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ABSTRACT

The University of Maryland at College Park is committed to ensuring that faculty salaries are based solely upon the contributions and accomplishments of the individual faculty members. The relationship between male and female faculty salaries is carefully monitored. The 1989 female faculty salary reviews (done in relation to the salaries of comparably situated men) examined the current salary of tenure-track female faculty members and recommended individual adjustments to the deans, if warranted, on the basis of the woman's merit in comparison with that of male counterparts. The review process focused primarily on the equity of female faculty salaries (though the committee was open to identifying male faculty members in similar situations). To assist the college salary review, the Office of Institutional Studies provided several kinds of faculty data (name, rank, sex, level, date of highest earned degree, and current salary). Following the review, adjustments were recommended for a total of 32 women and 4 men. A total of 19 women and 4 men received $36,138 in special merit adjustments ($29,266 for women and $6,872 for men). The statistics indicated that total female faculty salaries in fiscal year 1989 were $57,923 greater than those predicted from men's 1988 salaries. The four appendices cover: background; statistical study design; units reviewed in 1989; and linear regression analysis. Contains 6 references. (SM)

FY 89 FACULTY SALARY REVIEW

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FY 89 Faculty Salary Review

Summary

The University of Maryland at College Park is committed to ensuring that faculty salaries are based solely upon the contributions and accomplishments of the individual faculty members. In order to be certain university policies in this area are being reflected in individual salary actions, the Vice President for Academic Affairs has monitored the relationship between male and female faculty salaries.

In 1989, as in prior years, female faculty members' salaries were reviewed in relation to the salaries of comparably situated men. The reviews were conducted by college review committees appointed by the deans. The purpose of these reviews is to examine the current salary of tenure-track female faculty members and to recommend to the deans individual adjustments, if warranted, on the basis of the woman's merit in comparison to that of similarly situated male colleagues. In addition, if a committee determines that a male faculty member's salary should be increased relative to that of similarly situated faculty, then such an increase also is recommended. Committee recommendations were reviewed by the deans at the same time they reviewed departmental recommendations. The deans' salary recommendations were reviewed by the Vice President for Academic Affairs and finally approved by the President for inclusion in the annual Campus Working Budget.

The Office of Institutional Studies provided several kinds of faculty salary data to assist the college review committees. These included scattergrams; rosters of faculty, including salaries and years since highest degree; and tables of salaries of newly hired and newly promoted faculty. In addition, statistical analyses were performed comparing the actual salaries of

women faculty with salaries predicted on the basis of male faculty members' salaries. A linear regression method was used to perform the analyses.

Following the review of faculty salaries, adjustments were recommended by college salary review committees for a total of 32 women and 4 men. Some of the recommendations were larger than, some smaller than, and some equal to the department chairs' recommendations. Special merit adjustments were awarded to 19 women and 4 men. These special merit adjustments were increases that were (1) recommended by the college salary review committee and (2) greater than the chair's recommended increase. Women received special merit adjustments totaling $29,266; men received special merit adjustments totaling $6,872.

FY 89 Faculty Salary Review

The University of Maryland at College Park is firmly committed to ensuring that faculty salaries in each discipline and profession are based solely upon the qualities and accomplishments of the individual faculty members. Sex should not have a bearing on salary levels. In order to be certain university policies in this area are being reflected in individual salary actions, the Vice President for Academic Affairs has monitored the relationship between male and female faculty salaries. (See Apperdix A for a description of the salary-setting process at the University of Maryland at College Park.)

As part of this regular monitoring, in 1980 the Office of Institutional Studies began a series of statistical studies that attempted to identify aggregate differences between women's actual salaries and those predicted on the basis of men's salaries, yearly trends in these differences, and some factors responsible for annual changes in differences. (See Appendix B for a description of the statistical study design.) The studies, however, could not identify whether any individual woman's salary was unjustifiably below those of comparably situated men nor whether any salary difference was based all or in part on discrimination.

Following the 1981 study, an annual process was established for reviewing female faculty members' salaries in relation to the salaries of comparably situated men. This annual individual review process establishes the extent to which any salary differences that appeared in the statistical studies were or were not justifiable and provides a basis for making specific salary-level changes. Statistical differences by themselves do not necessarily imply inequity. Consequently, the individual review is the fundamental analysis of female salary equity conducted by UMCP.

Salary Review Process

The annual salary equity review process is designed to be a part of the regular annual salary review used to award merit increases. Funding for merit salary increases is allocated to each of the 14 UMCP colleges and schools, which in turn further allocate the funds to their departments. The head of each department makes merit salary increase recommendations to the college or school deans who then forward their recommendations to the Academic Vice President.

College Salary Review Committees (CSRCs)

Annually, before merit salary decisions are made, each of the deans appoints a committee of five senior faculty members for the purpose of reviewing the productivity and salary of female faculty members in the college or school. Of the five members, at least two are women. As salaries of faculty from a specific department are reviewed, two senior faculty members from that department join the committee as consultants; they are replaced when the review of their department is completed. These departmental representatives are not voting members. Committee members do not attend sessions in which their own salaries are being considered. Department chairpersons are not permitted to serve on review committees, although they may be consulted in the course of the review process.

For the four nondepartmentalized colleges (College of Journalism, College of Library and Information Services, School of Architecture, and School of Public Affairs), the 1989 reviews were conducted by a committee reporting to the Vice President for Academic Affairs. One committee reviewed faculty in the Colleges of Agriculture and of Life Sciences. Thus 10 review committees were appointed.

The Vice President for Academic Affairs established the following timetable for the 1989 college salary reviews:

January 6, 1989	The Vice President for Academic Affairs asks the deans to request faculty members to update their vitae by the end of February, and issues the 1989 guidelines for college salary reviews.
February 2, 1989	The deans forward to the Vice President for Academic Affairs the membership of the College Salary Review Committees, including departmental consultants.
February 20, 1989	The Vice President for Academic Affairs meets with the chairs of the 1989 review committees.
March 1 - April 1, 1989	The committees review salaries.
April 10, 1989	The committees submit salary recommendations to the deans.
April 27, 1989	The deans forward salary reports to the Vice President for Academic Affairs.

Process of Review

The purpose of this college-level committee review was to examine the current salary of tenure-track female faculty members and to recommend to the dean individual adjustments, if any were warranted, on the basis of the woman's merit in comparison with that of similarly situated male colleagues. For purposes of this review, "similarly situated" means the same department, the same rank, and approximately the same number of years since obtaining the highest degree. The dean was responsible for the determination of the comparison group. Any modification of the group the dean selected had to be explained in the salary review committee's report to the dean.

Beginning in FY 86, the procedure for reviewing the salaries of women was modified. As a result of a recommendation by the Faculty Equity Issues Committee of the Chancellor's Commission on Women's Affairs (Chancellor's

Commission on Women's Affairs, 1985), only selected women were included in a given year's salary reviews, with all tenure-track female faculty members being reviewed at least once in every three-year period. The principal reason for changing the procedure is that the time required for the review committees to complete their work is substantial; therefore, reducing the number of women to be reviewed enabled the committees to study more thoroughly the materials of those being reviewed. The groups reviewed in FY 89 were the following: tenure-track female faculty members appointed between October 1, 1987 and September 30, 1988; tenure-track female faculty promoted for the 1988-89 academic year; faculty members for whom salary adjustments were recommended by the 1988 CSRCs who did not receive the full amount recommended; and tenure-track female faculty in units selected by the dean.

FY 89 was the first year of the second three-year cycle of reviews. All tenure-track women faculty will be reviewed at least once in the period 1989 to 1991. The units reviewed in 1989 are given in Appendix C.

Each woman being reviewed and those men who were selected as "similarly situated" were requested to provide a current curriculum vitae for the committee's use. The committee then examined the appropriateness of each faculty member's salary, taking into account her or his overall productivity, and especially the level of productivity for the current year. All the factors that the department considered important and the relative weights attached by the department to research and scholarly productivity, teaching effectiveness, and public service were taken into account. The committee considered as well any other relevant factors, such as the employment market conditions affecting a particular discipline or subdiscipline.

This review process was focused primarily on the equity of female faculty salaries. The possibility existed, however, that the committee might identify a male faculty member whose salary was not equitable in terms of those of

similarly situated faculty. If the committee, as a result of its review of faculty merit, determined a male faculty member's salary should be increased relative to that of similarly situated faculty, then such an increase also was recommended. After considerations of merit were made, the committee recommended to the dean where a given woman's salary should stand relative to her male comparison group.

In the departmentalized colleges, committee recommendations for changes in relative female or male faculty salary levels, if any, were reviewed by the deans at the same time they reviewed departmental recommendations. If department chairpersons' recommendations differed from those of the committee, the dean resolved these differences, redistributing salary increases when appropriate, to make all adjustments within the college's total merit salary allocation. The review in the College of Business and Management functioned as in the departmentalized colleges. The reviews for the College of Journalism, the College of Library and Information Services, the School of Architecture, and the School of Public Affairs were conducted by a committee reporting to the Vice President for Academic Affairs. Committee recommendations for changes in relative female or male faculty salary levels were reviewed by the Vice President. If the deans' recommendations differed from those of the committee, the Vice President resolved these differences. The salary recommendations for all colleges and schools were reviewed by the Vice President for Academic Affairs and finally approved by the President for inclusion in the annual Campus Working Budget.

Data Resources

To assist the college salary review committees, the Office of Institutional Studies provided several kinds of faculty salary data. Departmental

rosters of faculty were prepared that included each faculty member's name, rank, sex, level and date of highest earned degree, and current salary.

In order to present a complete picture of the relation of each individual's salary and years since doctorate to those of other faculty in the department, a number of scattergrams were prepared. (See Figure 1 for an example of a scattergram.) The scattergrams generally grouped doctorate-holding faculty on the basis of UMCP's organizational structure. (For detailed information on the groupings, see Appendix D.) Two sets of scattergrams were produced for each CSRC. One set of scattergrams depicted the relationship between salary and number of years since the doctorate, with a separate scattergram for each rank within each academic grouping. The second set depicted the relationship between salary and number of years in rank for each professor (and separately for each associate professor) who was promoted to that rank (not hired in rank).

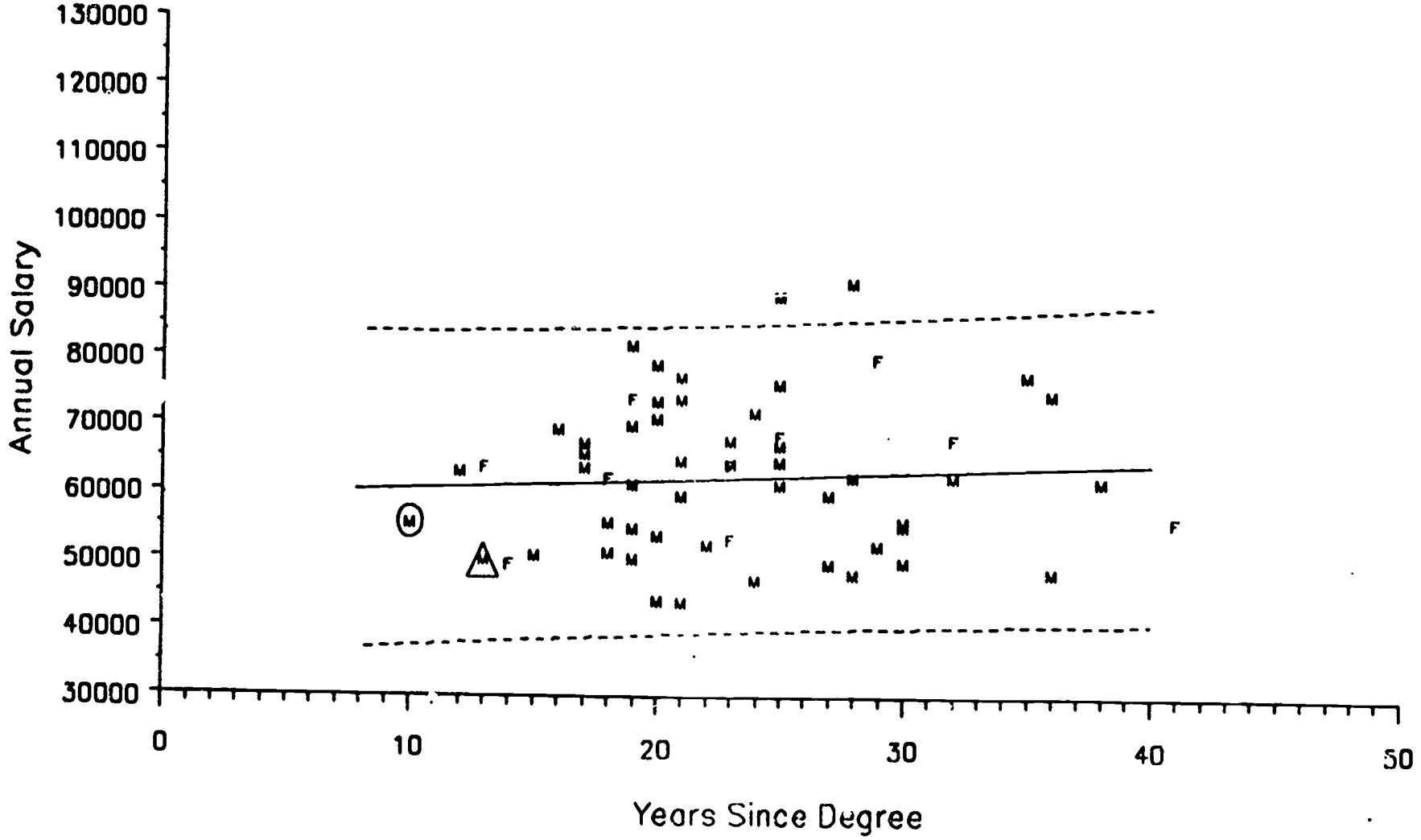
The first set of scattergrams included lines representing the linear regression relationship between salaries and years since degree for the men with doctorates in the particular academic grouping and rank. The method used in 1988 for calculating the equations of these lines is described in Appendix D.

Tables were provided to the CSRCs concerning salaries of all newly promoted and newly hired faculty. For newly promoted faculty members, the tables presented for each college or school and rank, the names, sex, October 1987 and October 1988 salaries, percentage changes in salary, numbers of years since the doctorate for those with doctorates, and departments. The tables also indicated the average percentage increases by sex and by rank for the newly promoted faculty in each college or school.

For newly hired faculty members, the tables provided for each college and school and rank, the names, sex, Fall 1988 salaries, starting dates, numbers

Figure 1

Example of a Scattergram
of Faculty Salary Data



Circle = New, Triangle = Promoted
Square = Received less than CSRC recommended

of years since the doctorate for those with doctorates, and departments. The tables also indicated the mean salary by sex and rank for the newly hired faculty in each college or school.

In addition, the colleges and schools received scattergrams that identified the data points for the newly hired and newly promoted faculty with doctorates, and for the faculty who did not receive the full special merit adjustment recommended by the 1988 CSRCs.

Statistical Analyses

Preliminary to the deliberations of the salary review committees, the Office of Institutional Studies prepared a statistical analysis of current faculty salaries. As described above, this study compared the actual salaries of female faculty with salaries predicted on the basis of male faculty salaries. Although the salary reviews include a select group of somewhat more than one third of the women professorial faculty in a given year (and all women professorial faculty over a period of three years), the statistical analyses include nearly all members of the study population each year. (See Appendix D for a tabulation of excluded cases.) Information concerning the research questions addressed by the study, as well as the population, data sources, and possible variables selected for the study can be found in Appendix B.

Statistical method. Linear regression was used to analyze the data. Based on data for men in the academic grouping, linear regression equations were calculated for each rank separately within each of 15 academic groupings. (A list of the academic groupings and a description of the linear regression methodology can be found in Appendix D.)

Statistical findings. Results of the salary analysis using the linear regression methodology are detailed in Appendix D. For the 186 women included

in the analysis of the total population in 1988, total actual salaries were $57,923 more than those salaries predicted using the men's regression equations. Women's total actual salaries had been $17,330 less than their total predicted salaries in 1987.[1,2] For the 159 women in the constant group (those faculty who were in the study population in 1987 and 1988 and did not change their status), total actual salaries were $81,914 more than predicted in 1988; in 1987 actual salaries had been $14,703 more than predicted.[2] (See Table D-1.)

Table D-2 shows the breakdown by rank. In 1988, in the total group women's total actual salaries were smaller than their predicted salaries at the rank of professor but were larger than their predicted salaries at the ranks of associate and assistant professor. At all three ranks, for the constant group women's total actual salaries were larger than their predicted salaries.

Note that certain ranks within academic groupings included too few men to develop prediction equations. The data for the women in these academic groupings were not included in this analysis. In addition, nine men were omitted from the 1988 total group and 1987 and 1988 constant group data sets used in

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[1]In Fall 1987 there were only four male professors in the total group in the College of Library and Information Services, too few to allow for a statistical treatment, whereas there were five in Fall 1988. Similarly, in Fall 1987 there were only three male professors in the total group in the School of Public Affairs, whereas there were five in Fall 1988. The data for professors in the College of Library and Information Services and in the School of Public Affairs are omitted here for comparability of Fall 1987 and Fall 1988 results.

[2]In Fall 1987 in the total group analysis, Psychology was treated as a separate academic grouping; in Fall 1988 Psychology was treated as part of the academic grouping of the College of Behavioral and Social Sciences excluding Economics. In Fall 1987 there were only four male assistant professors in the total group in Psychology. The data for assistant professors in Psychology are omitted here for comparability of Fall 1987 and Fall 1988 results.

developing the prediction equations because they were statistical outliers. A small number of women were excluded because their "years since degree" were more than two years beyond the limits of the men's data. Other cases were omitted for comparability of Fall 1987 and Fall 1988 total group results.

Results of the College Salary Reviews

Following their review of faculty salaries, adjustments were recommended by CSRCs for a total of 32 women and 4 men. As indicated above, the CSRCs' recommendations were relative recommendations; that is, a given female faculty member's salary was recommended to be some percent more or less than that of some similarly situated male colleague. This would be translated into a dollar figure once the department chairperson's recommendation for the colleague was known, and that dollar figure could then be compared with the increment the chairperson had recommended for the female faculty member. Some of the CSRCs' recommendations were larger than, some smaller than, and some equal to the chairpersons' recommendations. Salaries finally approved by the dean sometimes equaled the CSRC's recommendations, the chairperson's recommendations, or neither amount. Occasionally the approved increase was greater than either recommendation.

A "special merit adjustment" is defined as the salary increase recommended by the CSRCs and approved by the dean that exceeded the recommendation of the department chairperson. Nine adjustments recommended by the CSRCs became unnecessary when the standard salary procedure (chairperson's recommendation) provided at least as great an increment. In four cases, the dean decided that a special merit adjustment, although recommended by the CSRC, was inappropriate. The remaining faculty for whom the CSRCs recommended salary adjustments received special merit adjustments. Table 1 gives the

Table 1

Numbers of Faculty Recommended for and Receiving Special Merit Adjustments[a]

	Women	Men	Total
Number recommended for special merit adjustments by CSRCs	32	4	36
Number for which chairperson's recommendation equaled or exceeded the CSRC's recommendation	9	0	9
Number for which the Dean decided a special merit adjustment was inappropriate	4	0	4
Number receiving special merit adjustments	19	4	23

[a]Includes faculty with and without earned doctorates.

numbers in each category. Special merit adjustments by college or school, sex, and rank are presented in Table 2.

A total of 19 women and 4 men received $36,138 in special merit adjustments. The statistical study indicated that total female faculty salaries in FY 89 were $57,923 greater than those predicted from men's salaries. The case-by-case review resulted in a total special merit adjustment to women's salaries of $29,266, of which $24,316 was awarded to women with doctorates who were in the study population. Female gains, however, can be expected to be somewhat greater than this because recommendations of the department chairpersons are not considered special merit adjustments. As Table 1 shows, nine of the CSRCs' recommendations for women were equaled or exceeded by the department chairperson's recommendation.

Finally, it should be noted that the individual case reviews conducted by the CSRCs demonstrate that statistical differences are not evidence of gender-based considerations. There may always remain some varying and random statistical difference between any two populations of employees that cannot be predicted or explained with any statistical model.

Table 2

Summary of Special Merit Adjustments by College or School, Sex, and Rank

College or School	Sex	Rank	Number Receiving Special Merit Adjustments	Total Amount of Special Merit Adjustments
Agriculture			0	
Architecture			0	
Arts and Humanities			4	$12,209
	F	Professor	2	5,702
	F	Associate	2	6,507
Behavioral and Social Sciences			6	7,492
	F	Professor	1	780
	F	Associate	4	3,660
	M	Professor	1	3,052
Business and Management			0	
Computer, Mathematical, and Physical Sciences			0	
Education			9	13,107
	F	Professor	1	987
	F	Associate	4	7,845
	F	Assistant	2	1,775
	M	Associate	1	1,500
	M	Assistant	1	1,000
Engineering			0	
Human Ecology			1	1,320
	M	Assistant	1	1,320
Journalism			2	790
	F	Professor	1	600
	F	Assistant	1	190
Library and Information Services			0	
Life Sciences			1	1,220
	F	Professor	1	1,220
Physical Education, Recreation, and Health			0	
Public Affairs[a]			0	
Total Campus			23	$36,138
By Sex	F		19	29,266
	M		4	6,872
By Sex and Rank	F	Professor	6	9,289
	F	Associate	10	18,012
	F	Assistant	3	1,965
	M	Professor	1	3,052
	M	Associate	1	1,500
	M	Assistant	2	2,320

[a]No one was reviewed.

Appendix A

Background

Organization of UMCP

The University of Maryland at College Park is organized into 12 colleges and 2 schools. All of the teaching faculty are employed in the colleges and schools.

Staff services and campus-wide coordination of academic policy and faculty review are provided by the Vice President for Academic Affairs and Provost. Figure A-1 provides an organization chart of the academic units of the Campus.

Faculty Salary Determination

Recommendations on faculty salaries originate in the departments. Initially, salary recommendations are made by the department chairperson or by a departmental committee and the chairperson. These recommendations are reviewed at higher levels. The departments, colleges, and schools have considerable autonomy in the recruitment and review of the performance of their faculty, although a veto over specific actions and policies is held by higher-level administrators.

The University of Maryland does not have a set salary scale for its faculty. Salaries vary considerably across departments based on conditions in the faculty marketplace and evaluations of faculty quality, as well as legislative appropriations. Three important times when salary determinations are made are initial appointment, periodic salary increases, and academic promotion.

Figure A-1

UNIVERSITY OF MARYLAND AT COLLEGE PARK
ORGANIZATION CHART

Part B: ACADEMIC

Vice President for Academic Affairs and Provost

College of Agriculture

- Agricultural Engineering
- Agricultural and Extension Education
- Agricultural and Resource Economics
- Agronomy
- Animal Sciences
- Horticulture
- Institute of Applied Agriculture
- Poultry Science
- Virginia-Maryland Regional College of Veterinary Medicine

School of Architecture

College of Arts and Humanities

- American Studies
- Art
- Art Gallery
- Art History
- Center for Mediterranean Archaeology
- Center for Renaissance and Baroque Sudies
- Classics
- Communication Arts and Theatre
- Comparative Literature Program
- Dance
- English
- French and Italian Languages and Literatures
- Germanic and Slavic Languages and Literatures
- Hebrew and East Asian Languages and Literatures
- History
- Housing and Design
- Jewish Studies Program
- Language Media Center
- Linguistics Program
- Music
- Philosophy
- Spanish and Portuguese Languages and Literatures
- Women's Studies Program

College of Behavioral and Social Sciences

- Afro-American Studies Program
- Anthropology
- Bureau of Business and Economic Research
- Center for International Development and Conflict Management
- Computer Laboratory
- Economics
- Geography
- Government and Politics
- Hearing and Speech Sciences
- Industrial Relations and Labor Studies Center
- Institute of Criminal Justice and Criminology
- Institute for Urban Studies
- Psychology
- Sociology
- Survey Research Center

College of Business and Management

- Center for Productivity and Quality of Working Life

College of Computer, Mathematical, and Physical Sciences

- Applied Mathematics
- Center for Automation Research
- Chemical Physics Program
- Computer Science
- Geology
- Institute for Advanced Computer Studies
- Institute for Physical Science and Technology
- Laboratory for Plasma and Fusion Energy Studies
- Mathematics
- Meteorology
- Physics and Astronomy

College of Education

- Center for Educational Resarch and Development
- Center for Young Children
- Counseling and Personnel Services
- Curriculum and Instruction
- Curriculum Laboratory
- Education Policy, Planning and Administration
- Educational Technology Center
- Human Development
- Industrial, Technological and Occupational Education
- Measurement, Statistics and Evaluation
- Office of Laboratory Experiences
- Special Education

College of Engineering

- Aerospace Engineering
- Center for Minorities in Science and Engineering
- Chemical and Nuclear Engineering
- Civil Engineering
- Electrical Engineering
- Engineering Cooperative Education
- Engineering Research Center
- Fire Protection Engineering
- Instructional Television System
- Mechanical Engineering
- Systems Research Center
- Transportation Studies Center
- Wind Tunnel

College of Human Ecology

- Family and Community Development
- Human Nutrition and Food Systems
- Textiles and Consumer Economics

College of Journalism

College of Library and Information Services

College of Life Sciences

- Botany
- Chemistry and Biochemistry
- Entomology
- Marine and Estuarine Enviromental Studies Program
- Microbiology
- Water Resource Research Center
- Zoology

College of Physical Education, Recreation, and Health

- Center on Aging
- Health Education
- Physical Education
- Recreation

School of Public Affairs

- Bureau of Governmental Research
- Institute for Philosophy & Public Policy

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Salary established at initial appointment. The recommended salary for a faculty member at the time of initial appointment is determined through negotiation between the department and the prospective faculty member. The salaries offered to new faculty are reviewed and approved by deans and the Academic Vice President and, at senior ranks, by the President and the Chancellor.

Periodic salary increases. Cost-of-living increases are typically distributed by the state as a percentage increase for all state employees, including faculty. The size of cost-of-living increases usually is specified in the annual appropriation to the university. Periodically, nearly always annually, faculty salaries are reviewed to reward merit. Merit increases are awarded on the basis of departmental faculty committee and/or departmental chairperson's recommendations which are reviewed and approved by the deans, Academic Vice President, and President. The size of individual merit increases is influenced by the total funds available to UMCP for this purpose, the allocation of funds among the colleges, schools, and departments, and the departmental recommendations regarding each individual.

Academic promotion. Promotion and tenure decisions affect salaries because salaries are larger at the higher ranks. A study (Office of Institutional Studies, 1984) of promotion and tenure decisions at UMCP found no significant differences in the promotion and tenure rates of male and female faculty.

Appendix B

Statistical Study Design

Research Questions

The research questions are the following:

Are there substantial differences between the salary levels of male and female faculty in homogeneous groups, taking into account rank and years since award of the doctorate?

If such differences exist, can specific areas be identified as areas to be examined for possible inequities?

Have such differences changed between Fall 1987 and Fall 1988?

Population

The study group includes all Fall 1988 UMCP full-time instructional and research faculty who possess a doctorate and hold the rank of professor, associate professor, or assistant professor. Administrators such as deans, associate and assistant deans, department chairs, and certain directors are omitted from the analysis. Additionally, faculty on leave without pay in Fall 1988, visiting faculty, and those in nontenure-track positions are excluded. The population was defined as of September 30, 1988 to maintain comparability with previous studies.

Data Sources

Salary and other pertinent data were obtained from the "frozen" Fall 1988 personnel data bases and from records of the Personnel Services Department. Material in a large number of personnel folders was reviewed in order to determine correct salary and degree data. Data for the total group for 1987 are based on the same data as in the FY 88 report.

Selection of Variables

The variables that might be included in an analysis of faculty salary levels can be grouped into those related to: (1) the level and years of experience of the individual; (2) the individual's scholarly achievement, including the attainment of tenure and promotions; (3) the field of expertise of the individual, as reflected, for example, in the departmental affiliation; and (4) personal and cultural characteristics, such as gender and career expectations (Office of Institutional Studies, 1982). The literature on the use of regression analysis in sex salary difference studies indicates that independent variables other than years since highest degree, rank, academic unit, and sex improve prediction accuracy only slightly. Inclusion of predictor variables such as publications, type of publications, years employed at the institution, number of Ph.D. graduates produced, and transformed variables have been shown to have had little effect on improving the accuracy of prediction. This phenomenon may occur because the largest group in the study, white males, has relatively uniform characteristics and a few characteristics, suggesting intercorrelations, may indirectly predict others (Gray & Scott, 1980).

It is commonly found that "faculty rank is the most important determinant in predicting relative amounts of salary" (McLaughlin, Montgomery, & Mahan, 1979). Therefore, a different distribution of men and women among the ranks, as one would expect strictly on the basis of the increasing proportion of women among doctoral degree recipients in recent years, would cause a differential in the average salaries of men and women. Because there is no significant difference in the promotion rates of men and women at UMCP (Office of Institutional Studies, 1984), rank is a legitimate variable to include in this study.

In practice, no one is ever sure all significant variables are included in an analysis. Further, the quality of the individual's achievement is best evaluated by other scholars in the field and is not amenable to statistical treatment based on quantitative measures such as number of publications, and so forth. Therefore, any conclusions drawn from a statistical study of salary levels of male and female faculty are, to a considerable degree, tenuous. This statistical study's primary value is to guide more detailed examination of individual faculty salaries and to gauge trends.

Appendix C

Units Reviewed in 1989

College or School	Unit
Agriculture	Agricultural and Extension Education
Architecture	Entire unit
Arts and Humanities	
Behavioral and Social Sciences	Economics Government and Politics Hearing and Speech Scien[illegible]
Business and Management	Management and Organization
Computer, Mathematical, and Physical Sciences	Geology Physics and Astronomy
Education	Curriculum and Instruction Human Development Special Education
Engineering	Entire unit
Human Ecology	Human Nutrition and Food Systems
Journalism	Entire unit
Library and Information Services	
Life Sciences	Botany Zoology
Physical Education, Recreation, and Health	
Public Affairs	

Appendix D

Linear Regression Analysis

Academic Groupings

The academic groupings used in this analysis are the following:

College of Agriculture

College of Arts and Humanities

College of Behavioral and Social Sciences, excluding Department of Economics

Department of Economics

College of Business and Management

College of Computer, Mathematical, and Physical Sciences, excluding Department of Computer Science

Department of Computer Science

College of Education

College of Engineering

College of Human Ecology

College of Journalism

College of Library and Information Services

College of Life Sciences

College of Physical Education, Recreation, and Health

School of Architecture

School of Public Affairs

Linear Regression Methodology

Linear regression was used to analyze the data. Regression equations were calculated for each rank separately within each of 15 academic

groupings,[3] based on the data for men in the unit. As in the previous faculty salary studies, the 10-month salary for each female faculty member was compared with the men's regression equation for men in her academic grouping and rank to determine how far, and in which direction, her salary deviated from that predicted by the equation. The equation for each academic grouping/rank had the following form:

$S = B_0 + B_1(YSD)$, where

S = Salary (dependent variable)

B_0 = Intercept

B_1 = Independent variable regression coefficient

YSD = Years since receiving the doctoral degree.

For each woman a salary deviation was calculated as the difference between her actual salary (on a 10-month basis) and the salary predicted from the men's regression equation for a person in her academic grouping and rank, and with the same number of years since the doctorate. A total salary deviation was then calculated for every academic grouping and rank. There were 186 women and 1,007 men in the study population in Fall 1988.

In order to isolate changes that result from the annual review process, a similar process was carried out for those faculty who did not change their faculty status between Fall 1987 and Fall 1988. These are the faculty who

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[3]Data for the School of Architecture were separately reviewed. In addition, six academic grouping/ranks had too few men to develop prediction equations. Nine men were omitted from the data sets used in developing the Fall 1988 prediction equations because they were statistical outliers. Furthermore, a number of women had "years since degree" more than two years beyond the range for men in their academic grouping and rank. Other cases were omitted for comparability of Fall 1987 and Fall 1988 total group results. Therefore the number of faculty in the total group analysis was reduced to 186 women and 1,007 men; the number in the constant group analysis was reduced to 159 women and 885 men.

were in the study population both years (i.e., full-time faculty, nonadministrative, not on leave without pay) who were not promoted in 1988 and who did not change departments. Faculty who left the university in 1987-88, or who were newly hired at one of the professorial ranks between October 1, 1987 and September 30, 1988 were excluded from this "constant group."

The male and female faculty in the constant group were identified (885 men and 159 women) and the same form of regression analysis was used to calculate total salary deviations for women as was used in the total faculty group. The results of the constant group analysis show more clearly the changes occurring as a result of the annual salary review process (including special merit adjustments awarded to women).

Data Analysis and Statistical Findings

Statistical outliers. In FY 89 the statistical analysis identified nine men's data points as statistical outliers. Outliers were identified for and excluded from the 1988 total group. These same outliers were then excluded from the constant group for 1987 and 1988.

All academic grouping/ranks that included 10 or more men were tested for outliers. Ten was selected because removing a data point from a grouping smaller than 10 would have too great an influence on the data set for men. There were two criteria for identifying outliers. A man's data point was identified as an outlier if it met either criterion.

The first criterion was Cooke's D (Cooke, 1977), a measure of the influence of a data point on the regression intercept and slope. A significance level of $p < .05$ was used for this statistic. The second criterion was a t-type statistic that determined whether the man's data point was significantly different from the other men's data points with respect to the number of years since the doctorate (YSD). A significance level of $p < .01$ was used for this statistic, so that the likelihood that such a difference

resulted from chance was small. The outliers identified by this criterion were cases in which a man's YSD was significantly larger than the mean YSD of the other men in his academic grouping/rank.

This procedure resulted in the identification of nine men's data points in the total group as outliers. There was one such data point in each of the following academic grouping/ranks: College of Agriculture--associate professor; College of Arts and Humanities--professor and associate professor; College of Behavioral and Social Sciences, excluding Economics--associate professor; College of Computer, Mathematical, and Physical Sciences, excluding Computer Science--assistant professor; College of Education--assistant professor; and College of Engineering--assistant professor. There were two outliers in the College of Agriculture at the rank of assistant professor.

Campuswide salary differences, 1987 and 1988. Table D-1 displays in summary form the differences between women's salaries and the salaries predicted from the men's regression equations, both for the total population of the study and the constant group, by college. For the 186 women in the total group, women's actual salaries were $57,923 more than predicted from the men's regression equations in 1988. In 1987, women's actual salaries had been $17,330 less than their predicted salaries. For the 159 women in the constant group, women's actual salaries were $14,703 more than predicted in Fall 1987 and $81,914 more than predicted in Fall 1988.

Table D-2 shows the breakdown by rank. In 1988, in the total group women's total actual salaries were smaller than their predicated salaries at the rank of professor but were larger than their predicted salaries at the ranks of associate and assistant professor. At all three ranks, for the constant group women's total actual salaries were larger than their predicted salaries.

For all ranks combined, women's total actual salaries were larger than their predicted salaries for both the total group and the constant group in 1988. In 1987, in the total group women's actual salaries were $17,330 less than their predicted salaries; in 1988, actual salaries were $57,923 more than predicted. This is a net reduction of $75,253 in the salary deviation for the total group. In the constant group, the amount by which women's actual salaries exceeded their predicted salaries increased from $14,703 in 1987 to $81,914 in 1988, an increase of $67,211.

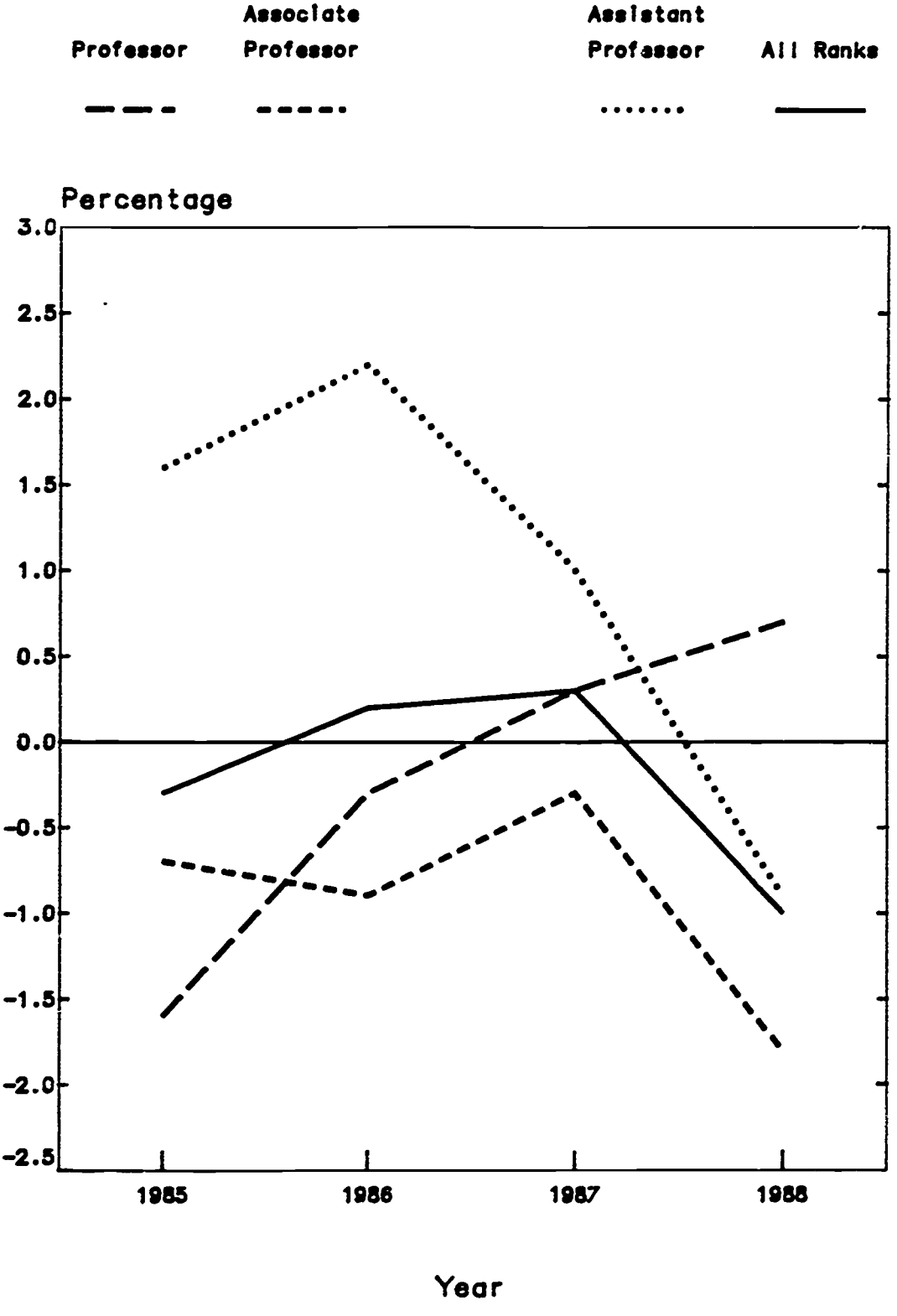
Average percentage salary differences. The average percentage salary differences for 1985 through 1988 are given by rank in Table D-3 and in Figure D-1. On average, female faculty received 1.0 percent more than their predicted salaries in 1988. On average, in 1988 female professors received 0.7 percent less than predicted, female associate professors received 1.8 percent more than predicted, and female assistant professors received 0.9 percent more than predicted.

Salary differences by academic grouping, total group. Salary differences by academic grouping for the total group in 1987 and 1988 are presented in Table D-4. There were five academic groupings in which women's actual salaries were on average less than their predicted salaries for the total group in both 1987 and 1988. In 1988 there were decreases in the salary deviations in four of these academic groupings (College of Agriculture; College of Business and Management; College of Computer, Mathematical, and Physical Sciences, excluding Computer Science; and College of Journalism). There was an increase in the salary deviation in one of these academic groupings (College of Engineering).

There were four academic groupings in which the total actual salary for women in the total group exceeded the total predicted salary in both 1987 and 1988. The amount by which actual salaries exceeded predicted salaries

Figure D-1

Average Percentage Women's Salary Differences



Percentages for 1985 and 1986 are estimates.

increased in 1988 in two of the academic groupings (College of Arts and Humanities and College of Life Sciences). In two academic groupings (College of Human Ecology; and College of Physical Education, Recreation, and Health), the amount by which actual salaries exceeded predicted salaries decreased in 1988.

In two academic groupings (College of Behavioral and Social Sciences, excluding Economics [but including Psychology]; and College of Computer, Mathematical, and Physical Sciences, in Computer Science), women's actual salaries exceeded their predicted salaries in 1987, but actual salaries were less than predicted salaries in 1988. In two academic groupings (College of Behavioral and Social Sciences, in Economics; and College of Education), women's actual salaries were less than their predicted salaries in 1987, but actual salaries were greater than predicted salaries in 1988.

Salary differences by academic grouping, constant group. Salary differences by academic grouping for the constant group in 1987 and 1988 are presented in Table D-5. There were three academic groupings in which women's actual salaries were on average less than their predicted salaries for the constant group in both 1987 and 1988. In 1988 there were decreases in the salary deviations in two of these academic groupings (College of Business and Management and College of Journalism). There was an increase in the salary deviation in one of these academic groupings (College of Computer, Mathematical, and Physical Sciences, excluding Computer Science).

There were six academic groupings in which the total actual salary for women in the constant group exceeded the total predicted salary in both 1987 and 1988. The amount by which actual salaries exceeded predicted salaries increased in 1988 in all six of these academic groupings (College of Agriculture; College of Arts and Humanities; College of Behavioral and Social Sciences, excluding Economics [but including Psychology]; College of Human

Ecology; College of Life Sciences; and College of Physical Education, Recre tion, and Health).

In one academic grouping (College of Behavioral and Social Sciences, in Economics), women's actual salaries exceeded their predicted salaries in 1987, but actual salaries were less than predicted salaries in 1988. In two academic groupings (College of Education and College of Engineering), women's actual salaries were less than their predicted salaries in 1987, but actual salaries exceeded predicted salaries in 1988. No salary deviation was produced by the College of Computer, Mathematical, and Physical Sciences, in Computer Science, because there were no women in the constant group.

Table D-1

Women's Salary Differences, by College

College	Total Group 1987 Men N	Total Group 1987 Women N	Total Group 1987 Salary Difference	Total Group 1988 Men N	Total Group 1988 Women N	Total Group 1988 Salary Difference	Constant Group 1987 Men N	Constant Group 1987 Women N	Constant Group 1987 Salary Difference	Constant Group 1988 Men N	Constant Group 1988 Women N	Constant Group 1988 Salary Difference
College of Agriculture	91	7	$7,420	92	6	$1,687	82	6	($287)[a]	82	6	($1,017)
College of Arts and Humanities	175	64	(1,200)	166	61	(53,104)	149	52	(22,829)	149	52	(50,780)
College of Behavioral and Social Sciences[b]	123	29	(15,914)	124	30	6,576	107	25	(4,035)	107	25	(4,399)
College of Business and Management	52	8	24,143	53	5	9,059	44	5	12,123	44	5	12,079
College of Computer, Mathematical, and Physical Sciences	216	10	37,550	211	10	50,993	188	9	38,367	188	9	39,184
College of Education	79	42	2,343	77	41	(20,539)	70	36	982	70	36	(6,800)
College of Engineering	126	4	8,719	134	2	10,130	116	1	401	116	1	(3,121)
College of Human Ecology	16	10	(24,887)	17	11	(22,436)	11	7	(19,218)	11	7	(23,515)
College of Journalism	6	1	7,577	6	1	6,483	6	1	7,577	6	1	6,483
College of Life Sciences	103	10	(19,505)	101	11	(39,488)	91	10	(22,441)	91	10	(36,156)
College of Physical Education, Recreation, and Health	23	13	(8,916)	26	8	(7,284)	21	7	(5,343)	21	7	(13,872)
All Academic Groupings	1,010	198	$17,330	1,007	186	($57,923)[c]	885	159	($14,703)	885	159	($81,914)
Not included in totals[d]	22	22		33	24		31	20		31	20	

[a]Parentheses indicate that the total actual salaries for women were larger than the salaries predicted from the men's regression equations.

[b]In Fall 1987 in the total group analysis, Psychology was treated as a separate academic grouping; in Fall 1988 Psychology was treated as part of the academic grouping of the College of Behavioral and Social Sciences excluding Economics. In Fall 1987 there were only four male assistant professors in the total group in Psychology. The data for assistant professors in Psychology are omitted here for comparability of Fall 1987 and Fall 1988 results. Table D-4 contains the Fall 1988 data for assistant professors in Psychology in the total group. Table D-5 contains the Fall 1987 and Fall 1988 data for assistant professors in Psychology in the constant group.

[c]In Fall 1987 there were only four male professors in the total group in the College of Library and Information Services, whereas there were five in Fall 1988. In Fall 1987 there were only three male professors in the total group in the School of Public Affairs, whereas there were five in Fall 1988. The data for professors in the College of Library and Information Services and in the School of Public Affairs for Fall 1988 are omitted here for comparability of Fall 1987 and Fall 1988 results. Table D-4 contains the Fall 1988 data for these academic groupings.

[d]Certain groupings were too small to calculate predicted salaries. Other women were not included because their "years since degree" were more than two years outside the range of the men's data for their academic grouping and rank. Other cases were omitted for comparability of Fall 1987 and Fall 1988 total group results. Finally, certain men's data points were omitted because they were statistical outliers.

Table D-2

Women's Salary Differences, by Rank (Total Group)

Rank	1987 Men N	1987 Women N	1987 Salary Difference	1988 Men N	1988 Women N	1988 Salary Difference
Professor	469	39	$7,050	466	40	$19,419[a]
Associate Professor	353	87	(4,890)[b]	353	89	(58,295)
Assistant Professor	188	72	15,170	188	57	(19,047)[c]
All Ranks	1,010	198	$17,330	1,007	186	($57,923)
Not included in totals[d]	22	22		33	24	

Women's Salary Differences, by Rank (Constant Group)

Rank	1987 Men N	1987 Women N	1987 Salary Difference	1988 Men N	1988 Women N	1988 Salary Difference
Professor	431	37	$1,828	431	37	($12,060)[b]
Associate Professor	309	76	(16,361)	309	76	(44,092)
Assistant Professor	145	46	(170)[c]	145	46	(25,762)[c]
All Ranks	885	159	($14,703)	885	159	($81,914)
Not included in totals[d]	31	20		31	20	

[a]In Fall 1987 there were only four male professors in the College of Library and Information Services, whereas there were five in Fall 1988. In Fall 1987 there were only three male professors in the School of Public Affairs, whereas there were five in Fall 1988. The data for professors in the College of Library and Information Services and in the School of Public Affairs for Fall 1988 are omitted here for comparability of Fall 1987 and Fall 1988 results, but are included in Table D-4.

[b]Parentheses indicate that the total actual salaries for women were larger than the salaries predicted from the men's regression equations.

[c]In Fall 1987 in the total group analysis, Psychology was treated as a separate academic grouping; in Fall 1988 Psychology was treated as part of the academic grouping of the College of Behavioral and Social Sciences excluding Economics. In Fall 1987 there were only four male assistant professors in the total group in Psychology. The data for assistant professors in Psychology are omitted here for comparability of Fall 1987 and Fall 1988 results, but are included in Tables D-4 and D-5.

[d]Certain groupings were too small to calculate predicted salaries. Other women were not included because their "years since degree" were more than two years outside the range of the men's data for their academic grouping and rank. Other cases were omitted for comparability of Fall 1987 and Fall 1988 total group results. Finally, certain men's data points were omitted because they were statistical outliers.

Table D-3

Average Percentage Women's Salary Differences

Rank	Year			
	1985	1986	1987	1988
Professor	-1.6%	-0.3%	0.3%	0.7%
Associate Professor	-0.7	-0.9	-0.3	-1.8
Assistant Professor	1.6	2.2	1.0	-0.9
All Ranks	-0.3	0.2	0.3	-1.0

Note. The percentage salary difference for a woman equals the salary deviation divided by the predicted salary. For 1985 and 1986, the average percentage women's salary differences are estimates. For 1987 and 1988, the average percentage women's salary differences are exact values.

Table D-4

1987 and 1988 Women's Salary Differences, by Academic Grouping and Rank (Total Group)

Academic Grouping	Professor			Associate			Assistant			Total		
	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference
College of Agriculture												
1987	36	0	-	37	4	$170	18	3	$7,250	91	7	$7,420
1988	33	0	-	39	3	(1,870)[a]	20	3	3,557	92	6	1,687
Change 1987-1988	-3	0	-	+2	-1	-2,040[b]	+2	0	-3,693	+1	-1	-5,733
College of Arts & Humanities												
1987	72	6	($1,817)	74	37	(22,673)	29	21	23,290	175	64	(1,200)
1988	65	7	3,608	69	35	(57,241)	32	19	529	166	61	(53,104)
Change 1987-1988	-7	+1	5,425	-5	-2	-34,568	+3	-2	-22,761	-9	-3	-51,904
College of Behavioral & Social Sciences Excluding Economics and Psychology[c]												
1987	29	5	(18,193)	29	6	3,781	13	11	(3,727)	71	22	(18,139)
1988	31	5	(23,932)	30	8	13,108	10	8	7,793	71	21	(3,031)
Change 1987-1988	+2	0	-5,739	+1	+2	9,327	-3	-3	11,520	0	-1	15,108
Economics												
1987	12	1	2,820	8	1	55	6	0	-	26	2	2,875
1988	13	0	-	9	2	(1,945)	6	1	1,688	28	3	(257)
Change 1987-1988	+1	-1	-2,820	+1	+1	-2,000	0	+1	1,688	+2	+1	-3,132

Note. See below for a summary of those faculty not included in the statistical analysis: (1) because academic groupings were too small to calculate predicted salaries, (2) because certain men's data points were statistical outliers, (3) because "years since degree" for some women were more than two years outside the range of the men's data for their academic grouping and rank, or (4) for comparability of Fall 1987 and Fall 1988 results.

[a]Parentheses indicate that the total actual salaries for women were larger than the salaries predicted from the men's regression equations.

[b]Minus signs indicate that women's actual salaries became larger in relation to their predicted salaries from 1987 to 1988.

[c]In Fall 1987 Psychology was treated as a separate academic grouping; in Fall 1988 Psychology was treated as part of the academic grouping of the College of Behavioral and Social Sciences excluding Economics. In this table, data for Psychology are presented separately, for comparability of Fall 1987 and Fall 1988 results.

Table D-4 (Cont'd)

1987 and 1988 Women's Salary Differences, by Academic Grouping and Rank (Total Group)

Academic Grouping	Professor			Associate			Assistant			Total		
	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference
Psychology[a]												
1987	19	4	($583)[b]	7	1	($67)				26	5	($650)
1988	19	4	1,301	6	2	8,563	[4]	[1]	[($270)]	25	6	9,864
Change 1987-1988	0	0	1,884	-1	+1	8,630				-1	+1	10,514
College of Business & Management												
1987	20	1	540	15	2	11,454	17	5	12,149	52	8	24,143
1988	22	1	(1,402)	15	2	5,235	16	2	5,226	53	5	9,059
Change 1987-1988	+2	0	-1,942[c]	0	0	-6,219	-1	-3	-6,923	+1	-3	-15,084
College of Computer, Mathematical & Physical Sciences												
Excluding Computer Science												
1987	116	4	32,040	48	4	7,542	16	1	(1,728)	180	9	37,854
1988	115	4	35,331	43	4	3,966	16	1	(2,447)	174	9	36,850
Change 1987-1988	-1	0	3,291	-5	0	-3,576	0	0	-7'9	-6	0	-1,004
Computer Science												
1987	9	0	-	7	1	(304)	20	0	-	36	1	(304)
1988	11	1	14,143	8	0	-	18	0	-	37	1	14,143
Change 1987-1988	+2	+1	14,143	+1	-1	304	-2	0	-	+1	0	14,447

Note. See below for a summary of those faculty not included in the statistical analysis: (1) because academic groupings were too small to calculate predicted salaries, (2) because certain men's data points were statistical outliers, (3) because "years since degree" for some women were more than two years outside the range of the men's data for their academic grouping and rank, or (4) for comparability of Fall 1987 and Fall 1988 results.

[a]In Fall 1987 Psychology was treated as a separate academic grouping; in Fall 1988 Psychology was treated as part of the academic grouping of the College of Behavioral and Social Sciences excluding Economics. In this table, data for Psychology are presented separately, for comparability of Fall 1987 and Fall 1988 results. In Fall 1987 there were only four male sistant professors in Psychology. The data in brackets are not included in any totals for comparability of Fall 1987 and F 1988 results.

[b]Parentheses indicate that the total actual salaries for women were larger than the salaries predicted from the men's regres- quations.

[c]Minus signs indicate that women's actual salaries became larger in relation to their predicted salaries from 1987 to 1988.

Table D-4 (Cont'd)

1987 and 1988 Women's Salary Differences, by Academic Grouping and Rank
(Total Group)

Academic Grouping	Professor			Associate			Assistant			Total		
	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference
College of Education												
1987	25	11	$337	43	16	$12,608	11	15	($10,602)[a]	79	42	$2,343
1988	26	11	(8,689)	41	17	10,380	10	13	(22,230)	77	41	(20,539)
Change 1987-1988	+1	0	-9,026[b]	-2	+1	-2,228	-1	-2	-11,628	-2	-1	-22,882
College of Engineering												
1987	60	0	-	37	2	9,138	29	2	(419)	126	4	8,719
1988	60	1	13,743	41	0	-	33	1	(3,613)	134	2	10,130
Change 1987-1988	0	+1	13,743	+4	-2	-9,138	+4	-1	-3,194	+8	-2	1,411
College of Human Ecology												
1987	6	2	(15,216)	5	1	(3,341)	5	7	(6,330)	16	10	(24,887)
1988	7	2	(16,647)	5	3	1,855	5	6	(7,644)	17	11	(22,436)
Change 1987-1988	+1	0	-1,431	0	+2	5,196	0	-1	-1,314	+1	+1	2,451
College of Journalism												
1987	6	1	7,577							6	1	7,577
1988	6	1	6,483							6	1	6,483
Change 1987-1988	0	0	-1,094							0	0	-1,094
College of Library & Information Services[c]												
1987												
1988	[5]	[0]	-									
Change 1987-1988												

Note. See below for a summary of those faculty not included in the statistical analysis: (1) because academic groupings were too small to calculate predicted salaries, (2) because certain men's data points were statistical outliers, (3) because "years since degree" for some women were more than two years outside the range of the men's data for their academic grouping and rank, or (4) for comparability of Fall 1987 and Fall 1988 results.

[a]Parentheses indicate that the total actual salaries for women were larger than the salaries predicted from the men's regression equations.

[b]Minus signs indicate that women's actual salaries became larger in relation to their predicted salaries from 1987 to 1988.

[c]In 1987 there were only four male professors in the College of Library and Information Services. The data in brackets are not included in any totals for comparability of Fall 1987 and Fall 1988 results.

Table D-4 (Cont'd)

1987 and 1988 Women's Salary Differences, by Academic Grouping and Rank (Total Group)

Academic Grouping	Professor			Associate			Assistant			Total		
	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference
College of Life Sciences												
1987	51	3	($1,330)[a]	36	7	($18,175)	16	0	-	103	10	($19,505)
1988	50	3	(4,520)	36	7	(35,051)	15	1	$83	101	11	(39,488)
Change 1987-1988	-1	0	-3,190[b]	0	0	-16,876	-1	+1	83	-2	+1	-19,983
College of Physical Education, Recreation & Health												
1987	8	1	875	7	5	(5,078)	8	7	(4,713)	23	13	(8,916)
1988	8	0	-	11	6	(5,295)	7	2	(1,989)	26	8	(7,284)
Change 1987-1988	0	-1	-875	+4	+1	-217	-1	-5	2,724	+3	-5	1,632
School of Public Affairs[c]												
1987												
1988	[5]	[1]	[2,066]									
Change 1987-1988												
Totals												
1987	469	39	$7,050	353	87	($4,890)	188	72	$15,170	1,010	198	$17,330
1988	466	40	19,419	353	89	(58,295)	188	57	(19,047)	1,007	186	(57,923)
Change 1987-1988	-3	+1	12,369	0	+2	-53,405	0	-15	-34,217	-3	-12	-75,253
Total not analyzed 1987	8	4		4	6		10	12		22	22	
1988	11	5		7	5		15	14		33	24	

Note. See below for a summary of those faculty not included in the statistical analysis: (1) because academic groupings were too small to calculate predicted salaries, (2) because certain men's data points were statistical outliers, (3) because "years since degree" for some women were more than two years outside the range of the men's data for their academic grouping and rank, or (4) for comparability of Fall 1987 and Fall 1988 results.

[a] Parentheses indicate that the total actual salaries for women were larger than the salaries predicted from the men's regression equations.

[b] Minus signs indicate that women's actual salaries became larger in relation to their predicted salaries from 1987 to 1988.

[c] In 1987 there were only three male professors in the School of Public Affairs. The data in brackets are not included in the totals for comparability of Fall 1987 and Fall 1988 results.

Table D-4 (Cont'd)

Summary of Faculty Not Included in Analysis (Total Group)

Academic Grouping	Groupings Too Small, Outliers, or No Comparable Group in 1987						Out of Range in "Years Since Degree"			Total	
	Professor		Associate		Assistant		Professor	Associate	Assistant		
	Men N	Women N	Men N	Women N	Men N	Women N	Women N	Women N	Women N	Men N	Women N
College of Agriculture	-	-	1	0	2	0	-	-	-	3	0
College of Arts & Humanities	1	0	1	0	-	-	-	2	-	2	2
College of Behavorial & Social Sciences Excluding Economics and Psychology	-	-	1	0	-	-	1	-	-	1	1
Psychology	-	-	-	-	4	1	-	-	1	4	2
College of Computer, Mathematical, & Physical Sciences Excluding Computer Science	-	-	-	-	1	0	-	-	-	1	0
College of Education	-	-	-	-	1	0	1	1	1	1	3
College of Engineering	-	-	-	-	1	0	-	-	-	1	0
College of Human Ecology	-	-	-	-	-	-	1	1	1	0	3
College of Journalism	-	-	2	0	2	4	-	-	-	4	4
College of Library & Information Services	5	0	0	1	1	4	1	-	-	6	6
College of Life Sciences	-	-	-	-	-	-	-	-	1	0	1
School of Architecture	-	-	2	0	1	0	-	-	-	3	0
School of Public Affairs	5	1	-	-	2	1	-	-	-	7	2
Total not included in analysis	11	1	7	1	15	10	4	4	4	33	24

Table D-5

1987 and 1988 Women's Salary Differences, by Academic Grouping and Rank (Constant Group)

Academic Grouping	Professor			Associate			Assistant			Total		
	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference
College of Agriculture												
1987	33	0	-	35	3	($5,077)[a]	14	3	$4,790	82	6	($287)
1988	33	0	-	35	3	(5,545)	14	3	4,528	82	6	(1,017)
Change 1987-1988			-			-468[b]			-262			-730
College of Arts & Humanities												
1987	60	6	($945)	65	31	(27,493)	24	15	5,609	149	52	(22,829)
1988	60	6	(7,131)	65	31	(38,525)	24	15	(5,124)	149	52	(50,780)
Change 1987-1988			-6,186			-11,032			-10,733			-27,951
College of Behavioral & Social Sciences Excluding Economics and Psychology[c]												
1987	26	5	(20,288)	26	6	2,008	8	7	(1,052)	60	18	(19,332)
1988	26	5	(21,569)	26	6	4,251	8	7	(1,292)	60	18	(18,610)
Change 1987-1988			-1,281			2,243			-240			722
Economics												
1987	11	0	-	7	1	(15)	5	0	-	23	1	(15)
1988	11	0	-	7	1	1,070	5	0	-	23	1	1,070
Change 1987-1988			-			1,085			-			1,085

Note. See below for a summary of those faculty not included in the statistical analysis: (1) because academic groupings were too small to calculate predicted salaries, (2) because certain men's data points were statistical outliers, (3) because "years since degree" for some women were more than two years outside the range of the men's data for their academic grouping and rank, or (4) because they were omitted from Table D-4.

[a]Parentheses indicate that the total actual salaries for women were larger than the salaries predicted from the men's regression equations.

[b]Minus signs indicate that women's actual salaries became larger in relation to their predicted salaries from 1987 to 1988.

[c]In the constant group analysis for Fall 1987 and Fall 1988, Psychology was treated as part of the academic grouping of the College of Behavioral and Social Sciences excluding Economics. In this table, data for Psychology are presented separately, for comparability of Tables D-4 and D-5.

Table D-5 (Cont'd)

1987 and 1988 Women's Salary Differences, by Academic Grouping and Rank
(Constant Group)

Academic Grouping	Professor			Associate			Assistant			Total		
	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference
Psychology[a]												
1987	18	4	$3,243	6	2	$12,069	[4]	[1]	[($1,247)[b]]	24	6	$15,312
1988	18	4	2,374	6	2	10,767	[4]	[1]	[(1,923)]	24	6	13,141
Change 1987-1988			-869[c]			-1,302			[-676]			-2,171
College of Business & Management												
1987	20	1	540	12	2	9,956	12	2	1,627	44	5	12,123
1988	20	1	1,043	12	2	7,522	12	2	3,514	44	5	12,079
Change 1987-1988			503			-2,434			1,887			-44
College of Computer, Mathematical & Physical Sciences Excluding Computer Science												
1987	106	4	31,873	41	4	7,698	10	1	(1,204)	157	9	38,367
1988	106	4	36,053	41	4	4,827	10	1	(1,696)	157	9	39,184
Change 1987-1988			4,180			-2,871			-492			817
Computer Science												
1987	8	0	-	5	0	-	18	0	-	31	0	-
1988	8	0	-	5	0	-	18	0	-	31	0	-
Change 1987-1988			-			-			-			-

Note. See below for a summary of those faculty not included in the statistical analysis: (1) because academic groupings were too small to calculate predicted salaries, (2) because certain men's data points were statistical outliers, (3) because "years since degree" for some women were more than two years outside the range of the men's data for their academic grouping and rank, or (4) because they were omitted from Table D-4.

[a]In the constant group analysis for Fall 1987 and Fall 1988, Psychology was treated as part of the academic grouping of the College of Behavioral and Social Sciences excluding Economics. In this table, data for Psychology are presented separately, for comparability of Tables D-4 and D-5. The data in brackets are not included in any totals for comparability of Tables D-4 and D-5.

[b]Parentheses indicate that the total actual salaries for women were larger than the salaries predicted from the men's regression equations.

[c]Minus signs indicate that women's actual salaries became larger in relation to their predicted salaries from 1987 to 1988.

Table D-5 (Cont'd)

1987 and 1988 Women's Salary Differences, by Academic Grouping and Rank (Constant Group)

Academic Grouping	Professor			Associate			Assistant			Total		
	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference
College of Education												
1987	24	11	($3,424)[a]	39	15	$10,480	7	10	($6,074)	70	36	$982
1988	24	11	(7,775)	39	15	15,249	7	10	(14,274)	70	36	(6,800)
Change 1987-1988			-4,351[b]			4,769			-8,200			-7,782
College of Engineering												
1987	57	0	-	35	0	-	24	1	401	116	1	401
1988	57	0	-	35	0	-	24	1	(3,121)	116	1	(3,121)
Change 1987-1988			-			-			-3,522			-3,522
College of Human Ecology												
1987	6	2	(15,216)				5	5	(4,002)	11	7	(19,218)
1988	6	2	(17,267)				5	5	(6,248)	11	7	(23,515)
Change 1987-1988			-2,051						-2,246			-4,297
College of Journalism												
1987	6	1	7,577							6	1	7,577
1988	6	1	6,483							6	1	6,483
Change 1987-1988			-1,094									-1,094

Note. See below for a summary of those faculty not included in the statistical analysis: (1) because academic groupings were too small to calculate predicted salaries, (2) because certain men's data points were statistical outliers, (3) because "years since degree" for some women were more tha two years outside the range of the men's data for their academic grouping and rank, or (4) because they were omitted from Table D-4.

[a]Parentheses indicate that the total actual salaries for women were larger than the salaries predicted from the men's regression equations.

[b]Minus signs indicate that women's actual salaries became larger in relation to their predicted salaries from 1987 to 1988.

Table D-5 (Cont'd)

1987 and 1988 Women's Salary Differences, by Academic Grouping and Rank (Constant Group)

Academic Grouping	Professor			Associate			Assistant			Total		
	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference	Men N	Women N	Salary Difference
College of Life Sciences												
1987	48	3	($1,532)[a]	31	7	($20,909)	12	0	-	91	10	($22,441)
1988	48	3	(4,271)	31	7	(31,885)	12	0	-	91	10	(36,156)
Change 1987-1988			-2,739[b]			-10,976			-			-13,715
College of Physical Education, Recreation & Health												
1987	8	0	-	7	5	(5,078)	6	2	($265)	21	7	(5,343)
1988	8	0	-	7	5	(11,823)	6	2	(2,049)	21	7	(13,872)
Change 1987-1988			-			-6,745			-1,784			-8,529
Totals												
1987	431	37	$1,828	309	76	($16,361)	145	46	($170)	885	159	($14,703)
1988	431	37	(12,060)	309	76	(44,092)	145	46	(25,762)	885	159	(81,914)
Change 1987-1988			-13,888			-27,731			-25,592			-67,211
Total not analyzed	8	3		10	7		13	10		31	20	

Note. See below for a summary of those faculty not included in the statistical analysis: (1) because academic groupings were too small to calculate predicted salaries, (2) because certain men's data points were statistical outliers, (3) because "years since degree" for some women were more than two years outside the range of the men's data for their academic grouping and rank, or (4) because they were omitted from Table D-4.

[a]Parentheses indicate that the total actual salaries for women were larger than the salaries predicted from the men's regression equations.

[b]Minus signs indicate that women's actual salaries became larger in relation to their predicted salaries from 1987 to 1988.

Table D-5 (Cont'd)

Summary of Faculty Not Included in Analysis (Constant Group)

Academic Grouping	Groupings Too Small, Outliers, or Omitted From Table D-4						Out of Range in "Years Since Degree"			Total	
	Professor		Associate		Assistant		Professor	Associate	Assistant		
	Men N	Women N	Men N	Women N	Men N	Women N	Women N	Women N	Women N	Men N	Women N
College of Agriculture	-	-	1	0	2	0	-	-	-	3	0
College of Arts & Humanities	1	0	1	2	-	-	-	-	-	2	2
College of Behavioral & Social Sciences Excluding Economics and Psychology	-	-	1	0	-	-	1	-	-	1	1
Psychology	-	-	-	-	4	1	-	-	1	4	2
College of Computer, Mathematical & Physical Sciences Excluding Computer Science	-	-	-	-	1	0	-	-	-	1	0
College of Education	-	-	-	-	1	1	-	1	-	1	2
College of Engineering	-	-	-	-	1	0	-	-	-	1	0
College of Human Ecology	-	-	4	3	-	-	-	-	1	4	4
College of Journalism	-	-	2	0	1	3	-	-	-	3	3
College of Library & Information Services	4	1	0	1	1	2	-	-	-	5	4
College of Life Sciences	-	-	-	-	-	-	-	-	1	0	1
School of Architecture	-	-	1	0	1	[illegible]	-	-	-	2	0
School of Public Affairs	3	1	-	-	1	0	-	-	-	4	1
Total faculty not included in analysis	8	2	10	6	13	7	1	1	3	31	20

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