

Discretion in Faculty Salary Adjustments, 1982-1986
Report for the Senate Committee on Faculty Affairs

by Robert Kudrle and Geoffrey Maruyama

This report results from questions raised during the past several years by members of the Senate Committee on Faculty Affairs. They expressed concern about the actual results since the early 1980s of the University's policy of awarding salary increases mainly or entirely on the basis of "merit." The material that follows speaks to some of those questions; it cannot possibly deal with all of them. In particular, what is said here does nothing to shed light on the question of how individual units have defined meritorious performance, the appropriateness of those definitions, or the efficacy of the means used to measure performance. Other questions, however, can be addressed, at least in part.

1) How much was the discretion offered to administrators in the colleges and departments actually used to provide differential rewards?

2) How consistently were faculty rewarded across time? Differences in the variation of faculty rewards across time among different University units could indicate a number of underlying factors. For example, some units may simply have a constellation of personnel whose relative productivity does vary across time more than others, or some units may respond to variation in performance more rapidly than others.

3) Is there evidence of faculty "rotation" through a retention process in order to increase a unit's salary base? The availability of funds from sources outside the decision-making unit could induce some decision makers to make a case for a faculty member and then subsequently to give that faculty member lower raises in order to increase the relative remuneration of the person's peer group in the department. Units "rotating" faculty through preventive or other retention may in fact be bringing overall salary levels closer to competitive levels, which, however, seems not to have been the intention of those providing the funds.

4) How much did raises exceed those monies provided directly by the University for that purpose? We were curious about the extent to which units used available funds to augment salaries in excess of the amount of funds provided by the University expressly for salary increases. If in fact the salary situation is as bleak as it has been made out to be, then administrators would likely have been forced to go beyond the available raise monies to try to retain and appease faculty.

We should stress at the outset our intention of answering these and similar questions rather than providing a critique of the merit system.

Procedures

Data were analyzed by personnel from the Management Information Division of the Office of Management Planning and Information Services. We wish to express our thanks to Becky

Goodman, Dan Pierro and Marcy Rasmussen in Management and Planning Information Services for their outstanding work. MPIS staff isolated those individuals who had consecutive salaries for the five years from 1982-83 through 1986-87. Earlier data have not been gathered in usable form, and later data are not yet available. Percent changes in salaries were calculated for each of the four increases over the period, with any individual salary increase or decrease more or less than 35 percent checked against personnel files. Some large changes were due to changes in term, changes in percent time, or special retirements. All retirees were removed from the analysis, and salaries were adjusted to reflect changes in term or percentage of time. No attempt was made to control for promotions. Persons with administrative posts appear in the data, but only their base salaries are recorded.

Table 1 provides information on salary increase percentages passed onto the units to use for raises as well as the actual average increase received by faculty each year. Increases markedly exceed the amount of money allocated. The principal sources of additional monies were apparently (1) the down-grading or "cannibalizing" of vacant faculty lines, (2) diversion of supply monies, (3) special retention funds, and (4) other externally raised funds. Also included in Table 1 is the percentage increase in the Consumer Price Index. Both directed and received increases are considerably above the CPI. As faculty should be aware, our increases have allowed us to do

TABLE 1

	<u>Actual Average Percentage</u>	<u>University Directed Percentage</u>	<u>Increase in Consumer Price Index</u>
1983-84	7.9	6.0	3.1
1984-85	7.9	6.0	3.8
1985-86	6.2	4.5	2.8
1986-87	5.8	5.0	2.0

relatively well over the last few years compared to inflation, but this of course, only allowed us partly to catch up for our losses in the preceding period.

As a baseline for considering the numbers in Table 1, it is important to note that Colleges and Departments were given different instructions in different years. The gist of the direction given to "Provosts, Deans, Directors and Department Heads" by the Central Administration can be summarized:

1983-84:	6 percent average. All merit.
1984-85:	6 percent average. All merit.
1985-86:	4.5 percent average. All merit.
1986-87:	5 percent average. All merit. It was also suggested that 3.5 percent reflected "satisfactory" performance.

"Trajectory Groups"

Some of the work that follows simply analyzes percentage changes in salaries across units. Nonetheless, one of our objectives was the possible identification of relatively homogeneous groups over time: salary "trajectory groups." Although alternative groupings were considered, the following analysis is based on eight groups.

Group One included those persons who in every year were above the University-wide actual average annual salary increase.

Group Two contains those persons whose salaries in every year were above the University-wide declared average and in at least one year above the actual salary percentage awarded.

Group Three includes those persons who in each year of our

survey had salary increases between the declared University average increase and the actual University average increase.

Group Four includes those persons with salary increases never exceeding the University-wide actual average, and at least one salary increase below the declared University average.

Group Five contains those faculty who in each of the four years had salary increases below the declared University average, but who always had salary increases more than one-half of that average.

Group Six is comprised of persons who always had salary increases lower than the University-wide declared average, and who in at least one year had salary increases less than one-half that average.

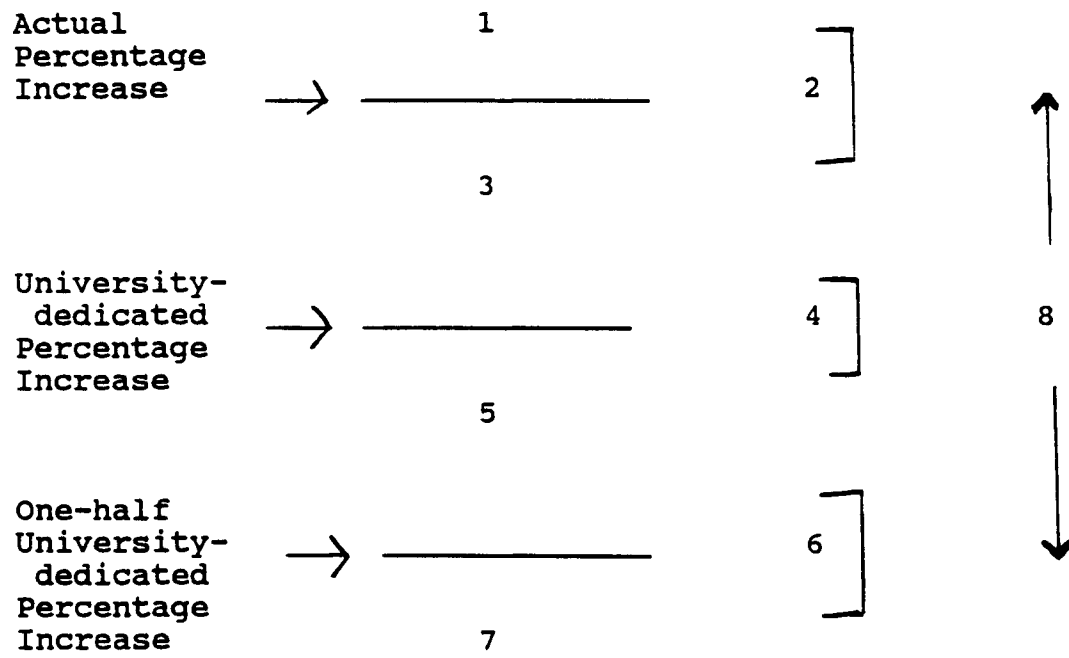
Group Seven includes those individuals who, in each of the four years, had salary increases less than one-half the University provided average.

Finally, Group Eight in the analysis is a residual containing people whose salary pattern fit none of the above categories.

Figure 1 gives a schematic of the eight categories.

In both absolute and relative percentage terms, the range of our categories changes over the years like an accordion. For example, the difference between the directed and the average percentage increase in 1986-87 was 16 percent of the former figure ($5.8/5.0 - 1$), while the comparable "gap" in 1985-86 was much larger: 37.8 percent. It must also be kept in mind that

FIGURE 1
THE "TRAJECTORY GROUPS"



both departments within colleges and colleges themselves had differential access to funds beyond those directed.

Group Size and Composition by Gender

Table 2 shows the distribution among the eight groups tabulated by gender. More than three-fifths of the entire faculty falls into one of the seven categories specified in our earlier discussion. Only 38.6 percent could not be so categorized.

Some importance attaches to the sum of categories 5, 6, and 7. These persons, over 14 percent of the entire faculty, did not receive as much as the University average in any of the four years. The overall number of persons whose salaries were always below the University dedicated increase is approximately twice the number whose increases were always above the actual percentage awards.

The most apparent gender difference is in the three lowest categories where the male percentage is more than fifty percent higher (15%) than the female (9.8%) and in the combined Groups 1 and 2, where women were 29 percent and men 23 percent.

Overall, the fact that the lion's share of the faculty fell into one of our seven groupings, suggests two conclusions. First, the discretion given to administrators and faculty committees to award salary increases unequally and presumably on the basis of merit was exercised to what most observers would probably consider quite a high degree. (A part of the difference can be explained by variations among entire units in the total

TABLE 2

"Trajectory Groups" By Gender

Number of Cases
(% of column)

	FEMALE	MALE	ALL
Group 1	21 (6.4)	120 (7.4)	141 (7.2)
2	76 (23.2)	261 (16.1)	337 (17.3)
3	2 (.6)	18 (1.1)	20 (1.0)
4	59 (18.0)	362 (22.4)	421 (21.6)
5	15 (4.6)	135 (8.3)	150 (7.7)
6	17 (5.1)	98 (6.1)	115 (5.9)
7	0 (0.0)	10 (0.6)	10 (0.5)
8	138 (42.1)	614 (37.9)	752 (38.6)
Column Totals	328 (100.0)	1,618 (100.0)	1,946 (100.0)

NUMBER OF MISSING OBSERVATIONS = 4

percentage increase granted over the years.) Secondly, the concept of "trajectories" can certainly be sustained within the entire faculty. In other words, not only is discretion exercised in each year, but there is considerable consistency of awards from one year to the next.

Dispersion of Cumulative Salary Increase

Figure 2 presents a histogram showing the dispersion around the actual mean percentage University-wide cumulative salary increase over the four years. According to these data, salary increases for 8.1 percent of the faculty were small enough that they ended up at least one standard deviation below the University-wide total summed increase of 27.8 percent. (The standard deviation was 13.3 percent.) These same data show that 13.1 percent of the faculty had salary increases large enough to end up more than one standard deviation higher than the University-wide figure. Seven percent of female faculty and 8.2 percent of male faculty had increases more than one standard deviation below the mean while 14.9 percentage of females and 12.7 percent of males had increases more than one standard deviation above the mean.

Table 3 captures the relationship between our eight categories and the summed increase of faculty salary over the four years. Not surprisingly, the summed increase beyond one standard deviation of the mean was heavily concentrated in Groups 4 through 7 with only a handful in Group 8. Persons in Group 8 can have an overall low average despite the fact that, by

FIGURE 2

DISTRIBUTION OF SUMMED
FACULTY PERCENTAGE
SALARY INCREASES

1982 - 1986

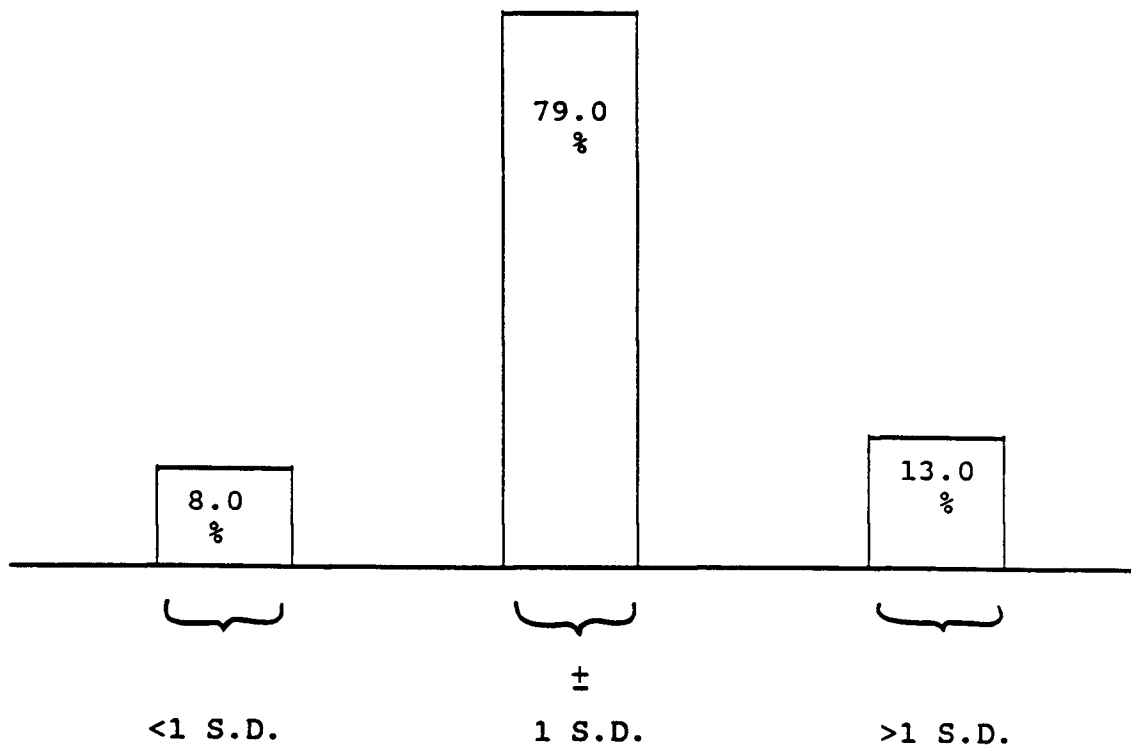


TABLE 3

Summed Faculty Salary Increase Beyond
One Standard Deviation of the Mean

Number of Cases
(% of Row)

Group	1	2	3	4	5	6	7	8	All	Row Total as a % of Total Cases
< -1 S.D.	0 (0.0)	0 (0.0)	0 (0.0)	21 (13.4)	11 (7.0)	99 (63.1)	10 (6.3)	16 (10.2)	157 (100.0)	8.1
> +1 S.D.	84 (33.0)	68 (27.8)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	102 (40.2)	254 (100.0)	13.0

definition, they must have had at least one relatively "good year."

Of those with unusually high increases, however, nearly 40 percent of the total consists of people in Group 8. This is also not surprising given the way the groups were composed. Only groups one and two were constructed to capture consistently high salary increases. Hence, all others with overall high increases fell into the inconsistent category. It is interesting, although perhaps not surprising, that a very large fraction of persons with high summed salary increases did not fall below the actual University-wide average increase for any of the years during the four-year period.

Trajectory Groups Examined by Department Rank

Table 4 shows the distribution of persons classified both by the eight previously discussed groups and by the reputational quality of the department in which they are members. For example, the first row contains the 72 persons in the survey who were identified as being in departments with a national rating in the top 10. In each cell, the percentage of persons is given with respect to the total number of persons in that row. Hence, 8.3 percent of all persons in the survey who were in top 10 departments were in Group 1, 15.3 were in Group 2, and so on.¹

Although it might seem a priori that faculty in the highest

¹ For the Medical School "Basic Medical" and the much larger "Clinical Medical" categories are listed separately. Only the former category includes salaries entirely from university funds. The latter combines university funds with practice income.

TABLE 4

"Trajectory Groups" Within Differently
Rated Departments

Number of Cases
(% of Row)

Group	1	2	3	4	5	6	7	8	Row Total
Top Ten	6 (8.4)	11 (15.3)	0 (0.0)	16 (22.2)	5 (6.9)	5 (6.9)	0 (0.0)	29 (40.3)	72
11-20	32 (8.5)	84 (22.4)	3 (0.8)	73 (19.4)	37 (9.8)	13 (3.5)	2 (0.5)	132 (35.1)	376
21-	62 (7.1)	127 (14.6)	6 (0.7)	183 (21.1)	35 (5.0)	59 (6.8)	6 (0.7)	391 (45.0)	869
Unclassified	41 (6.5)	117 (18.5)	11 (1.7)	150 (23.7)	74 (11.7)	38 (6.0)	2 (0.3)	200 (31.6)	633
Column Total	141 (7.2)	339 (17.4)	20 (1.0)	422 (21.6)	151 (7.7)	115 (5.9)	10 (0.5)	752 (38.6)	1950

Source of Ratings:

Jones, Lyle V., Gardner Lindzey, and Porter E. Coggeshall, editors, An Assessment of Research-Doctorate Programs in the United States: Social and Behavior Sciences, Humanities, Biological Sciences, Mathematical and Physical Sciences, Engineering, Washington D.C.: National Academy Press, 1982.

quality departments should display different profiles than other faculty, perhaps such thinking is naive. For example, a department's strength might come from a balanced faculty in which it is difficult to isolate persons who are most productive. Alternatively, strength might come from a relatively small number of superstars who consistently receive the highest raises. (This bimodal distribution may not represent a healthy profile for a department because the reputation depends so heavily on a small number of individuals.) Further complicating the issue is the availability of money for "anticipated retention cases" and funds from internal sources, which likely favor most prestigious departments. In addition, this analysis does not look either at salary levels or at absolute salary increases, which might provide a somewhat different pattern. Finally, the numbers of faculty in "Top 10" departments is relatively small, so the findings could be affected by policies of a single department.

Despite all of the above-mentioned uncertainties, the pattern of findings makes some intuitive sense. First, faculty in the top two quality levels appear to be fairly similar in their salary patterns. If those faculty are merged and contrasted with all other faculty, i.e., yielding two groups, one with departments rated 1 through 20 and second with departments rated 21 and below, a considerable difference does emerge. The average of the top two groups for the top 20 departments taken together is 29.7 percent compared with 21.7 percent of those 21 and below. At the same time, the presence of a large group of

individuals in unclassified departments--nearly a third of the total--diminishes our confidence in the conclusion that the better departments have more persons in the consistently higher increase categories.

When one looks at the fourth row of Table 4, the results remain somewhat unclear. The unclassified third of the faculty had 18 percent in the three lowest increase categories, a higher percentage than found for the classified departments (i.e., rows 1-3), whose percentages in those three lowest categories are quite similar.

Should the overall pattern of results surprise us? Based upon the above logic, probably not. Leaving the issues of differential access to salary monies and the large number of unclassified individuals aside, an understanding of these data probably depends upon more micro level analyses. As noted earlier, the structure of salary increases over several years within a department may be more a function of the heterogeneity of a department than its overall ranking. Some very strong departments may have a few persons performing well below the departmental standard; the opposite may be true of some weak departments.

Trajectory Groups By Faculty Rank

Tables 5 and 6 show the trajectory groups separately for those persons who held the rank of Professor over the entire four years and those who did not hold that rank during any of the years. Although there is considerable variation by College, the

TABLE 5

"Trajectory Groups" Of Full Professors
By CollegeNumber of Cases
(% of Row)

Group	1	2	3	4	5	6	7	8	Row Total
CLA	4 (2.0)	37 (18.3)	2 (1.0)	49 (24.2)	30 (14.9)	12 (5.9)	0 (0.0)	68 (33.7)	202 (100.0)
IT	28 (16.1)	36 (20.7)	0 (0.0)	35 (20.1)	13 (7.5)	8 (4.6)	0 (0.0)	54 (31.0)	174 (100.0)
Ag-For-HE	2 (1.3)	20 (13.3)	3 (2.0)	38 (25.3)	35 (23.3)	9 (6.0)	0 (0.0)	43 (28.7)	150 (100.0)
D-PH-Pharm-Nur	2 (4.3)	4 (8.5)	0 (0.0)	14 (29.8)	3 (6.4)	2 (4.3)	0 (0.0)	22 (46.8)	47 (100.0)
Basic Med	1 (2.0)	2 (5.0)	0 (0.0)	8 (23.5)	4 (11.8)	1 (2.9)	1 (2.9)	14 (41.1)	34 (100.0)
Clin Med	1 (0.9)	1 (0.9)	1 (0.9)	27 (24.8)	1 (0.9)	25 (22.9)	4 (3.7)	49 (45.0)	109 (100.0)
CBS	0 (0.0)	2 (4.8)	0 (0.0)	9 (22.0)	4 (9.8)	2 (4.9)	0 (0.0)	24 (58.5)	41 (100.0)
Vet	0 (0.0)	3 (10.0)	0 (0.0)	10 (33.3)	0 (0.0)	1 (3.3)	0 (0.0)	16 (53.3)	30 (100.0)
Law	4 (19.0)	7 (33.3)	0 (0.0)	1 (4.8)	0 (0.0)	0 (0.0)	0 (0.0)	9 (42.9)	21 (100.0)
Educ	13 (16.3)	24 (31.2)	1 (1.3)	23 (30.0)	3 (3.0)	0 (0.0)	0 (0.0)	13 (16.9)	77 (100.0)
Mgmt	0 (0.0)	2 (7.1)	1 (3.6)	6 (21.4)	2 (3.4)	3 (10.7)	0 (0.0)	14 (50.0)	28 (100.0)
Not Classified	0 (0.0)	10 (16.0)	3 (5.1)	18 (30.5)	6 (10.2)	2 (3.4)	0 (0.0)	20 (33.9)	59 (100.0)
TOTAL	55 (5.7)	151 (15.5)	11 (1.1)	238 (24.5)	101 (10.4)	65 (6.7)	5 (0.5)	346 (35.6)	972 (100.0)

TABLE 6

"Trajectory Groups" Of Non-Full Professors
By CollegeNumber of Cases
(% of Row)

Group	1	2	3	4	5	6	7	8	Row Total
CIA	12 (8.2)	27 (18.4)	3 (2.0)	33 (22.5)	12 (8.2)	7 (4.8)	1 (0.7)	52 (35.4)	147 (100.0)
IT	18 (20.2)	19 (21.4)	0 (0.0)	7 (2.9)	3 (3.4)	6 (6.7)	0 (0.0)	36 (40.5)	89 (100.0)
Ag-For-HE	2 (0.0)	21 (33.3)	1 (1.0)	17 (17.1)	9 (8.6)	5 (4.8)	0 (0.0)	22 (31.4)	77 (100.0)
D-PH-Pharm-Nur	1 (1.1)	26 (27.4)	0 (0.0)	21 (22.1)	3 (3.2)	1 (1.1)	0 (0.0)	43 (45.3)	95 (100.0)
Basic Med	4 (14.8)	7 (25.9)	0 (0.0)	9 (33.3)	1 (3.7)	0 (0.0)	0 (0.0)	6 (22.2)	27 (100.0)
Clin Med	6 (3.7)	9 (5.6)	0 (0.0)	41 (25.5)	4 (2.5)	16 (9.9)	2 (1.2)	83 (51.6)	161 (100.0)
CBS	2 (15.4)	4 (30.8)	0 (0.0)	1 (7.7)	1 (7.7)	0 (0.0)	0 (0.0)	5 (38.5)	13 (100.0)
Vet	3 (8.8)	2 (5.9)	0 (0.0)	3 (8.8)	3 (8.8)	1 (2.9)	0 (0.0)	22 (64.7)	34 (100.0)
Law	1 (0.75)	3 (0.25)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	4 (100.0)
Educ	5 (14.7)	8 (23.5)	2 (5.9)	9 (26.5)	3 (8.8)	1 (2.9)	0 (0.0)	6 (17.7)	34 (100.0)
Mgmt	4 (14.3)	5 (17.9)	0 (0.0)	3 (10.7)	1 (3.6)	3 (10.7)	0 (0.0)	12 (42.9)	28 (100.0)
Not Classified	8 (6.4)	16 (12.8)	2 (2.5)	33 (26.4)	10 (8.0)	10 (8.0)	2 (1.6)	44 (35.2)	125 (100.0)
TOTAL	66 (7.9)	147 (17.6)	8 (1.0)	177 (21.2)	50 (6.0)	50 (6.0)	5 (0.6)	331 (39.7)	834 (100.0)

"non-Professor" part of the faculty exceeded the Professors in the percentage in Groups 1 and 2 (28 percent versus 23.2 percent) while having a smaller percentage in Groups 5, 6 and 7 (10.7 percent versus 17.6 percent). The summed increase in salary over the years was 25.9 percent for the professors and 28.3 for the other group.

The data are consistent with a number of possibilities, for example: (1) a more productive junior faculty due to changed expectations about performance for junior faculty, (2) an incremental return explanation that suggests that younger (and more junior) faculty invest more in their careers and are consequently more productive because they see their effort as yielding a greater return, and (3) a not necessarily incompatible interpretation that raises are set at least in part on a piece-work basis -- i.e. one article by each of two persons in the same department will yield the same dollar increase and thus a higher percentage increase to the person with the lower salary.

Trajectory Groups Considered By Retention

Table 7 shows the distribution of the 9.8 percent of the total group considered who were the object of retention monies, as recorded by the University. This includes all those who received monies from outside the department in support of the department's retention effort. It also includes at least some persons who were retained entirely with departmental funds. (Departments were instructed to report such retention cases to the Colleges.)

TABLE 7

"Trajectory Groups" For
Individuals Receiving Retention Monies

Number of Cases
(% of Row)

Group	1	2	3	4	5	6	7	8	Row Total	Row Total as a % of Columns
Retention Recipients	36 (18.8)	52 (27.1)	0 (0.0)	3 (1.6)	0 (0.0)	0 (0.0)	0 (0.0)	101 (52.6)	192 (100.0)	9.8
Retention Non Recipients	105 (6.0)	287 (16.3)	20 (1.1)	419 (23.8)	151 (8.6)	115 (6.5)	10 (0.6)	651 (37.0)	1758 (100.0)	90.2

Although only three persons of those receiving retention raises did not experience at least one year above the actual University-wide average, a very high 53 percent of all retainees did not fit a trajectory group. Those seeking evidence that departments use external retention monies to "spread the wealth around" may find some support here. While departments could be differentially placed to reward persons consistently above the actual University-wide average, (i.e., to place them in Group 1), persons with outstandingly strong performances, particularly for such a short period of time as four years, might be expected to be consistently in at least Group 2. Alternatively, one might conclude that some retention cases are not necessarily the strongest or most productive faculty, but, instead faculty willing to "work the system" by getting a job offer from another university.²

Analysis By College

Table 8 gives the mean and standard deviation actual percentage increase by college for each of the four years and the summed figures over the entire four years. Differences in mean percentage increase by year, and particularly overall, is quite marked. Summed increases by college ranged from 24 percent

² The authors also received a breakdown of persons by trajectory group on the basis of past administrative experience. The results were not particularly striking, and because administrative experience correlates to a very high degree with seniority at the University, an analysis of this factor would perhaps best be considered in a context where years of service is also considered. Our study does not consider these questions.

Table 8
 Percentage Salary Increases by College
 1983-84 - 1986-87

Mean Percentage
 (Standard Deviation)

<u>College</u>	<u>1983-84</u>	<u>1984-85</u>	<u>1985-86</u>	<u>1986-87</u>	<u>Summed Percentage</u>	<u>Number of Faculty</u>
CIA	.0811 (.0575)	.0864 (.0756)	.0677 (.0636)	.0573 (.0417)	.2925 (.1420)	375
IT	.0897 (.0544)	.0916 (.0509)	.0707 (.0391)	.0659 (.0385)	.3179 (.1285)	290
Ag-For-HE	.0710 (.0365)	.0657 (.0518)	.0504 (.0302)	.0532 (.0311)	.2402 (.0945)	255
D-PH-Pharm-Nur	.0753 (.0576)	.0840 (.0530)	.0640 (.0529)	.0638 (.0393)	.2871 (.1139)	154
Basic Med	.0862 (.0493)	.0665 (.0230)	.0676 (.0691)	.0585 (.0342)	.2789 (.1309)	66
Clin Med	.0796 (.1003)	.0718 (.0772)	.0591 (.0600)	.0503 (.0543)	.2608 (.1740)	287
CBS	.0848 (.0600)	.0810 (.0439)	.0566 (.0476)	.0703 (.0902)	.2927 (.1630)	63
Vet	.0776 (.0308)	.0842 (.0328)	.0699 (.0563)	.0553 (.0299)	.2871 (.0858)	69
Law	.0761 (.0459)	.1382 (.0471)	.0613 (.0259)	.0700 (.0476)	.3455 (.0691)	26
Educ	.0824 (.0392)	.0688 (.0262)	.0593 (.0357)	.0593 (.0440)	.2698 (.0982)	118
Management	.0704 (.0595)	.0900 (.0588)	.0608 (.0538)	.0600 (.0431)	.2811 (.1226)	58
Not Classified	.0674 (.0307)	.0705 (.0520)	.0524 (.0492)	.0551 (.0412)	.2455 (.1106)	189
Entire Population	.0789 (.0598)	.0794 (.0601)	.0618 (.0516)	.0581 (.0443)	.2781 (.1325)	1950

in Agriculture, Forestry and Home Economics to 38.6 percent in the School of Pharmacy. It will be noted that fewer than 10 percent of the total group studied were not classified by college.

Table 9 presents a cross-tabulation of trajectory groups by college. If attention is focused only on the top two groups and the bottom three groups, some clear differences emerge. The Law School, which had the second highest summed percentage increase, had no one in the bottom three groups, while Agriculture, Forestry and Home Economics had over one-fifth of its total in those groups. Looking at the top two groups, the Law School had over 60 percent of its people in the top two groups, while the Medical School had just over one-tenth of its faculty in those groups.

Another way of comparing the collegiate units is to investigate the correlations across years of percentage increases received by individual faculty. While means and variances provide certain types of information, this is yet another way of capturing the extent to which there was consistency in rewarding performance (for whatever reasons) within the colleges. These arrays are shown for percentage changes in Table 10.

These data are quite variable across units but do point to consistency across time in assigning salary increases in most units. Nonetheless, some of the colleges had systematically much higher positive correlations across the years than others. Low positive correlations among most of the years were found for the Schools of Dentistry, Pharmacy, Public Health and Nursing, with a

TABLE 9

"Trajectory Groups" By College

Number of Cases
(% of Row)

Group	1	2	3	4	5	6	7	8	Row Total
CLA	19 (5.1)	76 (20.3)	5 (1.3)	82 (21.9)	42 (11.2)	19 (5.1)	1 (0.2)	131 (34.9)	189 (100.0)
IT	55 (19.0)	60 (20.7)	0 (0.0)	43 (14.8)	16 (5.5)	14 (4.8)	0 (0.0)	102 (35.2)	290 (100.0)
Ag-For-HE	6 (2.4)	55 (21.6)	4 (0.0)	56 (22.0)	44 (17.2)	14 (5.5)	0 (0.0)	76 (29.8)	255 (100.0)
D-PH-Pharm-Nur	3 (1.9)	32 (20.8)	0 (0.0)	35 (22.8)	6 (3.9)	3 (1.9)	0 (0.0)	75 (48.7)	154 (100.0)
Basic Med	5 (7.5)	13 (19.7)	0 (0.0)	18 (27.4)	5 (7.5)	1 (1.5)	1 (1.5)	23 (34.9)	66 (100.0)
Clin Med	7 (2.4)	12 (4.2)	1 (0.3)	69 (24.0)	5 (1.8)	41 (14.3)	6 (2.1)	146 (50.0)	287 (100.0)
CBS	3 (4.8)	7 (11.1)	0 (0.0)	10 (15.9)	5 (7.9)	2 (3.2)	0 (0.0)	36 (57.1)	63 (100.0)
Vet	4 (5.9)	6 (8.7)	0 (0.0)	13 (18.8)	3 (4.3)	2 (2.9)	0 (0.0)	41 (59.4)	69 (100.0)
Law	6 (23.1)	10 (38.5)	0 (0.0)	1 (3.8)	0 (0.0)	0 (0.0)	0 (0.0)	9 (34.6)	26 (100.0)
Educ	21 (17.8)	35 (29.7)	3 (2.5)	33 (28.0)	6 (5.1)	1 (0.8)	0 (0.0)	19 (16.1)	118 (100.0)
Mgmt	4 (6.9)	7 (12.1)	1 (1.7)	9 (15.5)	3 (5.2)	6 (10.3)	0 (0.0)	28 (48.3)	58 (100.0)
Not Classified	8 (4.2)	26 (13.8)	6 (3.2)	53 (28.0)	16 (8.5)	12 (6.3)	2 (1.1)	66 (34.9)	189 (100.0)
TOTAL	141 (7.2)	339 (17.4)	20 (1.0)	422 (21.6)	151 (7.7)	115 (5.0)	10 (0.5)	752 (38.6)	1950 (100.0)

Table 10
Correlation Coefficients Between Years of
Individual Percentage Salary Increases Relative To College Means

Pearson Correlation Coefficients

<u>College</u>	<u>1984-85</u> <u>and</u> <u>1983-84</u>	<u>1985-86</u> <u>and</u> <u>1983-84</u>	<u>1985-86</u> <u>and</u> <u>1984-85</u>	<u>1986-87</u> <u>and</u> <u>1983-84</u>	<u>1986-87</u> <u>and</u> <u>1984-85</u>	<u>1986-87</u> <u>and</u> <u>1985-86</u>	<u>Number</u> <u>of</u> <u>Faculty</u>
CIA	.1070	.0684	.1052	.1549	.2418	.1157	375
IT	.3996	.2813	.3315	.3263	.2891	.2416	290
Ag-For-HE	.1042	.2144	.2260	.2101	.1234	.3095	255
D-PH-Pharm-Nur	.0361	.1813	.1119	.1341	.1633	-.1765	154
Basic Med	.5808	.3441	.3322	.4395	.3829	.3072	66
Clin Med	.1648	.1028	.1973	.1112	.0177	.1089	287
CBS	.4912	.2026	.2966	.3168	.0097	.2516	63
Vet	.1642	.1460	.1856	.0851	.0123	-.1293	69
Law	-.2129	.1262	-.2168	-.1726	-.0049	-.2242	26
Educ	.3750	.1408	.2669	.2728	.3670	.2427	118
Management	.0577	.1086	.0632	.1300	.0988	.1329	58

negative correlation between the percentage change in 1985-86 and 1986-87. Veterinary Medicine also had a negative correlation for the same pair of years. Low correlations are also found in the Medical School.

The Law School again presents a singular case. Negative correlations prevailed between a given year and two or three other years, depending on the year chosen.

General Discussion and Conclusions

Although not the primary objective of our analyses, there is a very important positive message in the data presented here: We began to make progress in restoring faculty purchasing power during the period we covered by these figures (see Table 1). The recovery occurred for several reasons. First, the Legislature recognized the nature of our problem and allocated to the University two percent per year in salary increases over projected inflation. Second, the University argued successfully for special money from the Legislature for retaining faculty who received offers elsewhere, and Central Administration held back money each year to augment departmental and college increases. Third, colleges and sometimes departments "cannibalized" open positions and other sources of money to provide extra funds for salary increases. In sum, in a different climate and different market, the gains in real income should please the faculty.

Unfortunately, however, the salary increases need to be viewed in a different context, one that (1) recognizes a starting point that reflects faculty having lost over ten to 15 percent of their real purchasing power over the previous ten years; (2)

notes that higher education in many other places was experiencing growth and substantial salary increases; and (3) takes into account projections of a dramatically increased need for new faculty as large number of faculty reach retirement age. The dilemma has been viewed as analogous to trying to hit a moving target.

To put the raises in a broader context, recent AAUP data place the average salary of university faculty as only 26th highest among the top 30 research universities. Salaries not only have not caught up to our peer group, they have fallen far enough behind so that retention offers throw entire department salary structures "off-kilter." Thus, there is certainly validity to the view that the amount of available merit money is so small compared to the level of need that the question of merit or not is really secondary. Disputes over available merit monies bring to mind the common saying that in academia the battles are so fierce because the stakes are so small.

To return to the more specific questions addressed, the data presented in the report seem consistent with the declared salary increase policies over the last few years. The data can define distinct groups of faculty, some of whom are rewarded relatively well, others of whom are rewarded relatively poorly. While we cannot know that merit has been rewarded, we do find a reward pattern consistent with what one might expect at a research university: individual faculty productivity ebbing and flowing over time with some persons' productivity generally much higher than others'.

While these data should not be viewed as arguing that merit has in fact driven salary increases (given alternative explanations), they do give a reason to press forward with more questions. A random-appearing pattern of raises would clearly argue that our deliberations about merit vs. across-the-board increases were a waste of time. In the absence of such a pattern, additional work needs to be done. First, the criteria and administrative mechanisms for the determination of merit in various parts of the University should be explored. We suspect that important lessons could be learned from intramural comparisons of experience. Second, merit systems elsewhere should be examined. For example, in our discussions with faculty, several favorable references were made to the University of California system which combines salary floors with opportunities for individual distinction.

Any decisions about the merit system must be made in the broader context of AAUP data showing that the average faculty member here makes \$5,000 less than the average faculty at the other 29 top research institutions and that the amount at the full professor level is now \$10,000 less. That reality certainly increases frustration about the reward system in general. Nonetheless, unless the amount to be distributed is so small that differences across faculty would be only nominal, it seems worthwhile to continue to look at merit increases as a part of the ongoing effort to help acknowledge productive and valued faculty.