

# **Report of the Faculty Senate Ad Hoc Committee on Faculty Compensation**

April 15, 2004

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## **Recommendations**

1. Pursuant to the University of Florida's goal of attaining status as a top ten public institution, we urge that the magnitude of the gap between rank-adjusted total compensation per faculty member at the University of Florida and at the current top ten plus Minnesota and Ohio State be reduced to its 1994-95 level at the earliest possible time and no later than the 2004-2005 academic year. Further, the University of Florida must continue this trend so that faculty compensation is on par with this group of universities by the 2009-2010 academic year. We heartily endorse the goal of attaining top ten status but recognize that aiming for it without reversing the recent enlargement in the compensation gap is unrealistic.
  
2. Funds at the University of Florida flow through many channels prior to reaching the department level. Providing the best incentive for faculty productivity requires faculty understanding and input through the entire allocation process. We therefore recommend that a multi-tier structure be adopted that provides faculty input at the department, college and Senate levels. Department and college compensation committees will be selected from faculty in ways that are appropriate for the various departments and colleges. For example, a departmental committee might consist of three members, one appointed by the department chair and two elected by the faculty. A college committee might consist of representatives chosen by the department committees. A Senate Compensation Committee should be chosen in a manner established by the Senate, in response to a recommendation from the Academic Freedom, Faculty Quality, and Faculty Welfare Policy Council.
  
3. After cost-of-living adjustments, raise funds must be awarded for merit. Faculty in each department should develop explicit, written merit raise criteria that accord with the university's goal of attaining top ten status. Department faculty committees are to apply these criteria annually in proposing raises to the department chair. Though the written criteria need not be applied rigidly, they are to be taken as the starting point and deviations from them are to be explained. In some departments it will be appropriate to follow similar procedures for merit bonuses related to external funds obtained. It is incumbent upon the President and the University to make merit-based compensation a priority budget item. While cost of living raises may be limited by state budgets, other resources must be brought to bear in periods of low state budgets to fully implement this plan and reward our most meritorious faculty.
  
4. Department chairs and deans retain final responsibility for allocating raise funds and should seek to use raises toward the goal of enhancing the quality of their departments and colleges. They are to take the departmental faculty committee recommendations as the starting point and to explain deviations from them to the committee.
  
5. Every three to five years, the departmental faculty committee and chair, along with the college dean should follow the procedures outlined in 3 and 4 above with respect to the overall pattern of compensation in the department, and, if appropriate, devise an intermediate-run plan for bringing the pattern in line with the University's goal of

attaining top ten status. A similar periodic review should occur at the college level, through interaction between deans and the college faculty committees.

6. The first of the periodic reviews in recommendation 5 should begin as soon as possible. Each department committee should establish appropriate national comparisons with peer departments to determine the extent to which individual faculty members are undercompensated, taking into account productivity and merit. Part of any new resources should be used to address the most egregious cases where salary clearly fails to reflect the productivity of the faculty member. These people are productive and visible but underpaid, and consequently most at risk of leaving the University. Deans should assess the accuracy of the departments' reviews and be charged with providing the resources to deal with the most urgent cases.

7. The Senate Compensation Committee should either define salary compression or establish guidelines to be used by the various college committees in defining it for their colleges. Using these guidelines, each department or college will set up its own specific criteria for identifying compression. The Senate Compensation Committee will be charged with reviewing the definitions ultimately used by the colleges in order to ensure fairness and consistency. The department committees in the first of the periodic reviews should determine whose pay is compressed (or inverted). A faculty member whose salary is compressed has the right to receive from the faculty compensation committee and the department chair an explanation (for example, the person has a consistently low merit score), or a commitment that the compression will be eliminated within a short period, or a statement of what achievements by the faculty member would result in the removal of compression.

8. The Senate Compensation Committee, under the auspices of the Academic Freedom, Faculty Quality, and Faculty Welfare Policy Council, should report annually to the Senate. As part of the review process, the Senate Compensation Committee should receive annual reports from the college compensation committees. Each annual report of the Senate Compensation Committee should assess implementation of the raise process by colleges and departments, the allocation of raises, the overall patterns of compensation, and the University's progress in moving toward or maintaining a level and structure of compensation that is commensurate with the goal of becoming or remaining a top ten public institution.

9. The Senate Compensation Committee should consider proposing a series of step raises, as implemented by Wisconsin and by the University of California system.

10. In this report as a rhetorical convenience, and for no other reason, we usually use the word "faculty" to indicate tenure-track faculty. The pay of the University's non-tenure-track faculty should be brought up to nationally competitive levels. We also support using merit criteria and implementing shared-governance procedures for setting their compensation.

## 1. Introduction

Having been recognized for the high quality of its research and teaching by being invited to join the prestigious Association of American Universities, the University of Florida seeks to continue its move upward by becoming one of the nation's top ten public universities. Attaining that goal requires effort on many fronts, one of the most important being improving the quality and productivity of our faculty. That in turn requires attracting the best young scholars, retaining the stars who contribute mightily to our research productivity and reputation, and providing incentives and recognition to many others of excellent talent without whose enthusiasm and dedication UF has no hope of meeting its research, teaching, and service tasks in a manner that leads to elite top ten status.

Many features of the University of Florida attract, retain, and motivate outstanding faculty. Scholars seek to work where there are stimulating colleagues, bright students eager to learn, and first-rate facilities for research and teaching. Being in a good place to live at reasonable cost helps. Pecuniary rewards are not the only concern of serious scholars choosing where to work. But no one would deny that compensation matters. All else being equal, the best faculty are attracted by competitive pay. Once hired, many will leave if their contributions are poorly rewarded relative to possibilities at peer institutions.

It is with this in mind that the second section of our report, following this introduction, compares compensation at the University of Florida to that at two other, overlapping groups of institutions. The first is the group we joined in 1985, the Association of American Universities. The second is the group with the status we wish to attain, the current top ten public institutions, plus two similar very large research institutions, Minnesota and Ohio State. We find that in the 1994-95 academic year UF's compensation was significantly lower than the average for either of the two groups. Of even greater concern, by 2002-03 UF had fallen even farther behind, losing ground to both the AAU average and the top ten. By that year, only four of sixty AAU institutions (we lack data for the two in Canada) and none of the top ten plus Minnesota and OSU paid less than UF. Our chance of becoming one of the top ten public research universities will be lost unless that trend is reversed.

If the faculty were awarded across-the-board raises of a given amount or percentage, bringing us closer to the average for the top ten public universities, that would boost our odds of gaining and keeping top performers in the highly competitive academic labor market. But that would be far from the best, most productive use of salary resources. With more resources must come more accountability. Our goal is not only that the average level of UF salaries come closer to being competitive with those at the top ten publics but, just as importantly, that the resources be allocated in a way that attracts and keeps the very best and motivates us all. Our nation's top ten public universities are among the world's elite research and teaching institutions. If we are to become one of them, we must allocate all our resources, compensation in particular, in ways that

improve research, teaching, and service productivity. One cannot be among the best of the best simply by talking about it. It requires hard, well-informed choices.

Crucial to improving both morale and the quality of our decisions is greater faculty involvement. We recommend that the final authority regarding raises remain with the administration. Department chairs and deans specialize in administration while the faculty overall specialize in research, teaching, and service. If administrators are to have the incentive to develop and implement creative visions for improving their departments and colleges, they must have the necessary authority. But the situation now prevailing in most colleges, in which, aside from preparing their individual annual reports, non-administrative faculty are almost completely excluded from compensation decisions, is entirely unsatisfactory. There must be more formal faculty involvement in an advisory capacity.

Formal faculty involvement will improve the flow of information in both directions. The complexity of faculty responsibilities is such that it would be foolish to reward achievements with simplistic formulas. Indeed the complexity is such that it would be a rare departmental chair who can accurately evaluate all the faculty in a department. Involving faculty will provide administrators with fuller information about what faculty are accomplishing. Just as importantly, by being involved in the process, faculty will be better informed about what they need to do in order to receive larger raises. Faculty who have headed departments, who have served on scholar- or teacher-of-the-year committees, or who have served on national selection committees for NIH and similar funding organizations, become much better informed about the impressive work of their colleagues. Those who have been on grant selection committees, for example, have a better notion of what is required to obtain funding. Similarly, greater faculty involvement in allocating raises will result in our being better informed about what is required to be rewarded. The process of learning where one stands relative to peers is not always painless. But if we are serious about becoming a top ten public institution, comfortable avoidance of becoming involved in tough choices is not an acceptable route.

Recognizing the need for tough choices, we look at current patterns of compensation at UF, and in particular in the third section of this report we document the extent of phenomena that are particularly damaging to the morale of senior faculty, salary inversion and compression. Inversion and compression are complex phenomena that result partly from the trade-offs among hiring the best young scholars, keeping the highly-sought stars, and motivating all faculty. The trade-offs are most severe when an institution seeks to join the ranks of the elite but is constrained by a very limited compensation budget. We do not explore all the causes of salary inversion, but we do present evidence that it is related to seniority. In an empirical analysis of 2002-03 salaries, we find that seniority at UF is punished. Controlling for department, rank, and time in rank, the longer a faculty member has been at the University of Florida, the lower his or her pay. We document the existence of inversion and compression as part of our justification for urging greater faculty involvement in setting raises. Faculty who are inverted or compressed need to understand why, what they can do about it, and whether it is justified or unjustified. If inversion or compression is unjustified, faculty need to have formal voice in removing the injustice.

Section four of our report presents examples of patterns of compensation in several departments or combinations of departments. Though we use data from public

records, we do not name the departments or the individual faculty because that is not our focus. Instead we wish to illustrate how faculty committees and administrators could begin to visualize the patterns of compensation in their departments and colleges through simple charts, using them as a starting point for deciding as a group the direction they wish to go. We also use the charts to help visualize the existence of inversion, compression, and stars.

Section five discusses benefits. Although the analysis in section two includes benefits in total compensation, we are aware that they are the most difficult component of compensation to value. Consequently we compare UF's benefits package item by item to six of the group of ten plus two public institutions compared in section two. The six were chosen because detailed information about their benefits is more readily available than for the other six. The comparison reveals that the finding that UF's compensation falls short of that at the other institutions is not overturned by a detailed listing of benefits.

In section six, we recommend the careful development, college by college and department by department, of explicit standards for raises. No written formulation of standards can cover every contingency, but it provides a starting point. Using such formulations, faculty committees should be created for giving administrators—department chairmen and college deans, for example—recommendations for raises. Each committee's counsel should include explanations of any divergence from the explicit standards. As stated earlier, the authority to set raises should remain with administrators, but they should be required to explain to the committees any deviations from their advice.

To illustrate our recommendation that departments should development standards more concretely, we present a formula developed by a member of our committee. If your reaction to his formula resembles our own, it will have two stages. The first will be that the formula is much too complex, that no department will endorse such an intricate formulation. The second stage will be that the formula is much too simple, that it fails to capture nuances of considerable importance. That combination of reactions is why we recommend that a department establish written standards but also have a process for deviating from them. The standards should be the starting point, the presumption from which faculty committees first develop raise recommendations to present to administrators. But the role of the committees is not mechanically to calculate values using a formula and stop there. The role of the committees is to enrich that information from their own understanding, from years of experience, of what it takes to advance their departmental goals and how each member of the faculty is contributing toward that end.

In the seventh section, we go beyond our charge briefly to state that our goals for competitive compensation and greater faculty involvement are realistic.

## **2. Average Compensation at UF Compared to Other Institutions**

Figure 1 below compares compensation at UF to that at other AAU institutions. Based on data for 2002-03 gathered by the Faculty Compensation and Benefits Committee at Ohio State University,<sup>1</sup> it shows other institutions' advantages over UF. At

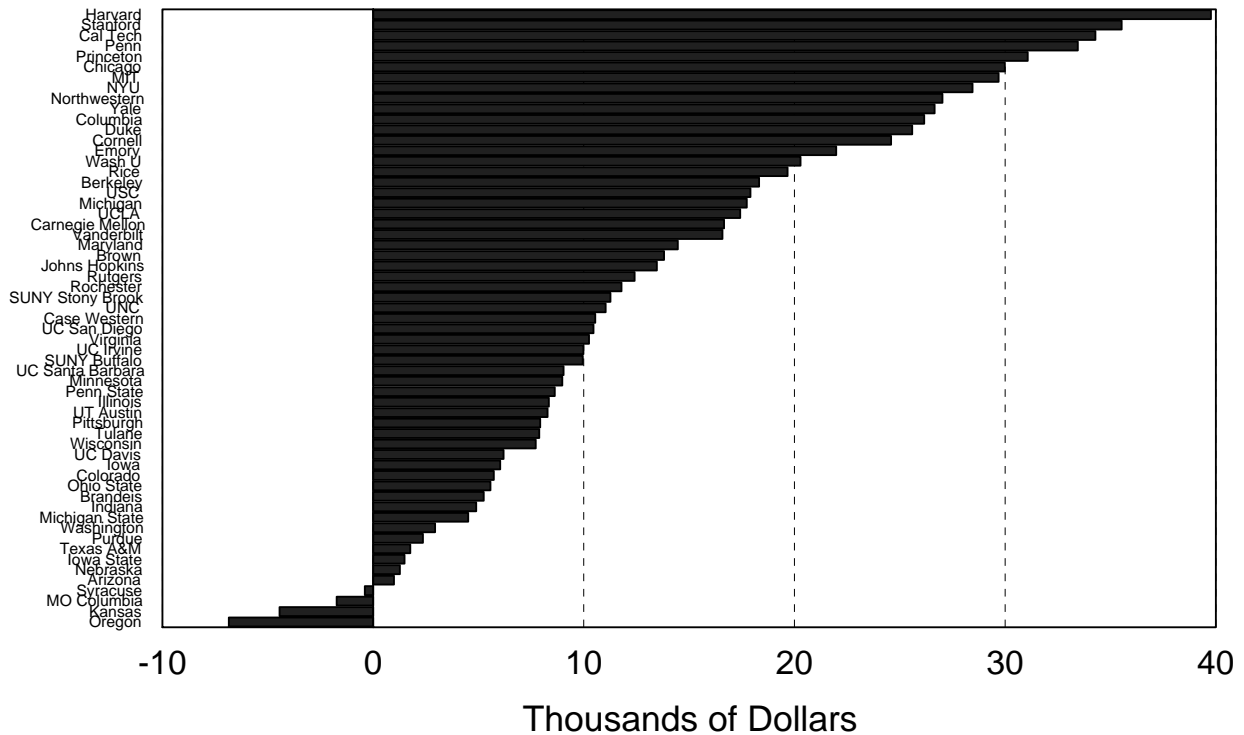
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<sup>1</sup> Ohio State University, Faculty Compensation and Benefits Committee, *Annual Salary Report and Recommendations, 2003*, Table A-3, 2002-03 Average Faculty Salaries AAU Institutions. We modified

one extreme, Harvard's pay for nine-month faculty, averaged across ranks, exceeds UF's by \$39,800 a year. At the other, UF beats Oregon by \$6,800.

# Figure 1: Salary Advantage vs. Florida

## AAU Universities



2002-03: UF Beats Syracuse, MO Columbia, Kansas, and Oregon

.... but loses to the other 55.

Among the sixty institutions, Florida's average faculty compensation ranks fifth from the bottom. The compensation numbers on which Figure 1 is based do not include fringe benefits. Using data from the 1996 and 2004 National Education Association Almanacs we devised an approximate way of including benefits. When that is done, UF's average total compensation in 2002-03 was \$14,700 less than the average for other AAU institutions. The magnitude of this shortfall is up from \$7,700, in constant 2003 dollars, in 1994-95. That is, looking at total compensation, including benefits, we estimate that the magnitude of the gap between Florida and the AAU average in inflation-adjusted dollars rose by \$7,000 over the past eight years.

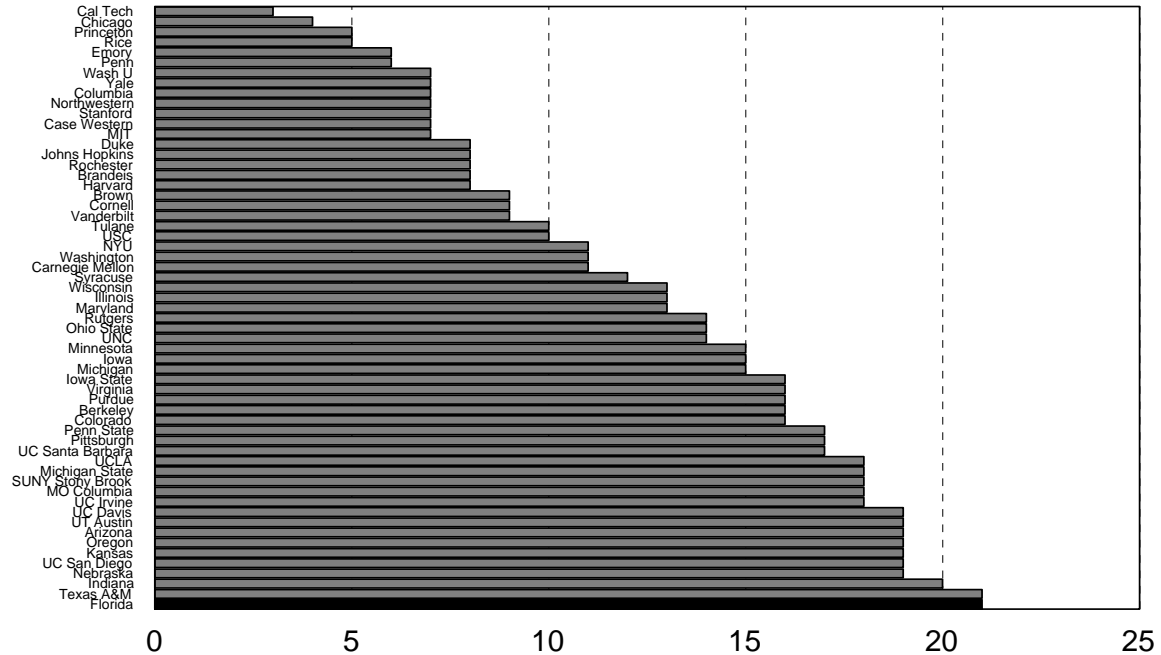
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their averages across ranks to reflect UF rather than OSU ranks. That turned out not to matter at all, the correlation between the two pairs of averages being well over 0.99.

If we continue to fall behind the AAU average by more than \$800 a year, rising in the ranks will be extremely difficult. Adding to that difficulty is that, as Figure 2 illustrates, UF joins Texas A&M in having the highest student-to-faculty ratio of the AAU institutions.

## Figure 2: Student to Faculty Ratios

### AAU Universities, 2003



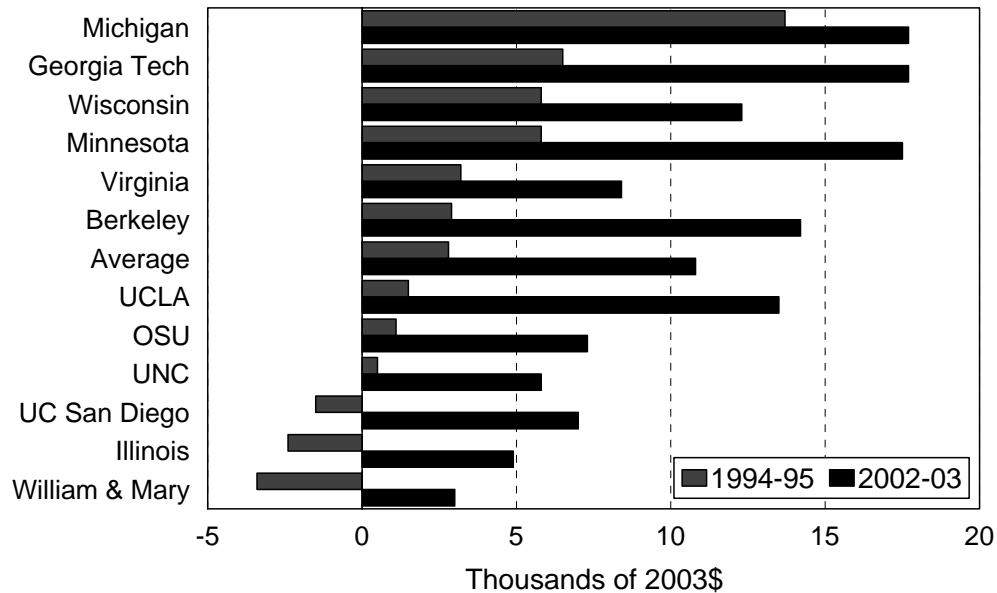
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Florida has 50% more students per faculty than the AAU average. That is, faculty at Florida average \$14,700 lower total compensation and 50% more students per faculty member than the averages for other members of the Association of American Universities. The AAU comprises both public and private research universities. Turning to our charge to compare compensation at UF to that at the top ten public universities plus Minnesota and Ohio State, we present Figure 3.



# Figure 3: Compensation Advantage vs. UF

## Top Ten Public + Minnesota & OSU



NEA Almanacs, UF weights applied to ranks, then benefits added

Figure 3 shows the salary gap between each of these 12 institutions and UF for 1994-95 and again for 2002-2003, both in constant 2003 dollars. The figures are for nine-month faculty. Michigan, for example, was \$13,700 ahead of UF in total compensation per faculty member in 1994-95, and by 2002-03 that gap had risen to \$17,700. At the other extreme, the College of William & Mary was \$3,400 behind UF in 1994-95 but had reversed that to a \$3,000 advantage in 2002-03. In fact every single one of the 12 institutions gained relative to UF between 1994-95 and 2002-03. The average gap rose from \$2,800 to \$10,800.<sup>2</sup>

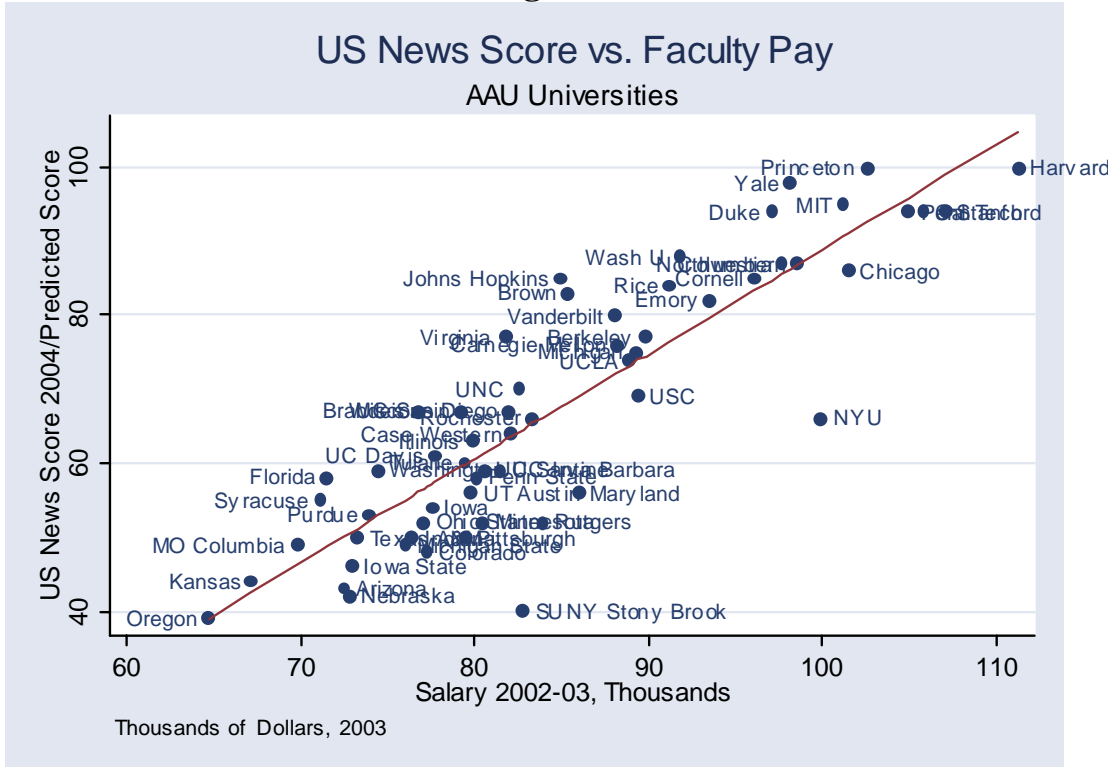
That is, the total per-faculty compensation advantage of the 12 institutions we were charged with comparing to UF rose by \$8,000 over the past eight years. If the trend is not reversed and the gap continues to rise, our chances of becoming one of the top ten publics are non-existent. Figure 4 shows the correlation between the *US News & World Report* scores on which its rankings are based and average salaries of nine-month faculty. The horizontal axis shows salaries, and the scores are displayed on the vertical axis. The correlation between compensation and scores is 0.88 ( $R^2 = 0.78$ ).

Does this correlation indicate that simply increasing salaries to the current faculty will result in a much improved university? No, it does not. Does the analysis indicate that UF must be prepared to pay higher, more nationally competitive salaries to achieve top ten public university status? Almost certainly. Improving the salary structure at UF will lead to improvements in morale, retention, and productivity within the current faculty. However, an important goal of a worthwhile salary plan must also be to recruit the best

<sup>2</sup> The average gains relative to UF by the other 12 institutions were \$4,900 in fringe benefits and, in direct salaries, \$4,400 for professors, \$800 for associates, and \$3,200 for assistants.

possible new faculty while rewarding merit across the campus. The reputations and productivity of both new and old faculty members are key to reaching top ten status.

**Figure 4**



In Figure 4, UF’s score of 58 exceeds its predicted value of 49. The difference is not statistically significant and may simply reflect noise in judging the quality of universities or noise in measuring average faculty pay (who should be counted, how are fringe benefits to be evaluated). Other possibilities include UF’s advantage in recruiting talented students by being the flagship university in a large state that offers free tuition to most of its best students, Gainesville’s reasonable living costs, and growing success in gaining research support.

Another possibility, less optimistic, is that UF continues to enjoy the lagged effect of its previously higher level of compensation relative to its peers. The quality of the faculty of a large research university changes slowly in response to changes in its relative salaries. As noted in the introduction, faculty are attracted by the talent of their colleagues. As relative compensation declines, a few of the best scholars who happen to have the weakest institutional and area ties are the first to leave. Then, as the institution becomes less intellectually stimulating, others depart. It becomes more difficult to hire the best of the new crop of beginning scholars, whose advisers are well informed about the directions departments in their fields at other universities are headed. Finally, if slowly the reputation of the institution sags, the brightest and more affluent students begin to go elsewhere. Through feedback, the process becomes cumulative.

We do not think this process has begun at the University of Florida. Possible indicators would be faculty turnover and the quality of new hires, but our committee lacked the resources and time to study either measure. With respect to new hires, we did construct a very crude measure: what percentage of new hires have degrees from twenty-one elite universities, where the twenty-one are chosen arbitrarily by reputation from among those from which there are eight or more faculty at Florida, since time constraints forced us to severely limit the number of source universities considered. For example, ten UF faculty earned advanced degrees at Cambridge but only six at Oxford. Cambridge made the list but Oxford did not.

On that basis, 21% of UF's current faculty who were first hired from 1993 through 1997 earned degrees at these elite universities. Of UF's current faculty who were first hired in 1998 or later, only 15% earned degrees from this elite set. The decline is statistically significant but must be interpreted cautiously. The choice of the "elite" is somewhat arbitrary. It should be department by department, for example. (Purdue was included among the elite because UF faculty with doctorates from that institution are in fields in which Purdue is unusually strong.) Often it is better to hire the top doctoral graduate from a lower-ranked university than a weak one from Harvard. The quality of source institutions changes over time. And it may be that hires with doctorates from elite institutions are more likely to survive the tenure process. Though all of these issues limit our ability to interpret the changed pattern, we think it is worth investigating whether it arises from more severely restrained compensation relative to competing universities.

In spite of the conceptual difficulties, we recommend that UF systematically track characteristics of new hires and also track faculty turnover, documenting where departing faculty go, whether UF attempted to match an offer, and a best guess at the most important reasons for leaving. There is constant faculty turnover, as scholars sort themselves among universities seeking the best combinations of intellectual stimulation, facilities, compensation, and places to live. Turnover is not *per se* a cause for concern. Indeed, it is an indication that we have faculty other institutions seek. But we should put more effort than we now do into keeping track of hires and departures, watching for early warning signs.

We further recommend that the University and the Senate Compensation Committee cooperate with departmental and college compensation committees to track salaries relative to peers department by department. We use the Department of Mathematics to illustrate. The American Mathematics Society surveys compensation annually and posts the results on the Internet (<http://www.ams.org/employment>). The results for doctoral universities are grouped into 48 Group 1 institutions, 56 in Group 2, and 73 in Group 3. Our desired peers are the 25 public universities in Group 1. Using medians by rank in 2003-04 as the measure, their average salary advantages over UF are \$23,760 for full professors, \$8,382 for associates, and \$13,589 for assistants. (The top 23 private institutions' advantages over UF by rank are \$35,540; \$14,344; and \$11,809.) The institutions in Group 2 also exceed UF salaries substantially. The medians for UF are roughly on a par with Group 3, the institutions both public and private ranked from 105 through 178.

We also note that while our analysis in this report is restricted to tenure-track faculty, it is essential to pay non-tenure track faculty competitively as well. The National Academic Advising Association (NACADA), for example, surveys advisers' salaries.

The results from 1440 members who responded from a wide variety of institutions indicate average salaries approximately six to ten percent higher than at the University of Florida. Moreover, the number of students per adviser appears, from other information, to be substantially higher at UF than at peer institutions and advisers here are given a wider array of responsibilities than is typical elsewhere, perhaps because of UF's high student-to-faculty ratio.

### **3. Inversion and Compression**

Compression is the general outcome of hiring new faculty at market salary levels while the salaries of current faculty remain flat or grow slowly for an extended period. As a result, current faculty may have salaries that are only just above those of new junior faculty members. Compression is particularly troubling to senior faculty members when junior faculty salaries are not far below theirs despite difference in rank. Inversion occurs when new faculty are hired at salaries that exceed the salaries of faculty at higher ranks or comparably experienced faculty at the same rank.

Specifying which individuals in a university are compressed is a difficult task. National comparisons described earlier in this report show average UF salaries at all ranks are lower than peers by roughly the same amount, and this observation might suggest that compression is not worse at UF than elsewhere. However, such averages may hide differences in the width of salary distributions (i.e., two institutions can have the same average salary for a rank but one may have a broad distribution that has many very high and many very low salaries). In addition, it is an open question whether faculty members who are technically inverted or strongly compressed should have their salaries addressed outside of the process of merit review and other approaches proposed by this committee.

Compressed or inverted salaries at higher ranks may be the result of low productivity and poor scholarship that compare unfavorably to those of the typical assistant professor. However, there are many forces at work in determining salary structure and suppressing full professor salary gains: UF's monopsony (single-buyer) power with respect to faculty who have emphasized teaching and service or are tied to Gainesville by family or other considerations; the absence of programs to address the specific salary situations of productive younger faculty; and decisions by severely budget-constrained administrators that move star faculty far ahead of the average but leave little for other high quality faculty members.

Another potential cause of compression is that some units budget departments on the basis of rate. With such a practice, each department receives an annual budget, from which faculty salaries must be generated. As University resources have been lean for extended periods, this seriously limits what salary adjustments are possible. For example, if an annual increase in rate is 3%, it may be possible to give a 9% raise to a very deserving assistant professor, but not to give a 9% raise to an equally deserving distinguished full professor.

UF salary data can be analyzed once technical definitions of compression and inversion are chosen, as described below. For the purposes of this report, we have focused on the salary structure for full professors and compared it to average salaries paid

to assistant professors. It should be noted that a similar analysis can be run for associate professors relative to assistant professors, but these data are not presented in detail here.

The use of assistant professor salaries as a benchmark is helpful since assistant professor salaries tend to be strongly tied to the marketplace for academic talent. Like many institutions, UF strives to pay “what the market demands” to attract the best new faculty possible (although the market demands less from UF than the average AAU institution, as shown earlier). In addition, assistant professors will be in that rank for relatively few years, so the average assistant professor salaries will tend to follow the market. We have used mean assistant professor salaries *in the home department* of the full professors to do the comparisons given here.

We define the parameter *gain* as the ratio of an individual full professor’s nine-month salary ( $S_P$ ) to the mean nine-month salary of assistant professors in the full professor’s department ( $S_{MAP}$ ).

$$gain = \frac{S_P}{S_{MAP}}$$

A *gain* of 1.00 means that the salary is *equal* to the salary of an average assistant professor ( $S_{MAP}$ ). A *gain* of 2.00 means exactly *twice* the  $S_{MAP}$  (that is, 100% higher), a *gain* of 1.50 means 50 % higher, etc. The general equation for percentage *gain* is

$$\% gain = \frac{S_P - S_{MAP}}{S_{MAP}} \times 100\%$$

*Inversion* in this analysis refers to a full professor salary that is less than  $S_{MAP}$ . *Compression* will be defined here as a full professor salary that is equal to or less than  $1.18 \times S_{MAP}$  (i.e., a *%gain* less than or equal to 18%). The logic of this measure derives from the standard 9% salary increment provided upon promotion at UF. In concept, if an assistant professor were to receive two rapid promotions based on his or her current salary, this definition of compression shows which full professors would become inverted by the minimum salary increase of 18% given to the assistant professor. Of course, faculty members with gain values above 18% may be considered to be compressed, so the measure used here is only for purposes of illustrating the variations in compression across campus. The committee is not recommending that the definitions here be used for defining specific individuals for additional compensation.

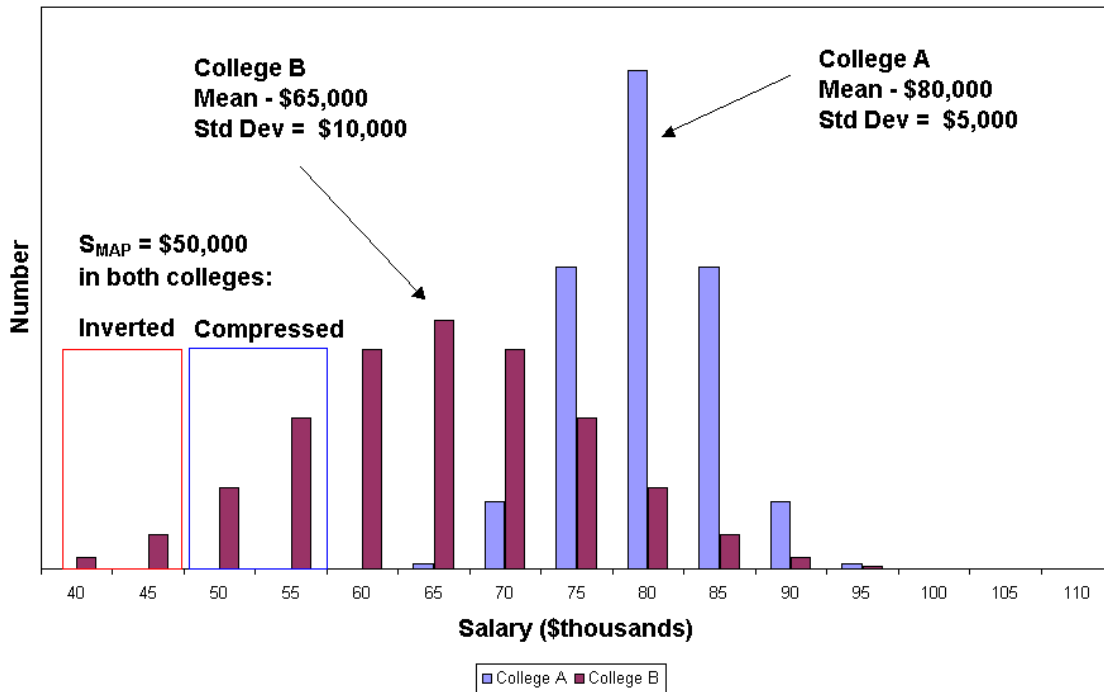
Other things the same, the lower the average premia paid professors relative to assistants in the departments of a college, the larger will be the share of professors who are compressed. That is, the share of fulls in a college who are compressed is related to the mean *gain* of the full professors as a group (with  $n$  total professors):

$$gain_{MEAN} = \frac{\sum_1^n gain}{n}$$

Of course other things are not the same. The share of fulls who are compressed also depends on the distribution of full professor salaries. Figure 5 illustrates two hypothetical college salary distributions. College A has a high  $gain_{MEAN}$  value and a narrow distribution of salaries around the mean, and therefore this college has few compressed faculty members. Conversely, College B has a low  $gain_{MEAN}$  value and a broad distribution, resulting in high numbers of compressed and inverted faculty.

**Figure 5**

**Hypothetical Salary Distributions**



Compression and inversion data have been analyzed for all colleges at UF, and the results are shown in Figure 6. This plot shows the percentage of the full professors in each college that have either (1) a salary below the average assistant professor's salary in his or her department (inverted, gain less than 1.00) or (2) a salary in the range of 1.00 to 1.18 times the average assistant professor's salary in his or her department (compressed, a  $gain$  of 1.00 to 1.18).

The percent of inversion among full professors on the UF campus is approximately 2.5%, and the compression level by our definition is approximately 10%. However, there is wide variation among the colleges. Pharmacy, Journalism, CLAS, Nursing, and HHP have relatively low percentages of compressed/inverted faculty by our definition (< 7% of faculty). These colleges evidently reward full professors reasonably well as a group or have professoriates that are of a uniformly high quality so they can demand and receive less-compressed compensation than the faculties in the majority of colleges on the campus. The weighting of these two factors cannot be determined from the chart alone, of course. In contrast, the College of Business has about 20% of its full professors in the inverted category and another 10% in the compressed category. (We note that our data do not include privately-funded salary supplements, which are more

significant in Business than in other colleges.) IFAS has a large number of compressed faculty but relatively few inverted full professors. (The College of Public Health and Health Professions is inadvertently omitted because of a name change.)

**Figure 6**

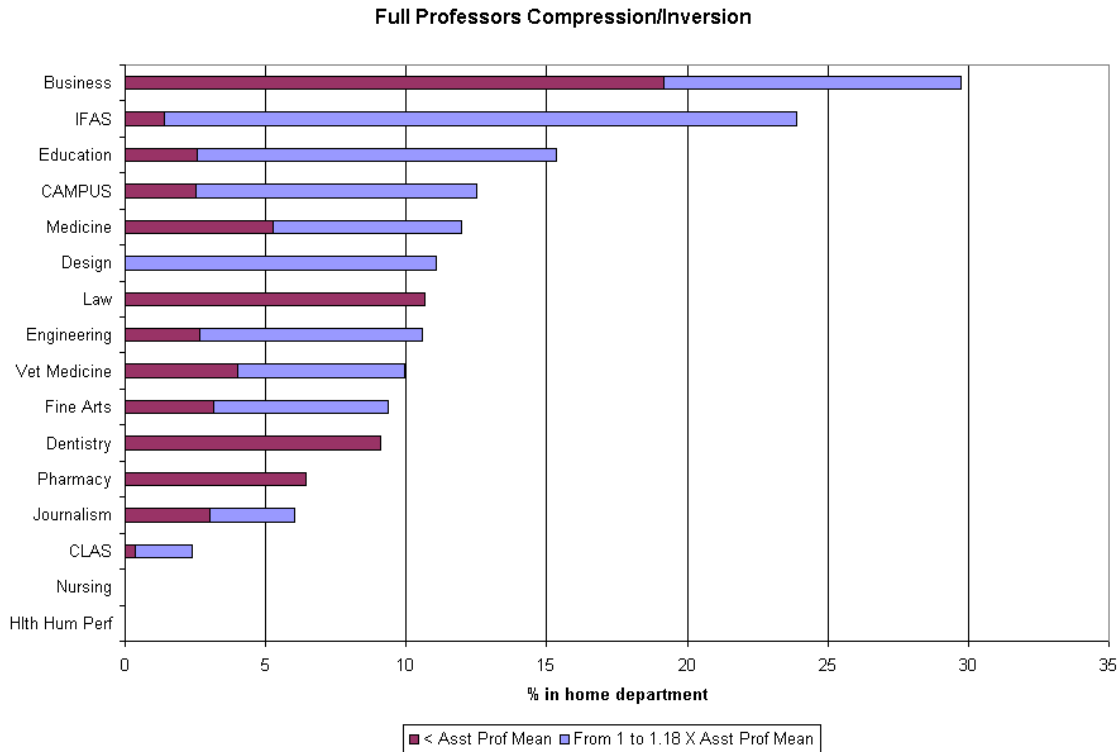


Table 1 summarizes the numerical data determined in this study. Other data are presented in the table, including an estimate of the number of college full professors inverted by the average *associate professor* in the home department. It is clear that associate averages are not entirely consistent with the associates in the sense that a significant number of associate professors are evidently inverted with respect to assistant professors in their home department.

The last column in Table 1 gives the  $gain_{MEAN}$  for the colleges. The average for the campus is a 67% premium for full professor salaries compared to the average assistant professor salary. It is interesting to note that the average CLAS full professor makes 75% more than the average assistant professor in his or her department. This  $gain_{MEAN}$  is somewhat above the average for the campus and probably accounts for the relatively small amount of compression and inversion in CLAS. However, Education has about the same mean  $gain$  (71%) but must have a larger standard deviation in its full professor distribution than CLAS since over 15% of the full professors in that college are inverted or compressed. Business has one of the lowest mean  $gain$  values (44%), and this factor no doubt contributes to its high compression/inversion numbers.

**Table 1: University of Florida Inversion/Compression Data, by College**

Unit	Percent of Full Profs. in Home Department Relative to Mean Asst. Prof. Salary				Ratio of Mean Full Prof. Salary to Mean Asst. Prof. in Home Dept.
	Less than or Equal to	Between 1.00 and 1.18 Times	Between 1.18 and 1.33 Times	Less than or Equal to Mean Assoc. Prof. Salary	
Business	19.15	10.64	15.92	17.02	1.44
CLAS	0.35	2.07	11.57	2.77	1.75
Dentistry	9.09	0.00	10.35	4.35	1.82
Design	0.00	11.10	8.90	9.52	1.33
Education	2.56	12.82	2.40	12.82	1.71
Engineering	2.65	7.97	22.42	3.51	1.60
Fine Arts	3.13	6.25	22.97	12.50	1.51
HHP	0.00	0.00	0.00	8.33	1.79
IFAS	1.41	22.53	20.81	4.01	1.47
Journalism	3.03	3.03	3.03	6.06	1.74
Law	10.64	0.00	16.44	2.63	1.82
Medicine	5.26	6.77	12.71	15.73	1.78
Nursing	0.00	0.00	0.00	0.00	1.89
Pharmacy	6.45	0.00	33.55	6.45	1.55
Vet. Medicine	4.00	6.00	20.33	4.00	1.49
Overall	2.51	10.05	15.09	7.43	1.67

Notes: The percentages are obtained by comparing individual salaries to the assistant professor and associate professor means within each faculty member's home department. The last column describes average salary gain for full professors compared to assistant professors in the home department. For example, in Business the mean full professor salary is 44% higher than the mean same-department assistant professor salary. Salaries are for 2002-2003. The present College of Public Health and Health Professions was erroneously omitted due to its expansion and name change in 2003.

To explore the notion that inversion/compression at UF may be partly explained by the university's monopsony power with respect to faculty who serve many years in Gainesville, we have analyzed the sources of variation in 2002-03 salaries. We estimated an equation explaining salaries as a function of academic rank, the number of years in the highest rank, and the number of years at UF:

$$\text{LOG SALARY} = \text{CONSTANT} + \text{RANK EFFECTS} + \text{RANKYEARS EFFECT} + \text{UFYEARS EFFECT} + \text{DEPARTMENT EFFECTS} + \text{ERROR}$$

The results of the estimation are as follows:

$$\begin{aligned} \text{LOG SALARY} = & 11.07 + 0.212*\text{ASSOC} + 0.527*\text{FULL} + 0.789*\text{DSP} + 0.898*\text{GRP} \\ & (0.01) \quad (0.012) \quad (0.015) \quad (0.047) \quad (0.063) \\ & + 0.821*\text{EMINENT} + 0.004*\text{RANKYEARS} - 0.006*\text{UFYEARS} \\ & (0.037) \quad (0.001) \quad (0.001) \\ & + \text{DEPARTMENT EFFECTS} + \text{ERROR} \end{aligned}$$



The equation, estimated only for the 2,893 faculty who had been at UF for 25 years or less and worked half time or more, had an  $R^2$  of 0.75. LOG SALARY is the logarithm of nine-month equivalent 2002-03 salary from public sources. The variables ASSOC, FULL, DSP, GRP, and EMINENT indicate the ranks of Associate, Full, Distinguished Service Professor, Graduate Research Professor, and Eminent Scholar. RANKYEARS is the number of years in the current rank, and UFYEARS is the number of years since being hired by UF. Standard errors are in parentheses. The coefficients may be interpreted, approximately, as showing that someone just promoted to Associate earns 21% more than the average for new assistants. Similar numbers are 53% for Full, 79% for Distinguished Service Professor, 90% for Graduate Research Professor, and 82% for Eminent Scholar. (Private funds, not included, are likely to be relatively important for the last three ranks.)

To the point at issue, time in rank is rewarded at the rate of 4% per decade, which effect is offset by seniority's being punished at the rate of 6% per decade. That is, other things the same (and in sharp contrast to practice in non-university employment) seniority at UF is punished by lower pay. If the regression is restricted to faculty of full rank and higher, the effect remains. One way for full professors to gain extra compensation relative to newly hired assistants is to be promoted to distinguished service professor, graduate research professor, or eminent scholar. Only 10% of full professors are in one of those ranks, however. Affecting more faculty is the Professor Pay Plan implemented three years ago. Those in rank (full or higher) for seven years or more have the opportunity to put their papers forward and be reviewed in a process intended to mirror the tenure and promotion process for their unit and the university. Had this program not been implemented, it is likely that the "seniority penalty" would be worse than it is. Even with it, for many compensation increases at or slightly below the rate at which higher salaries are paid for new assistants.

Across colleges, the effects of seniority resemble the patterns of inversion and compression. Using college-specific regressions similar to the one above for the university, but combining the effects of seniority and time in rank, the salary penalty for an extra decade at UF relative to being newly hired from outside is Business, 17%; Fine Arts, 7%; IFAS, 7%; Engineering, 4%; Dentistry, 4%; CLAS, 3%; and Journalism, 2%. There were virtually no effects in Design, Education, Health and Human Performance, Law, Medicine, and Nursing. That is, in those colleges the combination of seniority and time in rank is neither rewarded nor punished on net.

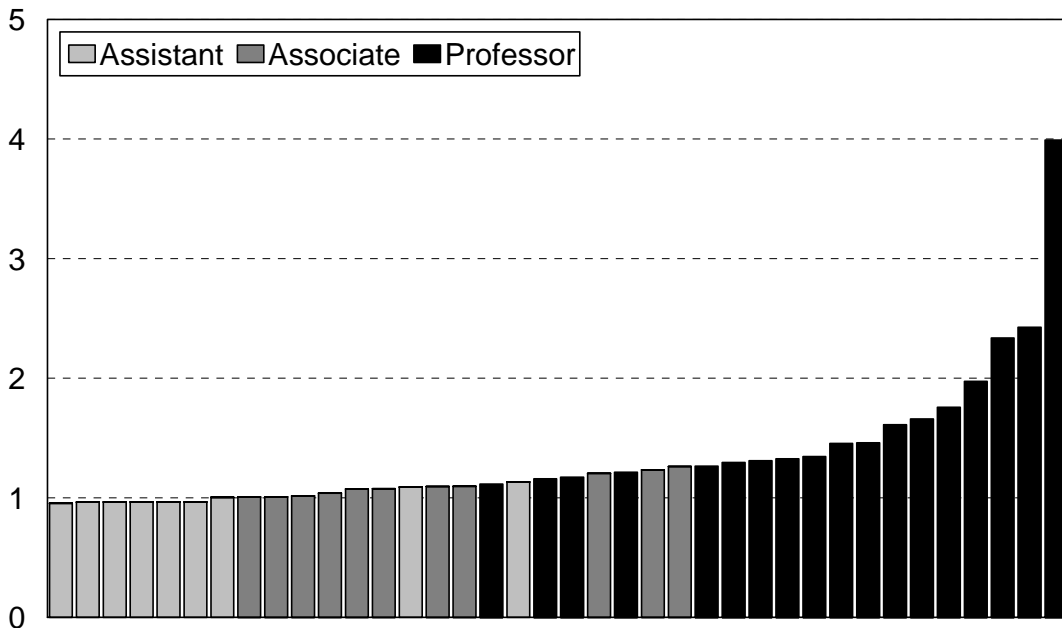
Members of our committee view favorably the step raises used by the University of California system and Wisconsin, whereby there are steps within ranks that are rewarded with uniform raises. Some members think that we should include a strong recommendation to implement step raises at the University of Florida immediately. The majority, while favorably inclined, think we should move in that direction more gradually. First Florida's salaries must be more competitive and faculty must be more involved in advising about raises

#### 4. Examples of UF Salary Structures and Raise Procedures

The committee finds it helpful to visualize some of these abstract notions about compensation by looking at charts illustrating salaries for individual departments. Figure 9, for example, illustrates compensation in one of the departments in the College of Engineering. Although the data underlying this chart are public record under the sunshine law, we change the salaries to ratios and do not name the department because our focus is not on individuals or individual departments, but on illustrating various examples of salary structures.

### Figure 9: Sample Departmental Salary Structure

A Department in the College of Engineering, 2002-03

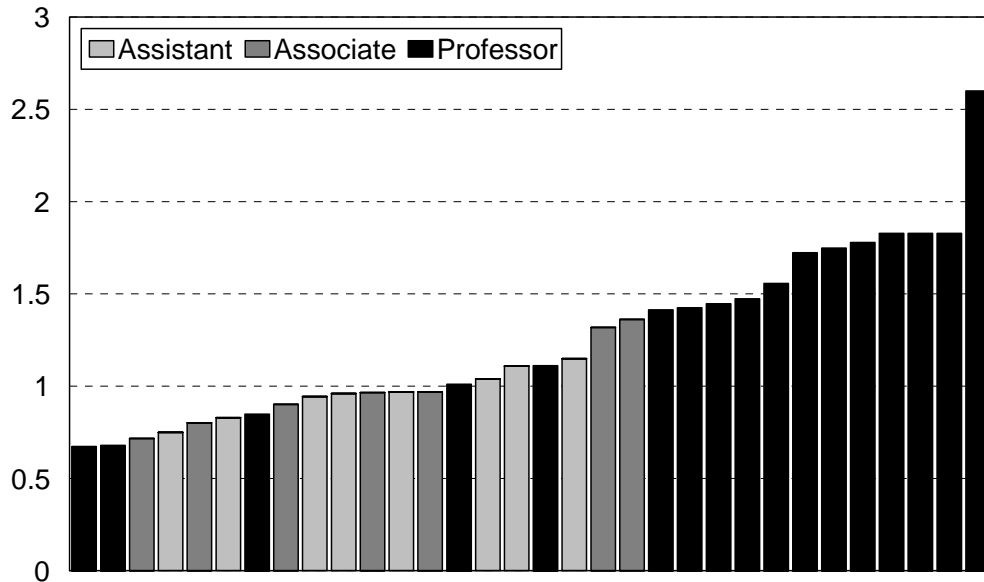


Normalized to Average Salary for Assistants in Same Department

Each vertical bar represents an individual in the department, with rank indicated by shading. The vertical axis displays the ratio of each person’s salary to the average for assistants in the same department. This department has no instance of salary inversion, in that no associate or full receives less than the average for assistants. There is inversion by a looser definition: One full earns less than the highest-paid assistant and four fulls are paid less than the highest-paid associates. The departmental “star” is clearly visible at the far right, paid four times the average for assistants and 80% more than the next-highest full.

Figure 10 combines two departments in the College of Business, a college in which inversion and compression are more striking than anywhere else at UF.

Figure 10: Sample Departmental Salary Structure  
Two Business Departments, 2002-03



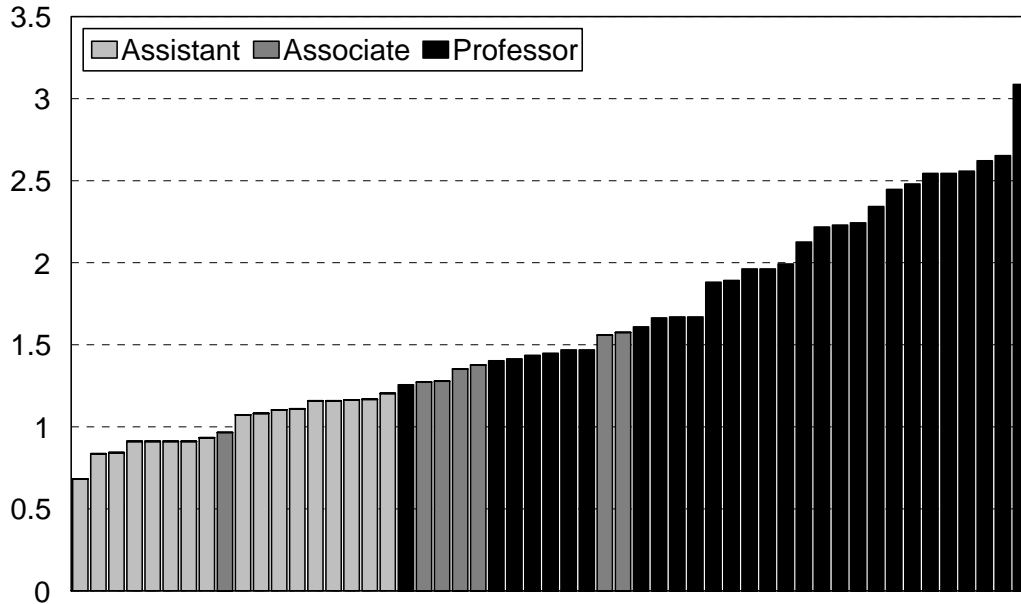
Normalized to Average Salary for Assistants in Same Department

Again, a star is clearly visible to the right, though the premium is less than in the engineering department. There are three clear instances of inverted fulls, paid less than the average for assistants in their own departments. Moreover there are five associates paid less than the average for assistants. We note that salary supplements from private funds, more significant in the Warrington College of Business than in most other colleges, are not included in these charts.



Figure 12: Sample Departmental Salary Structure

Another CLAS Department, 2002-03

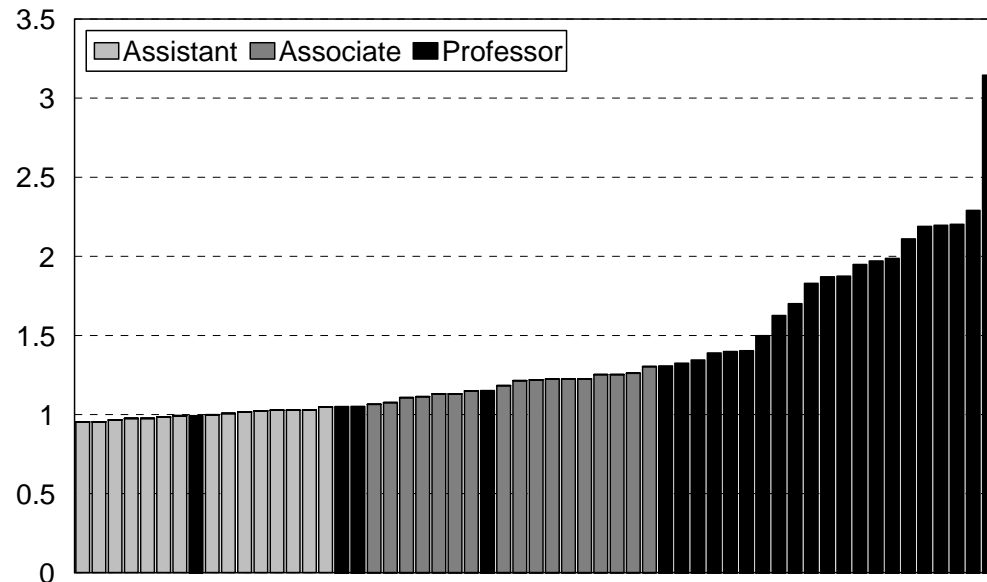


Normalized to Average Salary for Assistants in Same Department

The department illustrated in Figure 12 has a star who receives more than three times the average for assistants. No fulls are inverted in the strict sense, though one associate is paid less than the average for assistants and one full is paid less than the average for associates. Together, Figures 11 and 12 confirm the conventional wisdom that CLAS policy has been to keep inversions and compression to a minimum.

Figure 13 illustrates three departments in the College of Education, with one full who is inverted and three more who are compressed. It is likely that faculty in the College of Education are more thoroughly involved in the process of allocating raises than in any other college on campus. Because their experience may be relevant for other colleges, we describe it in detail from the perspective of one of its departments. In that department, each year a three-person committee, open to all ranks, rates each faculty member using criteria developed by the department. The ratings are based on annual self-evaluations by all faculty members, plus evaluations by students. The committee uses its ratings to rank all faculty, and sends that rank to the departmental chair. The chair must justify any departure from those ranks orally to the committee. For several years, there have been no departures. Based on the ranks, the department chair recommends raises to the dean. Though formally the recommendations are only advisory, common practice has been to accept them.

Figure 13: Sample Departmental Salary Structure  
 Three Departments in the College of Education, 2002-03



Normalized to Average Salary for Assistants in Same Department

Each department of the college has its own merit plan, including a set of criteria for rating faculty. The plans differ from department to department, and each department involves faculty in the raise process as it sees fit. One sub-section of the college constitutions reads as follows: “All principles and procedures on which decisions on tenure, promotion, and salaries and increases and evaluations are made, and all results of those decisions shall be made known to the individual faculty member. Faculty members have the right to appeal such decisions... In addition, faculty members shall have access to a summary statement showing the distribution of evaluation results, salary increases, and tenure and promotion decisions.”

## 5. Benefits

The benefits package constitutes a significant component of total compensation, and, thus, should be included in the overall discussion of compensation. However, the limitations of time and resources available for this analysis prevented complete comparisons between UF and other institutions. Nonetheless, we can conclude with reasonable certainty that the benefits package at UF at best is comparable to peer institutions and probably falls short. Comparing benefits does not overcome the differences in salary between UF and the comparison institutions in our charge. The University should study UF benefits relative to that comparison group annually.

**Current UF Benefits:** The current UF benefits paid by the employer (i.e., from institutional, grant or other funds) are listed below (<http://rgp.ufl.edu/research/pdf/03->

[04match.pdf](#); accessed 3/12/04). It should be noted that these benefits are actually a range depending on the retirement system and health insurance option chosen.

**Employer Costs (% of salary) for Required Benefits: FY 03-04**

Retirement	FRS	7.39%	ORP	10.43%	DROP	9.11%
Social Security – FICA		7.65%		7.65%		7.65%
Worker's Compensation		0.25%		0.25%		0.25%
Unemployment Compensation		0.05%		0.05%		0.05%
<b>Employer's Cost</b>	<b>FRS</b>	<b>15.34%</b>	<b>ORP</b>	<b>18.38%</b>	<b>DROP</b>	<b>17.06%</b>

**Health Insurance:**

Family coverage:	\$590.30/month or \$7,083.60/year
Individual coverage:	\$288.68/month or \$3,464.16/year
Spouse program participants:	\$382.71/month or \$4,592.52/year

**State of Florida Term Life Insurance:**

Employer's Cost: Approximately 0.24% of employee's salary.

**Comparisons with Peer Institutions.** In order to facilitate comparisons of these benefits with institutions that calculate fringe benefits solely as a percentage of salary, let us examine UF benefits for two hypothetical cases. For a UF faculty member with a salary of \$50,000 per year in the ORP with family health insurance coverage, the total of employer-paid benefits would be \$16,443, or 32.9% of salary. Similarly, for a UF faculty member having a salary of \$100,000 per year also in the ORP with family health insurance coverage, the total of employer-paid benefits would be \$25,803, or 25.8% of salary.

Similar information has not been obtained for the comparison of top 10 public universities plus Ohio State and Minnesota. Quantitative figures, when available, were most readily found at the respective institutional research offices. Simply for the purpose of providing ball-park comparisons, we offer such data from Ohio State and Minnesota. The OSU Research Foundation web site (<http://rf.osu.edu/inf/e-fringe.cfm>) indicates that the fringe benefit rate to be used in grant budgets for faculty appointments is 27.3% of salary, which is stated to include “employer-paid contributions for retirement, health care, life insurance, etc.” Extending our example, OSU faculty members making \$50,000 and \$100,000 would have fringe benefits of \$13,650 and \$27,300, respectively.

The University of Minnesota fringe rate, 31.8% of salary, covers “retirement, group life & disability, workers compensation, unemployment, social security, Medicare,

and health insurance” ([http://www.budget.umn.edu/budget/fb\\_components1.doc](http://www.budget.umn.edu/budget/fb_components1.doc)). In our comparative example, University of Minnesota faculty members making \$50,000 and \$100,000 would receive \$15,900 and \$31,800, respectively.

This highly preliminary comparison of UF with two comparable institutions clearly indicates similar levels of fringe benefits (at least within the limits of a research-based budget calculation). This analysis supports our initial contention that differences in benefits do not compensate for differences in faculty salary.

**Comparisons of Overall Benefits Packages and Options Available.** Perhaps the most inclusive source of comparative data is a study conducted by Ohio State University of AAU institutions through the Association of American Universities Data Exchange (AAUDE; OSU 2003). For the purposes of our study of UF compensation, the Committee summarized AAUDE data on available benefits from four of the top 10 public universities plus Ohio State and Minnesota, summarized below. It is important to note that the availability of a program does not indicate the level of employer contribution; this study provided no differentiation between employer and employee costs.

**“AAUDE Survey of Benefits Programs 2002-2003,” Office of Human Resources, The Ohio State University, February 2003. 11 pages.**

The survey examined benefits programs at 24 universities. Among them were the University of Florida and six of the Top Ten Plus Two institutions on which the Compensation Committee focused its attention. In the table below, the University of Florida is compared to the following six institutions: Ohio State University, University of Michigan, University of Minnesota, University of North Carolina – Chapel Hill, University of Virginia, and University of Wisconsin System. An “X” in a table cell indicates that the institution does offer the benefit program at some level but conveys no information about the share of the cost borne by faculty.

BENEFIT	Florida	Michigan	Minnesota	North Carolina	Ohio State	Virginia	Wisconsin
<b>Basic Health Care Plans</b>							
Health Maintenance Org. (HMO)	X	X	X		X		X
Preferred Provider Org. (PPO)	X		X	X	X		
Point of Service (POS)		X		X		X	
<b>Special Health Care Plans</b>							
Dental coverage	X	X	X	X	X	X	X
Vision coverage	X	X	X	X	X	X	
Alcohol/Drug coverage	X	X		X	X	X	X
Prescription drug card program	X	X		X	X	X	
Mail order prescription drug pgm.	X	X	X	X	X	X	
Employee assistance plan	X	X	X	X	X	X	X
Employee health center/clinic		X			X		
Wellness program	X	X		X	X	X	
<b>Other Employee Benefits</b>							
Flexible benefits (employee chooses from options)		X		X			
Health care flexible spending a/c	X	X	X	X	X	X	X
Dependent care flexible spending a/c	X	X	X	X	X	X	X
Premium conversion plan	X	X	X	X	X	X	X



Short-term disability insurance	X		X	X	X	X	X
Long-term disability insurance	X	X	X	X	X	X	X
Dependent care assistance				X			
Educational assistance	X	X	X	X	X	X	X
Domestic partner coverage		X	X	X			
Paid maternity leave (excludes FMLA)			X			X	X
Paid paternity leave (excludes FMLA)			X			0	X
Adoption leave (excludes FMLA)			X	X			X
Adoption reimbursement	X				X		
Term life insurance	X	X	X	X	X		X
Accidental death & dismemberment	X		X	X	X	X	X
Supplemental employee life insurance	X	X	X	X	X	X	X
Dependent life insurance	X	X	X	X	X	X	X
Supplemental dependent life insurance		X	X	X	X	X	X
Group personal insurance (payroll deduction for auto/homeowners insurance)	X			X			
Buy/selling vacation/sick days							X
Contributing vacation/sick days	X		X	X		X	X
Discounted goods/services			X	X	X	X	
Entertainment/recreational discounts	X	X	X	X	X		
Financial planning		X	X	X	X	X	X
Group legal plans		X					
Pre-retirement counseling	X	X	X	X	X	X	X
Subsidized cafeteria							
Subsidized/on-site day care	X			X	X	X	
Subsidized/paid parking		X					
Transit/transportation/bus (pass)	X	X	X	X	X		X

X = Has program

0 = No response

AAUDE = Association of American Universities Data Exchange

The complete list of the Top Ten public universities Plus Two: College of William and Mary, Georgia Institute of Technology, Ohio State University, University of California Berkeley, University of California Los Angeles, University of California San Diego, University of Illinois, University of Michigan, University of Minnesota, University of North Carolina – Chapel Hill, University of Virginia, and University of Wisconsin.

The table above was altered from the original by removing the “Flex-Time” benefit, which does not apply to faculty.

## 6. Merit Based Compensation

The simplest and most transparent raise procedure would be to allocate all raise funds across the board, either as a constant percentage or as a constant dollar amount. We do not recommend doing this. The academic mission of the University of Florida is teaching, research, and service. Further, a stated goal of this university is to rise to the top tier of U.S. universities. To meet this goal the university must reward the faculty who excel in their mission. Therefore, faculty compensation should be merit based, and moreover, the criteria with which that merit is measured should be fair, explicit, and

understood by all. Transparency does not require that the criteria be simplistic. Faculty are able to deal with complexity, as long as the rules are available and the procedures for applying them are not hidden. Moreover, part of the complexity of the university is that no rule will be suitable for all colleges and departments. Faculty in all colleges and departments, however, should have confidence that they know what the rules are, how they are implemented, and how and why exceptions are made.

Toward this goal, we recommend that there be two related methods through which faculty are involved, in an advisory capacity as defined in the Senate document on shared governance, in setting compensation. The first is in the process of allocating annual raises. The second is through less-frequent periodic review of the pattern of department compensation.

The annual process should be merit-based. We are not recommending that any department be allowed the right to grant themselves across-the-board raises year after year. After cost-of-living adjustments, raises must reward merit, based on criteria developed by faculty in consultation with administrators. To illustrate how this would work, we have developed an illustrative merit-based compensation plan employing quantifiable metrics. We are not suggesting that any plan be applied rigidly by all departments. We are instead recommending that each department have a set of criteria—mathematical or not; but explicit, detailed, written, and available to all faculty.

These metrics are based on individual faculty contributions to teaching, research, and service. The relative contribution to the academic mission is different for each faculty, department and college. Therefore, the *Merit Raise* plan is weighted by the assigned responsibilities of each faculty in meeting his or her expected relative contribution to the academic mission. In addition, direct financial contributions to the university by Clinical and Extension faculty, and faculty heavily involved in research are compensated through the *Merit Bonus* plan.

Within each part of the academic mission we have incorporated quantifiable metrics. For teaching, these metrics include course evaluations, peer reviews and the contribution due to teaching large classes. For research, these metrics include publications and scholarly works, graduate students supervised, awards, external research support and PhD students graduated. For service, these metrics include committees, editorial responsibilities and election to a society office.

It is expected that contributions and their impact will vary dramatically among departments and colleges. Therefore, these and other faculty contributions are multiplied by an impact factor. The impact factor differentiates the importance of the specific contribution with regard to other similar contributions (publication of a manuscript in a prestigious journal has a greater impact factor than a conference abstract, and a Nobel Prize has a greater impact factor than a best paper award) as well as the importance of that contribution criteria to the academic mission of the department (e.g., a department may decide to use peer evaluations rather than course evaluations assigning an impact factor of zero to course evaluations. In view of these complexities, impact factors will be determined on a departmental and college basis by faculty committees.

If faculty respond to these incentives and if departments implement them effectively, then department rankings should rise consistent with the stated UF goal.

Therefore, the *Merit Raise* plan also includes department rankings. The quantitative relationship for this plan is presented below. The more effectively a department advances the university's goal of becoming a top ten public institution, the more its members are to be rewarded by the university.

In many colleges, another component of faculty compensation should be the direct financial resources the faculty bring to the university in excess of their expected contribution to the academic mission. This component should be in the form of an annual bonus as shown in the *Merit Bonus* plan, below.

The *Merit Raise* and *Merit Bonus* plans are intended to provide guidelines for deans and departmental chairs in their allocation of available finances. Implementation under UF's Shared Governance will require creation of a Faculty Senate Compensation Committee, under the auspices of the Academic Freedom, Faculty Quality and Faculty Welfare Policy Council. Deans and chairs will provide raise and bonus data compared against *Merit Raise* and *Merit Bonus* plans for their college and departments to the committee and explain any significant deviations from the plan and/or request modification of the plan for their colleges. The final authority for giving raises rests with the administration. But we urge that the faculty have a strong advisory role, including the right to explanations when their recommendations based on explicit criteria are not followed.

Finally, it is incumbent on the President and the University to make merit based compensation a priority budget item. When cost of living raises are limited by state budgets, other resources must be brought to bear to implement this plan fully and reward our most meritorious faculty.

### **Merit Raise, Contributions from teaching (T), research (R) and service (S):**

$$\text{Merit Raise} = [f_T((\Sigma \text{IF}_{CE} \cdot \text{CE} / X_{CE}) + (\Sigma \text{IF}_{PR} \cdot \text{PR} / X_{PR}) + (\Sigma \text{IF}_{CS} \cdot \text{CS} / X_{CS}) + \text{other...}) + f_R((\Sigma \text{IF}_P \cdot N_P / X_P) + (\Sigma \text{IF}_G \cdot N_G / X_G) + (\Sigma \text{IF}_A \cdot N_A) + (\Sigma \text{IF}_\$ \cdot N_\$) + (\Sigma \text{IF}_D \cdot N_D) + \text{other...}) + f_S((\Sigma \text{IF}_C \cdot N_C) + (\Sigma \text{IF}_E \cdot N_E) + (\Sigma \text{IF}_O \cdot N_O) + \text{other...})] \cdot [(100-\text{DR}) / (100-\text{CR})]$$

$f_i$  = Weighting factor from Faculty Assignment Report

$\Sigma$  = Sum of all contributions in this category

$\text{IF}_i$  = Impact factors (0 – 1)

$N_i$  = Number

$X_i$  = Departmental mean

CE = Course evaluations

PR = Peer reviews

CS = Class size

P = Publications, patents, or other scholarly works

G = Graduate students supervised

A = Awards

\$ = External contract/grant research support generated

D = PhD students graduated

C = Committees (departmental, college, university)

E = Editorial board

O = Society officer

DR = Department ranking (1 high, 100 low)

CR = College ranking (1 high, 100 low)

### **Merit Bonus, Direct external financial compensation:**

Annual Bonus = IF • M

IF = Impact factor (0.1 – 1.0). Some departments may wish to modify the calculation of IF to take account of the cost to the university of supporting the revenue-creating activities. Additionally, as we are now in the age of collaborative and team-generated research, impact factors can be used to apportion credit for such activities. Moreover, impact factors can be adjusted to account for

M = Monthly salary generated by external contract/grant research support or clinical work above and beyond academic and fiscal requirements (summer salary for 9 month faculty or annual salary for clinical and extension faculty).

To reiterate, we note that this procedure is illustrative. Many departments will prefer a less mathematical statement of their criteria. Moreover, we recognize that even a formula as full as that given above cannot capture the complexity of faculty contributions. In particular, a major responsibility of departmental compensation committees is to assess the *quality* of faculty contributions. Consequently such explicit formulations are starting points. Faculty committees generating raise recommendations to administrators should first apply the explicit criteria, which should be fully documented and available to all faculty, and then justify their deviations from them. The second component of faculty involvement should be periodic review of the pattern of compensation in each department, using faculty portfolios and compensation data such as the numbers illustrated in Figures 9 through 13. Every three to five years, varying with department, a faculty committee should assess the existing pattern of compensation, comparing it to each faculty member's contributions to advancing the department's goals. Raise recommendations in that and subsequent years should take account of each person's status relative to the desired pattern.

The first of the periodic reviews should begin as soon as possible. In it each department committee should establish appropriate national comparisons with peer departments to determine the extent to which individual faculty members are undercompensated, taking into account productivity and merit. Part of any new resources should be used to address the most egregious cases where salary clearly fails to reflect the productivity of the faculty member. These people are productive and visible but underpaid, and consequently most at risk of leaving the University. Deans should assess the accuracy of the departments' reviews and be charged with providing the resources to deal with the most urgent cases.

Both the annual raise recommendations and the periodic assessments of the overall patterns of compensation should be reviewed by the Faculty Senate Compensation Committee, which should report annually to the Senate. The annual report should assess implementation of the process by departments and colleges, the allocation of raises, the overall patterns of compensation, and the University's progress in moving toward a level

and structure of compensation that is commensurate with its goal of becoming a top ten public institution.

## **7. Feasibility**

We at the University of Florida are privileged to be entrusted by our fellow citizens with front-line responsibility for the scientific and cultural progress that world-class research universities create and for educating thousands of the ablest and most committed of the coming generation. The purpose of our recommendations is to enhance our University's ability to fulfill its missions of teaching, research and service in a manner worthy of the vision of those who supported and guided it over the years.

Our individual recommendations are strands in a closely knit fabric. There would be little purpose to higher salaries unless they are to be distributed in a way that rewards productivity. There would be little purpose to faculty participation unless there are significant raises to be allocated. We would not want additional public support, higher tuition, or private contributions without offering accountability that the resources will strengthen the university's research, education, and service. There would, however, be no point at all to our recommendations if there were no hope of implementing them. We therefore go beyond our charge in lightly addressing the feasibility of our recommendations, although we do not presume to offer specific funding suggestions.

With respect to reversing the trend toward a larger shortfall in UF's compensation compared to its AAU peers and the current top ten, the annual cost of reducing the average compensation gap between UF and the 12 comparison universities would be, in addition to matching their pay increases, on the order of \$30 million. To reach their average, this figure would rise to \$60 million. These are significant figures, to be sure, but we note two things: First, that among Florida's large and growing population, with income per resident close to the national average, there is substantial demand for educating students at a top-ranked, in-state, public research university. Moreover the state's leaders, engaged in creative efforts to raise average income by attracting higher-paying jobs, are cognizant of the importance of enhancing the quality of its top-ranked research university, as well as of its entire system of higher education. Such enhancement attracts more research dollars from out of state, creates spin-off companies employing skilled and productive workers, creates the educational opportunities high-value-added workers treasure for their families, adds to the state's prestige, and offers the state's best high school students an incentive to remain in the Florida, thus enlarging the pool of talented alumni. Second, we note that the University has several broad sources from which it could draw funds for improved compensation: principally tuition, legislative appropriations, and private funds.

For other top ten public institutions, tuition contributes more to revenue than is the case at the University of Florida. Tuition at Florida's public universities is constrained by Bright Futures, by Florida Prepaid, and by the laudable desire of the state's leaders to maintain equitable access to higher education. A consequence of the interaction of these constraints is that our tuition falls below that charged to 93% of the students who attend

public four-year institutions of higher education in other states. The low tuition is probably a major cause of the widening gap between UF and top-ten compensation. Allowing the University to raise tuition to the national average is an obvious source of revenue for continuing to offer the state's ablest and hardest-working young scholars access to an education at a world-class research university at reasonable cost.

Additionally, the University could seek increased appropriation by the Legislature of funds for faculty compensation. Obtaining legislative approval for significantly higher tuition or appropriations would require creative leadership and time. But we are confident that UF has dedicated leaders, alumni, and other friends able to persuade legislators that they have a large constituency that, once fully informed about the options the state faces, will be willing as well as able to pay the cost of maintaining and enhancing the option of sending their children to a first-tier public institution. In the meantime, the University could consider making the best of what it currently has, even if necessary dedicating some non-recurring resources to temporary salary supplements. Similarly, some colleges within the University could consider using a percentage of returned overhead for augmenting salaries.

In earlier years, a disadvantage the University of Florida had in comparison to most of the top ten public institutions was that its alumni, while dedicated to improving their university and generous in guiding and supporting it, were, because of UF's rapid growth, few in number relative to the size of the institution. As our size stabilizes and the ratio of alumni to current students rises, however, and our alumni prosper, their generosity will contribute even more to the excellence of the institution. Among other things this could enable colleges to use more Foundation resources for named professorships, salary supplements, and well-endowed chairs for star faculty.

Finally, with respect to faculty participation in setting compensation, the Board of Trustees, the Administration, and the Senate have all made it clear that we are to move rapidly in the direction of greater shared governance. Our recommendations advance that goal in a manner that increases the flow of information from administration to faculty as well as from faculty to administration, improves morale and incentives, and is fully in keeping with the spirit of the course the Board of Trustees is setting for the University. Our recommendation that there be a marked increase in faculty participation is hardly radical. Most faculty who move between UF and other AAU institutions are struck by the heavily top-down administration of our institution. A larger faculty role in setting compensation will require time and energy. Well aware of that, we recommend it only because of our firm belief that the gains from the flow of information, the increased incentives, and the retention of top performers will more than offset the cost.