REPORT OF THE
GENDER EQUITY REVIEW COMMITTEE

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EXECUTIVE SUMMARY

This report reviews the tangible issues of gender equity at WHOI such as the number of women scientists, their salaries, and the allocation of resources. Despite the recent increase in the hiring rate of women scientists, their numbers remain low—24 out of 135 scientists or 18%. Women scientists are heavily concentrated in the junior levels while men scientists are concentrated in the tenured levels. The lack of women at senior levels of the scientific staff impacts mentoring, limits the involvement of women in Departmental and Institutional decision-making, and places a heavy burden of Committee work and other responsibilities on the few senior women. Although over the next ten years this may significantly improve through promotions of the junior staff, there is currently an insufficient number of women scientists at the senior level.

Based on an examination of the tangible issues related to the equitable treatment of women at WHOI, the Committee concludes that there are differences in salary and space; allocation of other resources appear to be relatively equitable. A significant finding is that the salaries of women scientists are, in 3 out of 4 ranks within the scientific staff, less than men (by about $2,000). In addition, the salary trends for men and women who joined WHOI as Assistant Scientists, diverge with time, resulting in a difference of about $4,000 after 15 years. A second important observation is that the women who join the scientific staff later in their careers are less well rewarded for their previous experience than men. This is based on only a very small number of women and may be a reflection of the highly individualistic nature and quality of prior scientific experience. The Committee also found that most of the higher-ranking women at WHOI have considerably less space than their peers. Five of the seven tenured women have between one-third and two-thirds of the average space of the men of equivalent rank. While some of these differences may be related to the type of research being conducted, they are found in 4 out of the 5 scientific departments and should be investigated further.

Through a meeting with the women scientists, the Committee concluded that climate in the workplace is as important as the tangible issues to many women, although this is highly variable among the Departments. Improving the climate for women scientists at WHOI is key to increasing the numbers who stay and who are successful here.

The Committee makes the following recommendations:

- WHOI should carefully review the salaries of women scientists to (i) ensure that women are being compensated equitably, (ii) determine why, in 3 out of the 4 ranks, women's salaries are below those of men, (iii) ensure that women "joiners" are rewarded equitably for their total careers since Ph.D.

- Department Chairs should review the space allocations in those groups identified in this report where women have significantly less space than men, and discuss space needs with the women who fall within those groups. If necessary, space should be reallocated to ensure that women scientists have equitable space to their male colleagues. As new space becomes available, the Department Chairs should ensure that the space needs of women are considered equally to those of men.

- WHOI should continue to actively seek qualified women for scientific positions at the Institution, and in particular, a special effort should be made to attract senior women scientists.

- WHOI should ensure that sufficient mentoring and advocacy of women junior scientists is in place to provide the best possible chance of promotion.

- WHOI should identify the issues that are important in recruiting and retaining scientific staff in order to determine whether steps can be taken to increase the attractiveness of WHOI as a workplace for both men and women.

- WHOI should make every effort to retain women scientists as they progress through the promotion process by (i) making sure women scientists have the necessary resources to do their work, (ii) building critical mass of scientists in areas of research that WHOI women scientists represent, and (iii) recognizing, at the Department Chair and the Directorate levels, important contributions by WHOI women scientists.

- The WHOI Directorate should establish clear guidelines for the use of bridge support and make sure that the policy is applied uniformly among men and women scientists across all the departments.

- WHOI should carefully review the distribution of "hard money" support among men and women scientists, including distribution among untenured and tenured groups. Although preliminary data indicate that men and women scientists both get about 2-3 months of internal support per year on average, the data may show discrepancies among the different scientific staff levels and departments.

- Department Chairs should make a concerted effort to ensure that *all* scientists (i) are aware that discretionary funds are available, (ii) understand the types of activities that are appropriate for requesting discretionary funds, and (iii) know the procedures for requesting them. This is particularly important for women scientists who, in some cases, do not appear to be part of the process by which this information is disseminated.

- WHOI should continue to strive to have women represented on both Institution and Departmental Committees in proportion to their population in the scientific staff. Because of the limited number of senior women, achieving that desired goal currently puts an undue burden on those women that are in a position to serve. Senior women who are spending a greater amount of time doing committee work than their male counterparts should receive financial compensation for the additional time taken away from research. Increasing the number of senior women will make proportionate representation easier to accomplish.

- WHOI should establish a clear policy on the allocation of salary support to scientific staff participating in Development events.

- Each department should review its postdoctoral scholars on an annual basis to identify potential new appointments (especially of women) to the Scientific Staff.

- WHOI should now initiate a study of intangible issues that directly affect the gender climate in the workplace.

INTRODUCTION

Following the release of the study on gender-related issues at MIT, a group of the senior women scientists at WHOI recommended to R. Gagosian, the Director, that a committee be set up to assess the status and equitable treatment of women scientists at WHOI. It was felt that the first task of such a committee should be to assess equability in tangible issues, such as the allocation of resources within the Institution. Consequently, the Gender Equity Review Committee (listed above) was created and given the following charge:

Overall Goal

To assess the status and equitable treatment of women scientific staff members at WHOI.

Mandate

1. The Committee will collect data to analyze equity concerning the following:
   - Compensation
   - Start-up funds
   - Space
   - Internal competitive funds (e.g. Mellon, Green awards, etc.)
   - Chairs and major awards, and nominations for major internal and Institution-sponsored awards
   - Other discretionary funds
   - Bridge time
   - Committee loads and representation on important committees
   - Participation in Department/Laboratory showcase events, including funding from the Development Office
   - Population statistics for postdoctoral and scientific staff appointments
   - Numbers of advisees and graduate students (i.e., mentoring roles)
2. The Committee will seek to identify appropriate speakers to be invited to discuss gender equity issues.

Reporting

The Committee reports to the Director of WHOI, and will submit a brief, written report at the conclusion of its study.

Term of Service

The Committee will be active until 1 March 2000, at which time its progress will be reviewed. The work of this Committee (with the current or different membership) will continue if there is a need for further study of the climate in the workplace (and/or other intangible) issues at WHOI.

In order to keep the women scientists informed of the progress and preliminary findings of the Committee, a meeting was held in the late fall with the women scientists. It became clear to the Committee that climate in the workplace is as important as the tangibles to many women, although this was highly variable among the Departments. Improving the climate for women scientists at WHOI is key to increasing the numbers who stay and who are successful here.

This report summarizes the Committee's findings and presents some recommendations for action items and further studies.

WOMEN SCIENTISTS AT WHOI (1974-1999)

TOTAL POPULATION AND DISTRIBUTION AMONG THE DEPARTMENTS

The numbers of women scientists within the 5 Scientific Departments and the Marine Policy Center has increased from 2 in 1974 (Mary Sears and Betty Bunce) (or 2% of the total scientific staff) to 24 (18% of the total scientific staff) in 1999 (Figure 1). Over the last 25 years, a total of 36 women scientists were hired clustered in three groups of years. During 1975–1983, 8 women were hired at a rate slightly below one per year. During 1986–1991, 10 women were hired at an average rate of 2 per year. During 1994–1999, 18 women were hired at an average rate of 3 per year, although in 1997–1999, the rate was 4 per year. This steady increase in the rate of hiring of women scientists should be continued, and WHOI should continue to aggressively seek highly qualified women for the scientific staff.

Appendix I presents a series of histograms showing the populations statistics by Department. Within the scientific departments, Biology, Marine Chemistry and Geochemistry, and Geology & Geophysics have had at least one woman scientist since the 1970's and have slowly increased that number to 4–6 as of the end of 1999. Physical Oceanography and AOPE recruited their first women scientists in 1986, and although Physical Oceanography has increased their number to 5 (1 is on Leave of Absence), AOPE has been less successful and now has only 2 women scientists. Although this is traditionally a field staffed dominantly by men, AOPE in particular should seek more women scientists. The Marine Policy Department has historically been extremely small and currently includes only 3 scientists, one of which is a woman who was hired in 1995.

DISTRIBUTION WITHIN THE SCIENTIFIC STAFF

The follow discussion is based on Figures 2-4. Note that these Figures include the three Senior Scientists (all male) in the Directorate, but do not include two scientists (one male, one female) who are currently on Leave of Absence, whereas Figure 1 excluded only the Directorate. Hence, the numbers of scientists are slightly different from the overall population statistics presented in Figure 1.

Figure 1.

Number of Scientists - AOPE, BIO, CHEM, G&G, PO and MP

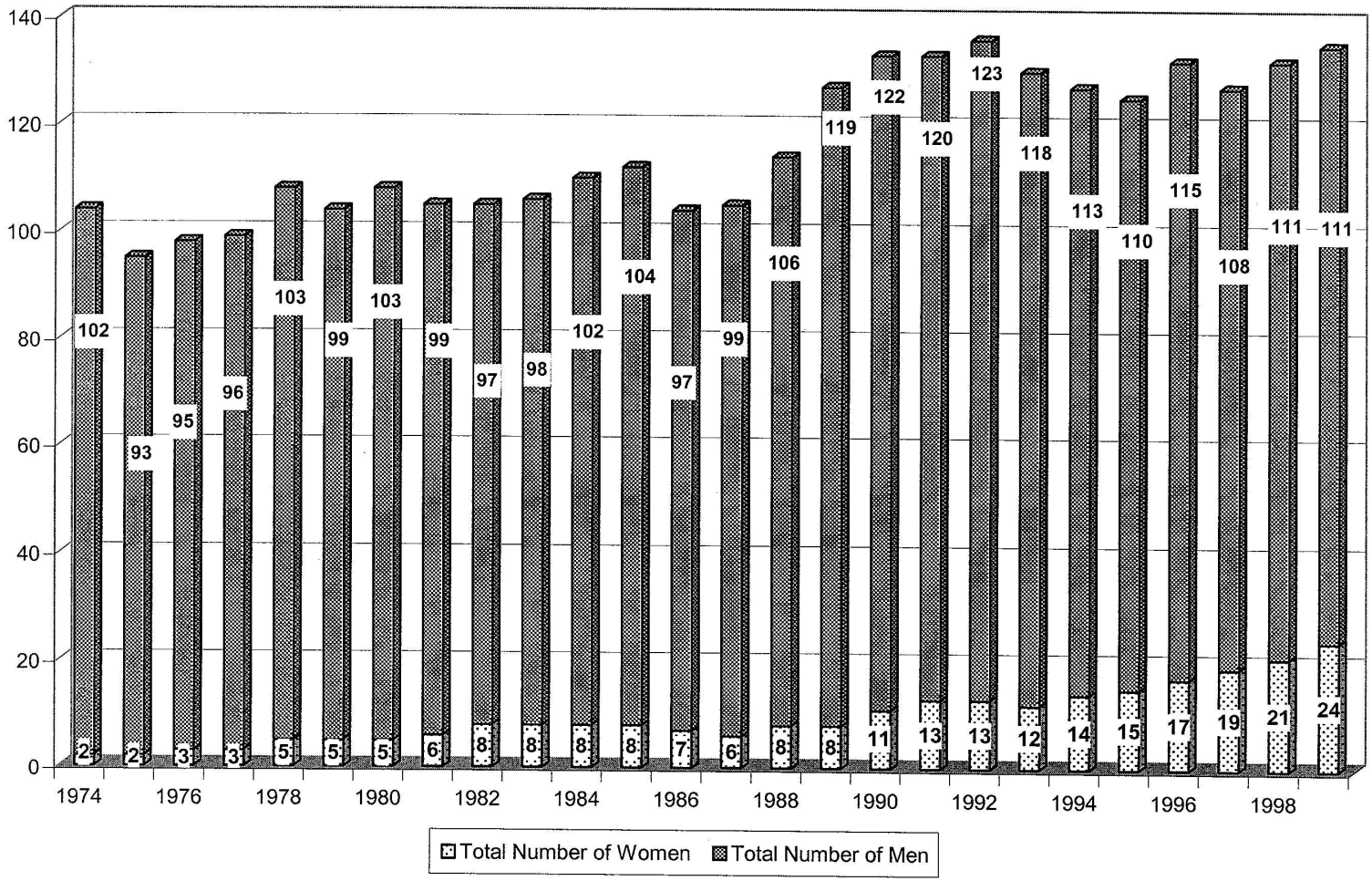


Figure 2.

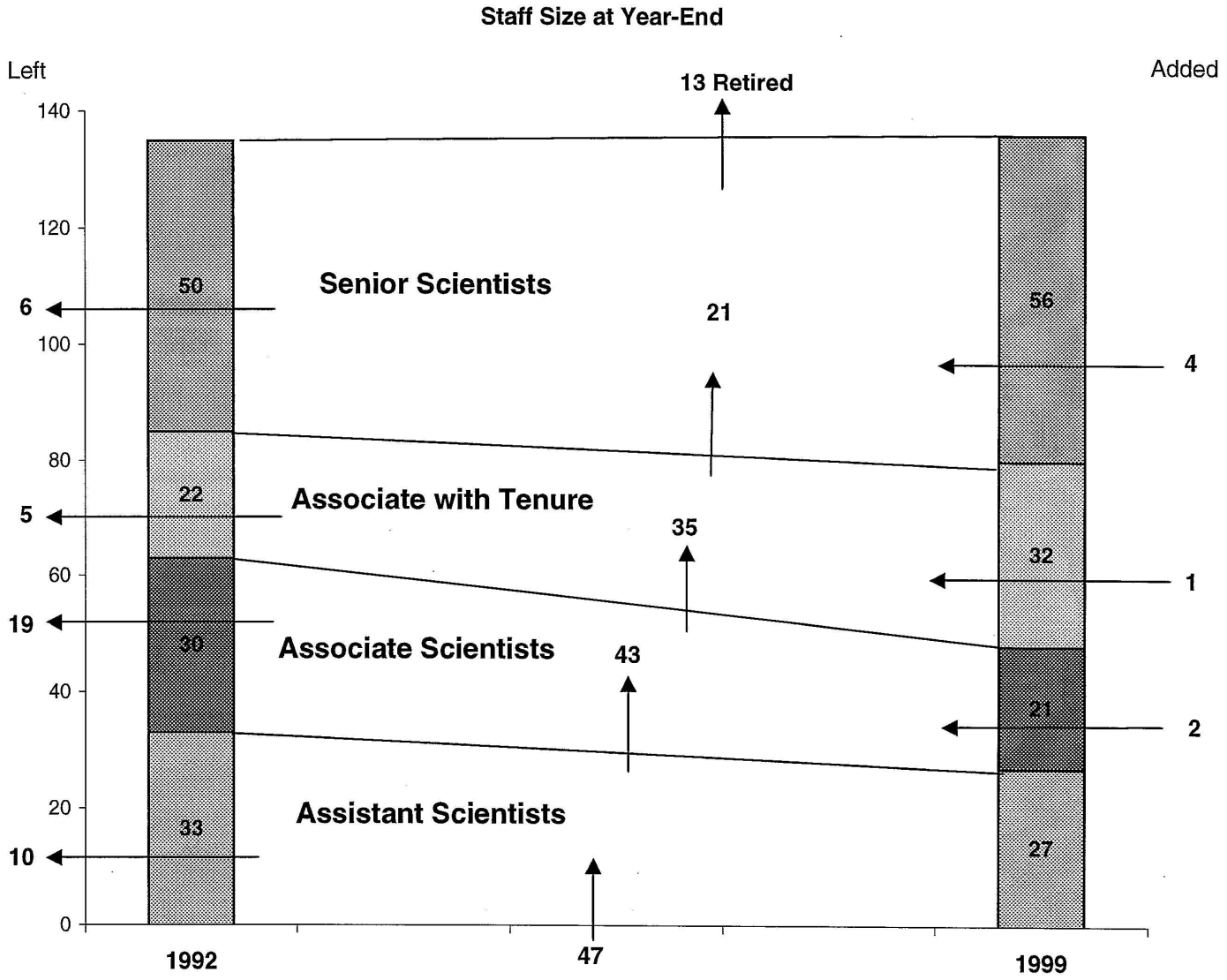

Staff Size at Year-End
Left
Added
13 Retired
140
120
100
80
60
40
20
0
50
Senior Scientists
6
21
56
4
22
Associate with Tenure
5
35
32
1
30
Associate Scientists
19
43
21
2
33
Assistant Scientists
10
27
47
1992
1999

Figure 3.

Number of Men on Staff (as of 12/31)

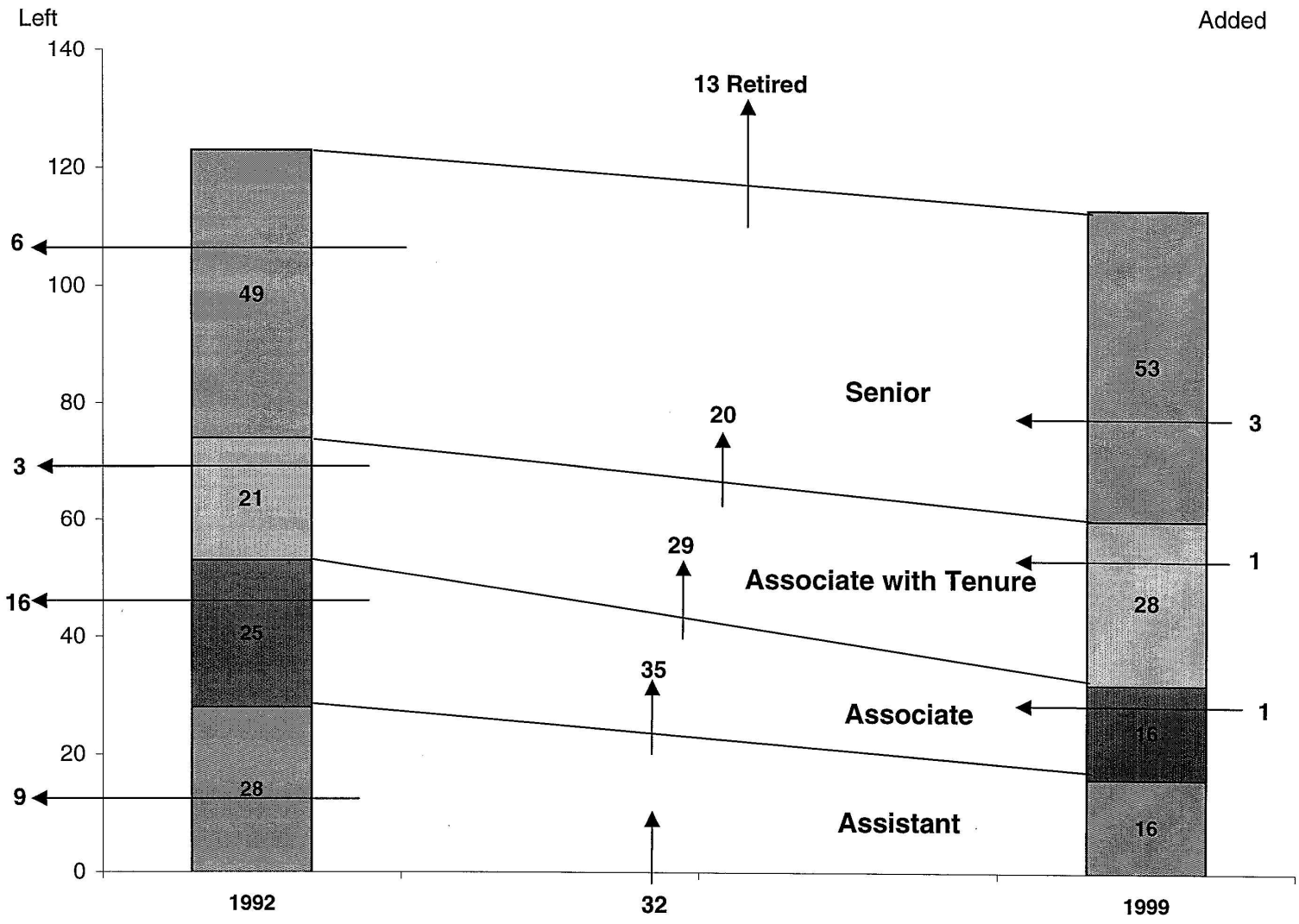
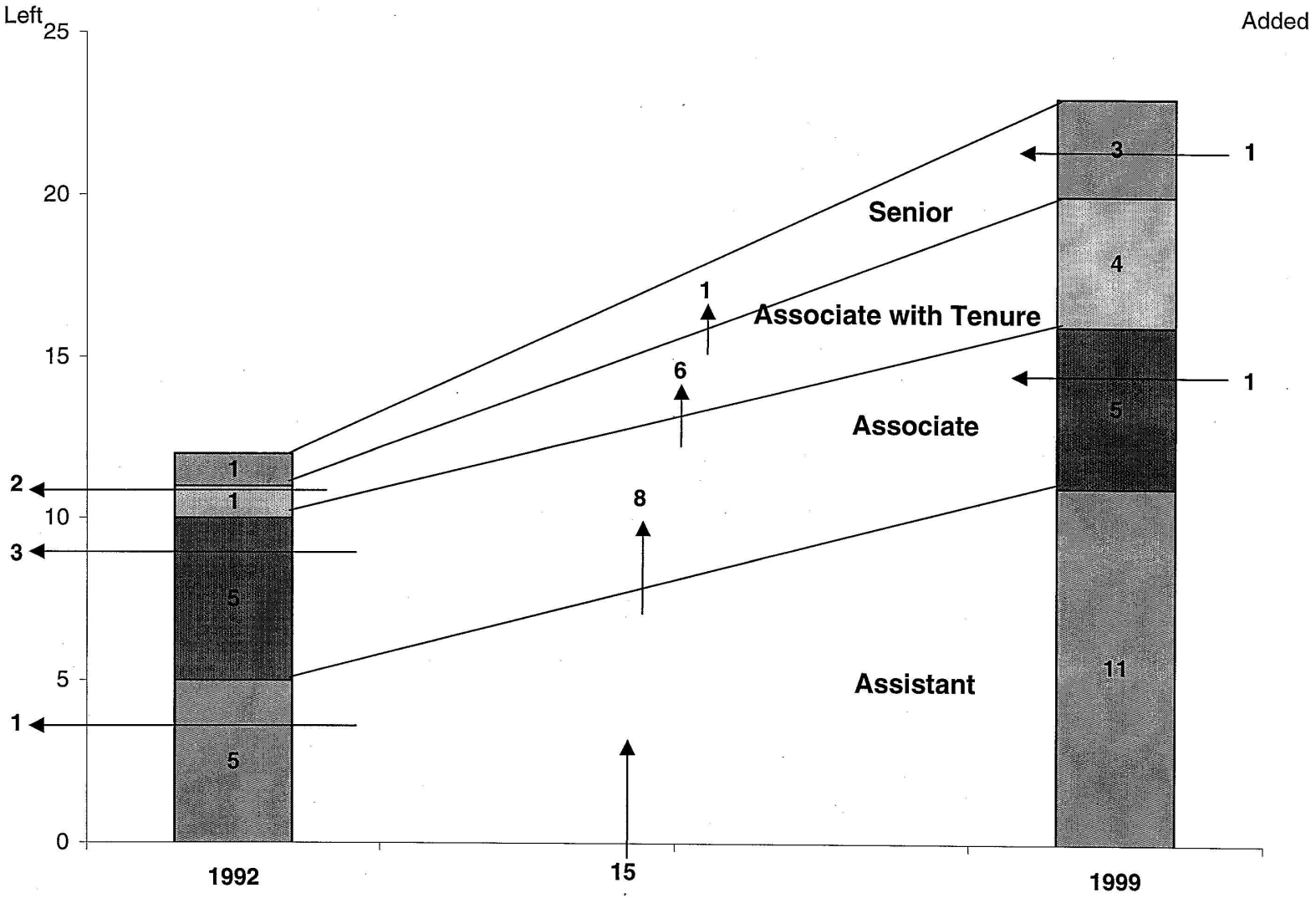


Figure 4.

Number of Women on Staff (as of 12/31)



The distribution of women scientists within the scientific staff at the end of 1999 is 3 Senior Scientists, 4 Associate Scientist with Tenure, 5 Associate Scientists without Tenure, and 11 Assistant Scientists; i.e., 70% of the women scientists are pre-tenure. For male scientists, the distribution is the reverse: 53 Senior Scientists, 28 Associate Scientists with Tenure, 16 Associate Scientists without Tenure, and 16 Assistant Scientists; i.e., only 28% are pre-tenureThis is clearly a reflection of the effort to increase the hiring rate of women; however, almost all of that hiring has been done at the Assistant Scientist level. Women continue to be under-represented at the senior levels where many Departmental decisions, especially those relating to promotions and tenure, take place. Although over the next ten years this should significantly improve through promotions of the junior staff, there is, currently, an insufficient number of women scientists at the senior level to provide role models and mentoring, and to be influential within Departments. Hence, an important focus for hiring at WHOI over the next few years should be identifying and recruiting senior women scientists.

PROMOTIONS AND LOSSES: 1992–1999

A comparison of the staff size in 1992 and 1999 shows that the total number of scientists increased by one—from 135 to 136 (Figure 2). The number of men decreased by 10 from 123 to 113 (plus 1 on Leave of Absence); the number of women increased by 9 from 12 to 23 (plus 1 on Leave of Absence (Figures 3 & 4)). The percentage of women doubled from 9% to 18% (Figure 4). The number of Tenured Scientists increased by 16 with the addition of 11 men and 5 women. Junior scientists decreased by 15; men decreased by 21, and women increased by 6.

Promotion rates from Assistant to Associate Scientist for men and women scientists are essentially the same, given that the numbers of women scientists are small. Forty-three Assistant Scientists were promoted and 10 left, giving a promotion rate of 81%. Thirty-five men were promoted and 9 left, a promotion rate of 80%. Eight women were promoted and one left, a promotion rate of 89%.

Thirty-five Associate Scientists were tenured and 19 left, giving a tenure rate of 65%. Twenty-nine men were tenured and 16 left, a tenure rate of 64%. Six women were tenured and 3 left, a tenure rate of 67%. Again, considering the small numbers of women, the tenure rates appear to be nearly the same.

Most losses of scientific staff members occur at the level of Associate Scientist without Tenure. Since 1992, the population of Associate Scientists without Tenure has shrunk by almost a third. This loss has been dominantly of men, largely because there are more of them in the pool. We have not assessed the relative importance of being denied tenure, other job offers, or personal reasons.

Only one of the 8 women hired during 1975–1983 is still a member of the scientific staff. This retention rate is roughly one-third the retention rate of men hired during the same years. Six of the second group of 10 women hired in 1986–1991 have remained on the scientific staff, a rate about one-third greater than the rate for men hired during the same years. This might suggest that the retention rate of women scientists is improving along with the rate of hiring. However, the retention rate varies at different levels. For example, between 1992 and 1999, 1 woman was promoted to Senior Scientist, and 2 left the Associate Scientist with Tenure level—a loss rate of

67%. This is compared with 20 promotions to Senior Scientist and 3 losses of men Associate Scientists with Tenure—a loss rate of 13%. There are also different retention rates in individual departments. For example, of the 7 women hired in Physical Oceanography (starting in 1986), 3 have left the Scientific Staff, giving a retention rate of 57%. Over the same time period, 17 men were hired, of which four have left, giving a retention rate of 76%. This means that over that time period, women left at a rate almost twice that of men (43% versus 24%). Three of the 4 most senior women in Physical Oceanography have left. Although the numbers are small, the Committee is concerned that the losses may reflect other intangible issues related to the workplace at WHOI, which need to be identified and addressed.

Recommendation:

1) *The Committee recommends that WHOI continue to actively seek qualified women for scientific positions at the Institution, and in particular, a special effort should be made to attract senior women scientists.*
2) *The Committee recommends that WHOI ensure that sufficient mentoring and advocacy of women junior scientists is in place to provide the best possible chance of being promoted.*
3) *The Committee recommends that WHOI identify the issues that are important in recruiting and retaining scientific staff in order to determine whether steps can be taken to increase the attractiveness of WHOI as a workplace for both men and women.*

COMPENSATION

SALARY

The Committee reviewed a series of graphs of 1999 salaries prepared by the office of the Associate Director for Research. Actual salary data were protected by a normalization process that resulted in values of less than one. The Committee examined the relation between salaries by gender, both overall and broken down into the different levels of the scientific staff, and both years in position and years since Ph.D. Andy Solow and Claire Reid provided help to Phil Richardson (the one Committee member permitted to see the actual salaries) in statistical analyses of the data.

A breakdown that proved particularly informative was one in which all scientists who started at WHOI as a beginning Assistant Scientist with no prior scientific experience (except postdoctoral), referred to here as the "starters", were separated from those who had prior experience at other institutions and who were hired by WHOI at a level higher than a beginning Assistant Scientist, referred to here as the "joiners".

1999 Salary Trends for "Starters"

Figure 5 shows the linear regression relationships for the "starters" of salary vs. years at WHOI (with individual points removed) up to 15 years. This was chosen as a cut off point for two reasons. First, almost all women scientists have been at WHOI less than 15 years. Second,

beyond this point, there is a very large scatter in scientists' salaries relative to the small scatter up to 15 years, for which linear regression calculations are more robust.

There is a statistically significant ($p = 0.03$) salary penalty for women scientists. Although there is very little difference in salaries during the early years at WHOI, the lines for men and women diverge with time. This results in an approximately $3,900 difference after 15 years at WHOI. Although the amount that women's salaries are below men's is small when compared to the scatter of individual values (standard deviation), it raises questions about why this is occurring. Some possibilities include: 1) small differences between women's and men's initial salaries at appointment and at promotion, 2) differences in annual reviews and salary increases of women and men, and 3) differences in clock stopping.

1999 Salary Trends for "Joiners"

Only 3 women have joined the scientific staff at levels other than an entry level Assistant Scientist. When the three women's salaries are plotted vs. years in position at WHOI, the salaries of two women are higher than the general trend lines and the salary of one woman is very close to the trend line suggesting that their salaries are equitable.

However, Figure 6 shows the linear regression relationships between salary and years since Ph.D., which reflects the previous experience of the "joiners". Although the regression lines are nearly parallel for men and women, women are paid approximately $10,000 less than men. This suggests that women may be less well rewarded for their previous experience than men when they come to WHOI. Because prior scientific experience is highly individualistic and the numbers of women "joiners" are so small, the Committee felt that it was inappropriate to examine individual cases.

1999 Salaries by Rank

Assistant Scientists (18 men, 11 women)

Most salaries for men and women Assistant Scientists lie along an apparent common trend when plotted against years at WHOI. Of the 29 Assistant Scientists, there are five who fall considerably off the trend: one woman and two men "joiners" and one man "starter" who had an outside offer lie above the trend; one woman lies below the trend.

The average salary of the women "starters" is about $1400 (±$600 standard error) below the men "starters". However, part of this is due to the trend and the different average years in position for the two groups. If we calculate the salaries relative to the trend line, then the average salary of women "starters" is around $1000 (±$400 standard error) below the average salary of the men "starters". Roughly half of this difference is caused by the high man outlier and the low woman outlier. However, our analysis suggests that there is a tendency for women Assistant Scientists to be paid a little less (around $1000) than the men. This small difference is larger than the standard error.

Figure 5.

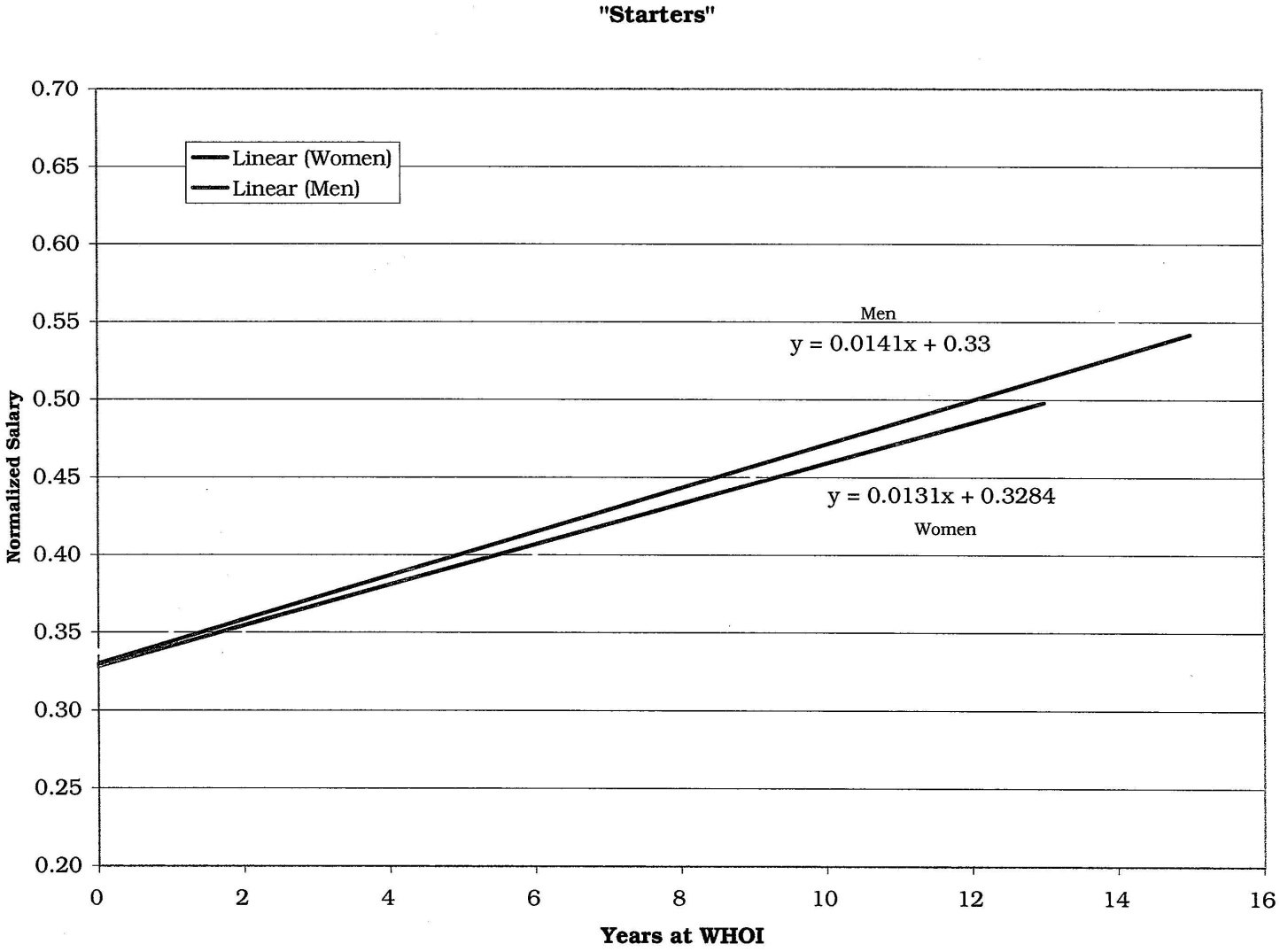
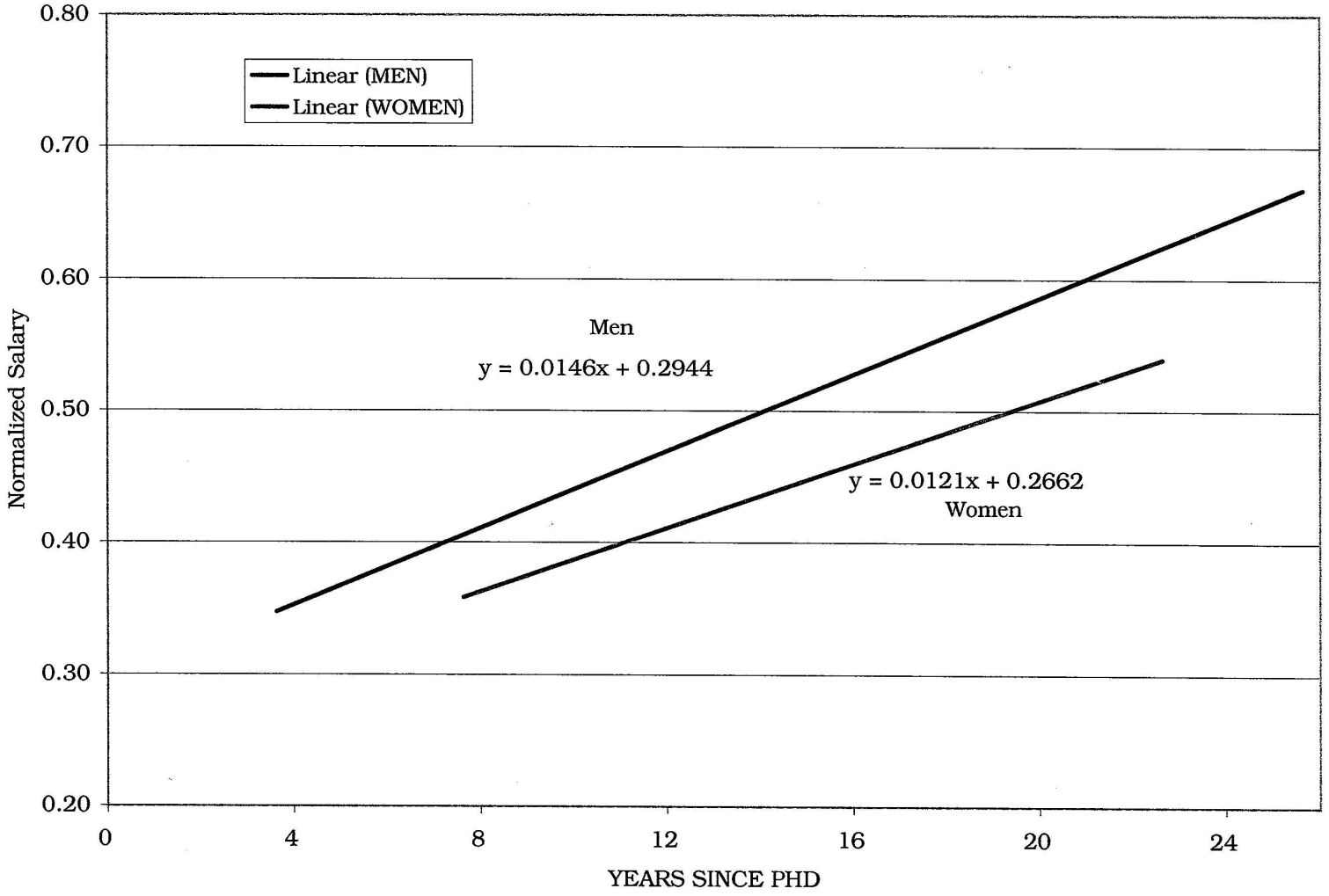

"Starters"
Linear (Women)
Linear (Men)
Men
y = 0.0141x + 0.33
y = 0.0131x + 0.3284
Women
Normalized Salary
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0
2
4
6
8
10
12
14
16
Years at WHOI

Figure 6.

"Joiners"



Associate Scientists without Tenure (14 men, 6 women)

As with the Assistant Scientists, there is a common trend with little apparent difference between salaries of men and women Associate Scientists without Tenure. Of the 20 scientists at this level, three high outliers are "joiners"—two men and a woman; one woman "starter" is a little below the trend. Simple averages of men's and women's salaries are very close to each other, with the women's salaries very slightly higher than the men's ($200 ± $1300 higher for "starters", $700 ± $1900 higher for all), although the standard errors are larger than the differences. Hence, it appears that salaries at this level are equitable.

Tenured Associate Scientists (28 men, 4 women)

The women at this level have all been tenured for less than five years and so our comparison is for this time interval only, although there are men scientists who have been at this level longer. A general trend through the scientists' salaries highlighted two high outliers, both men who had received outside offers. Separate regression lines for men and women revealed that women's salaries are a little lower than men's. Simple averages suggest that women's salaries are lower by $1700 (±$1100) to $3000 (±$1400)—depending on whether the two men high outliers are excluded or included respectively. Hence, it appears that the salaries of women Tenured Associate Scientists are slightly, but consistently, lower than those of men (by around 3-4% of total salary). A similar trend is also observed when salaries are plotted against years since Ph.D.

Senior Scientists (52 men, 3 women)

There is considerable scatter in the salaries of Senior Scientists when plotted against time in position. A regression line drawn through all the Senior Scientists' salaries indicates that there are three men "joiners" over the last 10 years whose salaries lie considerably above the trend line, and three men who fall well below the trend line (10–25 years). The three women's salaries lie close to the trend line, which suggests that their salaries are approximately equivalent to those men who have been a Senior Scientist for the same length of time. A simple average of the two women's salaries in the range 0-4 years is around $1700 (±$900) below that of the 13 men in the same time-in-position range. This omits the two men "joiners" in this period of time whose salaries are well above the trend line, which seems justifiable considering their much greater total years of experience. As was pointed out earlier, a significantly greater discrepancy is observed between the one woman "joiner" and other "joiners" when plotted against years since Ph.D.

YEAR 2000 SALARIES

Much of this analysis was completed in the fall of 1999. However, the Committee reviewed the 2000 salaries to determine whether its conclusions were still sound. Although there were some slight differences between the 1999 and 2000 salaries, the same overall trends were observed: women's salaries remained below men's by roughly the same amount as found for 1999.

Recommendation:

The Committee recommends that WHOI carefully review the salaries of individual women scientists annually to:

- *ensure that women are being compensated equitably;*
- *determine why, in 3 out of the 4 ranks, women's salaries are below those of men;*
- *ensure that women "joiners" are rewarded equitably for their total careers since Ph.D. This will be particularly critical in recruiting senior women to WHOI.*

START-UP PACKAGES

The Committee examined start-up packages of scientists in the years 1991 to mid-1999. The analysis is limited to the start-up funds given by WHOI for equipment only; data on other components (for example, a Chair, salary support, cost-sharing, etc.) negotiated by individuals as part of their start-up were not readily available or easily identifiable.

The average start-up package over that entire time period was $58,000 (±$41,000 standard deviation) for women and $40,000 (±$22,000) for men. The considerable scatter in the amounts awarded to individuals appears to be due to differences in their needs (e.g., complex analytical equipment for a chemist compared with computer equipment for a theoretician). Award amounts have slowly increased over the years and, in the last three years (1997-1999), the average start-up packages for men and women have been essentially within the same range (excluding one particularly large start-up package given to a woman in 1999).

SPACE

Space allocations were requested from each Department Executive through the office of the Associate Director for Research. The data provided by each Department differed owing to the various ways space is used and shared but, after several iterations, it was standardized to indicate estimates of the total space assigned to each scientist in the five scientific departments (Marine Policy was excluded). In general, common spaces were not included (classrooms, administrative offices, dark rooms, etc.). Laboratories or office spaces shared by only a few, identifiable scientists were generally divided amongst them, whereas lab space accessed by many scientists, or which is viewed as being accessible to any scientist, was not included. The data are summarized in Table 1 and Figure 7.

Men and women Assistant Scientists have comparable space on average, while women Associate Scientists without Tenure have somewhat more space than their male colleagues. At the Tenured level and above, women scientists have consistently less space than men: women Associate Scientists with Tenure have about 2/3 of the average space of their male colleagues, well below the standard error for the men's group, and the average space assigned to women Senior Scientists is also below the standard error for the men Senior Scientists.

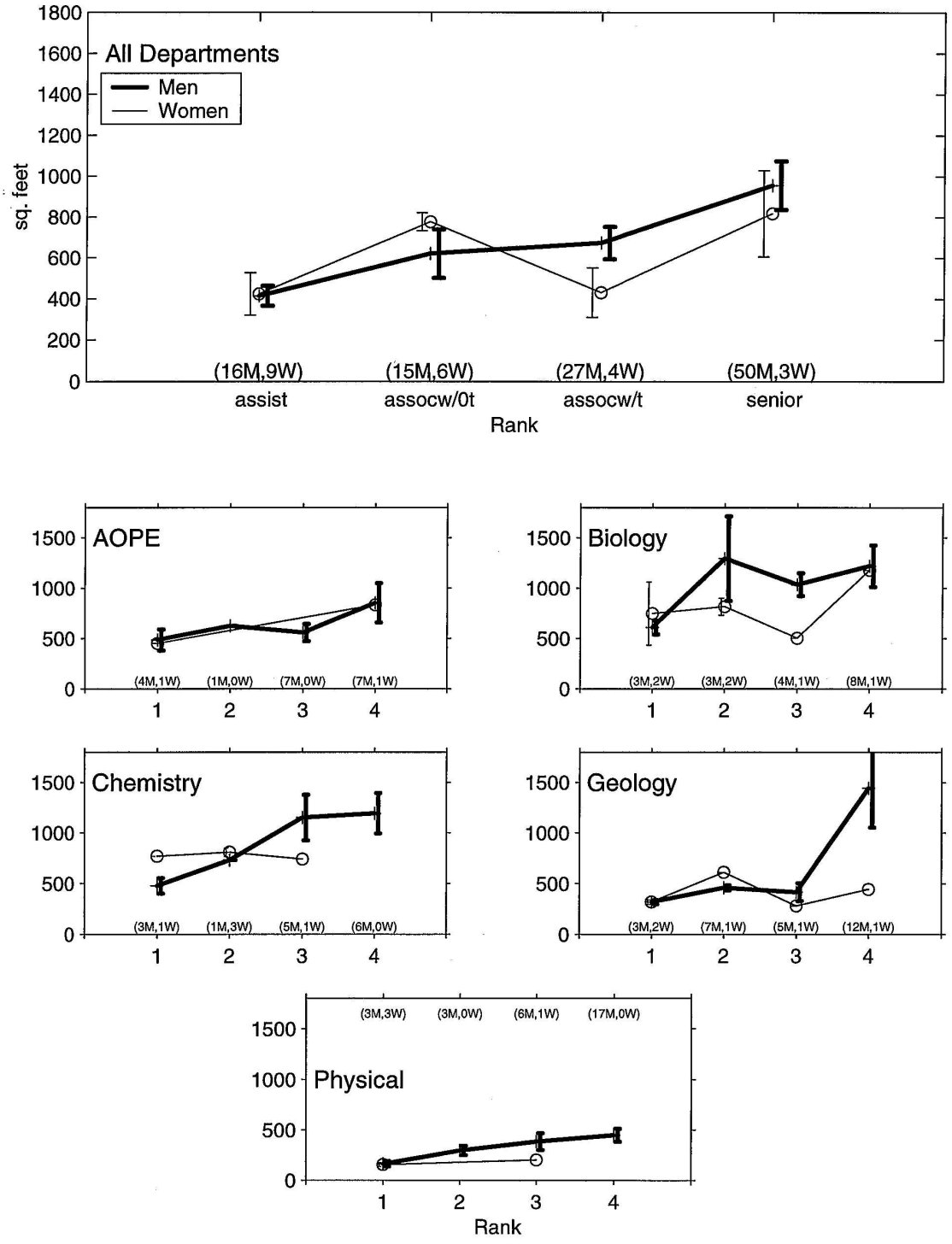
Table 1.
Mean and Standard Error of Assigned Space (in square feet).
(Numbers in parentheses indicate the number of individuals in each group)

	AOPE	BIO	MCG	MGG	PO	ALL
SENIOR MEN	852±195 (7)	1218±206 (8)	1192±200 (6)	1444±391 (12)	449±63 (17)	956±119 (50)
SENIOR WOMEN	832 (1)	1176 (1)	-	444 (1)	-	817±211 (3)
ASSOC. TENURED MEN	557±85 (7)	1034±113 (4)	1149±226 (5)	416±89 (5)	386±83 (6)	673±79 (27)
ASSOC. TENURED WOMEN	-	502 (1)	741 (1)	279 (1)	204 (1)	432±121 (4)
ASSOCIATE MEN	623 (1)	1293±420 (3)	730 (1)	458±26 (7)	295±46 (3)	621±119 (15)
ASSOCIATE WOMEN	-	815±85 (2)	807±42 (3)	612 (1)	-	777±44 (6)
ASSISTANT MEN	485±105 (4)	608±69 (3)	478±76 (3)	317±21 (3)	163±28 (3)	415±48 (16)
ASSISTANT WOMEN	451 (1)	747±312 (2)	770 (1)	317±23 (2)	155±19 (3)	424±103 (9)
ALL	653±78 (21)	1016±99 (24)	949±98 (20)	798±169 (32)	363±41 (33)	

This trend of the higher-ranking women having significantly less space then their male colleagues is clearly evident in 3 of the 5 departments: Marine Chemistry & Geochemistry, Geology & Geophysics, and Physical Oceanography, and is also true in Biology except for the one woman Senior Scientist who has comparable space to the average of her colleagues. AOPE has only 2 women and they have comparable space to their colleagues. Women have significantly less space (<70% of the men's space) among six groups: Biology Associate Scientists with and without Tenure, Marine Chemistry & Geochemistry Associate Scientists with Tenure, Geology and Geophysics Associate Scientists with Tenure and Senior Scientists, and Physical Oceanography Associate Scientists with Tenure. In contrast, men have significantly less (<70% of the women's space) in only one group: Marine Chemistry & Geochemistry Assistant Scientists. Of the 7 tenured women at WHOI, 2 have comparable space to their male colleagues, while 5 have from 1/3 to 2/3 of the space of their male counterparts.

Some of these differences are likely due to the different types of research conducted by individual scientists, which require different amounts of space. However, the trends and statistics indicate that women may not have access to space that is equitable with their male colleagues.

Figure 7.
Mean Allocated Space by Rank and Gender



Recommendation:

1) *The Committee recommends that Department Chairs review the space allocations in those groups identified in this report where women have significantly less space than men, and discuss space needs with the women who fall within those groups. If necessary, space should be reallocated to ensure that women scientists have equitable space with their male colleagues.*
2) *As new space becomes available, the Committee recommends that Department Chairs ensure that the space needs of women are considered equally to those of men.*

MELLON AWARDS AND GREEN TECHNOLOGY INNOVATIVE AWARDS

Mellon Awards and Green Technology Innovative Awards are difficult to evaluate statistically as there are frequently proposals submitted by various combinations of men and women scientists. The following analysis focuses on those proposals that are submitted either by men only or by women only.

For the Mellon Awards (Table 2), the submission rates for men and women are fairly similar, averaging 14% for men eligible to apply, and 11% for women eligible to apply. The success rates are also similar, being 67% for men and 70% for women. Proposals submitted by a combination of men and women have a slightly lower success rate, 56%, even though the total number of proposals submitted by these groups is similar to the total number submitted by women alone.

Table 2.
Mellon Independent Study Awards

Year	Eligible		Submitted			Awarded		
	Male	Female	Male	Mixed	Female	Male	Mixed	Female
1995	108	14	16 (15%)[1]	-	2 (14%)[1]	9	-	2
1996	113	16	15 (13%)	-	1 (6%)	11	-	1
1997	106	18	14 (13%)	5	2 (11%)	8	3	1
1998	108	20	9 (8%)	1	2 (10%)	8	1	2
1999	109	22	18 (17%)	3	3 (14%)	12	1	1
Totals			**72**	**9**	**10**	**48**	**5**	**7**

[1]Percent of eligible scientists who submitted proposals

Submission of proposals for Green Technology Innovative Awards (Table 3) are more difficult to evaluate because these proposals encourage collaborations between scientific and technical staff, and we have not attempted to identify proponents. However, it is clear from the data that women scientists submit fewer proposals for awards of this type; only 3 have been submitted by women alone in the last five years. One of these was funded, giving a success rate of 33%, compared with 39% for those submitted by men. The success rate for proposals submitted by a combination of men and women have a slightly lower success rate of 20%.

Table 3.
Green Technology Innovative Awards
1995–1999

Year	Submitted			Awarded		
	Male	Mixed	Female	Male	Mixed	Female
1995	21	1	2	8	1	-
1996	15	3	-	6	1	-
1997	12	1	1	9	-	1
1998	9	1	-	6	-	-
1999	10	4	-	5	-	-
Totals	**67**	**10**	**3**	**26**	**2**	**1**

WHOI ENDOWED CHAIRS

The first Endowed Chairs for Senior Scientists were awarded in 1987 to two men (there were no senior women at that time). A total of 22 Chairs have been awarded: 21 to men and 1 to a woman (excluding the Johnson Chairs dealt with below). Between 1990 and 1996, there was only 1 eligible woman compared with about 50 men. In 1997, a second woman became eligible and received the one Chair to have been awarded to a woman in 1998. Because of the seniority required to be eligible, women as a whole will benefit less from the Endowed Chairs program until there are more senior women.

The three-year Johnson Chairs (for which all tenured scientists are eligible) are held by the Education Coordinator in each Department. Since 1987, 19 Chairs have been awarded, of which 3 (15%) have gone to women. Over the same time period, the percentage of tenured women scientists has increased from 2% to 8% of the tenured scientific staff. This suggests that women have benefited slightly more than men from being selected as Education Coordinators.

NOMINATIONS FOR EXTERNAL AWARDS

Since 1994, 7 ONR Young Investigator Awards have been made to WHOI scientists: 5 to men and 2 to women. Two nominations (1 man, 1 woman) were made for NASA awards: one award was given to the woman scientist (the other nomination was declined). Since 1996, there have been 4 nominations for awards to the Beckman Foundation, three of which were for women scientists. Three of these were declined; the nomination of a woman scientist is pending.

OTHER DISCRETIONARY FUNDS

COST SHARING: ASSOCIATE DIRECTOR OF RESEARCH (1998-1999)

Thirty-four cost-sharing awards, totaling $2.347M were made by WHOI in 1998-1999. The awards varied widely from around $2,000 to $0.5M, with an average award of $52,000. The two largest awards, $0.5M and $266,000, were made to three men for instrumentation and an observatory. Twenty-six proposals submitted by men, 4 proposals submitted by women, and 4 proposals submitted by both men and women received cost-sharing from the Institution. An equal percentage (33%) of the men and women scientists at WHOI benefited from the cost-sharing program during this time period: 37 men and 8 women.

Given the wide range in the sizes and types of awards, it is difficult to compare the values of awards given to men and women. A straight average suggests that men's awards averaged $56,000, while women's awards averaged $37,000. If the two large instrumentation/ observatory awards to men are omitted, then the average for men is roughly equal to that for women.

It appears that women are equally as successful as men in obtaining cost-sharing awards. However, all major scientific laboratories and facilities (e.g., mass spectrometer lab, OBS facility, etc.) at WHOI, the creation of which usually requires cost-sharing by the Institution, are headed by men. Whether this is a reflection of the small numbers of senior women, or is due to other factors is unknown.

DISCRETIONARY AWARDS: ASSOCIATE DIRECTOR FOR RESEARCH (1995–1999)

Approximately $500,000 of discretionary funds were awarded by the Director for Research between 1995 and 1999. Eighty-one awards were made with an average size of $6,200, of which four were for multiple years. Out of the 75 awards that could clearly be associated with a specific gender, nineteen (25%) were made to women—a greater percentage than the number of women scientific staff during that time period. The average size of the awards to women was $4,900, slightly less than the average size of awards to men, which was $6,700. Twenty awards of $5,000 each were made as recruitment incentives; these are now given to all new Assistant Scientists. Eight of these (40%) went to women, reflecting the recent increases in hiring of women at the junior level.

Award sizes ranged from a few hundred dollars up to a maximum of $42,700 (over three years) for overhead expenses as part of editorial assistance for the editor of the Journal of

Physical Oceanography (male). Other large awards included a search for the vessel "Gulf Stream", which was lost with all hands, computer upgrades, four field trips associated with the Geodynamics Seminar, overhead support for research projects, and instruments. Women received 2 of the 14 awards (14%) that were for greater than $10,000.

DISCRETIONARY AWARDS: DIRECTOR (1995-1999)

A total of $3.6M of discretionary funds was spent in 76 awards to scientists between 1995 and 1999. However, there is some overlap between these discretionary awards and the cost sharing for 1998-1999 discussed above. Women scientists were named on 17 of the discretionary awards (22%) and received a total of $582,000 (or an average of $34,000 per awardee). Seventy-one men received $3.083M (or an average of $43,000 per awardee). It should be noted that some men and women received more than one award; "awardees" as used here includes the multiple awards. Hence, women have been quite successful in accessing discretionary awards with the percentage of women awardees being higher than the percentage of women scientists (14%) averaged over 1995-1999.

Although the average size of the women's awards was smaller than the men's, one woman received the fifth largest award, and another woman shared the seventh largest award with a man. Most of the 11 largest awards, ranging from $100,000 to $364,000, and totaling $1.9M, were for instrumentation and observation systems. Two were for scientist's salary support, and one for start-up funds. Overall, awards to women tended to be smaller than those for men. One reason for this might be that very few women were named on expensive instrumentation awards.

SUMMARY OF OTHER DISCRETIONARY FUNDS

The percentage of women scientists receiving discretionary funds has been slightly larger than the percentage of women on the scientific staff over the last five years. The average size of the awards to women tends to be somewhat smaller than those made to men, as women have not generally been proponents of the large requests for discretionary funds.

One issue is whether women are fully informed about the availability of discretionary funds, and for what types of purposes it is appropriate to request these funds. At a meeting with the women scientific staff where the distribution of discretionary funds was presented, several women commented that they were unaware that such funds exist, and that they were unclear (and reticent to ask) about how to access such funds. This type of information is often passed through the scientific staff by colleagues talking with one another informally, rather than by any formal mechanism. This apparently works well in some Departments, but in others, the women scientific staff is not receiving this type of information.

Recommendation:

The Committee recommends that Department Chairs make a concerted effort to ensure that ***all*** *scientists are (i) aware that discretionary funds are available, (ii) understand the types of activities that are appropriate for requesting discretionary funds, and (iii) know the procedures for requesting them. This is particularly important for*

women scientists who, in some cases, do not appear to be part of the process by which this information is disseminated.

BRIDGE SUPPORT

Appendix II presents bridge support statistics for the scientific staff over the past six years (1994 to 1999). Table II-1 presents the data for the entire scientific staff; this is then broken down into tenured and non-tenured scientific staff in Tables II-2 and II-3 respectively, and also by Department in Table II-4. The data for 1999 are projections that were made in June 1999. The data were analyzed by looking at the bridge support spread over the entire scientific staff, and also in relation to only those that used bridge support each year.

Table II-1 shows that, for the entire scientific staff, women scientists use bridge support for slightly more time than men (0.91 months/year for women versus 0.69 months/year for men), but that the amount of money used per year is slightly less for women than men ($6,010 for women versus $6,550 for men). The difference is due to the fact that untenured women and tenured men, who make up the majority of their respective gender groups, are the principal users of bridge support.

This can be more clearly seen in Tables II-2 and II-3, which break down bridge support into untenured and tenured scientific staff. Tenured women spend less time on bridge support (0.62 months/year for women versus 0.74 months/year for men) and use less money ($5,040 for women versus $8,010 for men) than tenured men. The reverse is true at the untenured level. Untenured women spend more time on bridge support (1.02 months/year for women versus 0.61 months/year for men) and more money ($6,380 for women versus $4,190 for men) than untenured men.

Table II-4 gives a breakdown of bridge support for the different science departments averaged over the past 6 years. The Biology, MC&G and G&G departments are the principal users of bridge support. Men in those Departments use similar amounts of bridge support—about 1 month/year. In the MC&G and G&G Departments, women use more bridge support than their male counterparts—about 1.6 months/year. Women in the Biology Department use significantly less bridge support (about 0.3 months/year) than their male counterparts. The Committee also observed that the handling of requests for bridge support is very different among the Departments, and this impacts the willingness of women scientists (and likely men also, although the Committee did not address this) to request it.

It is important to note that there are other sources of funds at WHOI that can be used by scientists for salary support that can reduce the need for bridge support, and hence will affect the bridge support statistics. These include teaching and advising, Chairs, various internal competitive awards, and Assistant Scientist's support. Chairs and internal competitive awards are dealt with in other sections of this document. In all Departments, men are more involved in, and therefore receive more months of support (on average), for teaching and advising than women. Assistant Scientists are provided with 2 months of support in their first and second years.

Recommendation:

The Committee recommends that the WHOI Directorate establish clear guidelines for the use of bridge support and make sure that the policy is applied uniformly among men and women scientists across all the departments.

COMMITTEE LOADS AND REPRESENTATION ON DEPARTMENTAL AND INSTITUTION COMMITTEES

Table 4 shows the representation of women scientific staff members on Committees both within departments and at the Institution in general for the year 1999.

Table 4.
Representation of Women Scientists on Departmental and Institution Committees

Department	Women on Scientific Staff		% Committee Seats Held by Women	% Education-Related Committee Seats Held by Women	% Non-Education-Related Committee Seats Held by Women
	No.	%			
AOP&E	2 (out of 21)	10	10	0	20
BIOLOGY	6 (out of 24)	25	17	33	10
G&G	6 (out of 33)*	18	17	42	9
MC&G	4 (out of 21)	21	15	18	14
PO	5 (out of 35)**	14	5	0	8
WHOI	24 (out of 134)	18	20	26	14

*1 woman on leave at NSF; **1 woman on leave of absence

A comparison of the percentage of women scientists in each Department with the percentage of available Committee seats that are held by women indicates that, Institution-wide, and in the AOPE and G&G Departments, representation of women on Committees closely mirrors the population of women scientists. It is also apparent that women are under-represented on Committees in Physical Oceanography and in Biology, and, to a lesser extent, on Committees in MC&G.

In two Departments—Biology and G&G—women are over-represented on education-related committees, but under-represented on non-education related committees. This trend is also seen when the entire Institution is considered. The over-representation of women on education-related Committees may partly reflect the large percentages of female students in those Departments,

and partly may be an indication that women have a strong interest in the education program. The under-representation of women on non-education related committees across the Institution should be looked at more closely.

Of particular note is that over 50% of the committee seats held by women in MC&G, G&G, and Biology (80% in MC&G, 63% in G&G, and 57% in Biology) are held by the same, relatively senior, women. This suggests that senior women are shouldering exceptionally large committee loads compared to senior men. Increasing the population of senior women would clearly help alleviate this problem and would make for broader representation of women on non-education-related Committees across the Institution.

Recommendation:

The Committee recommends that WHOI continue to strive to have women represented on both Institution and Departmental Committees in proportion to their population in the scientific staff. Because of the limited number of senior women, achieving that desired goal currently puts an undue burden on those women that are in a position to serve. Senior women who are spending a greater amount of time doing committee work than their male counterparts should receive financial compensation for the additional time taken away from research. In the future, increasing the number of senior women will make proportionate representation easier to accomplish.

PARTICIPATION IN DEPARTMENT/LABORATORY SHOWCASE EVENTS, INCLUDING FUNDING FROM THE DEVELOPMENT OFFICE

Since 1995, there have been 31 showcase events that have involved the scientific staff (and some of the Senior Technical Staff) in which 81 appearances were by scientific staff—63 by men and 18 by women. This works out to an average participation of 1.7 events/person for men and 2.3 events/person for women. However, certain individuals tend to be called on repeatedly and, particularly for women, the burden is large. For example, of the 18 appearances by women scientists, 8 were by 2 women! During that same time period, there was 1 male scientist who was called upon an equivalent number of times—the Director of the Rinehart Coastal Research Center.

The Development Office was unable to provide information on funding from the Development Office, and there does not seem to be a well-publicized policy on this issue. Although it is unclear how people are chosen to be involved in Development activities, it is clear that certain individuals do a large share of the work. In the future, the Development Office should make an effort to use a broader cross-section of the Scientific Staff, and should compensate those who are asked to contribute a large amount of time.

Recommendation:

The Committee recommends that WHOI needs to establish a clear policy on the allocation of salary support to scientific staff participating in Development events.

POPULATION STATISTICS FOR WHOI'S EDUCATION PROGRAMS

MIT-WHOI JOINT PROGRAM

Admission statistics over the 30-year history of the MIT-WHOI Joint Program reflect a marked increase in both applications from, and admission of, women to the program in all disciplines.

For the period 1968–1977, only 5 women graduated from the program representing less than 8% of students, whereas in the period 1988–1997, 61 women graduated from the program representing approximately 35% of the students. Current enrollment in the program is 66 women and 60 men for a total of 126 students. The gender distribution of applicants varies from discipline to discipline and year to year but generally reflects an overall equal distribution of men and women applying to the program. For the period 1994 to the present, the entering class ranged from 41% to 61% women (Table 5).

Table 5.
Composition of the MIT-WHOI Joint Program
Entering Class by Academic Year

Discipline	1994-1995		1995-1996		1996-1997		1997-1998		1998-1999		1999-2000	
	M	W	M	W	M	W	M	W	M	W	M	W
AOPE	8	4	2	2	2	1	8	2	7	0	6	2
Bio. Oc.	4	4	0	1	0	1	5	5	1	7	3	2
Chem. Oc.	1	2	3	1	1	2	0	2	0	4	0	3
MC&G	2	3	1	1	2	2	0	4	1	4	3	4
Phys. Oc.	5	1	1	3	1	3	3	3	2	2	1	0
Totals	**20** **59%**	**14** **41%**	**7** **47%**	**8** **53%**	**6** **40%**	**9** **60%**	**16** **50%**	**16** **50%**	**11** **39%**	**17** **61%**	**13** **54%**	**11** **46%**

The Committee also reviewed the involvement of WHOI women faculty members as advisors or committee members for students' thesis or dissertation guidance committees. Again, there are large variations among the Departments on the involvement of women faculty in graduate education. The overall rate indicates that for the period 1990-1999, 13 students out of 260 had WHOI women as thesis or dissertation advisors (5%), and 43 students out of 260 had WHOI women as Committee members (16.5%).

POSTDOCTORAL SCHOLARS

The WHOI Postdoctoral Scholar Program is a competitive fellowship program that attracts applicants with Ph.D. degrees from every scientific discipline related to oceanography and from

around the world. Many current scientific staff members at WHOI were recruited from the Postdoctoral Scholar Program. However, the degree to which Postdoctoral Scholars are considered for appointment to the Scientific Staff varies greatly among the five science departments. Since 1981, 46 Postdocs have been appointed to the Scientific Staff, with all Departments, except AOPE, appointing 9–12 individuals. However, AOPE has relied significantly less on the Postdoc pool for potential staff members, hiring only 3 Postdocs since 1981.

Overall, a lower percentage of women apply to the postdoctoral scholar program than to the MIT-WHOI Joint Program. For the period 1994–1999, there were 206 applications from women out of a total of 820, representing 25%. There is a slightly higher percentage of women applicants (30%) from the U.S. alone. Postdoctoral awards for the period 1994–1999 included 17 awards to women out of a total of 64 awards, representing 27%. Hence, the rate of success of women in being awarded Postdoctoral Scholarships is about the same as the application rate. However, a comparison of the percentage of women graduate students in the Joint Program (which is typical for most of the major oceanography graduate programs) with the percentage of women applying to the WHOI Postdoctoral Program suggests that there is a significant loss of women from the field during and after graduate school. All Department members should make a concerted effort to identify outstanding women graduate students at other institutions, and to encourage them to apply for Postdoctoral and/or Assistant Scientist positions at WHOI.

Recommendation:

The Committee recommends that each department review its postdoctoral scholars on an annual basis to identify potential new appointments, especially of women, to the Scientific Staff.

SUMMER STUDENT FELLOWSHIPS

The Summer Student Fellowship Program is a competitive fellowship program for undergraduates. The gender distribution for applicants over the past five years has ranged from 50% to 64% women and the awards have ranged from 42% to 72% women.

RECOMMENDATIONS FOR FUTURE ACTIVITIES

Based on an examination of the tangible issues related to the equitable treatment of women at WHOI, the Committee concludes that there are differences in salary and space; allocation of other resources appear to be relatively equitable. A significant finding is that the salaries of women scientists are, in 3 out of 4 ranks within the scientific staff, less than men (by about $2,000). In addition, the salary trends for men and women who joined WHOI as Assistant Scientists, diverge with time, resulting in a difference of about $4,000 after 15 years. A second important finding is that the women who join the scientific staff later in their careers are significantly less well rewarded (by about $10,000) for their previous experience (since Ph.D.) than men. This is based on only a very small number of women, and may be a reflection of the highly individualistic nature and quality of prior scientific experience. ***The Committee recommends that the Director of Research and the Department Chairs examine women's salaries at all levels to ensure that women scientists are compensated equitably***.

Given the very diverse types of research done at WHOI, scientists have very different needs and the Committee has tried to take that into account in assessing the other tangibles, such as space, start-up packages, cost-sharing, awards, and discretionary funds. The Committee found that most of the higher-ranking women at WHOI have considerably less space than their peers. Five of the seven tenured women have between one-third and two-thirds of the average space of the men of equivalent rank. While some of these differences may be related to the type of research being conducted, they are found in 4 out of the 5 scientific departments. ***The Committee recommends that space allocations for senior women should be investigated further***. For other resources, allocation appears to be relatively equitable.

Although the Committee did not assess the climate in the workplace, the lack of women, particularly at the senior levels, impacts mentoring, limits the involvement, and perhaps the effectiveness, of women in Departmental and Institutional decision-making, and places an undue burden on the few senior women there are. Women scientists are heavily concentrated in the junior levels, while men scientists are concentrated in the tenured levels. Although over the next ten years this should significantly improve through promotions of the junior staff, there is currently an insufficient number of women scientists at the senior level to provide role models and mentoring, and to be influential within Departments. ***Hence, an important focus for hiring at WHOI over the next few years should be identifying and recruiting senior women scientists***.

It is also clear that there are some issues related to climate in the workplace. At a meeting with the women scientists at which the Committee presented its preliminary findings, the lack of communication and a feeling of being "out of the loop" were two issues that were evident, although this was highly variable among the Departments. Improving the climate for women scientists at WHOI is key to increasing the numbers who stay and who are successful here. ***The Committee recommends that a study of the gender climate be initiated***.

Finally, the Committee was asked to identify some appropriate speakers to be invited to discuss gender equity issues. Our recommendations are as follows:

Virginia Valian:	Author of the book "Why So Slow?"
Nancy Hopkins:	Chair of the MIT Committee that investigated gender equity.
Penny Chisholm:	Member of the MIT Committee who is very familiar with WHOI through her participation in the Joint Program.

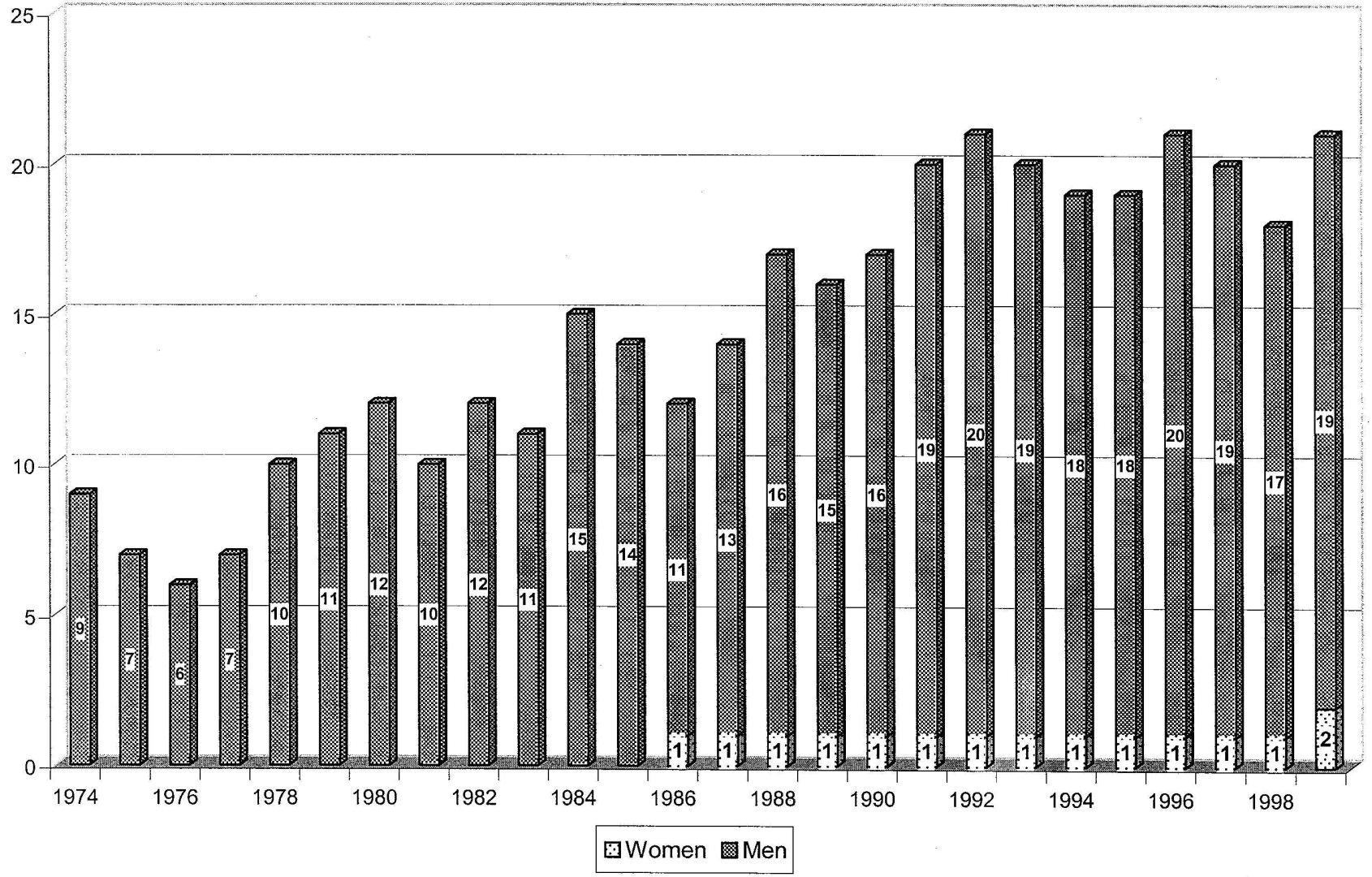
ACKNOWLEDGMENTS

The Committee would like to thank Claire Reid, Karen Rauss, Emily Schorer, and the Department Administrators for supplying the data that made this study possible. In addition, Claire Reid suffered through many revisions of the population and salary statistics figures that are presented in this report. The Committee also thanks Andy Solow for his assistance in the statistical analysis of the salary information.

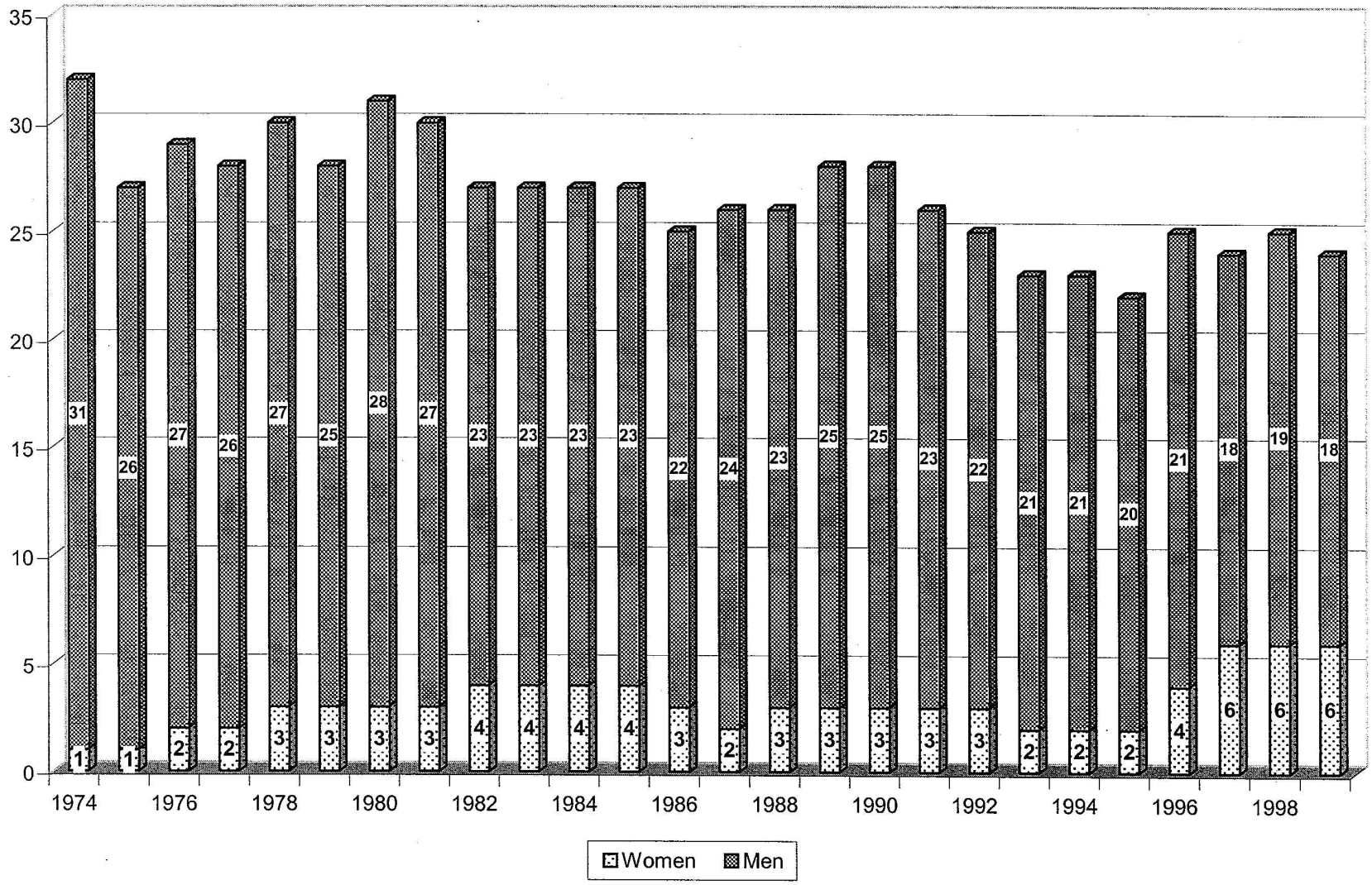
A P P E N D I X I

POPULATION STATISTICS BY DEPARTMENT

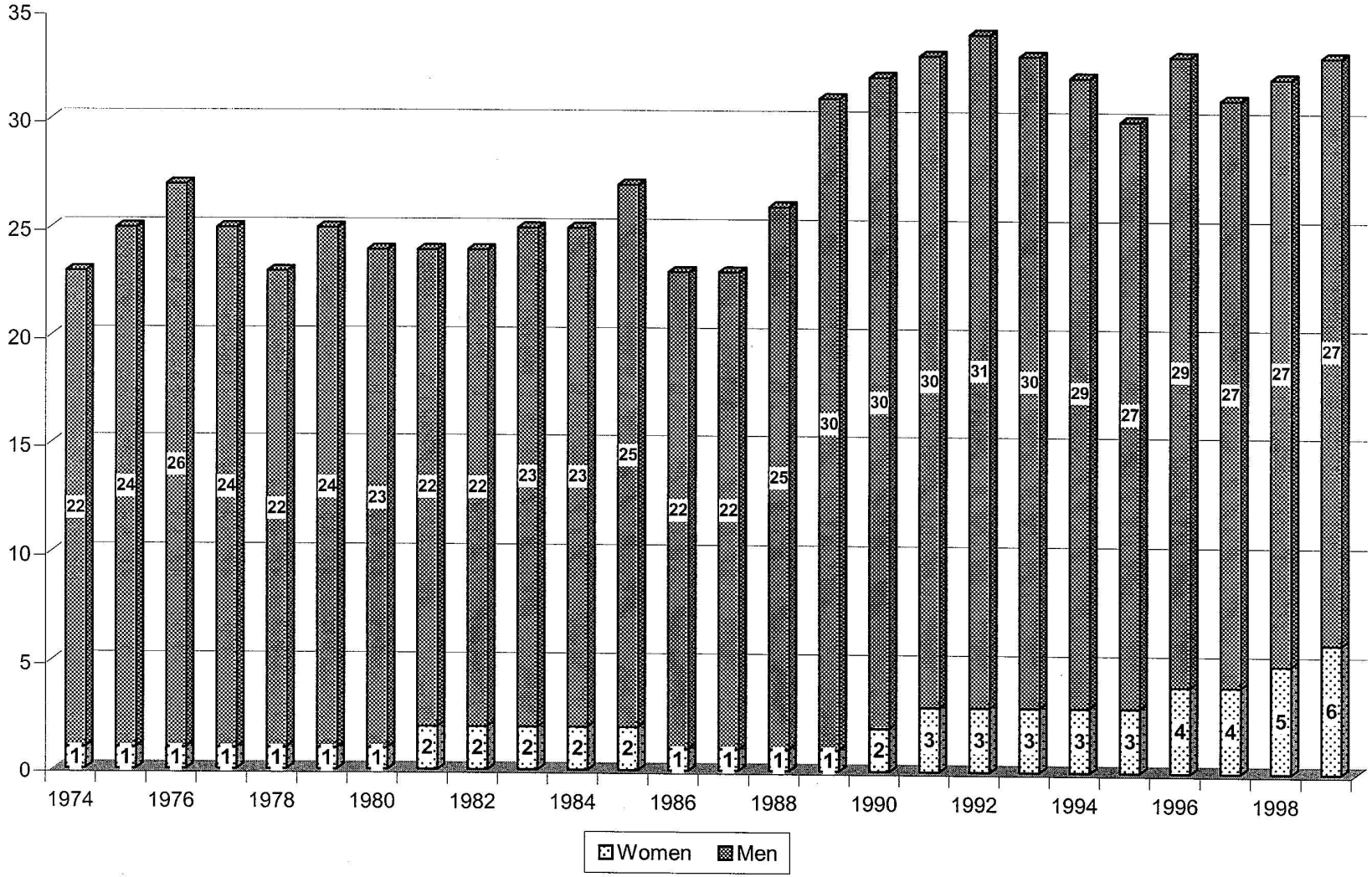
AOPE Dept. Population Statistics



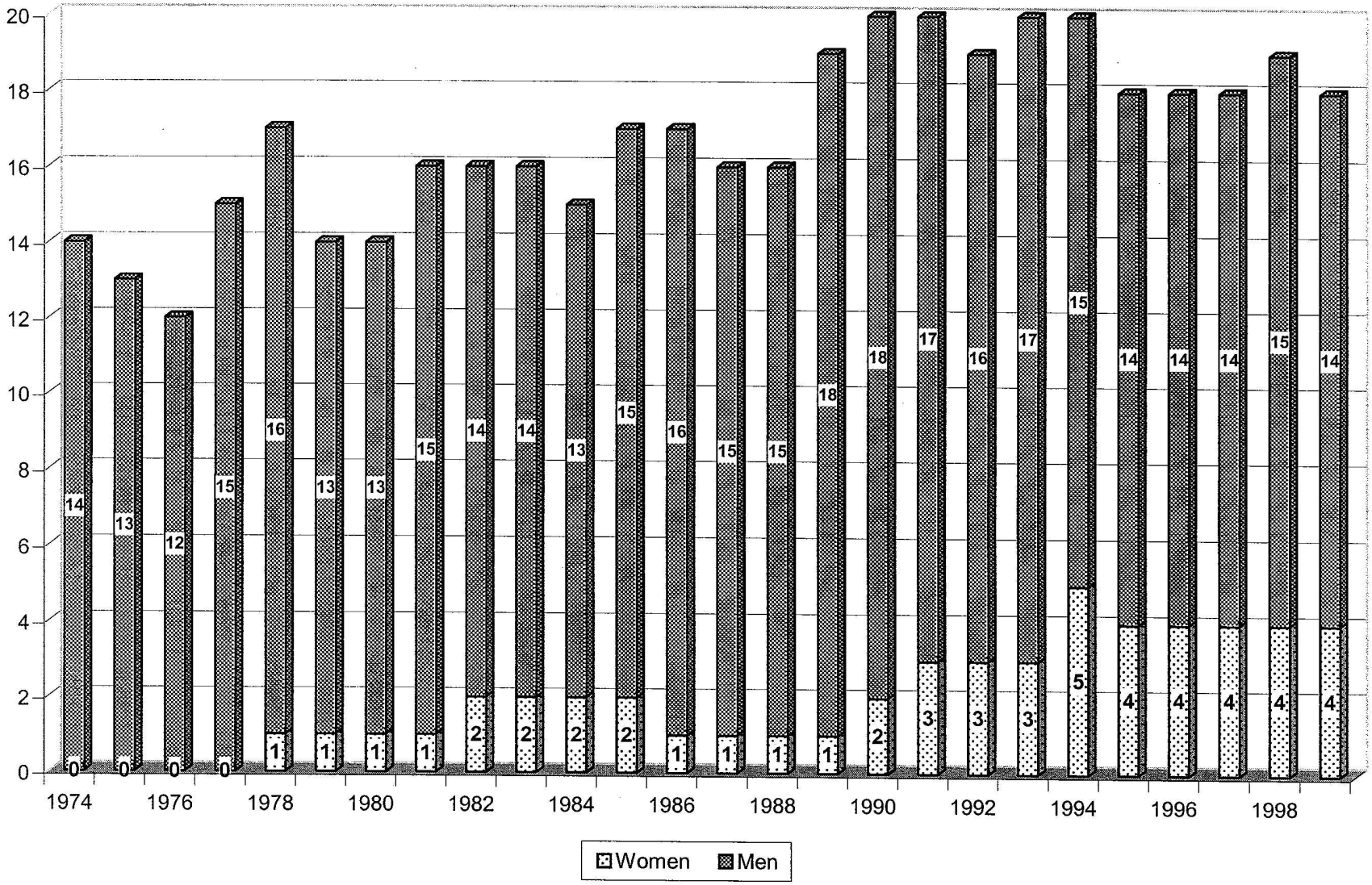
Biology Dept. Population Statistics



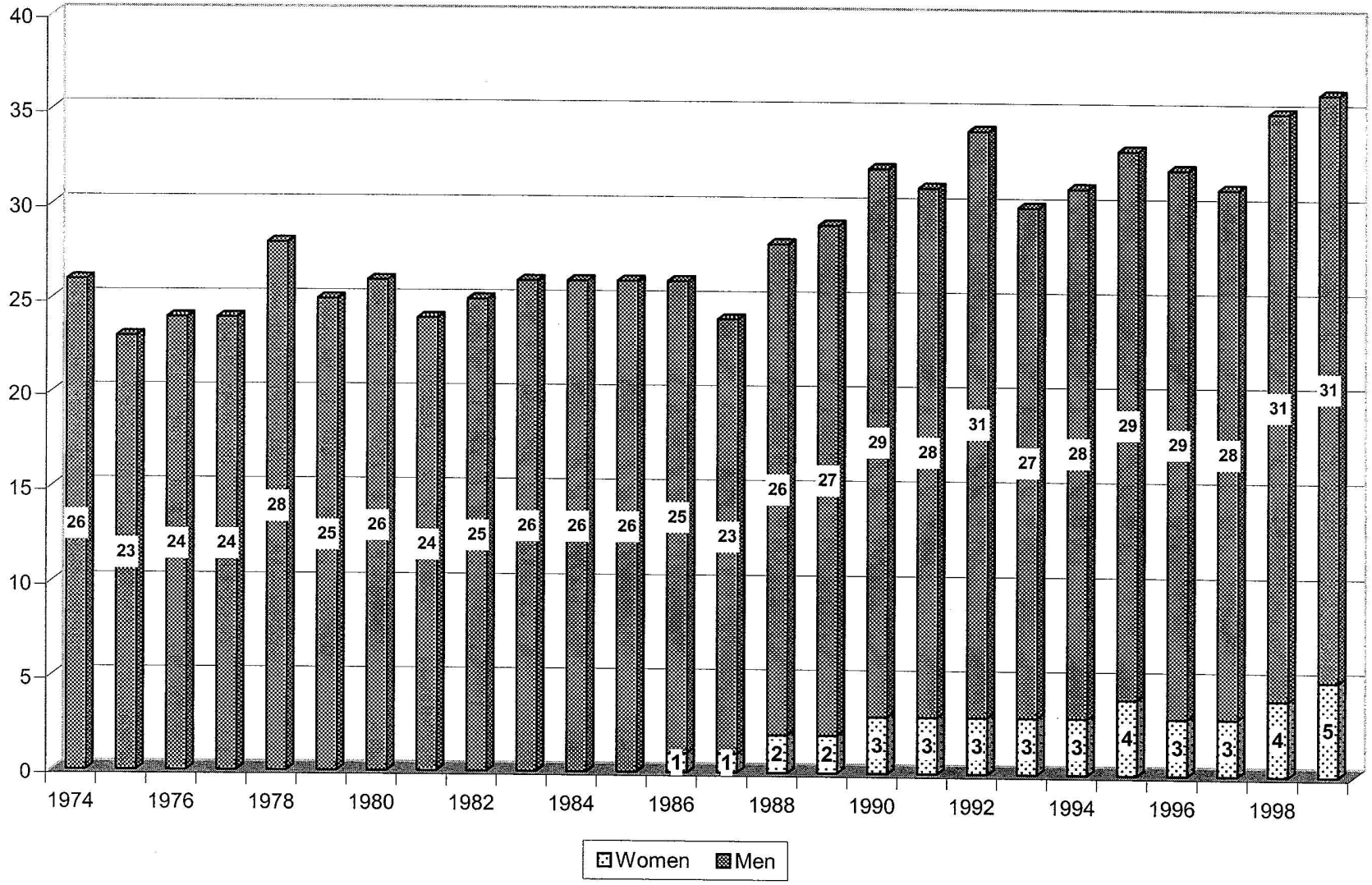
Geology and Geophysics Population Statistics



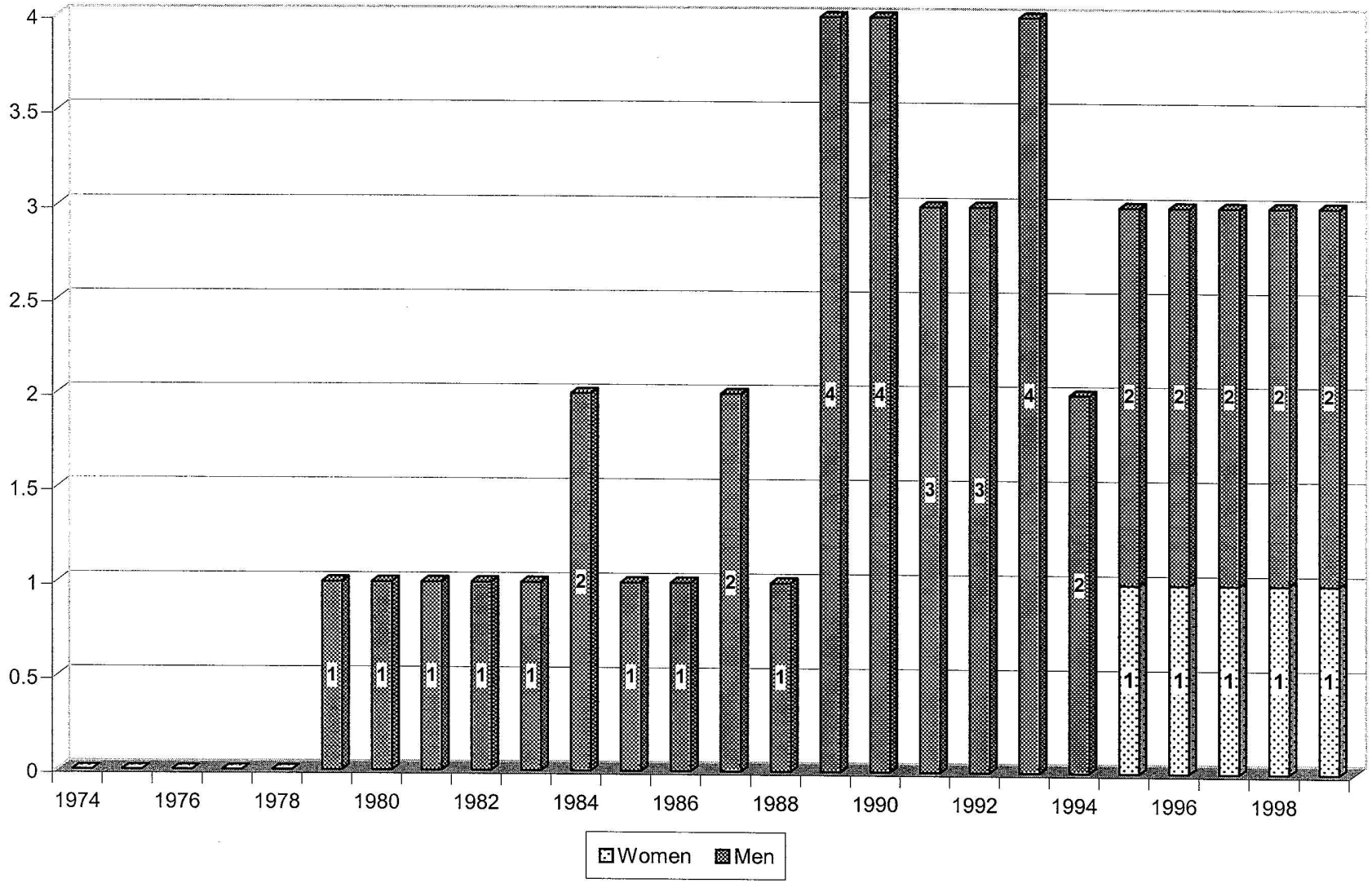
Marine Chemistry and Geochemistry Dept. Population Statistics



Physical Oceanography Dept. Population Statistics



Marine Policy Population Statistics



A P P E N D I X II

TABLE II:1–4

TABLE II-1

BRIDGE SUPPORT FOR WHOI SCIENTIFIC STAFF
1994–PRESENT

YEAR	GENDER	TOTAL NO.	NO. ON BRIDGE	TOTAL MONTHS	AVG. MONTHS PER PERSON FOR ENTIRE STAFF	AVG. MONTHS PER PERSON ON BRIDGE	TOTAL $	AVG. $ PER PERSON FOR ENTIRE STAFF	AVG. $ PER PERSON ON BRIDGE
1994	Men	109	19	67.1	0.62	3.53	$585,200	$5,370	$30,800
	Women	13	0	0	0	0	0	0	0
1995	Men	107	20	56.6	0.53	2.83	$482,000	$4,500	$24,100
	Women	13	2	6.3	0.48	3.15	30,700	2,360	15,350
1996	Men	111	16	68.5	0.62	4.28	$601,600	$5,420	$37,600
	Women	15	5	15.6	1.04	3.12	98,000	6,530	19,600
1997	Men	105	14	49.6	0.47	3.54	$554,400	$5,280	$39,600
	Women	19	3	21.0	1.11	7.00	122,700	6,460	40,900
1998	Men	106	20	103.4	0.98	5.17	$1,012,000	$9,550	$50,600
	Women	20	5	16.0	0.80	3.21	97,500	4,880	19,500
1999 (Est.)	Men	103	19	99.0	0.96	5.21	$966,600	$9,390	$50,900
	Women	23	9	35.1	1.53	3.90	271,800	11,810	30,200
6 -Year Averages	**Men**	**107.0**	**18.0**	**74.0**	**0.69**	**4.11**	**$700,400**	**$6,550**	**$38,900**
	Women	**17.2**	**4.0**	**15.7**	**0.91**	**3.92**	**$103,400**	**$6,010**	**$25,850**

TABLE II-2

BRIDGE SUPPORT FOR TENURED SCIENTIFIC STAFF
1994–PRESENT

YEAR	GENDER	TOTAL NO.	NO. ON BRIDGE	TOTAL MONTHS	AVG. MONTHS PER PERSON FOR ENTIRE STAFF	AVG. MONTHS PER PERSON ON BRIDGE	TOTAL $	AVG. $ PER PERSON FOR ENTIRE STAFF	AVG. $ PER PERSON ON BRIDGE
1994	Men	60	11	43.6	0.73	3.96	$481,800	$8,030	$43,800
	Women	3	0	0	0	0	0	0	0
1995	Men	62	10	33.8	0.55	3.38	$317,000	$5,110	$31,700
	Women	4	0	0	0	0	0	0	0
1996	Men	67	11	46.3	0.69	4.21	$456,000	$6,810	$41,450
	Women	5	2	4.5	0.90	2.25	30,000	6,000	15,000
1997	Men	67	11	45.0	0.67	4.09	$479,600	$7,160	$43,600
	Women	4	1	8.1	2.02	8.10	80,000	20,000	80,000
1998	Men	70	10	61.9	0.88	6.19	$700,000	$10,000	$70,000
	Women	5	1	3.0	0.60	3.00	18,000	3,600	18,000
1999 (Est.)	Men	71	11	63.5	0.89	5.77	$745,800	$10,500	$67,800
	Women	1	1	2.0	0.29	2.00	14,000	2,000	14,000
6 -Year Averages	**Men**	**66.2**	**10.7**	**49.0**	**0.74**	**4.58**	**$530,000**	**$8,010**	**$49,500**
	Women	**4.7**	**0.83**	**2.93**	**0.62**	**3.53**	**$23,700**	**$5,040**	**$28,600**

TABLE II-3

BRIDGE SUPPORT FOR UNTENURED SCIENTIFIC STAFF
1994–PRESENT

YEAR	GENDER	TOTAL NO.	NO. ON BRIDGE	TOTAL MONTHS	AVG. MONTHS PER PERSON FOR ENTIRE STAFF	AVG. MONTHS PER PERSON ON BRIDGE	TOTAL $	AVG. $ PER PERSON FOR ENTIRE STAFF	AVG. $ PER PERSON ON BRIDGE
1994	Men	49	8	23.5	0.48	2.94	$103,400	$2,110	$12,900
	Women	10	0	0	0	0	0	0	0
1995	Men	45	10	22.8	0.51	2.28	$165,000	$3,670	$16,500
	Women	9	2	6.3	0.70	3.15	30,700	3,410	15,350
1996	Men	44	5	22.2	0.50	4.43	$145,600	$3,310	$29,100
	Women	10	3	11.1	1.11	3.70	68,000	9,800	32,700
1997	Men	38	3	4.6	0.12	1.52	$74,800	$1,970	$24,900
	Women	15	2	12.9	0.86	6.45	42,700	8,180	61,350
1998	Men	36	10	41.5	1.15	4.15	$312,000	$8,670	$31,200
	Women	15	4	13.0	0.87	3.26	79,500	6,500	24,400
1999 (Est.)	Men	32	8	35.5	1.11	4.44	$221,300	$6,920	$27,700
	Women	16	8	33.1	2.07	4.13	257,800	16,100	34,000
6 -Year Averages	**Men**	**40.7**	**7.3**	**25.0**	**0.61**	**3.42**	**$170,400**	**$4,190**	**$23,300**
	Women	**12.5**	**3.2**	**12.7**	**1.02**	**3.97**	**$79,800**	**$6,380**	**$24,900**

TABLE II-4

BRIDGE SUPPORT FOR SCIENTIFIC STAFF BY DEPARTMENT
6-YEAR AVERAGES (1994–1999)

DEPARTMENT	GENDER	AVERAGE NO. OF SCIENTISTS	TOTAL MONTHS OF BRIDGE SUPPORT PER YEAR	AVERAGE MONTHS OF BRIDGE SUPPORT PER PERSON
AOP&E	Men	18.8	3.18	0.17
	Women	1.2	0	0
BIOLOGY	Men	19.7	22.8	1.16
	Women	4.3	1.15	0.27
G&G	Men	28.3	26.5	0.94
	Women	4.0	6.87	1.72
MC&G	Men	14.5	16.1	1.11
	Women	4.2	6.66	1.59
PO	Men	29.0	5.37	0.19
	Women	3.5	1.00	0.29

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