.2% \$102.3 \$106.8 -1.7% -6.4% -9.8% -9.0% 2.1% -2.6% -2.2% -5.9% -12.2% -18.4% -14.3% -15.0% -9.8% -9.6% -18.9% -20.0% -16.3% -18.1%	2009-10 2010-11 2011-12 -1.8% -3.2% -2.2% \$102.3 \$106.8 \$112.3 -1.7% -6.4% -8.5% -9.8% -9.0% -11.8% 2.1% -2.6% -2.2% -2.2% -5.9% -8.6% -12.2% -18.4% -14.5% -14.3% -15.0% -16.1% -9.8% -9.6% -13.6% -18.9% -20.0% -20.1% -16.3% -18.1% -20.1%	2009-10 2010-11 2011-12 2012-13 -1.8% -3.2% -2.2% -4.2% \$102.3 \$106.8 \$112.3 \$116.2 -1.7% -6.4% -8.5% -8.5% -9.8% -9.0% -11.8% -9.0% 2.1% -2.6% -2.2% -2.4% -2.2% -5.9% -8.6% -11.6% -12.2% -18.4% -14.5% -16.3% -14.3% -15.0% -13.6% -15.8% -18.9% -9.6% -13.6% -15.8% -18.9% -20.0% -20.1% -23.1% -16.3% -18.1% -20.1% -18.9%	-1.8% -3.2% -2.2% -4.2% -0.4% \$102.3 \$106.8 \$112.3 \$116.2 \$118.0 -1.7% -6.4% -8.5% -8.5% -5.8% -9.8% -9.0% -11.8% -9.0% -6.0% 2.1% -2.6% -2.2% -2.4% -3.0% -2.2% -5.9% -8.6% -11.6% -10.5% -12.2% -18.4% -14.5% -16.3% -12.3% -14.3% -15.0% -16.1% -16.7% -13.8% -9.8% -9.6% -13.6% -15.8% -16.6% -18.9% -20.0% -20.1% -23.1% -20.3% -16.3% -18.1% -20.1% -18.9% -18.7%

tive faculty salaries are not achieved at other ranks, however. The relative ranking for mean salaries for associate professors has fallen from 2/12 to 7/12 since 2006, and full professors have remained near the middle of the group. Of concern, average salaries of associate and full professors have now fallen below the mean of our peer group (Figure 2); associate and full professors at Penn now earn 1-2% less than the average for peer institutions. In short, Penn is lagging in the higher education market for senior faculty in peer private research-intensive institutions.

IV. Faculty Benefits at Penn

Benefits are an important aspect of total compensation received by faculty at Penn. For the first time, this report includes faculty benefits data. A competitive benefits package is a key aspect of maintaining an outstanding faculty and thus maintaining Penn's standing as a top-ranked university. This year, we present data for Penn and 14 peer institutions for institutional contributions to retirement accounts and dependent tuition benefits. Next year, SCESF will add comparative data for sabbatical policy and early retirement incentives. Future additions will benchmark medical, vision and dental insurance.

Penn offers two types of retirement plans. In the Basic Plan, the University makes contributions to 403(b) tax-deferred retirement accounts on an increasing scale with faculty member age. Contributions begin after 1 year of service, and there is a 3-year vesting period, after which the funds remain available to the faculty member, even after leaving Penn. In the Matching

Table 12

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

Faculty on paid leave or unpaid leave are reported at their full salary.

Rank/Academic Year/Metric

Unweighted								
		Women	Men	%	\$			
Professor			D	ifference	Difference			
2010-2011	Mean Median	\$166,221 \$152,030	\$180,044 \$163,900	8.3% 7.8%	\$13,823			
2011-2012	Mean Median	\$172,035 \$158,631	\$186,174 \$169,112	8.2% 6.6%	\$14,139			
2012-2013	Mean Median	\$178,939 \$167,606	\$191,240 \$172,921	6.9% 3.2%	\$12,301			
2013-2014	Mean Median	\$183,418 \$169,373	\$197,811 \$179,000	7.8% 5.7%	\$14,393			
2014-2015	Mean Median	\$188,619 \$175,975	\$204,309 \$185,000	8.3% 5.1%	\$15,690			
Associate Pro	fessor							
2010-2011	Mean Median	\$103,011 \$93,557	\$116,923 \$105,175	13.5% 12.4%	\$13,912			
2011-2012	Mean Median	\$107,783 \$97,250	\$119,589 \$108,000	11.0% 11.1%	\$11,806			
2012-2013	Mean Median	\$107,877 \$98,350	\$123,145 \$110,153	14.2% 12.0%	\$15,268			
2013-2014	Mean Median	\$108,925 \$100,127	\$125,067 \$112,750	14.8% 12.6%	\$16,142			
2014-2015	Mean Median	\$111,971 \$103,625	\$132,825 \$118,076	18.6% 13.9%	\$20,854			
Assistant Prof	fessor							
2010-2011	Mean Median	\$98,764 \$82,250	\$108,534 \$90,253	9.9% 9.7%	\$9,770			
2011-2012	Mean Median	\$104,768 \$84,913	\$113,590 \$94,425	8.4% 11.2%	\$8,822			
2012-2013	Mean Median	\$104,802 \$86,398	\$121,832 \$97,732	16.3% 13.1%	\$17,030			
2013-2014	Mean Median	\$109,758 \$89,400	\$122,033 \$100,435	11.2% 12.3%	\$12,275			
2014-2015	Mean Median	\$112,695 \$92,716	\$124,649 \$103,128	10.6% 11.2%	\$11,954			

NOTES: All salaries are converted to a nine-month base. Academic base salary increases pertain to all Penn standing faculty members with an appointment at the time of the fall census for both years. Faculty members on paid leave or unpaid leave are reported at their full salaries.

Excluded are all members of the Faculty of Perelman except basic scientists, all Clinician Educators from four schools (Dental Medicine, Veterinary Medicine, Nursing and Social Policy & Practice), faculty members on phased retirement, and Deans of all Schools. Female faculty members are weighted using male weights. Male weights are calculated as a ratio of male faculty in each school/area to the total number of male faculty at Penn. Per-

remain faculty members are weighted using male weights, whate weights are calculated as a ratio of male faculty in each school/area to the total number of male faculty at Penn. Percent difference is calculated as the difference between male and female salaries divided by the female salary. Negative percent differences occur when the female salary exceeds the male salary.

Plan, which has no waiting period, Penn matches the faculty member's contributions dollar-for-dollar in a 401(a) tax-deferred retirement account. The contribution limit increases with age, to reach a maximum of 5% of salary below \$265,000 (at age 40 and over). Details are provided at https://www.hr.upenn.edu/myhr/benefits/retirement. Penn's maximum contribution of 9% (4% to 403(b) plus 5% to 401(a)) is below the Ivy Plus group median of 10% (Table 13). Surprisingly, only 78% and 75% of the standing and associated faculty participate in the free Basic Plan and Matching Plan, respectively. SCESF recommends that participation in the Basic Plan be automatic for all employees, unless employees choose to opt out.

Penn offers tuition benefits for faculty members, their partners and their dependents. Currently Penn covers 75% of the tuition and technology fees (\$33,453 in FY2016) for dependents enrolled at Penn ("home") and up to 40% of Penn's tuition fee (\$17,535 in FY2016) for dependents enrolled at an approved school ("away"). Penn's tuition benefits are considerably more generous than the median tuition benefit offered by the Ivy Plus institutions (\$23,712 for "home" tuition and \$15,690 for "away").

V. Salaries for Female Faculty Continue to Lag Behind their Male Counterparts

a. Mean Salary Increases for Men and Women. Annual percent increases in salary are generally similar for men and women faculty continuing in rank at Penn (Table 11 in the full Report).

b. Persistent Gender Gap in Faculty Salaries at Penn. Despite the general parity in annual salary increases, there are striking differences in base salaries for men and women that have persisted over the years (Table 12), worsening recently for associate and full professors. At the full professor and associate professor levels, the mean salary for women is \$15,690 and \$20,854 less, respectively, than the mean salary for men at the same rank. Remarkably, and of great concern, there is even a significant wage gap at the entry level; the mean salary for assistant professors is \$11,954 less for women than for men.

c. Factors Contributing to the Ongoing Disparity. Some of the disparity apparent in Table 12 results from differences in gender ratios in faculty across the different schools, with traditionally male-dominated fields likely benefiting from higher salary levels than those found in traditionally female-dominated fields. To examine this possibility, the Vice Provost's Office provides a weighted set of comparisons (Table 12). Of note, even the weighted values show a persistent gender gap, ranging up to 9.3% of adjusted mean salaries, supporting the conclusion that there are large differences in salaries between men and women even in male-dominated fields. The widening gap between weighted and unweighted values reflects that Penn is losing ground in diversifying the most highly paid fields.

To further explicate sources of the gender salary disparity, the Vice Provost provided SCESF with an analysis conducted by Institutional Research and Analysis. This was a regression model of base salary on gender, race/ethnicity, academic discipline, experience (measured by academic rank and time in rank) and status as a department or endowed chair. The summary indicates that there is approximately an 18% lower base salary for female faculty, largely explained by influences of field, rank and time in rank. Adjustment for rank reduces the pay gap to 9%, consistent with the fact that there are proportionally fewer women in higher paid ranks. Time in rank is significantly associated with salary but does not affect the gender gap. Further adjustment for field or discipline reduces the gap to less than 2%, indicating that there are fewer women in highly paid disciplines. Although not statistically significant on an annual basis, SCESF finds a rank- and discipline-adjusted salary gap of even 2% distressing, given the compounding effect of this disparity over a faculty member's career. For example, an annual 2% difference in salaries would result in 22% higher salary for a typical male faculty member after 10 years than a typical female faculty member; the difference in total earnings over this period is substantial. Furthermore, the impact of gender bias in salary extends beyond a faculty member's career at Penn because institutional contributions to retirement accounts are proportional to salary.

VI. SCESF 2015-2016 Recommendations and Questions for the Administration

In accordance with Faculty Senate policy, we present the following issues of concern and our recommendations to address these issues.

1. Assessing the Economic Status of the Entire Faculty

Issue of Concern: The Committee on the Economic Status of the Faculty is charged to gather and organize data on academic base salaries and benefits for the faculty and to represent the faculty in the determination of University policy on salary issues. This year, SCESF was provided academic base salary data on 1,241 tenure line faculty, of whom 1,132 were continuing in rank. Penn is composed of 2,566 Standing Faculty in the Tenure and Clinician-Educator tracks and 1,986 Associated Faculty in the Research Faculty, Academic Clinician (health schools), Clinical Faculty (health schools), Adjunct Faculty, Visiting Faculty, Wistar appointments and Artists in Residence. Historically, this Committee falls short of its charge because the Provost's Office provides academic base salary data for only approximately 48% of the Standing Faculty and less than 30% of the entire Faculty.

SCESF Recommendation: To provide a more complete analysis of the faculty salary and benefits, SCESF requests that data from the Provost's Office be expanded next year to include the academic base salary for all Standing Faculty, subject to the standard exclusion of Deans and faculty members in phased retirement. Future requests may extend to the Associated Faculty. Finally, SCESF recommends that all deans provide every faculty member with an annual statement clarifying the amount and basis for the increase for each component of their salary.

Response: In keeping with long-standing practices mutually established by the Senate and the Provost's Office, the Provost's Office once again this year provided SCESF with prior-year tenure-track faculty salary data and other financial information, organized in twelve standard tables. As is customary, the data included a majority of the approximately 2,566 standing faculty members, but excluded "all members of the Faculty of Perelman School of Medicine (PSOM) except basic scientists, all Clinician Educators from four schools (Dental Medicine, Veterinary Medicine, Nursing, and Social Policy and Practice), faculty members on phased retirement, and Deans of all Schools." The rationale for the traditional exclusion of CE faculty and non-basic science faculty in PSOM has been, and remains, that major differences in the way compensation is structured for faculty with clinical responsibilities or housed in clinical departments renders comparisons and analyses quite complicated and potentially very misleading. The twelve salary data tables were delivered in a timely fashion at the start of the fall 2015 semester, followed by both additional information detailing faculty retirement, tuition and other benefits, and a memorandum prepared by PSOM detailing PSOM's internal salary-setting, equity and competitiveness monitoring procedures. A majority of the approximately 974 CE track faculty belong to the PSOM, which continuously monitors compensation through the American Association of Medical Colleges, the University Health Consortium, and the Hay Group, which surveys 30 peer institutions.

After receiving the usual categories of salary data and supplementary information on benefits and PSOM salaries, SCESF requested major new categories of data not immediately available and not customarily provided by the Provost's Office for the reasons above. A proposed revision of the scope of SCESF's annual salary review requires careful review and further consultation. Volatility and variation in salaries based in large part on clinical activity do not lend themselves to the type of analysis the Committee traditionally conducts for the majority of tenure-track faculty. Broadening the scope of SCESF's annual review to expand the categories of faculty salaries would require the Provost's Office, PSOM, and the Office of Institutional Research and Analysis to undertake additional analyses and produce revised tables which would require adjustments in work schedules for annual data provision, analysis and reporting. The Provost's Office is fully prepared to continue to work with the Senate, first to better understand the objectives behind SCESF's expanded salary data requests and second, to encourage a structured process of deliberation among the Senate, the Schools and the Provost's Office to assess the appropriate scope of SCESF's annual review.

SCESF recommends that deans provide faculty members with an annual statement clarifying any increase in each component of their salary. Different approaches to salary communications are found among the schools, and significant variation may be warranted by the diversity and complexity of the components of faculty compensation, particularly in STEM fields and in the health and professional schools. The Provost will charge the Vice Provost for Faculty with working with the Deans to determine the salary data that should be routinely communicated to faculty and the timing of those communications.

2. Maintaining Penn's Competitive Standing

Issue of Concern: To attract and retain an eminent faculty, the University must provide faculty salaries that are competitive with peer institutions in the top tier of American research universities. Penn's stated goal is to provide compensation, on average, in the middle of the upper half of our most relevant peer group, the Ivy Plus institutions. Comparisons of mean salaries at Penn to this peer group show that Penn assistant professors consistently rank at or near the top of the group since 2006. Howev-

er, the relative ranking for mean salaries for associate professors has fallen from 2nd to 7th out of 12 over the same time period, and full professors have remained at or below the middle of the group. Average salaries of associate and full professors have now fallen below the mean of our peer group. Taken together, these data indicate that Penn's salaries for tenured professors and the annual increases for all Penn faculty are below those of Penn's market cohort in highly competitive institutions of higher learning, eroding Penn's ability to compete with peers to retain the best talent.

Prior to the 2003-2004 academic year, faculty and staff targets for salary increases were distinct. Since that time the target has been the same for faculty continuing in rank and staff. The current staff salary increase parameter is set in the rolling five-year budget using regional employment benchmarks, with the goal of placing Penn in the upper half of the peer comparison cohort. The SCESF supports this market-driven approach for staff increases. Similarly, competitive salary levels and annual increases for senior administrators are set using higher education market trends. As a consequence of receiving multiple offers for faculty positions, Penn assistant professor starting salaries are also market driven, and Penn is generally competitive at this rank, although salaries vary across discipline. Because market forces are not used for determining competitive salary increases for the faculty continuing in rank, the associate professors have experienced consistent and persistent erosion of the competitive standing of their salaries (Table 5, Figures 2 and 3), and full professor salaries have slipped over the years from barely above average to below average compared to the Ivy Plus peer group (Figure 2). Associate and full professors have adopted the ad hoc practice of obtaining outside offers to re-establish their market value. However, in the context of annual increases that are below those of Penn's peers, these salary adjustments provide only a temporary correction.

SCESF Recommendation: Similar to staff and senior administration, SCESF recommends that faculty salaries be set using a market-driven approach. First, SCESF recommends that available market data for our peer institutions (provided in Table 5) be used in the rolling five-year budget to determine an appropriate parameter for annual salary increases for Penn faculty. Second, SCESF recommends these same market data also be used to correct faculty salaries, to achieve the University's stated goal of providing Penn's faculty with compensation, on average, in the middle of the upper half of the Ivy Plus group.

Response: Faculty salaries are set based on market-driven analyses. The University works assiduously to ensure that faculty salaries are competitive relative to appropriate regional, national and international markets. The limited availability of current-academic-year faculty salary data for peer institutions, and the absence of reliable relevant market survey data to inform budget projections results in five-year planning parameters that are effectively broad estimates rather than fixed pools to be strictly applied.

The annual budget-planning process assesses market data and the University's internal resources to set prudent planning parameters for merit increases. The Schools are given considerable flexibility to ensure that they can respond appropriately to highly variable market conditions across disparate fields and disciplines. The Provost's Office regularly reviews salary data to ensure reasonable consistency in practice and to support fairness and equity. While the University's published merit pool has been 3% for several consecutive years, the mean academic base salary percentage increases provided to Penn's continuing standing faculty members have been significantly higher. The mean FY2014-2015 increase for full professors was 4.1%, for associate professors 5.1%, and for assistant professors 3.6%. As a result, the average increase across all ranks was 4.2%, which far outpaced the Philadelphia Region CPI of 0.2% and the national average CPI of 0.1%.

Penn's market competitiveness is well-illustrated in this report, which shows that salaries compare favorably to those at peer institutions even though many of those universities are in locales with higher overall costs of living. Penn's assistant professor salaries ranked second among a dozen Ivy Plus peer research universities in 2014 and first the preceding year. Associate professor and full professor salaries at Penn were within the mid-range of Penn's Ivy Plus peers. The mean salaries of faculty in several Penn Schools and or departments rank at or near the very top of the comparison group (see Table 4). In addition, Penn offers highly competitive total compensation, including tuition and retirement benefits. Other competitive advantages include a rich research environment, faculty and student diversity, ready access to regional and international transportation, and educational and cultural amenities available to families.

3. Achieving Gender Equity at Penn

Issue of Concern: In the context of federal mandates to eliminate race and gender bias in compensation in all institutions receiving federal contracts, SCESF remains concerned about the persistent gender inequity in faculty salaries observed at all ranks at Penn. SCESF notes that this continued inequity is inconsistent with the aims of the Action Plan for Faculty Diversity (http://www.upenn.edu/almanac/volumes/v58/n02/ diversityplan.html). The wage gap occurring at the assistant professor level sets the stage for continuing disparities as faculty move through ranks; as a result, any comprehensive program to reduce the gender gap must include close attention to starting assistant professor salaries. A regression analysis reveals that the salary gap is explained by the influences of rank, time in rank and discipline. In the context of 3% annual salary increases for the faculty overall, SCESF finds even 2-3% salary gap after correcting for rank and discipline distressing. The compounding effect of this disparity over a faculty member's career widens the total earnings gap over time between men and women faculty. Equally disturbing, the impact of gender bias in salary extends beyond a faculty member's career at Penn, because retirement benefits are linked to salary.

SCESF Recommendation: We urge the President, Provost and the Deans to focus on eliminating gender inequities in faculty salaries within disciplines across the university. The Perelman School of Medicine does annual assessments of internal and external salary equity of the School's faculty by department and discipline for setting salaries and determining annual salary increases and recently assessed gender equity in basic science faculty salaries. Given the significant impact of rank and time in rank on salaries, SCESF recommends attention, oversight and mentoring to ensure that women associate professors are being promoted to full professor in a timely manner. SCESF applauds the introduction of a separate systematic salary review process by the Provost's Office for FY2016 to highlight individual salary disparities associated with race, ethnicity and gender. The current SCESF report on FY2015 will serve as a comparative baseline, and next year SCESF will evaluate the impact of this additional salary review process on reducing salary inequities within discipline. To examine and monitor progress in discipline-specific disparities in the weighted and unweighted data, SCESF requests that data regarding gender disparity within rank and across disciplines be provided next year and on a continuing basis.

Response: Ensuring pay equity among Penn's faculty is a top priority for the President, the Provost and the Deans. The Provost and the Vice Provost for Faculty will continue their regular annual spring reviews of faculty salaries to monitor fairness and address unexplained differences between men's and women's salaries.

To assess institutional progress, the Provost's Office and the Office of Institutional Research and Analysis regularly analyze gender equity in compensation. The latest regression analysis of faculty salaries by gender in 2015, which SCESF describes in detail in its report, found that most of the differences across schools were explained by the controlling for rank, time in rank and discipline. The University will continue to analyze the data and work proactively with the Deans to make all necessary adjustments to sustain and accelerate forward progress in eliminating unexplained differences in salaries for men and women faculty. The interplay of retention, starting salaries, decisions about research discipline, timing of promotions, and personal decisions about family in creating or maintaining salary differentials need to be better understood and taken into account in connection with University practices and policies. The Office of the Provost, in collaboration with the Deans, will continue to study these effects to ensure that the University's stated aims of achieving gender equity are achieved.

2015-2016 Senate Committee on the Economic Status of the Faculty

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