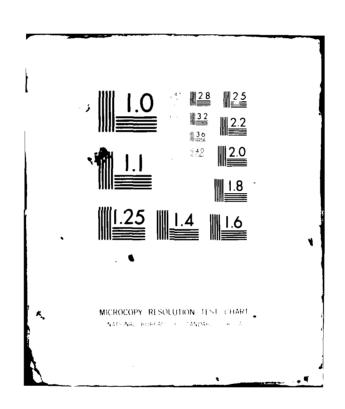
AD-A112 716
NAVY PERSONNEL RESEARCH AND DEVELOPMENT CENTER SAN D--ETC F/6 5/9 CORRECTIONAL RETRAINING IN THE NAVY: AN EVALUATION.(U)
FIRST SEP SE L M DOHERTY, S F BACON
NPROC-TR-82-35
NL

END
FIRST

4-82



MA112716

.

CORRECTIONAL RETRAINING IN THE NAVY: AN EVALUATION

Linda M. Doherty Steven F. Bacon

Reviewed by Richard C. Sorenson

Released by James F. Kelly, Jr. Commanding Officer

Navy Personnel Research and Development Center San Diego, California 92152

i/ii

INCLASSIFIED
SECURITY CLASSIFICATION OF THIS PAGE (When Date Entered)

REPORT DOCUMENTATION PAGE	READ INSTRUCTIONS BEFORE COMPLETING FORM			
1. REPORT NUMBER 2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER			
NPRDC TR 82-35 AD-1/1/2 716				
4. TITLE (and Bublille)	S. TYPE OF REPORT & PERIOD COVERED			
CORRECTIONAL RETRAINING IN THE NAVY:	Final Report			
AN EVALUATION	FY80-81			
AN LYALOATION	6. PERFORMING ORG. REPORT NUMBER			
	3-82-1 8. CONTRACT OR GRANT NUMBER(s)			
7. AUTHOR(e)	B. CONTRACT ON GRANT HOMBER(B)			
Linda M. Doherty				
Steven F. Bacon				
9. PERFORMING ORGANIZATION NAME AND ADDRESS	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS PE 63720N			
	PE 63720N			
Navy Personnel Research and Development Center	Z1251-PN.03			
San Diego, California 92152	<u> </u>			
11. CONTROLLING OFFICE NAME AND ADDRESS	12. REPORT DATE			
Navy Personnel Research and Development Center	February 1982			
San Diego, California 92152	39			
14. MONITORING AGENCY NAME & ADDRESS(II different from Controlling Office)	18. SECURITY CLASS. (of this report)			
	UNCLASSIFIED			
	13a DECLASSIFICATION/DOWNGRADING			
	1			
16. DISTRIBUTION STATEMENT (of this Report)				
Approved for public release; distribution unlimited.				
17. DISTRIBUTION STATEMENT (of the obstract entered in Block 20, if different fro 18. SUPPLEMENTARY NOTES				
19. KEY WORDS (Continue on reverse side if necessary and identify by block manber)	· · · · · · · · · · · · · · · · · · ·			
Retraining in the military	Unauthorized ab. ce			
Counter attrition	Rehabilitation			
Disciplinary problems	Nonjudicial punishment			
Correctional custody				
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)				
This project was conducted to evaluate the effective Custody Units (CCUs) at Pearl Harbor, Hawaii and Behavioral Skill Training Unit (BEST) at Norfolk, Virginia to retrain errant, but potentially productive, first-term evaluated on follow-up measures of attrition, performance well as on interview data collected. Results indicated the	Coronado, California, and the These programs were intended enlistees. The programs were not and disciplinary actions, as			

DD 1 JAN 73 1473

EDITION OF 1 NOV 68 IS OBSOLETE

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Date Entered)

SECURITY CLASSIFICATION OF THIS PACE, The Brand

performance following retraining but that the improvement decreased at 6 months. The frequency of disciplinary actions prior to and following retraining showed a significant decrease, indicating these retraining units are effective in countering disciplinary problems. Attrition data for 1-year follow-up of these units showed that all units had a lower attrition than did a comparable control group, with CCU Coronado and BEST having substantially lower rates. Policy recommendations were developed for the CCUs/BEST units themselves, operational user commands, Navy corrections programs, and further research and development.

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PASSIFIED DOLG Entered

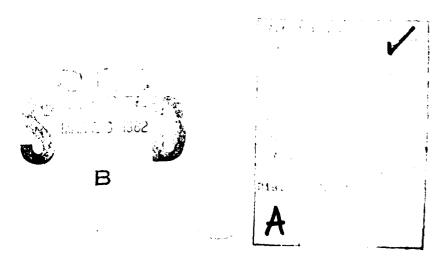
FOREWORD

This work was conducted as part of subproject Z1251-PN.03 (evaluation of retraining approaches), under the sponsorship of the Chief of Naval Operations (OP-01) (Counter Attrition Task Force). The objective of the research effort was to evaluate the effectiveness of the two pilot Correctional Custody Units (CCUs) at Pearl Harbor, Hawaii and Coronado, California, and the Behavioral Skill Training (BEST) Unit at Norfolk, Virginia. The purpose of these units is to retrain errant, but potentially productive, first-term enlistees. The programs were evaluated on follow-up measures of attrition, performance, and disciplinary actions.

Appreciation is expressed to CAPT George Sullivan, Staff, Commander in Chief, U.S. Pacific Fleet (N-7); CAPT John Holland, Staff, Commander Naval Surface Force, Pacific (N-1); and LCDR Lonne Aldridge, Staff, Commander in Chief, U.S. Atlantic Fleet (N-153) for their invaluable assistance in coordinating interviews with operational units; and to officers and staffs of the CCUs and BEST for their time and cooperation during data collection phases of the project.

JAMES F. KELLY, JR. Commanding Officer

JAMES J. REGAN Technical Director



·/VI

SUMMARY

Problem and Background

Attrition among first-term enlistees is a problem of considerable magnitude for the Navy, representing heavy costs in terms of replacement and retraining. In addition, the number of individuals having disciplinary problems and unable to perform adequately is on the rise.

In response to this alarming trend, Commander in Chief, U.S. Pacific Fleet established the Correctional Custody Unit (CCU) at Pearl Harbor, Hawaii in 1978, and the CCU at Coronado, California in 1979. A similar unit, the Behavioral Skill Training (BEST) Unit was established by Commander in Chief, U.S. Atlantic Fleet in 1979 at Norfolk, Virginia. The purpose of these units is to retrain errant, but potentially productive, first-term enlistees through a program of discipline, motivational and military skills training, and counseling. It was hoped that, through such programs, attrition could be reduced and productivity improved, thus leading to reduced training costs and recruiting requirements.

Objectives

The primary objectives of this research were to (1) compare the overall effectiveness of the CCU/BEST programs in terms of attrition, performance, and recidivism, (2) identify factors related to outcome measures and success within each program, and (3) develop recommendations that may increase program effectiveness.

Approach

- 1. To determine whether individual performance had improved after retraining, supervisory performance ratings obtained at intervals from 1 week to 12 months on a number of scales were analyzed.
- 2. To determine whether CCU/BEST programs are effective in terms of recidivism, the number of NJPs following CCU/BEST was determined and compared to the number received prior to program assignment.
- 3. To determine whether CCU/BEST programs are effective in reducing first-term attrition, the length of time individuals survived in the Navy following retraining was compared to that of a control group with similar characteristics.
- 4. To determine whether profiles of individuals who become productive and remain in the Navy could be identified, demographic, attitudinal, and organizational variables, as well as combinations of these variables, were related to performance, recidivism, and attrition.
- 5. To determine whether differences in prior NJPs were a factor in outcome measures, the BEST sample was split into those with prior and no prior NJPs and the two groups compared.
- 6. To determine how effectively the programs are managed, in-depth interviews were conducted with (a) individuals currently at the CCU/BEST, (b) assignees who had returned to their operational units after retraining, (c) CCU/BEST staff personnel, (d) supervisors in operational units, and (e) officers responsible for assignment to CCUs/BEST.

Results

Performance

- 1. Performance data for BEST showed that, at the 2-month follow-up period, 73 percent of the individuals had improved overall; at the 6-month follow-up period, results were the same.
- 2. Performance data for CCU Coronado showed that, at 2 months, 64 percent of the individuals had improved. This percentage dropped to 51 percent at 6 months and increased to 54 percent at 12 months.
- 3. Performance data for CCU Pearl Harbor showed that, at 1 week 87 percent of the sample had improved; at 1 month, 78 percent had improved; and at 6 months, 61 percent had improved.

Recidivism

- 1. The percentages of individuals who were classified as recidivists (i.e., those who received an NJP during the year following retraining) were 36.4, 4.0, and 18.9 percent for CCUs Pearl Harbor and Coronado and BEST Norfolk respectively.
- 2. In comparing types of NJPs (e.g., unauthorized absence (UA)), pre- and posttraining, it was found that the frequency of each decreased after training. For some offenses, the decrease was substantial.

Attrition

The attrition rates at the end of 1 year for the BEST Norfolk, CCU Coronado, and CCU Pearl Harbor groups were 6.5, 12.8, and 21.2 percent respectively, compared to 22.8 percent for the control group.

Relationships Between Predictors and Outcome Variables

- 1. There were few significant relationships between predictors and outcome variables. Also, no patterns emerged across the three units. The most consistent finding was that, for CCU Pearl Harbor, individuals with longer enlistments and less time in their present command were more likely to be recidivists, as were BEST assignees with 3 or more years left in the Navy.
- 2. There were no significant relationships between combinations of predictor variables and performance, recidivism, or attrition.
- 3. There were no differences between the BEST prior-NJP and nonprior-NJP groups.

Interview Data

1. The interview data indicated that inconsistencies in program management exist, resulting in a lack of understanding of program goals, purposes of retraining, and program execution, as well as a lack of staff support. Factors related to discipline problems were reported as lack of shipboard orientation and individual coping skills. For retraining to maintain its effectiveness, commands must provide a supportive environment in which to return.

2. There are individual differences in what is learned at CCUs/BEST. Some individuals remain unchanged, others improve both behaviorally and attitudinally, and still others improved only behaviorally. There are implications for retraining associated with each of these groups.

Conclusions

- 1. The results of the outcome measures indicate that the CCU/BEST programs are effective in increasing survivability in the Navy and in decreasing recidivism. BEST and CCU Coronado are the most effective in terms of survivability; all units are effective in reducing recidivism.
- 2. While the most effective aspects of retraining cannot be determined from this evaluation, the most important factor seems to be the outstanding qualities and dedication of the petty officers assigned as staff.

Recommendations

- 1. To improve retraining effectiveness, CCUs/BEST should (a) be standardized with respect to policy, (b) continue to be evaluated to determine effectiveness, (c) be provided evaluation feedback, (d) provide staff support for individual problem cases, (e) provide training in stress reduction, (f) staff awards, (g) provide in-service counseling training, and (h) develop specific criteria for future staff selection.
- 2. Communication with user commands should be emphasized through an extensive outreach program, and guidelines provided on the role of commands in retraining effectiveness.
- 3. The retraining approach should be integrated into an overall Navy corrections program. This includes the following:
- a. Not establishing additional BEST units. Although BEST and CCUs are similar in program philosophy, content, and outcome measures, the manning requirements and subsequent costs are much higher for BEST.
- b. Creating program goals and curricula that are consistent with Navy objectives for managing personnel.
 - c. Using experienced staff personnel when establishing additional CCUs.
 - d. Documenting and standardizing retraining procedures.
- e. Specifying consequences of violations of drug policies with enforcement through the chain-of-command.
 - f. Developing standardized curriculum materials for retraining.
- 4. Additional research and development should be conducted to determine (a) the most effective aspects of retraining, (b) the most effective retraining approach, (c) the types of offenders who respond to a particular retraining approach, and (d) cost effectiveness of retraining CCUs.

CONTENTS

	Page
INTRODUCTION	1
Problem	1 1 2
APPROACH	3
Description of Correctional Programs Candidate Selection Program Curricula Staff Characteristics Sample Outcome Measures Performance Recidivism Attrition. Unit Effectiveness	3 3 3 4 6 7 7 8
RESULTS AND DISCUSSION	9
Performance	9 10 13 14 16 19 20 20 22 23 25
CONCLUSIONS	26
RECOMMENDATIONS	27
For CCU/BEST Units	27 28 28 28
REFERENCES	29
DISTRIBUTION LIST	31

LIST OF TABLES

		Page
1.	Program Curricula at Retraining Units	4
2.	Demographic Variables for Sample Members	5
3.	Distribution of Interviewees	9
4.	Performance Evaluation Response Rates re CCU/BEST Assignees	10
5.	Percentage of CCU/BEST Assignees with NJPs Prior to Retraining	13
6.	Frequency and Percent of Sample Committing Specific NJPs Prior to and 6 Months After Training	15
7.	Relationship Between Predictor Variables and Outcome Variables	17
8.	Comparison of BEST Assignees With and Without Prior NJPs	19
	LIST OF FIGURES	
1.	Percent of CCU Coronado assignees who had improved in at least one area, had received a favorable overall performance, or had received favorable comments	11
2.	Percent of CCU/BEST assignees who improved in their overall performance after retraining	12
3.	Distribution of offenses prior to CCU or BEST	14
4.	Survival of first-term enlisted personnel in retraining and control groups	16

INTRODUCTION

Problem

The attrition rate among first-term enlistees, currently exceeding 30 percent, is a problem of considerable magnitude for the services, and represents heavy costs in terms of replacement and retraining. Further, the number of individuals unable to meet satisfactory performance levels and having disciplinary problems is increasing. A report released by the Chief of Naval Operations (OP-135)¹ indicated that the incidence of repeated unauthorized absences (UAs), an index of the Navy discipline problem, was increasing. Seventy-one percent of UAs occur in fleet units. Gunderson and Hoiberg (1977) observed that, over the period from 1966 to 1975, both unfavorable discharges and negative recommendations for reenlistment increased. Given these problems, particularly during a period of reduced manpower supply, it becomes increasingly important to focus Navy efforts on improving productivity and increasing the length of time an individual remains in the Navy.

Background

One approach to reducing attrition has focused on identifying demographic, psychological, and aptitude variables related to attrition, so that such variables could be used to screen potential attrites before much time, money, and effort had been invested in them. The approach, however, has met with mixed success. Among demographic variables, researchers have found that education consistently predicts attrition (Lockman, 1976; Mobely, Hand, & Logan, 1977; Greenberg & McConeghy, 1977; Guinn, 1977; Mathews, 1977). Also, they have found that age and race predict attrition, but studies contradict each other in the direction of prediction (Lockman, 1975; Mathews, 1977; Plag, Goffman, & Phelan, 1970). In their review of the literature, Hand, Griffith, and Mobley (1977) conclude that, except for one limited study, the variance explained by demographic predictors rarely exceeds 10 percent. Likewise, psychological and aptitude variables contribute little to explained variance (Hand et al, 1977). Wiskoff, Atwater, Houle, and Sinaiko (1980), in their review of attrition literature, conclude that screening/selection processes prior to entry in the service cannot fully explain or control attrition.

Another approach has been aimed at rehabilitating first-term enlisted personnel who are likely to attrite. In this approach, it is assumed that attrition is closely associated with certain types of behavior. While attrition can result from a variety of causes, including medical and hardship discharges, entrance into officer programs, and death, the great majority of enlistees attrite because they fail to meet minimum behavioral or performance criteria. Goodstadt and Yedlin (1980) report that, for fiscal years 1974 and 1975, this applied to between 75 and 80 percent of attrites in all services. One rehabilitation approach has been to enter enlisted men who have been performing at less than satisfactory levels into correctional retraining programs. For example, the U.S. Army Retraining Brigade (USARB) at Fort Riley, Kansas followed this approach, which combines screening and retraining. Bhattacharyya, Willey, Parker, and Luftig (1977), in evaluating the Army program, reported that it was cost-effective if costs of retraining were compared with savings through nonattrition. Further, a 2-month follow-up of 40 percent of the USARB graduates revealed that 96.1 percent remained on active duty or had been honorably discharged, 86.6 percent had been rated average or above average, and 52 percent had been rated outstanding or above average and recommended for promotion.

¹CNO (OP-135K) memorandum of 13 August 1981; subj: Counter-UA Task Force Report.

In the literature on the criminal justice system, two important models of rehabilitation have been identified (Fersch, 1980)—the "reform" model and the "rethinking" model. The first focuses on the individual's history and personal psychology, viewing behavior as being controlled by sociological and psychological forces rather than by an individual himself. Under this model, an individual is seen as a victim of his genetic inheritance and poor environment. Delinquent behavior is supposed to be corrected by counseling, where an attempt is made to restructure an individual's thoughts and feelings about his environment. Since this counseling program requires extensive manpower, time, and professional supervision, it may not be appropriate for a military environment.

The rethinking model views an individual as being responsible for his own behavior and as being in control of his behavior. Under this model, the individual is the recipient of the effects of his own choices. The therapeutic emphasis is on helping the individual to recognize the consequences of his behavior. In a controlled setting, individuals are given an opportunity to develop new attitudes about themselves with the help of peer support and role modeling.

The programs of the Correctional Custody Units (CCUs) at Pearl Harbor and Coronado and the Behavioral Skill Training Unit (BEST) at Norfolk are consistent with the rethinking approach to rehabilitation. CCU Pearl Harbor was established by Commander in Chief, U.S. Pacific Fleet in August 1978 as a pilot retraining unit; and CCU Coronado, in March 1979. BEST Norfolk, a somewhat different but similar pilot program, was established by Commander in Chief, U.S. Atlantic Fleet in July 1979. The goal of the CCUs and BEST is to reduce attrition by retraining errant but potentially productive individuals who might otherwise become attrition statistics. To this end, the CCUs and BEST programs emphasize taking personal responsibility for one's own success or failure as military personnel. The staffs provide both a supportive environment and exemplary role models, and the consequences of certain behaviors, particularly military infractions, are stressed throughout the training. In this strict military but positively oriented environment, it is anticipated that individuals will choose to become responsible, productive persons.

In July 1979, CNO (OP-01) (Counter Attrition Task Force) tasked NAVPERSRAND-CEN to evaluate the effectiveness of CCU Pearl Harbor and BEST Norfolk. In January 1981, Commander Naval Surface Force, Pacific requested that CCU Coronado be included in the evaluation study.

Objectives

The primary objectives of this research were to (1) compare the overall effectiveness of the two CCUs and BEST unit in terms of performance, recidivism, and attrition, (2) identify individual and organizational factors related to outcome measures and success within each program, and (3) develop recommendations for the Navy, the individual retraining units, user commands, and researchers for increasing the effectiveness of the programs.

APPROACH

Description of Correctional Programs

Candidate Selection

The candidate selection criteria for the CCUs and BEST are quite similar. The individuals sent to the units are young, nonrated personnel who are becoming discipline problems and are less than satisfactory performers but who, as judged by their commanding officers (COs), have the potential to complete their enlistment in a productive manner. The major difference between the CCUs and BEST is that individuals are assigned to CCUs as a result of an NJP, while an NJP is not required for assignment to BEST. This highlights a basic difference between BEST and the CCUs. Although the CCU programs devote a considerable amount of time to motivational training, attitude improvement, and counseling, they are not designed as a behavior modification program for marginal performers; rather, individuals are assigned to them as a punishment that can be imposed at a Captain's mast. Assignment to BEST is not considered as a punishment, even though BEST training is vigorous and highly structured, and at least as demanding as the individual's normal work environment. Marginal performers can be sent to BEST, at the discretion of their CO, without having committed an NJP offense. Also, individuals assigned to BEST must have at least 2 years of active duty left at the time of assignment.

Program Curricula

The CCU retraining programs are 30 days in length; and the BEST program, 4 weeks. BEST classes are conducted on a 2-week cycle; that is, classes are formed every 2 weeks and two classes are ongoing at all times. Since the CCUs do not operate on a class cycle, an individual can enter at any time during the 30-day period. Table 1, which lists the program curricula, shows that the types of activities conducted at BEST and the CCUs are quite similar but the number of hours allotted to each type differ significantly. A major difference betweem the CCUs and BEST is that the CCUs allot 25 hours per week to constructive work projects large enough to employ entire units. Although work projects are also conducted at BEST, they are not regularly scheduled and are intended to provide meaningful learning experiences for the individual.

Staff Characteristics

Because a dedicated and competent staff was considered essential to program success, specific criteria for staff selection were developed. When the units were first organized, letters were sent to unit commanders, COs, and officers in charge (OICs) throughout the fleet, explaining the importance of the programs and urging their support in recruiting and recommending qualified petty officers to staff the CCUs and BEST. From the resulting pool of applicants, staff members were chosen based, in part, on their supervisory leadership qualities. Such skills were considered quite important since staff members were to serve not only as effective program administrators but also as exemplary role models for the trainees. Selected staff members also had to exhibit a high degree of maturity and emotional stability, and have a strong desire to assist and guide junior personnel. Counseling ability was considered as highly desirable. CCU/BEST staff members were assigned for a 1-year term of neutral duty and had ratings of E-4 to E-8.

The number of billets authorized for the CCUs and BEST differed. The number of staff members varied, and that number was generally less than authorized levels. At the CCUs, 1 officer (the OIC) and 25 staff enlisted billets were authorized. At BEST, 4 officers, in addition to the OIC, and 25 staff enlisted billets were authorized. Since the

Table 1
Program Curricula at Retraining Units

Program Curricula	Description	Hours per BEST	Week CCUs
Physical training	Includes calisthenics, running, the obstacle course, and individual team sports	17	9
Attitude and motivation	Includes goal setting, self-image, success, problem-solving, communication, value clarification, financial management, and substance abuse	12	10
Military skills training	Includes topics taken from the <u>Blue Jackets</u> <u>Manual</u> and other issues related to shipboard duties (e.g., inspections, military justice, military courtesy, and military obligations)	7	5
Educational training	Includes testing, interviewing, and initiating an educational program suited to the individual's needs (primarily math and English courses)	Up to 10	As needed
Counseling	Includes daily group counseling sessions	Up to 10	5
Individual time	To allow for flexibility in working areas of individual concern	60	60
Work parties	Constructive work projects	Un- scheduled	25

CCU and BEST courses include a maximum of 50 individuals, it is evident that retraining is highly manpower-intensive, with BEST requiring more resources than do the CCUs.

Sample

The sample was comprised of 1527 individuals--343 from CCU Pearl Harbor, 539 from CCU Coronado, and 645 from BEST. All sample members had been assigned to the CCUs or BEST during the period from the date of establishment of each unit through September 1980. This cutoff date was used to permit 1-year follow-up of individuals following retraining. The sample sizes among units differ due to differences in numbers of individuals assigned, and the degree to which the data reported from the units are incomplete or inaccurate. Demographic variables for sample members, which were obtained from questionnaires they completed, are presented in Table 2 and discussed below:

- 1. Educational level is comparable among the units; approximately 60 percent of the sample members are high school graduates.
- 2. Mental category is comparable across units; approximately 70 percent of the individuals in all units are in category III. Individuals from all mental categories are

assigned to CCUs/BEST. However, as expected, the highest and lowest categories are underrepresented.

Table 2

Demographic Variables for Sample Members

Variable	BEST Norfolk (N = 645) %	CCU Coronado (N = 539) %	CCU Pearl Harbor (N = 343) %
Education:			
High school graduate Not high school graduate	59.4 40.6	57.9 42.1	61.3 38.7
Mental Group: a			
I II III A III B IV	1.1 21.0 39.6 30.5 7.8	2.2 19.5 47.5 24.3 6.5	2.3 22.7 40.5 29.0 5.5
Age:			
17-18 19 20 21-22 23+	14.6 22.8 28.9 26.0 7.7	22.9 29.2 20.0 20.7 7.2	20.7 27.2 22.1 20.7 9.2
Race:			
Caucasian Black Other	82.2 15.3 2.5	83.0 14.4 2.6	84.4 12.1 3.5
Marital Status:			
Single Married Other	88.9 8.7 2.4	 	
Dependents:			
Have dependents No dependents		 	9.0 91.0

^aDetermined from data obtained from the enlisted master record.

^{3.} The mean age of BEST assignees was 20.3 years, compared to 19.8 and 20.8 for CCUs Pearl Harbor and Coronado respectively. BEST had a larger proportion of assignees 20 years of age and older; the CCUs have a larger proportion in the 17-18 age range.

- 4. The populations of CCUs/BEST are about 83 percent Caucasian, and are almost identical in terms of racial distribution. Besides Black assignees, few individuals from other minority races are assigned.
- 5. Most BEST assignees were single. Marital status was not available for the other units.
- 6. At CCU Pearl Harbor, only 9 percent had dependents, which is expected given the ages of the assignees. Data were not available for the other units.

Outcome Measures

Since the retraining units were established before the evaluation commenced, it was limited by the fact that the programs were not designed with an evaluation perspective. That is, data collection instruments were not developed that would measure how well program goals were met or how effective the programs were.

The evaluation focused on three common measurable goals stated by each unit. These are to (1) improve performance, (2) reduce attrition, and (3) reduce disciplinary problems. The outcome variables associated with these goals are discussed in the following paragraphs.

Performance

To determine whether individuals had improved their performance upon return to their operational units, supervisory performance ratings were obtained at intervals from 1 week to 12 months. The rating procedures, which are described below, differ as to: (1) the number and type of dimensions of performance rated, although they were intended to measure similar concepts, (2) the performance rating scales used, and (3) the follow-up periods.

BEST Norfolk. BEST assignees were evaluated by their work center supervisor before being assigned to BEST and at 2-, 6-, and 12-month follow-up periods following retraining. Supervisors were asked to rate assignees relative to the other members of their work group on 12 performance dimensions, using a 7-point scale, with 7 being the best performance, and 1, the worst. They were requested not to keep copies of previous evaluations so that they would not be influenced by them.

For purposes of analyses, it was decided to reduce the number of performance dimensions by grouping those that were conceptually similar into the following five dimensions:

- 1. Military appearance -- Condition of uniform and bearing.
- 2. Autonomy -- The ability to be a "self-starter."
- 3. On time for quarters--Not habitually late.
- Sick bay/leave--Does not take excessive sick time off.
- 5. Responsibility -- Has ability to understand and to carry out assigned tasks.

One difficulty with this rating procedure was considered by the designers of the questionnaire; namely, the possibility that the rater may base his evaluations on the performance of the individual's work group. How much of a bias exists in the follow-up ratings due to the rater's memory effects is not known, however. A second difficulty with the rating procedure is that an individual's work center supervisor probably will change over the 12-month period and, hence, may inject specific rater bias into the procedure.

CCU Coronado. Commands were requested to rate CCU Coronado assignees at 2-, and 12-month follow-up periods after retraining. For the most part, supervisors completed the ratings and the CO or executive officer (XO) signed the forms. Raters were to classify individuals as "improved" or "no change" on seven dimensions: (1) performance of duties, (2) willingness to carry out orders, (3) military appearance, (4) motivation, (5) respect for authority, (6) conduct, and (7) reliability. Also, they were to provide an overall performance rating of favorable/unfavorable. The evaluation was to be done by comparing an individual's pre- and posttraining performance, a procedure that relies on the supervisor's memory and presumes that the supervisor does not change over time. Both of these problems were discussed above.

CCU Pearl Harbor. Supervisors were asked to rate CCU Pearl Harbor assignees at intervals of 1 week, 1 month, 3 months, 6 months, and 12 months following retraining on the following 10 dimensions: (1) performance of duties, (2) willingness to carry out orders, (3) military appearance, (4) military bearing, (5) physical fitness, (6) motivation, (7) attitude, (8) respect for authority, (9) conduct, and (10) reliability. Ratings were made using a 4-point scale ranging from "much improved" to "no change" and "declining," and were based on an individual's performance prior to being assigned to CCU. The difficulties with this procedure were discussed above.

Recidivism

To determine whether CCU/BEST programs were effective in terms of recidivism, the number of NJPs received by trainees following CCU/BEST was determined and compared to the number they received prior to program assignment. The NJP records used in the analysis were reported by individual commands, both prior to and following retraining. For this evaluation, CCU or BEST assignees were considered recidivists if they received an NJP during the 1-year period following retraining, even though a significant proportion of BEST assignees had not previously received an NJP.

Attrition

To determine how effective CCU/BEST programs were in reducing first-term enlisted personnel attrition, the length of time individuals stayed in the Navy following retraining was compared to that of a control group, who had similar demographic characteristics and disciplinary records but who had not been sent to retraining programs. The control group was created from a cohort file of all enlisted persons in the Navy. Persons included in this control group had to meet the following criteria, to ensure their comparability with sample members:

- 1. They had to have from 15 to 27 months in service, with a mean of 21 months. (This was comparable to the data from all three samples.)
- 2. They had to be in mental category IIIA or IIIB, since 70 percent of the samples fell in these categories.
- 3. They had to have a UA or demotion on their record. (These variables represented disciplinary actions and were available data.)
 - 4. They had to be either 4- or 6-year enlistees.
- 5. They had to be in the Navy at approximately the same time as were sample members.

The resulting control group, then, was comparable in size to the samples (N = 417), as well as in terms of descriptive variables. Members of the three samples and the control group were tracked to see whether or not they were still in the Navy 1 year later.

Unit Effectiveness

Other questions were answered relating to unit effectiveness. These questions are discussed below:

- 1. Relation between predictors and outcome variables. To determine whether profiles of individuals who became productive after retraining and completed their obligated service could be identified, demographic, attitudinal, and organizational variables were related to performance, recidivism, and attrition using nonparametric statistical procedures.
- 2. Prior NJPs as a factor in program effectiveness. To determine whether differences in prior NJPs were a factor in the level of outcome measures, the BEST sample was split into NJP and non-NJP groups and the two groups compared.
- 3. Interviews. To determine how effectively the programs are managed, in-depth interviews were conducted with (1) individuals at the CCUs and BEST (N = 36), (2) assignees who had been returned to their commands following retraining (N = 53), (3) CCU and BEST staff personnel (N = 41), (4) supervisors from user commands (N = 48), and (5) officials responsible for assignment to CCUs and BEST (N = 38).

Table 3 shows the number of personnel interviewed for each unit. The interviews focused on (1) what aspects of training seemed to be the most effective, (2) the purposes and goals of retraining, (3) assignment policies, (4) factors related to discipline problems, and (5) individual unit management issues.

Table 3
Distribution of Interviewees

Group	BEST Norfolk	CCU Coronado	CCU Pearl Harbor	Total
Retraining Assignees:				
Current Previous	12 16	10 13	14 24	36 53
BEST/CCU Staff: Managers ^a Instructors	5 12	2 9	2 11	89 9 32 41
Supervisors (following b retraining): Personnel Responsible for Assignment to BEST/CCUs:	12	11	25	48
Commanding officers Executive officers Staff officers Other	3 4 1	2 3 3	8 7 4 3 ^c	13 14 8 3
				38

^aAt BEST, the managers interviewed were the OIC and four officers; at the CCUs, they were the OIC and the master chief.

RESULTS AND DISCUSSION

Performance

Since the performance of CCU/BEST personnel cannot be compared with that of a control group, it is difficult to determine whether or not these programs have been effective. However, trends in improvement are described in this section.

Response Rates

Table 4 provides performance evaluation response rates for the three units. As shown, ratings were provided for only 49 percent of the BEST sample at 2 months and 16.3 percent at 12 months, losses that cannot be accounted for by attrition from the Navy.

^bFor BEST assignees, interviewees were with air squadron supervisors; for CCU assignees, with shipboard supervisors.

^CIncluded two chaplains and a clinical psychologist.

While it is possible that a large proportion of individuals who are having disciplinary problems or performing poorly could be dropped from the sample after 2 months, it is reasonable to assume that supervisory ratings were not provided for a certain proportion of the sample due to administrative reasons (e.g., person was transferred from the command, supervisor was remiss in his response, etc.), independent of performance level. Thus, while the ratings may be somewhat inflated over time and should be interpreted conservatively, the measures (especially when taken in conjunction with other outcome measures) are still valid enough to warrant analysis.

Table 4
Performance Evaluation Response Rates re CCU/BEST Assignees

	BEST/I	Norfolk	CCU C	oronado	CCU Pea	rl Harbor
Rating Period	N	%	N	%	N	%
Prior to assignment	461	71.4				
After retraining:						
l week				*-	246	71.7
1 month					282	82.2
2 months	317	49.2	410	76.1	259	75.5
6 months	305	47.4	331	61.4	177	51.6
12 months	98	16.3	173	32.1	48	14.0

Although ratings were received for only one third of the CCU Coronado sample at 12 months, this unit does have the highest response rate of all these units. Three factors may account for this: (1) follow-up requests for performance ratings were sent to individual commands, (2) the rating form was less complex than those from the other units, requiring less time to complete, and (3) the CO or XO's signature was required, thus ensuring greater command involvement and responsibility in the CCU program.

Performance Comparisons

So that BEST performance data could be compared with that for the other groups, each person's pre-retraining rating was subtracted from each of his 2-, 6-, and 12-month ratings to obtain difference scores. Since there were no significant differences among the rating patterns, they were collapsed into one overall performance rating, still based on a 7-point scale, with 7 being the best performance and 1, the worst. The overall mean difference scores were 1.13 in performance at 2 months and .88 at 6 months. In order to compare all of these units in performance ratings, the difference scores for each individual were classified as "improved" or "not improved."

The percent of CCU Coronado assignees who improved at 2, 6, and 12 months was determined separately for each of the seven dimensions on which they were rated. Since the results were the same for each of the dimensions, a composite performance rating of "improved" or "no change" was determined and used in the comparisons with the two other units. To further indicate the validity of this composite measure, three separate performance rating measures were compared for CCU Coronado. The percent of

individuals improved were classified as those who had (1) improved in at least one performance area, (2) received a favorable overall performance, or (3) received favorable comments on their performance by the CO/XO. As Figure 1 indicates, the results for each of the three measures are very similar over time. Those who improved in one area showed the highest increase over time (average 70%), while those having a favorable overall performance rating showed the lowest increase (average 60%). The quantitative measures also correspond well to the qualitative statements regarding favorable comments. Since the composite performance rating was found to be a conservative estimate of performance improvement and comparable to other performance measures, it was used in the subsequent comparisons with the other groups.

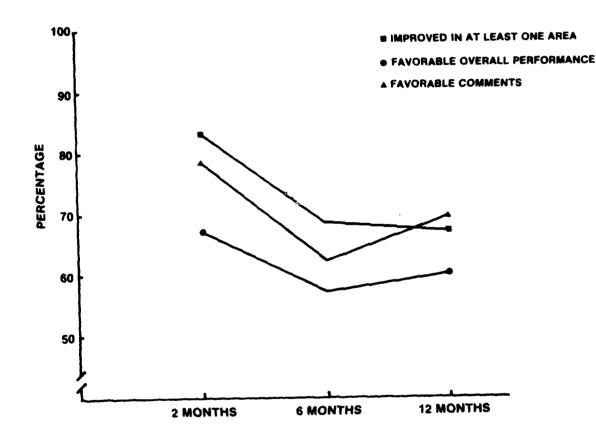


Figure 1. Percent of CCU Coronado assignees who had improved in at least one area, had received a favorable overall performance, or had received favorable comments.

Finally, CCU Pearl Harbor assignees were scored as "improved" or "not improved" on each of the dimensions on which they were rated. The percent of improved persons on each of the dimensions was essentially the same.

Figure 2 presents the percent of CCU/BEST assignees who have improved in their overall performance after retraining. For BEST and CCU l'earl Harbor, only data through

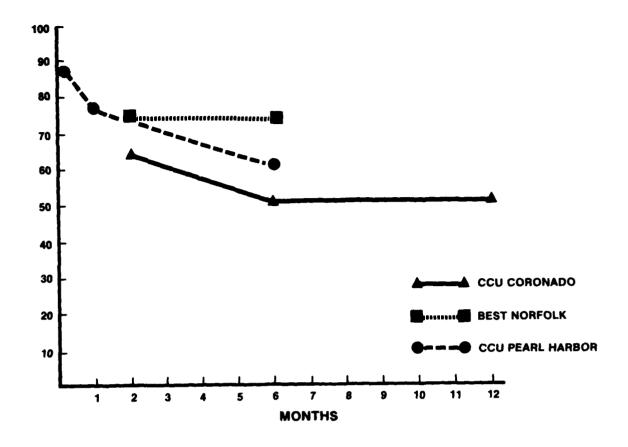


Figure 2. Percent of CCU/BEST assignees who improved in their overall performance after retraining.

6 months are presented, since the sample sizes at 12 months are too small for a valid comparison. BEST had the largest percentage of personnel who improved over time when compared to the other units: 73 percent of the performance evaluations returned at 2 and 6 months were for personnel who had improved in their performance, even though the sample had decreased.

Figure 2 shows that, at 2 months after retraining. 64 percent of CCU Coronado assignees had improved, compared to 51 percent at 6 months and 54 percent at 12 months. The percent of improved individuals is the lowest at Coronado, even though there are no significant decreases in percent improved over the year. The performance differences among the units may be, in part, an artifact of the questionnaire response rate. Since Coronado had the highest response rate of all units, it may be that the "no change" questionnaires had a greater chance of being returned. Supervisors were encouraged to complete the questionnaires and might have been more motivated to do so even for individuals who had been transferred from the command due to disciplinary actions or attrition. The fact that the percent improvement is greater at 12 months than at 6 is due to the fact that considerably fewer questionnaires were returned at the end of a year. These do not reflect the performance ratings of the persons who have attrited, who are presumed not to be improved performers. In general, then, over 50 percent of those

remaining in the Navy whose supervisors returned performance ratings have improved in their overall performance.

For CCU Pearl Harbor, the percent of persons who improved decreased over time. At 1 week, 87 percent of the sample was rated as improved, compared to 61 percent at 6 months.

Recidivism

Table 5 shows the percentage of CCU/BEST assignees with NJPs prior to retraining. As shown, 27 percent of BEST assignees had no NJPs, while all CCU assignees had at least one. BEST had a mean number of 1.8 NJPs per individual, compared to 2.6 and 3.0 for CCUs Coronado and Pearl Harbor respectively.

Table 5

Percentage of CCU/BEST Assignees with NJPs
Prior to Retraining

Number of Prior NJPs	BEST Norfolk (N = 645)	CCU Coronado (N = 539)	CCU Pearl Harbor (N = 343
0	27.1	0.0	0.0
1	19.2	24.5	17.0
2	19.4	25.2	27.8
3	15.3	19.2	23.7
4+	19.0	31.1	31.5

Figure 3, which presents the distribution of prior NJP offenses, shows that it is generally similar across CCUs/BEST. UAs are the most frequent offense, with about 50 percent of the total NJPs falling in that category. Offenses against authority (primarily situations where an individual expressed verbal anger toward his petty officer) follow, accounting for about 30 percent of the total offenses. The remaining categories each account for a much smaller percentage of offenses. Drug offenses are greater at CCU Pearl Harbor than at the other two units, which is not too surprising considering the availability of drugs in that location. In general, however, individuals are assigned to CCU/BEST because of a military offense, usually UAs, rather than a civilian offense, such as theft or violence. Thus, it appears that the persons being assigned to CCU/BEST are those for whom the programs were intended.

NJP records provided by the individual commands showed that, during the 1 year following retraining, 18.9 percent of BEST Norfolk assignees (89 of the 470 still in the service at 12 months) were recidivists, compared to 36.4 percent (72 out of 198) for CCU Pearl Harbor and 8 percent (43 out of 538) for CCU Coronado. While the percentages are fairly high, it is important to note that, except for BEST assignees, these individuals already had received at least one NJP and should, therefore, be compared to a group of repeat offenders. The overall Navy data indicate that one-third of all those who have gone UA once will do so again. Therefore, these retraining units, particularly CCU Coronado and BEST, are having an effect on repeat offenses.

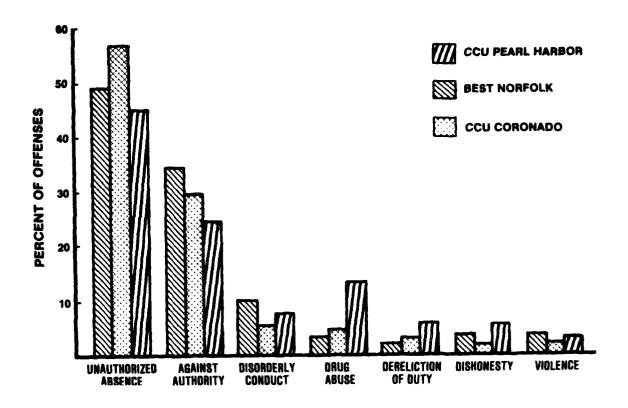


Figure 3. Distribution of offenses prior to CCU or BEST.

Table 6, which presents a breakdown of the number and percent of offenses prior to and 6 months after retraining, reveals several facts:

- 1. The relative frequency of each type of NJP offense remains the same for all three units, pre- and posttraining.
- 2. For all types of offenses, there was a substantial decrease in subsequent offenses following retraining.
 - 3. The pattern of decreases in offenses is similar for all three units.
- 4. There is a dramatic decrease in the percentage of UA offenses, the most frequent offense for which individuals are sent to retraining units. As shown, there is a 70.5 percent decrease for CCU Coronado and a 52.1 percent decrease for CCU Pearl Harbor. The decrease for BEST is only 20.8 percent, but the initial percent of UA offenses for BEST was lower--only 46.5 percent.

Attrition

Figure 4, which compares the survivability of the three retraining groups and the control group 1 year following retraining, shows that there are considerable differences among the groups. The attrition rates for the BEST, CCU Coronado, and CCU Pearl

Table 6

Frequency and Percent of Sample Committing Specific NJPs Prior to and 6 Months After Training

Year Post Post <th< th=""><th></th><th></th><th>E</th><th>BEST Norfolk (N = 241)</th><th>orfolk !41)</th><th></th><th></th><th>o o</th><th>CCU Coronado (N = 231)</th><th>_</th><th></th><th></th><th>CCL</th><th>J Pearl Ha (N = 336)</th><th>CCU Pearl Harbor (N ≈ 336)</th><th></th></th<>			E	BEST Norfolk (N = 241)	orfolk !41)			o o	CCU Coronado (N = 231)	_			CCL	J Pearl Ha (N = 336)	CCU Pearl Harbor (N ≈ 336)	
sence 112 46.5 62 25.7 20.8 185 80.0 22 9.5 70.5 264 78.6 89 26.5 y 88 36.5 36 14.9 21.6 121 52.4 7 3.0 49.4 193 57.4 45 13.4 ct 36 14.9 12 5.0 9.9 32 13.9 3 1.3 12.6 70 20.8 14 4.2 1 14 5.8 9 3.7 2.1 9 3.9 1 0.4 3.5 49 14.6 3 0.9 18 7.5 8 3.3 4.2 20 10.0 7 3.0 7.0 126 37.5 26 7.7 9 3.7 7 2.9 0.8 10 4.3 0 0.0 4.3 30 8.9 10 3.0 1ty 4 1.7 3 1.2 0.5 13 5.6 1 0.4 5.2 60 17.9 9 2.7 0 0.0 0.0 2 0.8 -0.8 3 0.9 1 0.3 74.3 3 34.1 40.2 100.0 12.1 87.9 50.0	Type of NJP	d	ř	Po	st	% Decrease	ā	ė	Po		% Decrease	ā	έn	ď	ost	% Decrease
y 88 36.5 36 14.9 21.6 121 52.4 7 3.0 49.4 193 57.4 45 13.4 14 5.8 9 3.7 2.1 9 3.9 1 0.4 3.5 49 14.6 3 0.9 18 7.5 8 3.3 4.2 20 10.0 7 3.0 7.0 126 37.5 26 7.7 19 3.7 7 2.9 0.8 10 4.3 0 0.0 4.3 30 8.9 10 3.0 1ty 4 1.7 3 1.2 0.5 13 5.6 1 0.4 5.2 60 17.9 9 2.7 0 0.0 0.0 2 0.8 -0.8 -0.8 3 0.9 1 0.3 74.3 34.1 40.2 100.0 12.1 87.9 100.0 50.0	Unauthorized absence	112	46.5	62	25.7	20.8	185	80.0	22	9.5	70.5	797	78.6	89	26.5	52.1
ity 4.5 6.5	Against authority	90 90	36.5	36	14.9	21.6	121	52.4	7	3.0	4.64	193	57.4	45	13.4	0.44
14 5.8 9 3.7 2.1 9 3.9 1 0.4 3.5 49 14.6 3 0.9 18 7.5 8 3.3 4.2 20 10.0 7 3.0 7.0 126 37.5 26 7.7 9 3.7 7 2.9 0.8 10 4.3 0 0.0 4.3 30 8.9 10 3.0 1ty 4 1.7 3 1.2 0.5 13 5.6 1 0.4 5.2 60 17.9 9 2.7 0 0.0 2 0.8 -0.8 3 0.9 1 0.3 74.3 34.1 40.2 100.0 5 12.1 87.9 100.0 50.0	Disorderly conduct	36	14.9	12	5.0	6.6	32	13.9	~	1.3	12.6	20	20.8	7.	4.2	16.6
18 7.5 8 3.3 4.2 20 10.0 7 3.0 7.0 126 37.5 26 7.7 9 3.0 129 3.7 7 2.9 0.8 10 4.3 0 0.0 4.3 30 8.9 10 3.0 10 4.17 3 1.2 0.5 13 5.6 1 0.4 5.2 60 17.9 9 2.7 $\frac{0}{74.3}$ $\frac{0.00}{34.1}$ $\frac{2}{40.2}$ $\frac{0.8}{100.0}$ ${100.0}$ ${12.1}$ ${87.9}$ ${100.0}$ ${50.0}$	Dishonesty/fraud	14	5.8	6	3.7	2.1	6	3.9	-	4.0	3.5	64	14.6	3	6.0	13.7
on of duty $\begin{array}{cccccccccccccccccccccccccccccccccccc$	Substance abuse	18	7.5	••	3.3	4.2	70	10.0	7	3.0	7.0	126	37.5	56	7.7	29.8
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Violence	6	3.7	7	5.9	8.0	9	4.3	0	0.0	4.3	30	8.9	10	3.0	5.9
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Dereliction of duty	7	1.7	3	1.2	0.5	13	5.6	~	4.0	5.2	09	17.9	6	2.7	15.2
74.3 ^a 34.1 40.2 100.0 12.1 87.9 100.0 50.0	Other	0	0.0	7	0.8	-0.8	1	!	1	ł	1	~	0.9	-	0.3	0.5
	Total	1	74.39		34.1	40.2	İ	100.0	1	12.1	87.9		0.001		50.0	50.0

^a25.7 percent of this sample had no prior NJPs.

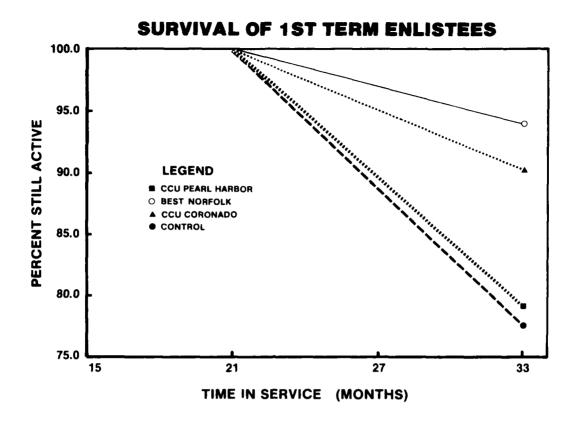


Figure 4. Survival of first-term enlisted personnel in retraining and control groups.

Harbor groups were 6.5, 12.8, and 21.2 percent respectively, compared to 22.8 percent for the control group.

Relationship Between Predictors and Outcome Variables

Table 7 shows the results of the analyses performed to identify relationships between predictors and outcome variables. Complete data were not available for all retraining units or for each type of variable. Where the data were available, the results are not consistent. First, there were few significant results. Out of a total of 107 separate analyses, only 12 were significant, several of which probably occurred by chance. Second, there are few patterns of significant results across the units. Third, when examining the significant results are not necessarily meaningful; that is, the values are not always in a logical direction. The significant relationships are discussed below.

1. Dependents. The only significant demographic variable was the effect of the number of dependents upon recidivsm for CCU Pearl Harbor. Those with dependents were less likely to receive another NJP than were those without dependents, a logical outcome. However, since only a small percentage of individuals had dependents (9.0%), this result is probably not meaningful.

Table 7 Relationship Between Predictor Variables and Outcome Variables

	F	Performance			Recidivism			Attrition	
Predictor	CCU Pearl Harbor	CCU Coronado	BEST Norfolk	CCU Pearl Harbor	CCU Coronado	BEST Norfolk	CCU Pearl Harbor	CCU Coronado	BEST Norfoli
Demographic Variables:									
Race			_			-			-
Age Education		-	-	~	-	•	-	•	
Marital status	-	•	-	-	-	-	-	-	-
Dependents Family Background:				*			-		
Position in family			-			-			-
Number of siblings Father's occupation			-			-			-
Father's education									_
Parents marital status			-						-
Which parent raised assignee?									-
Discipline Within Service:									
Number of prior NJPs Type of prior NJPs:	•	-	-	-	*	-	-	-	-
UA	-	-	-	-	-	-	-	-	-
Against authority Substance abuse	_	-	-	-	-	-	•	-	-
Disorderly conduct	_	•	-	-	-	-	-	-	-
Dereliction of duty	-	-	-	-	-	-	-	-	-
Sex Violence	-	_	_	-	_	_	-	_	_
Dishonesty	-	-	-	-	•	-	*	-	-
Organizational Variables:									
Length of enlistment	-			**			-		
Time in command			-	**		-	-		-
Time left Awards			-			*			-
Advancement						-			-
Age when joined			-			-			-
"A" school GCT score		-			-			•	
ARI score		-			-			-	
Mental category				-	-	-	-	-	
Attitudes About the Navy:									
Reason for joining How challenging is the Navy?			-			-			-
How important to do what the						-			-
Navy wants?						-			-
What would you do if not in the Navy?						-			-
Personality Trait:									
Locus of control			•			-			_
Attitudes About Programs:									
Beneficial aspects of program	•			-	•		_	**	
How the program helped How positively do you rate CCU/BEST?	-	-		-	•		-	•	
Miscellaneous:				-					
Importance of religion Number of school suspensions Number of times arrested			-			-			- -
Command Visits:									
Supervisor		_			•			•	
Division officer		-			•			•	
Department head XO/CO		-			-			-	

Note. A blank indicates that data were not available, and "-," that results were not significant. *p < .01. *p < .05.

- 2. Number of prior NJPs. The effect of the number of prior NJPs on the outcome measures is minimal, with only CCU Coronado showing an effect on recidivism. Persons with a higher number of NJPs were less likely to be recidivists than were those with a lower number. Since this finding is based on mean NJPs of 2.49 and 2.58 for recidivists and nonrecidivists respectively, however, the difference is probably not meaningful.
- 3. Types of prior NJPs. Two types of prior NJPs were found to be related to attrition at CCU Pearl Harbor. Attrites were more likely to have "against authority" and/or "dishonesty" NJPs than were nonattrites. Since the attrition rates for BEST and CCU Coronado are low, it is not surprising that there were no significant relationships for these units.
- 4. <u>Length of enlistment</u>. Length of enlistment was related to attrition at CCU Pearl Harbor, with 4-year enlistees being less likely to be recidivists than were non-4-year enlistees (mostly 6-year enlistees).
- 5. <u>Time in command</u>. At CCU Pearl Harbor, recidivists tended to have been in their commands far less time than were nonrecidivists. This may be related to the amount of time remaining in the Navy for BEST assignees (6 below), since those who have been in their commands for shorter periods may have more time left to complete their terms.
- 6. <u>Time left</u>. This factor was related to recidivism at BEST, with those with 3 or more years of service left having a greater tendency to be recidivists than were those with less than 3 years. This result corresponds with the relation between length of enlistment and recidivism at CCU Pearl Harbor; that is, individuals with enlistments other than 4 years (primarily 6 years) tend to repeat offenses (4 above). These individuals probably have more time left in their enlistment than do those with 4-year enlistments.
- 7. Attitudes about program. Beneficial aspects of the program and "how the program helped" were related to attrition at CCU Coronado. Both attrites and nonattrites indicated that CCU helped them to "understand life" better and to "understand the military." However, more attrites than nonattrites said that CCU didn't help them. More nonattrites than attrites indicated that CCU helped with personal motivation and change. As to the beneficial aspects of CCU, the nonattrites were more positive toward the classes than were attrites. These expressed attitudes, then, can be used to predict attrition at Coronado.
- 8. Number of times arrested. This factor was related to attrition at BEST. Attrites were more likely than nonattrites to have been arrested and to have been arrested for major offenses.
- 9. <u>Supervisor/division officer</u>. At CCU Coronado, whether or not the supervisor or division officer visited the individual at CCU was important in terms of attrition. Lower attrition was associated with supervisory visits.

Since so few single variables were related to outcome variables, it is unlikely that a combination of variables would better predict performance, recidivism, or attrition. However, discriminant analyses were conducted separately for the three units using demographic variables frequently used to predict success in the Navy (i.e., number of prior NJPs, mental category, age, and education) to predict attrition and recidivism independently. The most predictive equations correctly classified only 57 percent of the cases as recidivists or nonrecidivists. Thus, it appears that the variables available for analysis are not appropriate for predicting recidivism and attrition.

Prior NJPs as a Factor in Program Effectiveness

As indicated previously (Table 5), approximately 27 percent of the BEST sample had no prior NJPs, while 73 percent had one or more. To determine whether the nonprior-NJP group was different initially from the NJP group, the two groups were compared on 32 available demographic, attitudinal, and organizational variables using nonparametric statistical analyses. Results of some of these analyses are presented in Table 8. Only one, mental category, out of the total number was statistically significant. Since this one significant result could have occurred by chance alone, it is safe to conclude that there are no meaningful individual differences between the two BEST groups. The only difference is that the nonprior group was probably sent to BEST somewhat sooner than was the NJP group.

Table 8

Comparison of BEST Assignees With and Without Prior NJPs

Demographic Variables	No Prior NJPs (N = 151) %	Prior NJPs (N = 406) %
Education:		
Not high school graduate High school graduate	32.2 67.8	42.1 57.9
Mental Category:*		
I II IIIA IIIB IV	1.4 27.5 33.3 26.8 10.9	1.1 17.7 42.9 31.0 7.2
Age:		
20 and below 21 and above	67.8 32.2	65.8 34.2
Outcome Variables:		
Recidivism		
Nonrecidivists Recidivists	52.9 47.1	64.4 35.6
Performance		
Not improved Improved	24.7 75.3	26.4 73.6
Attrition		
Nonattrites Attrites	95.4 4.6	93.6 6.4

Note. The total sample size is 557, not 645, due to missing data on this variable.

^{*}p < .02.

To determine whether BEST is more effective for those with no prior NJPs, the two groups were compared using nonparametric analyses on performance, recidivism, and attrition. No statistical differences were found for any of these three outcome measures. Thus, whether or not a person has had prior NJPs has no effect on program effectiveness.

Interviews

CCU/BEST Assignees -- During and After Retraining

Data obtained is discussed under four basic areas: (1) assignment to CCU/BEST, (2) purposes of retraining, (3) behavioral and attitudinal changes, and (4) antecedent causes of disciplinary problems.

Assignment to CCU/BEST. There was considerable confusion among interviewees as to why they were sent to retraining programs. Even though CCU assignees understood that they were assigned as the result of an NJP, they were nevertheless hostile and angry upon arrival. They definitely considered the assignment to the CCUs as punishment and, in several circumstances, undeserved punishment. BEST assignees, particularly those who had not received an NJP, felt that their supervisor or CO had "set them up" for the assignment. This resulted in considerable hostility. However, assignees' initial antagonism dissipated during the course of the program as they became exposed to the instructors and the training itself. In fact, at the end of retraining and in follow-up interviews, they did not evaluate the program, curriculum, or instuctors based on a "punishment" attitude. Rather, they voluntarily cited beneficial aspects of the programs, particularly the motivation courses, physical training, and personal characteristics of individual staff members.

Purposes of Retraining. Interviewees also appeared to be confused as to the purposes of the retraining programs. Some felt the purposes were related to specific aspects of the programs, such as goal setting, building of self-confidence and self-respect, learning what is expected by the Navy, learning more about oneself, etc., rather than on individual behavior changes. None cited the same program goals as those stated by the units themselves (i.e., to retrain enlisted personnnel with discipline problems to become productive members of the Navy).

While the CCU and BEST assignees were not aware of the differences in curricula between the two programs, their comments as to retraining purposes were informative since they relate to curriculum development considerations. From the individual's point of view, the most important reason for retraining seems to be to provide information about the Navy that they failed to receive, understand, or attend to during recruit training and in other training courses. For example, while assignees were well aware of their rights, they did not fully understand their responsibility to the Navy. Thus, one component of retraining provided information on individual responsibility and consequences for neglecting that responsibility. In addition, many individuals felt they didn't have sufficient information regarding Navy careers to know how to strike for a rating, or even which ratings were available to them. Instructors representing a wide range of ratings were able to provide the needed information, often on an individual one-to-one basis. While this aspect of retraining was not cited as the most beneficial on the form completed following retraining, it was evident from the interviews that communication of information serves an important function.

Behavioral and Attitudinal Changes.

- 1. Behavioral versus attitudinal changes. From the interviews, it was evident that, following retraining, about a third of the assignees had improved their behavior and attitude, another third had improved their behavior but not their attitude, and the last third had not improved in either behavior or attitude. Since a major training component of the CCU/BEST programs was motivational in nature, it was expected that individual attitudes would improve, in the form of improved self-esteem and goal-setting, and that that improvement would be translated into more productive behavior in the Navy. In a second training component, which concerned behavior consequences, the Navy's expectations of acceptable behavior were outlined and the individual was told he had a choice in his future actions. Although some individuals integrated the information from these two training components and changed both behaviorally and attitudinally, others did not change on either dimension. In fact, they became further discipline problems and subsequently attrited. Those whose behavior changed but not their attitude seemed to reject the motivation aspects of retraining; rather, they chose to change their behavior by making a commitment to complete their enlistment, presumably because they understood the negative consequences for failing to do so. A number of these individuals indicated that they learned to "play the game"; that is, they thought the motivational classes were valuable educational experiences, since attending classes was more interesting and less fatiguing than were such experiences as participating in working parties. individuals felt that an attempt on the part of the Navy to change their personal attitudes and values was an infringement of their personal rights. In fact, if change did occur as a result of goal setting and confidence building classes, it only worked to make these individuals feel they could achieve their success goals in civilian life but not in a Navy career.
- 2. Behavior decline after retraining. While individuals were assigned to CCUs/BEST, they were motivated to change their behavior to conform with the rules of the unit. They felt that they had made substantial improvement in their personal appearance, conduct, and work habits. When they were returned to their commands, however, with high expectations of being accepted as changed persons, they were disillusioned when told that they now "had to prove themselves." Several had been taken out of their previously assigned work spaces and put on general duty for several months, a reassignment which they considered demotivating. Consequently, these individuals' performance declined. They felt that the command did not support them for the progress they had made at retraining, and that it was too difficult to continue to perform at high levels. These comments were consistent with the previously reported decline in performance ratings for all three units.

Antecedent Causes of Disciplinary Problems.

- 1. Adjustment to shipboard life. It was clear from the interviews that CCU/BEST assignees felt that they were not prepared to cope with shipboard life and that they had not received adequate formal or informal training to assist them. Specifically, they were unable to cope with the physical habitability difficulties (e.g., confined spaces, lack of privacy, etc.) and peer influences and disagreements (e.g., pressure to use drugs, involvement in fights, etc.). In general, they felt that their disciplinary problems (in particular, UAs or acts against authority) were caused by the fact that they could not cope with stressful circumstances.
- 2. <u>Supervisory leadership</u>. CCU/BEST instructors were frequently mentioned as having demonstrated outstanding qualities and were contrasted with the petty officers serving as supervisors in the individuals' command. Generally, assignees felt that their

supervisors didn't have any personal interest in them and would not spend time with them, even when requested to do so. The contrast between the instructors and the supervisors made it more difficult to change once the assignees returned to their command.

CCU/BEST Staff

At all three units, a broad spectrum of staff personnel was interviewed to determine the goals, functions, and effectiveness of the units. In addition, the staff members serving as instructors were questioned about particular aspects of their jobs, including criteria for selection, training requirements, career goals and objectives, and particular problems they were experiencing. There was considerable consistency among the responses received from all three units. Results obtained are discussed below under four areas: (1) lack of consistency in goals and programs, (2) staff morale, (3) management support, and (4) importance of a dedicated staff.

Lack of Consistency in Goals and Programs. Instructors and managers alike stated that each of the units had different goals. Some of the responses were not too unlike those of assignees, mentioning specific training modules as the goals. Others, however, cited Navy goals and objectives, such as retraining individuals to become productive aboard ships. In addition to having inconsistent goals, it was also clear that the programs that followed from these goals were, at times, inconsistently executed. For example, although behavior modification was cited as a program objective by several BEST staff members, a behavior modification program was not consistently applied to BEST assignees. At times, the rules or privileges might change—at the discretion of management.

Staff Morale. In discussing specific problems experienced by staff members, it was evident that staff morale was low, with the degree depending upon the unit to which staff members was assigned. The average staff members work 60 to 80 hours per week. Thus, even though the average student-to-staff ratio is about 2 to 1, the commitment to duty is extraordinary. The work is intensive and the consequences of stress are similar to those experienced by health care professionals. Staff members described career "burn-out" as a symptom and expressed feelings of not being appreciated, particularly by management. There was a prevalent feeling that the individuals responsible for establishing the CCUs/BEST received the rewards and recognition, while the petty officers serving as instructors were not recognized for their dedication to duty. In addition to a lack of positive treatment, the positive treatment that was rendered by management was perceived as inequitable, with some instructors receiving positive responses to their requests while others did not.

Management Support. The staff consistently indicated that they were not receiving the necessary management support to conduct an effective unit. First, they did not feel that management was providing adequate in-service training for staff members, which could serve to increase professionalism and help alleviate the stress that contributed to the burn-out phenomenon. Second, they requested consultation sessions with professionals (e.g., psychologists, psychiatrists, etc.) so that they could receive advice and support on how to handle individuals with difficult discipline problems. Third, they noted a lack of recognition and support of the staff burn-out problem itself. Interviewees generally felt that their superiors were not responsive to changes that would provide for a more efficient unit. In general, the interviews indicated that management itself did not practice behaviors that they required of staff personnel when working with CCU/BEST assignees.

Importance of a Dedicated Staff. It was evident from interviews and observations of the units that the instructors did, in fact, reflect the criteria for which they were selected. Staff members were sincere, mature, and dedicated, representing outstanding qualities of petty officers. The most important characteristic, however, was that they had a genuine interest in influencing enlisted personnel to change their behavior and perhaps the course of their lives. In fact, as a result of this tour of duty, several instructors expressed an interest in becoming counselors and enrolling in advanced courses in the area. Since the petty officers are so dedicated and interact so intensively with the individuals assigned to CCUs/BEST, it appears that the success of these programs is due, in large part, to the instructors. Although all three units had a somewhat different curriculum and training program, each was successful on one or more outcome measures. Through interviews and observations of the units, the most impressive aspect of training was the staff.

Supervisors from User Commands

The petty officers and chiefs who were supervisors in operational units where these individuals worked were interviewed to determine how they were performing following retraining, as well as to identify some of the conditions contributing to disciplinary problems. Both individual and group interviews were conducted. Results are discussed below under four areas: (1) positive aspects of CCU/BEST, (2) requirement for retraining, (3) antecedent causes of disciplinary problems, and (4) communication about CCUs/BEST.

Positive Aspects of CCUs/BEST. In general, supervisors thought the retraining units were effective. Individuals who had returned to their commands seemed to show considerable improvement in their appearance and behavior. However, in terms of lasting changes, there was general agreement that approximately 60 percent of the assignees could be classified as "successes," while 40 percent became recidivists or attrites. Even considering this improvement rate, the supervisors were enthusiastic about changes they witnessed. Specifically, supervisors thought that CCUs/BEST were beneficial in reducing subsequent acts against authority. Presumably, retraining taught new behavioral responses to particularly stressful situations, and individuals were able to use these new skills once back in their commands.

Requirement for Retraining. There was general consensus that, under present conditions in the Navy, retraining units are necessary. The supervisors acknowledged that, if operational units were effectively managing their enlisted personnel, there would be fewer disciplinary problems and no real need for retraining. While CCU/BEST assignees attributed responsibility for their disciplinary problems to supervisors, the supervisors felt that the officers were to blame. One frequently mentioned problem was that the Navy stresses engineering in officer career development rather than management. Consequently, officers may be technically superior, but they are not aware of how to manage subordinates effectively.

One widely held view of current first-term enlistees is that they are of lower quality, and, hence, exhibit more problems in all areas than did their former shipmates. Generally, the supervisors did not hold this attitude. While they did acknowledge that younger enlisted personnel hold different values than did previous personnel, they did not feel that these values should necessarily interfere with a commitment to completing the obligated tour of service and successfully learning a skill.

In general, then, even though supervisors did not acknowledge responsibility for the discipline problems, they did subscribe to the idea that individuals can change and indicated that they provided support to trainees whenever possible. The supervisors, more

than any other group interviewed, discussed the realities of incorporating a retrainee back into his command. These included constraints on the work tasks to which a retrainee may be assigned and the importance of treating him in the same manner as his peers. Although this tack may lead to negative perceptions on the part of the retrainee, it is nonetheless necessary for overall work center morale. A positive, supportive environment is important; however, in reality, it may be difficult to achieve.

Antecedent Causes of Disciplinary Problems.

- Drug policies inconsistently applied. Drugs are one of the major contributors to disciplinary problems. Drug usage itself (primarily marijuana) was not considered to be the cause of disciplinary problems, since it was generally thought that marijuana, while lowering motivation and interfering with productivity, does not directly cause an individual to commit a UA or act against authority. The problem was reported in broader terms. Since the supervisors recognized that drug usage was widespread and that there was no consistent drug policy, there was considerable variability in the policies established and applied aboard ship. Since the supervisors and junior enlisted personnel are aware of the inconsistencies among policies, they tend to disregard them, which serves to undermine the authority of the entire command. For example, while the formal command policies are strict with respect to drug enforcement and provide specific consequences for offenses, only a small percentage of offenders are identified, and these might be treated inequitably at different points in the chain of command. Further, while the command believes that punishments associated with drug offenses are stringent, the supervisors believe that they are not strict enough to serve as deterrents to anyone. In summary, the interviewees believed that, because a command did not often practice the stated policies, command authority become eroded, resulting in greater disciplinary problems.
- 2. <u>Lack of coping skills</u>. Adjustment to shipboard life was previously discussed as contributing to disciplinary problems. Supervisors view adjustment problems from a different perspective. They expressed the fact that young enlisted personnel appear to be sophisticated and mature, partly because they display considerable "social awareness" among their peers regarding contemporary social issues. These young enlisteds were described as having "street sense" but lacking in "common sense" or a well-developed sense of responsibility. To successfully complete a tour of service in the Navy, an individual must have a set of coping skills that include financial and personal responsibility, ability to cope with stress, and a strong self-image to resist peer pressure. If these skills are not present, disciplinary problems are likely to result. In summary, the supervisors did not attribute disciplinary problems to a lack of Navy training but, rather, to general socialization processes developed earlier in an individual's life.

Communication about CCUs/BEST. While many supervisors, particularly those in BEST, had been closely involved with the retraining units, they generally felt that there was not enough communication with the units. The interviewees recognized that, if CCUs/BEST were to achieve long-term results, supervisors had to fully understand the goals and purposes of the units, the selection criteria for indivdual assignment, and the required support from operational units. They thought that these units were being underutilized by commands, probably because many supervisors were unaware of their existence. While COs often received briefings on CCUs/BEST, such information was not often communicated down the chain of command.

Officials Responsible for Assignment to CCUs/BEST

Results of these interviews are discussed below under four areas: (1) assignment of individuals to CCU/BEST, (2) training content and environment, (3) Navy corrections policies, and (4) command policies.

Assignment of Individuals to CCU/BEST. Although COs were generally pleased with the results of retraining, they fully recognized that retraining was not a panacea for all their discipline and low productivity problems. They were intent, however, on determining which individuals would benefit most from CCU/BEST retraining, agreeing that these units were not appropriate for alcohol or drug rehabilitation. While some individuals had been assigned to CCUs/BEST because of a drug offense, it was acknowledged that drug usage was not the primary problem or offense of these individuals.

The COs stated that they assigned offenders to CCUs/BEST after carefully considering an individual's potential for becoming productive and fulfilling his obligation to the Navy. One concern was the assignment of multiple offenders. The consensus was that, although these units were definitely not for criminals, there was some ambivalence with respect to how many offenses an individual could have on his record and still be considered a good risk for retraining. The COs thought that it was reasonable not to assign individuals with more than two or three offenses to retraining. However, most COs recognized that there were instances in which multiple offenders dramatically changed their behavior following retraining. The COs requested guidelines, based upon success rates, for who should be sent to CCUs/BEST in terms of individual characteristics.

Training Content and Environment. Interviewees generally thought that a motivated training approach, conducted in a controlled military environment, was a significant aspect of retraining programs. While they recognized that, for behavior change to occur, it was necessary to conduct training in a positive environment, there was some concern that the CCU/BEST training activities were less demanding, fatiguing, and boring than were those in their commands. In fact, several COs thought that some of their more enterprising marginal performers might attempt to be assigned to retraining if it meant being relieved of difficult work assignments. They generally believed that CCU/BEST assignment should be perceived as punishment, with the stipulation that assignees are being given another chance by the Navy and their commands to become productive. Although the COs recognized that it might be difficult to change individual behavioral under punishment conditions, they felt they had to consider the effects of these units on all their men and view the assignment problem from a broader perspective.

While the COs acknowledged that a controlled environment was necessary during retraining, they realized that such an environment could not be continued in operational units. The COs' comments were that behavior changes were not difficult to obtain in a controlled setting (particularly in an isolated one) but were extremely difficult to maintain aboard ship. Their expectations for sustained change were realistic, indicating they would be satisfied if retraining produced individuals who fulfilled their Navy obligations, were even marginally satisfactorily, and were not further disciplinary problems.

Navy Corrections Policies. While COs and staff personnel acknowledged that the CCU/BEST units were effective for a select group of offenders, they felt that a broader perspective was required in viewing disciplinary problems in the Navy. For example, while interviewees were willing to expend resources on retraining potentially productive personnel, they were also willing to discharge the multiple offenders, since they considered such persons hurt general morale within units. The COs were concerned that

the Navy should better utilize its available personnel and remove those from service who are nonproductive. Also, while they considered the CCUs/BEST as effective, they felt that they were established at great cost in terms of manpower. The staff officers indicated that, for each retraining unit established, approximately 20 outstanding petty officers were sent from fleet units to retrain, at the most, 50 individuals per management. They felt this was a high cost, considering the petty officer shortfall presently being experienced. Their cost-benefit concerns reflect an overall Navy view that the best utilization of manpower is essential during times of limited resources, and they would like to see policy decisions be based on program effectiveness data.

Another issue centered around the fact that, while the Navy is having numerous personnel problems (i.e., disciplinary problems, low quality recruits, high attrition rates, etc.), it also has some individuals with serious psychological disorders. Thus, individuals who are dissatisfied with the Navy (e.g., those with low morale) may be mislabeled as having more serious personality or psychological problems. Individual commands, as well as the Navy in general, may feel obligated to provide special training or programs for persons with real psychological problems. However, the COs were definitive in their comments that individual dissatisfaction with the Navy was not necessarily a mandate for the Navy to change its personnel policies and practices nor to provide extensive retraining.

Command Policies. The COs recognized that they were responsible for ameliorating some of the problems specifically mentioned by their subordinates. They were aware that there must be an effective indoctrination program aboard ship and acknowledged the variability of such programs. It was apparent that some of the COs aggressively pursued the development of such programs by establishing specific procedures for their execution and preparing written materials, while others were simply philosophically in consort with such development.

In terms of managing personnel, COs mentioned that "easy promotion to petty officer" could contribute to disciplinary problems in younger enlisted personnel. Since there is a petty officer shortfall, often individuals are promoted who have not yet demonstrated essential supervisory skills. Since these newly designated petty officers may not have the maturity to manage a work group, their subordinates may have problems in adapting to the Navy.

COs also identified the constraints in managing personnel as another problem area. Many COs were enthusiastic about CCUs/BEST because these units provided a positive alternative when managing disciplinary problems. They indicated that, often, their options were to either punish an individual or process him for discharge, a procedure requiring extensive administrative time and resources. While they are willing to take responsibility for retraining and reorientating an individual within their commands, they generally do not have the resources to devote to an individual, given the extensive operational commitments. The general consensus was that it was important to provide as much flexibility as possible to COs in exercising the options available to them when managing personnel.

CONCLUSIONS

1. From the outcome measures, it appears that the CCUs/BEST programs are effective. CCU Coronado and BEST are the most effective in terms of survivability.

- 2. The CCU and BEST programs are more similar than different. The major difference--no NJP requirement for BEST assignment--did not result in different outcomes. However, the manning requirements and subsequent costs are much higher for BEST.
- 3. The perceptions of CCU/BEST assignees and staff members as to program goals and objectives were unclear and inconsistent. These inconsistencies are evidenced in the execution of the programs and the lack of correspondence between stated philosophy and training curriculum.
- 4. No patterns or profiles of individuals who could benefit from these retraining programs emerged. Using the available demographic and organizational variables as predictors, it was not possible to determine which individuals would survive longer in the Navy and perform better after retraining. Two disparate reasons could account for this:
- a. The variables that are important in predicting positive outcomes (e.g., motivation) do not lend themselves to present measurement techniques.
- b. COs may be assigning the individuals who could benefit the most from retraining based upon personal knowledge of these individuals.
- 5. The assignment of outstanding petty officers as CCU/BEST staff personnel appears to be the most important factor in the success rate of these retraining units. While important factors in successful retraining can be isolated from a scientific point of view (i.e., training materials versus instructors serving as role models), the general consensus from the interviews was that the behavioral changes documented following retraining were due to the dedication of the staff of outstanding petty officers.
- 6. Individuals sent to CCUs/BEST seem to be learning different aspects of what is being taught, a conclusion consistent with the programs' unclear objectives. Some incorporate much of what they are taught, changing both their attitudes and behavior; others incorporate strategies for complying with minimal behavioral requirements, without any concomitant change in attitude; while still others fail to change either their behavior or attitude.

RECOMMENDATIONS

For CCU/BEST Units

- 1. The CCUs/BEST should be standardized in terms of their goals, policies, and procedures.
- 2. Follow-up evaluations should be continued in order to determine unit effectiveness and diagnose areas of program deficiencies.
- 3. Evaluation results should be provided as feedback to CCUs/BEST so that these units might monitor their effectiveness and take ameliorative action where necessary.
- 4. CCU/BEST staffs should be supported by providing (a) opportunities to discuss behavioral problems and solutions concerning CCU/BEST assignees on a consulting basis, (b) training to reduce staff stress and alleviate burn-out, and (c) awards and administrative recognition of staff accomplishments.

5. Staff effectiveness should be increased by (a) providing in-service training in the areas of counseling and behavioral dynamics, and (b) developing specific criteria for future staff selection that reflect the characteristics of successful CCU/BEST staff personnel.

For User Commands

- 1. The program goals, specific selection criteria, and results attesting to the effectiveness of CCUs/BEST should be disseminated among COs and other potential users of the retraining programs through a systematic outreach program.
- 2. COs should be provided with guidelines regarding the importance of creating a positive working environment where persons returning from CCUs/BEST can practice newly developed behaviors.

For the Navy in General

- 1. The retraining approach of the pilot CCUs/BEST should be expanded to include other CCUs and integrated into the overall Navy corrections program.
- 2. Additional BEST units should not be established. Although there are no meaningful differences between the two CCUs and BEST in terms of program philosophy, retraining content, and outcome measures, the manning requirements and subsequent costs are much higher for BEST.
- 3. Program goals should be consistent with Navy objectives for managing first-term enlisted persons and curricula should be developed to specifically meet those objectives.
- 4. The effectiveness of new CCUs should be maximized by (a) assigning experienced instructors from the pilot units to newly established units, (b) monitoring outcome measures and making indicated improvements, and (c) documenting and standardizing retraining procedures.
- 5. The consequences of Navy drug policy violations should be specified, clearly communicated, and consistently enforced with support from the chain-of-command.
- 6. Specific training materials should be developed to aid the CCUs/BEST in their curriculum development.

For Research and Development

- 1. Further research should be conducted on the behavior consequences approach to retraining used in CCUs/BEST to determine what aspects of retraining are most effective.
- 2. Comparison evaluation studies of different models of retraining should be conducted to determine the most effective approach for use at Navy CCUs.
- 3. Offender characteristics should be measured and analyzed to determine whether different types of retraining might be effective. An expectancy table could indicate probability of success.
- 4. Cost-effectiveness analysis of CCUs, which consider the cost of the number of highly qualified petty officers serving as instructors who are unavailable for fleet assignments, should be conducted.

REFERENCES

- Bhattacharyya, R., Willey, A., Parker, W., & Luftig, J. <u>Evaluation of the Army correction program, Volume II: Literature review</u>. Princeton: The Mentoris Company, 1977.
- Fersch, E. A. <u>Psychology</u> and <u>psychiatry in courts and corrections</u>. New York: John Wiley and Sons, 1980.
- Goodstadt, B., & Yedlin,, N. First-tour attrition: Implication for policy and research. Washington, DC: Advanced Research Sources Organization, June 1980.
- Greenburg, M. G., & McConeghy, G. Exploratory development research of U.S. Marine Corps personnel: Phase I. In H. W. Sinaiko (Ed.). First term enlisted attrition. Washington, DC: Smithsonian Institution, 1977, 204-218.
- Guinn, N. USAF attrition trends and identification of high-risk personnel. In H. W. Sinaiko (Ed.). <u>First-term enlisted attrition</u>. Washington, DC: Smithsonian Institution, 1977.
- Gunderson, E. K. E., & Hoiberg, A. Personnel effectiveness and premature attrition in the all-volunteer Navy (Rep. No. 77-16). San Diego: Naval Health Research Center, March 1977.
- Lockman, R., Chances of surviving the first year of service: A new technique for use in making recruiting policy and screening applicants for the Navy (CNS 1068). Arlington, VA: Center for Naval Analyses, November 1975.
- Lockman, R. A model for predicting recruit losses (Professional Paper No. 163). Arlington, VA: Center for Naval Analyses, September 1976.
- Hand, H., Griffeth, R., & Mobley, W. Military enlistment, reenlistment, and withdrawal research: A critical review of the literature. Columbia, SC: Center for Management and Organizational Research, December 1977.
- Mathews, W. T. Quality of Marine test scores, personal data, and performance. In H. W. Sinaiko (Ed.). First-term enlisted attrition. Washington, DC: Smithsonian Institution, 1977.
- Mobley, W. H., Hand, H. H., & Logan, J. E. A longitudinal study of enlisted personnel attrition in the U.S. Marine Corps: Preliminary recruit training results. In H. W. Sinaiko (Ed.). <u>First-term enlisted attrition</u>. Washington, DC: Smithsonian Institution, 1977.
- Plag, J. A., Goffman, J. M., & Phelan, J. P. Predicting the effectiveness of new mental standards upon enlistees in the U.S. Marine Corps (Tech. Rep. 7142). San Diego: Navy Medical Neuropsychiatric Research Unit, December 1970.
- Wiskoff, M., Atwater, D., Houle, M., & Sinaiko, H. Enlisted first term attrition:

 <u>Literature review and discussion.</u> Paper presented at the meeting of the Technical

 Cooperation Program (TTCP), Technical Panel UTP-3 in Montreal, Canada, June 1980.

DISTRIBUTION LIST

Military Assistant for Training and Personnel Technology (ODUSD(R&AT))

Principal Deputy Assistant Secretary of the Navy (Manpower and Reserve Affairs)

Director of Manpower Analysis (ODASN(M))

Judge Advocate General (Code 13)

Chief of Naval Operations (OP-01), (OP-01B), (OP-01H), (OP-008), (OP-11), (OP-12) (2), (OP-13), (OP-14), (OP-15), (OP-115) (2), (OP-140F2), (OP-987H)

Chief of Naval Material (NMAT 08L)

Chief of Naval Research (Code 200), (Code 440) (3), (Code 442), (Code 448)

Chief of Information (OI-213)

Chief of Naval Education and Training (02), (003), (N-5)

Chief of Naval Technical Training (016)

Commander in Chief U.S. Atlantic Fleet (Code 00), (Code N-1)

Commander in Chief U.S. Pacific Fleet (Code 00), (Code 01), (Code 03), (Code N-7)

Commander Fleet Training Group, Pearl Harbor

Commander Naval Logistics Command, U.S. Pacific Fleet

Commander Naval Air Force, U.S. Atlantic Fleet

Commander Naval Air Force, U.S. Pacific Fleet

Commander Naval Surface Force, U.S. Atlantic Fleet

Commander Naval Surface Force, U.S. Pacific Fleet (Code 00), (Code N-1)

Commander Naval Military Personnel Command (NMPC-013C), (NMPC-00), (NMPC-8), (NMPC-84)

Commanding Officer, Human Resources Management Center, Norfolk

Commanding Officer, Naval Amphibious Base, Coronado

Commanding Officer, Naval Amphibious Base, Little Creek

Commanding Officer, Naval Regional Medical Center, Portsmouth, VA (ATTN: Medical Library)

Commanding Officer, Naval Station, Pearl Harbor

Director, Naval Civilian Personnel Command

Director, Training Analysis and Evaluation Group (TAEG)

Officer in Charge, Behavioral Skill Training Unit, Norfolk

Officer in Charge, Correctional Custody Facility, Coronado

Officer in Charge, Correctional Custody Unit, Pearl Harbor

Officer in Charge, Naval Occupational Development and Analysis Center

Commander, Army Research Institute for the Behavioral and Social Sciences, Alexandria (PERI-ASL)

Chief, Army Research Institute Field Unit, Fort Harrison

Commander, Air Force Human Resources Laboratory, Brooks Air Force Base (Scientific and Technical Information Office)

Commander, Air Force Human Resources Laboratory, Williams Air Force Base (AFHRL/OT)

Commander, Air Force Human Resources Laboratory, Wright-Patterson Air Force Base (AFHRL/LR)

Superintendent, U.S. Coast Guard Academy

President, National Defense University (3)

Defense Technical Information Center (DDA) (12)

DAT