

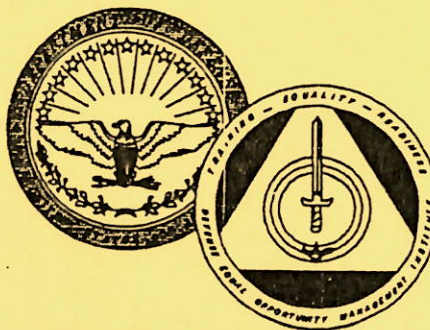
**EVALUATION OF
GENDER INTEGRATION
AT
RECRUIT TRAINING COMMAND
ORLANDO NAVAL TRAINING CENTER
ORLANDO, FLORIDA**

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The opinions expressed in this report are those of the author and should not be construed to represent the official position of DEOMI, the military services, or the Department of Defense.

INTRODUCTION:

In November 1991, the Commander, Recruit Training Command (RTC) at the Naval Training Center, Orlando, Florida, requested the Division of Policy Planning Research at the Defense Equal Opportunity Management Institute (DEOMI), Patrick AFB, Florida, conduct a study to measure the effect of gender integration on basic military trainees.

RTC Orlando is the only Navy training site which currently trains female recruits, and approximately one-third of the recruits training at Orlando at any time are women. A pilot program to integrate training companies was approved in December 1991 and instituted in January 1992.

From January 13 to June 1, 1992, 22 recruit companies (9 all-male, 4 all-female, and 9 integrated) were surveyed for perceptions, and performance scores were analyzed.

METHODOLOGY:

In this time period, 1,621 recruits in the selected companies were surveyed. The survey instrument, prepared at DEOMI, consisted of 60 items designed to elicit perceptions based on three factors: teamwork, fraternization, and impact of gender integration on training. (See Attachment #1)

The scale on the instrument ranged from 1 (totally disagree with the statement) to 5 (totally agree with the statement). Where appropriate, scales were reversed for analysis so that a higher score on any particular item always is more positive.

The instrument was administered, in a proctored environment, on the third day of the first week of training, and readministered to the same companies in week seven of the eight-week basic training program. Opportunity was also provided for the recruits to comment in writing on any aspect of the training or the survey instrument. Structured interviews were conducted as well with a small number of randomly-selected recruits from each of the surveyed companies. These half-hour sessions were designed to elicit personal thoughts and feelings concerning the integration process. A total of 56 interviews were conducted.

RTC personnel extracted, and provided to DEOMI, recruits' academic, physical, and personal training performance data, from official sources.

Analysis of the data consisted of:

1. Comparison of the instrument administration results (perceptions) between the three types of companies (integrated, segregated male, and segregated female).
2. Comparison of the second administration of the instrument to the first for each of the surveyed companies.
3. Comparison of the same results between all the males and all the females.
4. The same comparisons using the academic and physical training data, and an analysis of the relationship between this behavioral data and the perceptual survey results.

RESULTS:

Perceptual Data

Comparison of Integrated to Segregated Companies:*

Teamwork Factor - Analysis of the items included in this factor indicated that the members of the integrated companies overall perceived that the camaraderie and esprit de corps in their company was higher ($\mu=4.37$) than that in the segregated companies ($\mu=4.03$). (See Table #1)

Fraternization Factor - The items included in this factor were analyzed and indicated that members of the integrated companies (both male and female) perceived that dating or sexual involvement would **not** be appropriate while in training ($\mu=3.39$). The segregated female scores were similar to those of the integrated companies ($\mu=3.25$); however, **segregated** males were less inclined to agree with this premise. Their scores indicated that they were more likely to believe that dating or sexual involvement was appropriate during training ($\mu=2.93$). (See Table #1)

Impact of Gender Integration on Training - The scores of all companies for this factor showed a more positive attitude toward integration and acceptance of a dual-gender work environment; however, the reports of those in integrated companies were slightly higher ($\mu=4.17$) than those in segregated companies ($\mu=3.67$). (See Table #1)

Comparison of the Second Survey Administration to the First:

Teamwork Factor - Comparing the survey results between the first and seventh week revealed that integrated companies and segregated female companies indicated an increase in positive perceptions of teamwork, while all-male companies reported a decrease. (See Table #1 and Chart #1)

Fraternization Factor - By the second administration, all companies perceived fraternization was more inappropriate than they had in the first week; however, the mean score for segregated male companies remained lower. (See Table #1 and Chart #1)

Impact of Gender Integration on Training - When comparing the first to the seventh week survey results, all companies showed an increase in agreement that integration of genders has a positive impact on training. (See Table #1 and Chart #1)

Comparison of Male/Female Responses:

Of all the groups, females in integrated companies averaged a higher score in all three factors. Conversely, segregated males scored the lowest. (See Charts #2 and #3)

* Means include both administrations

Behavioral Data

Academic - The mean grade point average of the four academic tests revealed that males in integrated companies scored the highest ($\mu=3.29$ GPA), followed by males in segregated companies ($\mu=3.25$ GPA), segregated females ($\mu=3.15$ GPA), and integrated females ($\mu=3.13$ GPA). (See Table #2)

Physical Training - Overall, when comparing failure rates of all recruits in integrated companies with all recruits in segregated companies, the failure rate was slightly higher in integrated companies (3.8% vs 3.2%). In comparing the integrated companies against all-male or all-female companies it was noted that the segregated female failure rate was considerably lower (1.7%).

Analysis of the differences between genders in the integrated companies showed, however, that integrated females had a much higher failure rate (7.8%), while the integrated male failure rate was 1.8%, lower than the rate for segregated males (3.7%). (See Table #3 and Chart #4)

Recruit Comments:

Overall, recruits from both segregated and integrated companies indicated a favorable attitude toward integration.

Samples of Interview Comments:

Female, age 23, integrated company: "We need to work together with the men, it's only natural."

Female, age 19, segregated company: "Morale would be a lot higher [in an integrated company]. There would be companionship...not having to be separated so much."

Male, age 17, integrated company: "I have worked with females before. Why not now?"

Female, age 20, segregated company: "There would be less men making passes [in an integrated company] because it isn't forbidden territory."

Male, age 18, segregated company: Work should be equally distributed between males and females because "that's what women have fought for all this time. Why should they be divided in boot camp?"

Sample Comments from Survey:

Female, integrated company: "I don't feel like this is anything out of the ordinary. High school and college are mixed, why shouldn't other areas be mixed also?"

Female, integrated company: "At first I didn't like the idea, but now after working with the males I think it is probably a lot better. We are more like brothers and sisters trying to help each other through this.... We don't see it as males and females, we see it as a team."

Male, integrated company: "Men and women for the most part work better as a team than all-male, all-female teams because each sex and each person has something they are better at than the opposite sex is."

Female, integrated company: "I am a member of a mixed company and I love it. It's like having 49 big brothers willing to stretch you to the limit."

Female, segregated company: "Much of the training done here is to prepare us for work in the Navy. That work will, in most instances, be in a sexually integrated environment, which RTC does not train us for."

Gender unknown, integrated company: "I feel that when men and women are able to train together it helps overall present/ future performance. Separation is unnatural and I am sure it contributes to much of the stress of basic training.... It is wise to learn to live, work, and cooperate with each other early for a smoother career."

Male, segregated company: "I believe the integrated companies is (sic) another positive toward the future and equality. If we are to work together, should not we train together?"

DISCUSSION:

The newly-instituted program of gender integration at RTC Orlando was investigated to determine if this experience had an effect on the perceptions or the performance of recruits.

Perceptual data, taken from the survey instrument, show a positive reaction to the integration in each of the factors measured by the survey. Interviews conducted and comments by recruits on the survey instrument confirmed this positive reaction to integration. The perceptual results indicate that, if given a choice, both males and females would prefer to be assigned to an integrated company, and a positive effect on attitude could be expected; however, behavioral data do not translate this preference to a measurable increase in performance in academics and physical training.

Academic scores do not indicate major differences between integrated and segregated recruits by gender. Males in each group scored higher than females in each group, indicating that integration had no major impact on either male or female academic scores. A possible explanation for the higher male scores could be due to the higher percentage of men in the nuclear career field trained at Orlando, while all women are trained at this location. The higher academic requirements for the nuclear career field could skew test results.

Physical training scores were analyzed based on failure rate. Major differences found in these scores seem to be related to type of company and gender. Females in the integrated companies failed at a **much higher** rate than females in all-female companies, and males in integrated companies failed at a **lower** rate than males in all-male companies. A possible explanation for these differences might be the often-suggested hypothesis that men are more competitive and women less competitive when in a mixed-gender environment.

Additionally, staff members have indicated that the difference could be due to the large size of some of the integrated companies involved and the inability of the company commanders to provide sufficient individual coaching.

SUMMARY:

Based on this data, it appears that integration has had neither a clear positive nor negative behavioral impact on training at RTC Orlando. It has neither interfered with nor degraded the quality of training of the recruits; however, the perceptions of the recruits indicate a positive attitudinal impact on training. This aspect of the integration could have a favorable impact on mission accomplishment in the Fleet.

RECOMMENDATIONS:

1. Integration as structured should be continued at RTC Orlando.
2. This study should be replicated at a later date to eliminate any "halo effect" that might have existed in this study.
3. A follow-on survey should be conducted of graduates included in this study to determine if integration has made any impact on mission effectiveness.

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1992 SURVEY RECRUIT TRAINING COMMAND, ORLANDO

INTEGRATION OF TRAINING COMPANIES

PRIVACY ACT STATEMENT

In accordance with DoD Directive 5400.11, the following information about this survey is provided:

- a. Authority: 10 USC, 131.
- b. Principal Purpose: The survey is being conducted to assess the effectiveness of gender integration on recruit companies at RTC Orlando.
- c. Routine Uses: Information provided by respondents will be treated confidentially. The averaged data will be used to identify strengths and weaknesses in the recruit companies that may be related to gender integration. Averaged results will be provided to the commanding officer of RTC.
- d. Participation: Response to this survey is voluntary. Failure to participate will lessen the ability of the RTC commanding officer to identify concerns and positive or negative aspects of gender integration. Your response is needed to ensure the validity of the survey. We appreciate your participation.

This survey was constructed by the Research Division, Defense Equal Opportunity Management Institute, Patrick AFB, FL, exclusively for use at the Recruit Training Command, Orlando, FL.

NOTE: Before beginning, please fill in your company number (e.g. K033 or I002) in the blocks labeled "Student Number."
Use the following number substitutions for letters:

| | | |
|---|---|---|
| C | = | 1 |
| K | = | 2 |
| I | = | 3 |

When marking your responses on the answer sheet, use the following scale:

- 1 = totally disagree with the statement
- 2 = moderately disagree with the statement
- 3 = neither agree nor disagree with the statement
- 4 = moderately agree with the statement
- 5 = totally agree with the statement

1. I am proud to be a member of my company.
2. I believe most members of my company like me now or will like me when they get to know me.
3. I feel I can make or have made a positive contribution to my company.
4. If I had the opportunity to select any company, I would not hesitate to select this company over the others.
5. The source of my motivation to succeed with my company is within myself.
6. My company performance is, or I expect it to be, much higher than the performance of the other companies.
7. Members of my company would help each other if asked.
8. Females are just as able to meet the physical rigors of boot camp as males.
9. I think that men and women should be able to talk to one another at any time in boot camp. (Except, of course, in formations, class, etc.)
10. A team functions better when talents of both men and women can be utilized.
11. It is possible to become emotionally attached to someone while at boot camp.
12. Females should be treated as equals in all aspects of military life.
13. Females are equally as competitive as males.
14. It is too distracting having the opposite sex in the same company.
15. Men and women should not be assigned to the same company.
16. I believe that having both genders in a company will enhance the work atmosphere of that group.
17. My parents were not enthusiastic about me joining the Navy.
18. Females in a company make that company less competitive overall.
19. Officers and enlisted members should be allowed to date one another.
20. The work should be equally distributed between men and women in companies where there are both men and women.
21. Morale in my company is, or I expect it to be, higher than most of the other companies.
22. Here at RTC, females will not receive any special privileges.
23. There is nothing wrong with male and female recruits dating one another while on liberty.
24. Males are overcritical of the performance of females.

25. Mixing males and females in a company could have a negative impact on individual academic grades.
26. Being part of a team is easier when all members are of the same gender.
27. Most of the women who join the Navy do so to find a husband.
28. It is more difficult to take orders from someone of the opposite gender.
29. If a non-recruit staff member asked me for a date, I would accept.
30. Females should not be allowed to serve in the Navy.
31. Companies with both males and females have an academic edge over all-male companies.
32. Companies with both males and females have an academic edge over all-female companies.
33. Friendships between men and women recruits will have a negative impact on group success.
34. Females are not appreciated for the positive contributions they make.
35. Many of the women who join the Navy are lesbians.
36. The source of my motivation to succeed with my company is the other recruits in my company.
37. Mixing males and females in a company could have a negative effect on individual physical conditioning.
38. A social relationship between a junior recruit and a senior recruit will have a negative impact on the morale of one or both of their companies.
39. I believe that mixing males and females in a company can have a positive influence on camaraderie and esprit de corps.
40. Females should not be allowed to serve in the military.
41. Sexual involvement with another recruit is inappropriate.

42. All-male companies have an advantage over mixed or all-female companies in training requiring more physical strength, such as damage control, fire fighting, etc.

43. Being too emotional can hinder my work as a sailor.

44. The source of my motivation to succeed with my company is the staff members at RTC.

45. Sexual involvement with a non-recruit staff member at RTC is inappropriate.

IF YOUR COMPANY HAS BOTH MALES AND FEMALES ANSWER ITEMS 46, 47, 48, AND 49.

IF YOUR COMPANY IS ALL-MALE OR ALL-FEMALE ANSWER ITEMS 50, 51, 52, AND 53.

MIXED-GENDER COMPANIES ONLY:

46. The work has been, or I expect it to be, equally distributed between men and women in my company.

47. My parents will not be pleased when they find out that men and women now train together.

48. It is more difficult to follow the standards of conduct in my company than it would be in an all-male or all-female company.

49. My company will be most likely to receive the most awards because it has both males and females. (SKIP TO ITEM 54)

SINGLE-GENDER COMPANIES ONLY:

50. In my company we work better as a team because we are all of the same gender.

51. In companies with both males and females, I expect females will "carry their fair share of the load."

52. I believe that male and female recruits should be able to have meals together, even if they are in an all-male or all-female company.

53. My company will be most likely to receive the most awards because it is an all-male or all-female company. (CONTINUE WITH ITEM 54)

In this last section, please tell us some things about yourself. This information will be used for statistical analysis only.

54. I am

1. male
2. female

55. My racial/ethnic group is

1. American Indian or Alaskan Native
2. Asian or Pacific Islander
3. Black (not of Hispanic origin)
4. Hispanic
5. White (not of Hispanic origin)
6. Other

56. My age is

1. Under 20
2. 20 to 23
3. 24 or over

57. My current marital status is

1. Single, never married
2. Married
3. Divorced
4. Widowed
5. Separated

58. The highest level of education I have completed is

1. High school graduate or GED
2. Some college
3. Associate's degree
4. Bachelor's degree
5. Graduate degree

59. I had prior service before entering boot camp

1. Yes
2. No

60. The company to which I am assigned is

1. Mixed male/female
2. All male
3. All female

COMMENTS:

THANK YOU FOR COMPLETING THIS SURVEY. PLEASE RETURN ALL MATERIAL TO THE ADMINISTRATOR.

TABLE #1
 RTC ORLANDO
 Survey of Integration Effects
 1992

RESULTS OF SURVEY ANALYSIS

| | TEAMWORK | | | FRATERNIZATION | | | IMPACT ON TRAINING | | |
|------------|-----------|-----------|---------|----------------|-----------|---------|--------------------|-----------|---------|
| | 1st Admin | 2nd Admin | Average | 1st Admin | 2nd Admin | Average | 1st Admin | 2nd Admin | Average |
| Integrated | 4.34 | 4.40 | 4.37 | 3.35 | 3.43 | 3.39 | 4.05 | 4.29 | 4.17 |
| Male | 4.30 | 4.41 | 4.36 | 3.28 | 3.37 | 3.33 | 3.84 | 4.09 | 3.97 |
| Female | 4.37 | 4.38 | 4.38 | 3.46 | 3.49 | 3.48 | 4.25 | 4.48 | 4.37 |
| Segregated | 4.08 | 4.03 | 4.03 | 3.01 | 3.16 | 3.09 | 3.61 | 3.72 | 3.67 |
| Male | 4.08 | 3.96 | 4.02 | 2.85 | 3.00 | 2.93 | 3.36 | 3.46 | 3.41 |
| Female | 4.07 | 4.09 | 4.08 | 3.17 | 3.32 | 3.25 | 3.86 | 3.97 | 3.92 |

Scores are based on a 1 to 5 scale where 5 is better.

TABLE #2
 RTC ORLANDO
 Survey of Integration Effects
 1992

| RESULTS OF ACADEMIC TESTING ANALYSIS | | | | | |
|--------------------------------------|---------|---------|---------|---------|---------|
| | Test #1 | Test #2 | Test #3 | Test #4 | Average |
| Integrated | | | | | |
| Male | 3.52 | 3.21 | 3.26 | 3.28 | 3.29 |
| Female | 3.35 | 3.07 | 3.07 | 3.16 | 3.13 |
| Total | 3.46 | 3.16 | 3.19 | 3.24 | 3.15 |
| Segregated | | | | | |
| Male | 3.28 | 3.27 | 3.22 | 3.20 | 3.25 |
| Female | 3.23 | 3.15 | 3.06 | 3.16 | 3.15 |

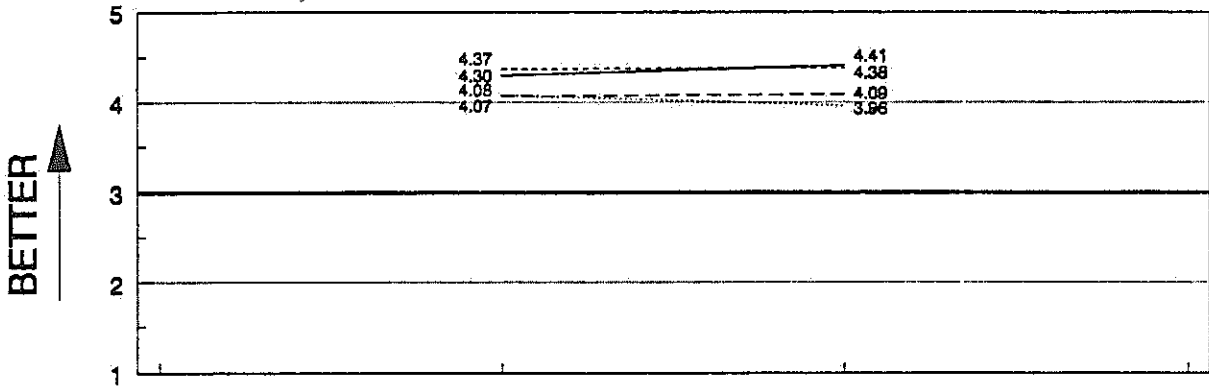
All scores are based on a GPA of 4.0.

TABLE #3
 RTC ORLANDO
 Survey of Integration Effects
 1992

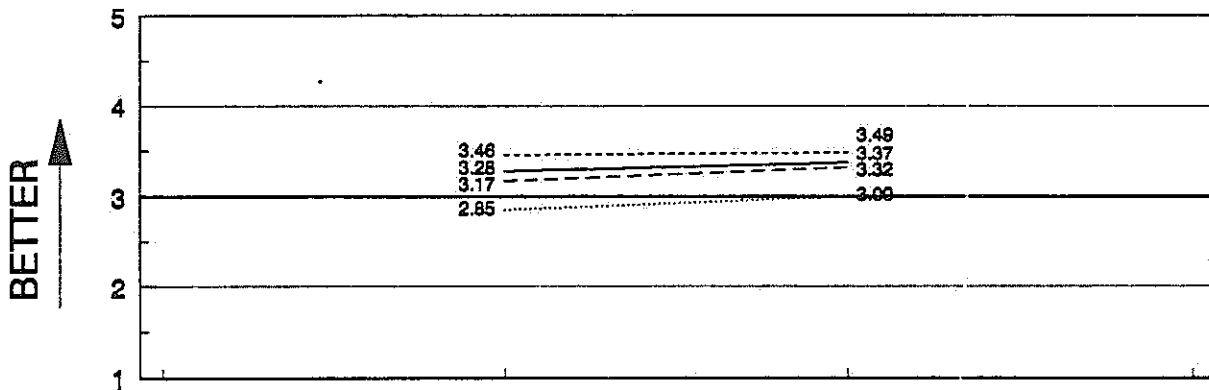
| RESULTS OF PHYSICAL TRAINING TESTS | | | | | | |
|------------------------------------|--------------|---------|---------|---------|---------|---------|
| | | Test #1 | Test #2 | Test #3 | Test #4 | Average |
| Integrated | | | | | | |
| Male | Pass | No Test | 407 | 399 | 414 | 1220 |
| | Fail | | 7 | 15 | 0 | 22 |
| | No Score | | 1 | 1 | 3 | 4 |
| | Failure Rate | | 1.7% | 3.8% | 0.0% | 1.8% |
| Female | Pass | No Test | 185 | 214 | 214 | 613 |
| | Fail | | 37 | 6 | 5 | 48 |
| | No Score | | 0 | 1 | 3 | 4 |
| | Failure Rate | | 20.0% | 2.8% | 2.3% | 7.8% |
| Segregated | | | | | | |
| Male | Pass | No Test | 688 | 666 | 703 | 2057 |
| | Fail | | 24 | 45 | 7 | 76 |
| | No Score | | 1 | 2 | 3 | 6 |
| | Failure Rate | | 3.5% | 6.8% | 1.0% | 3.7% |
| Female | Pass | No Test | 250 | 253 | 252 | 755 |
| | Fail | | 6 | 3 | 4 | 13 |
| | No Score | | 0 | 0 | 0 | 0 |
| | Failure Rate | | 2.4% | 1.2% | 1.6% | 1.7% |

Chart #1 ADMINISTRATION COMPARISONS

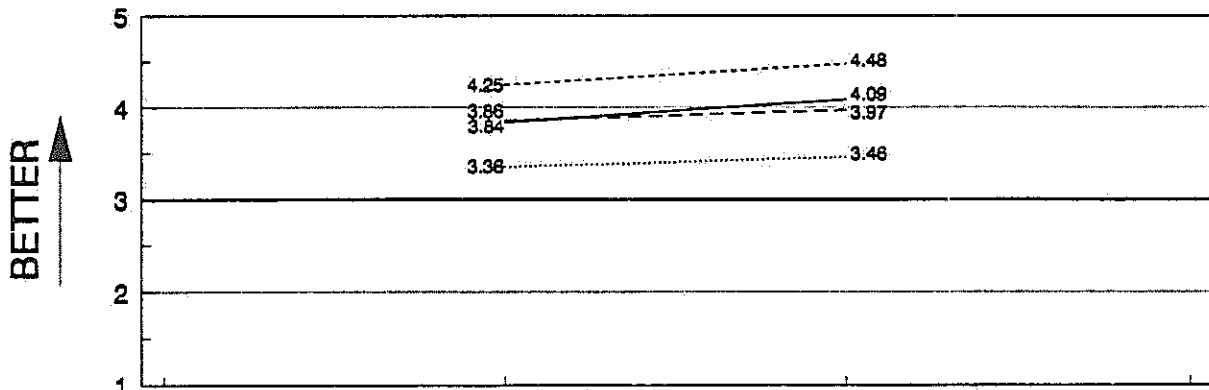
FACTOR 1 - TEAMWORK



FACTOR 2 - FRATERNIZATION



FACTOR 3 - IMPACT ON TRAINING



FIRST ADMINISTRATION SECOND ADMINISTRATION

INTEGRATED
MALE FEMALE

SEGREGATED
MALE FEMALE

Chart #2

RTC ORLANDO SURVEY ANALYSIS BY FACTOR

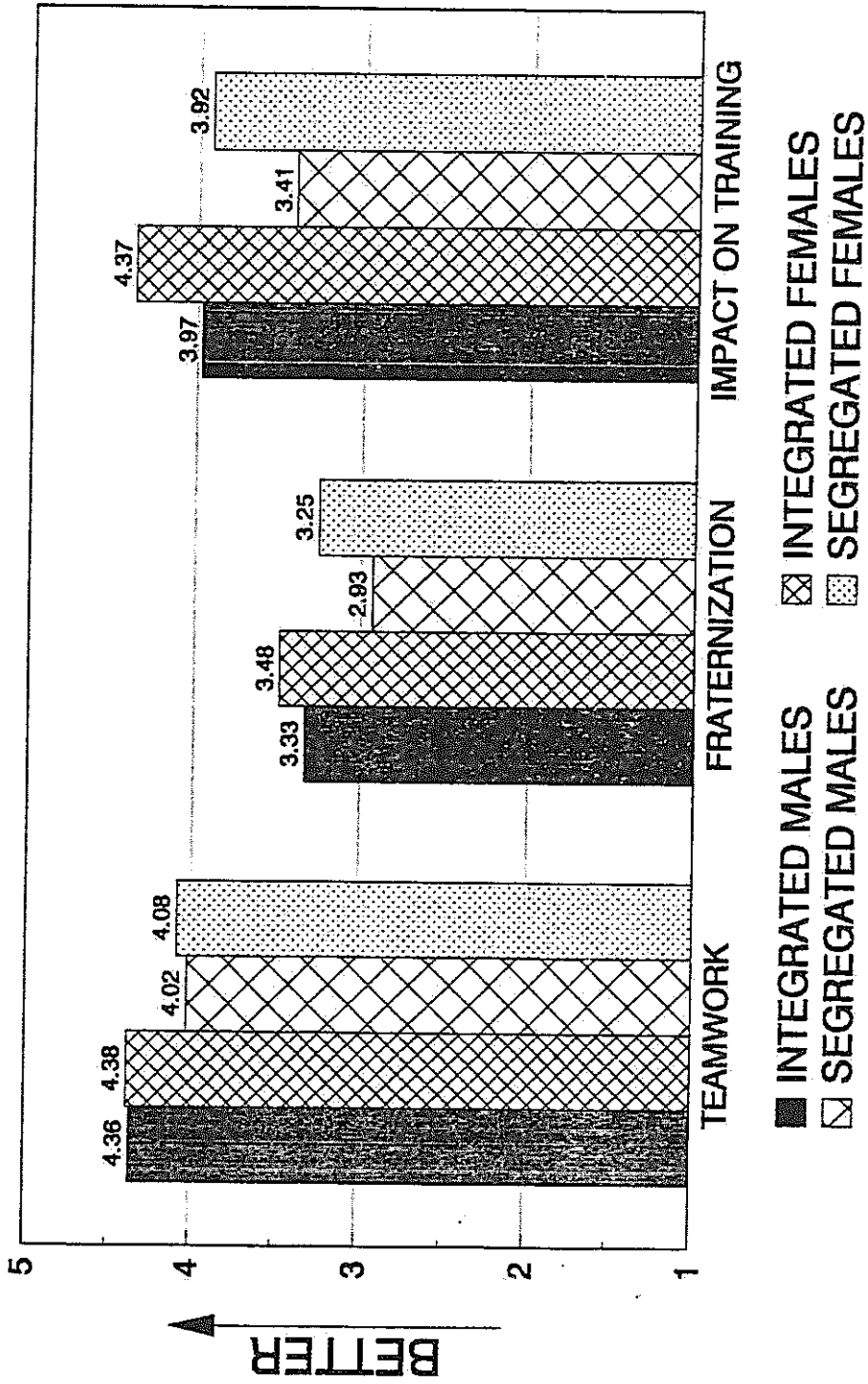


Chart #3
RTC ORLANDO
SURVEY ANALYSIS BY GENDER

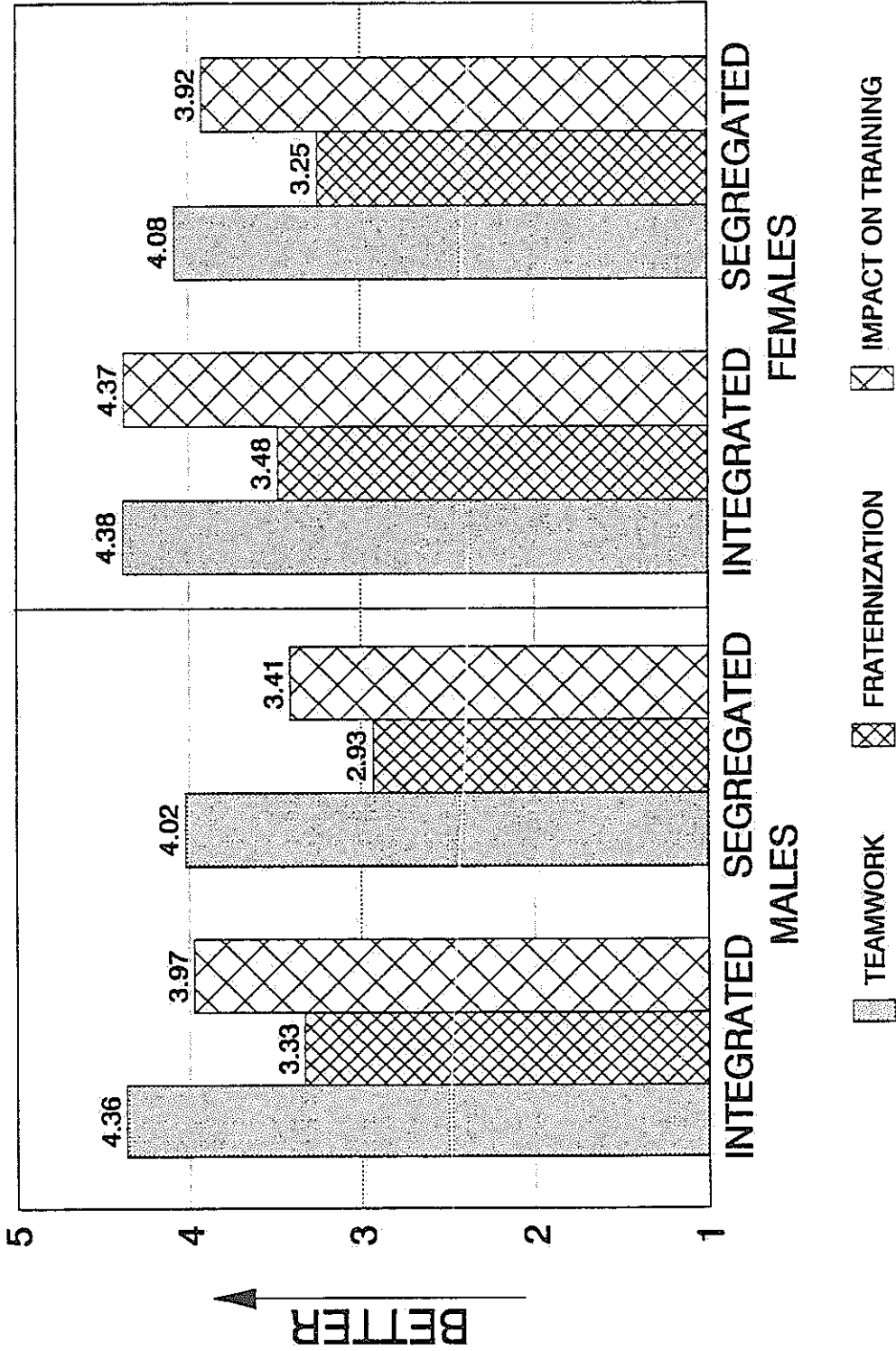
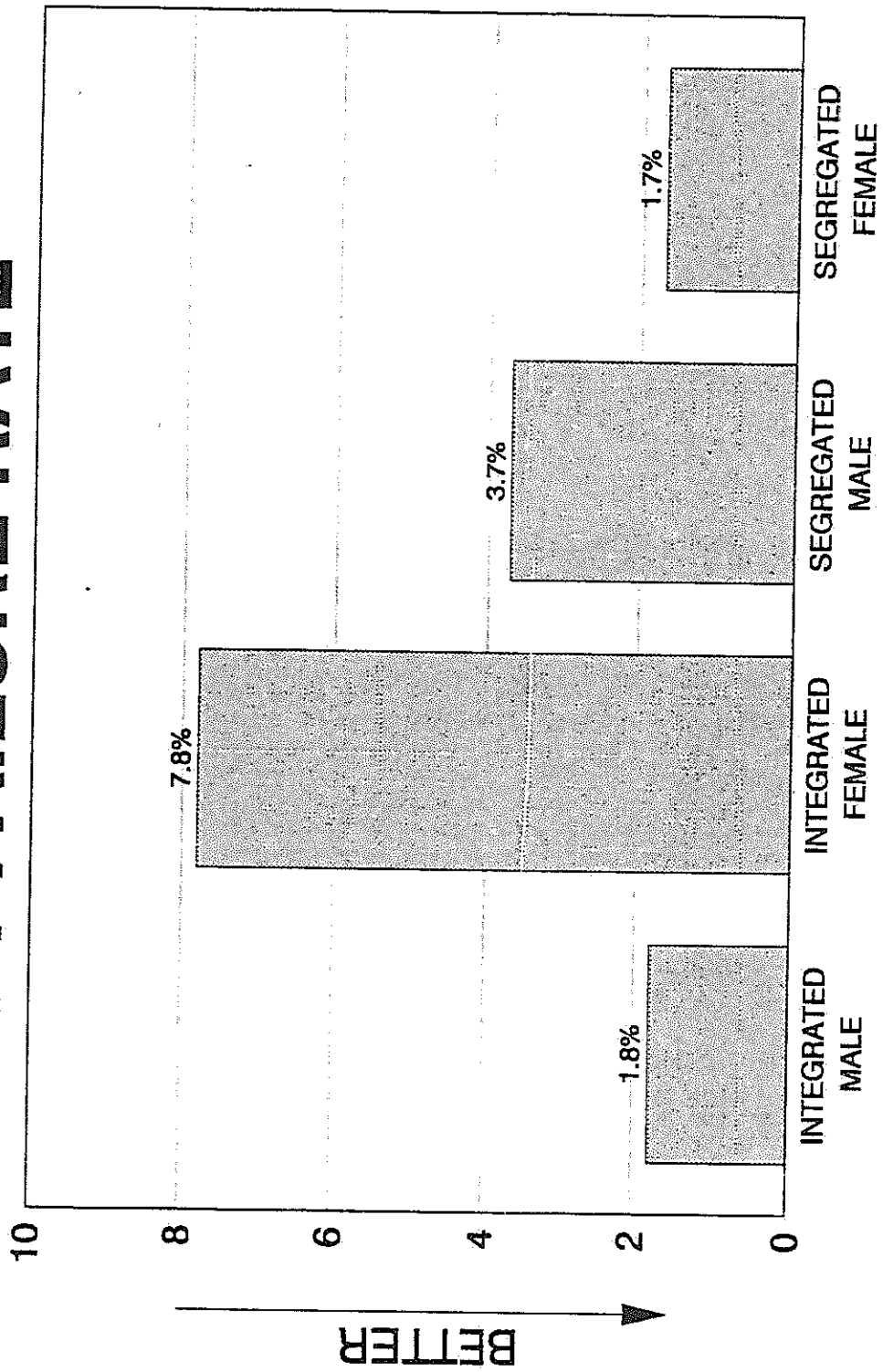


Chart #4

RTC ORLANDO PT FAILURE RATE





100

100