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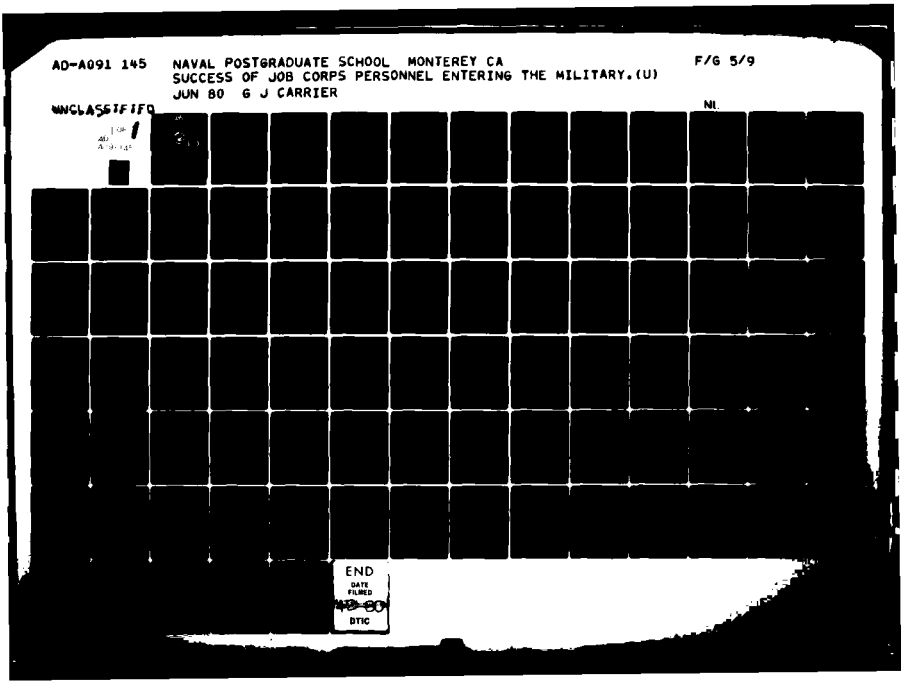

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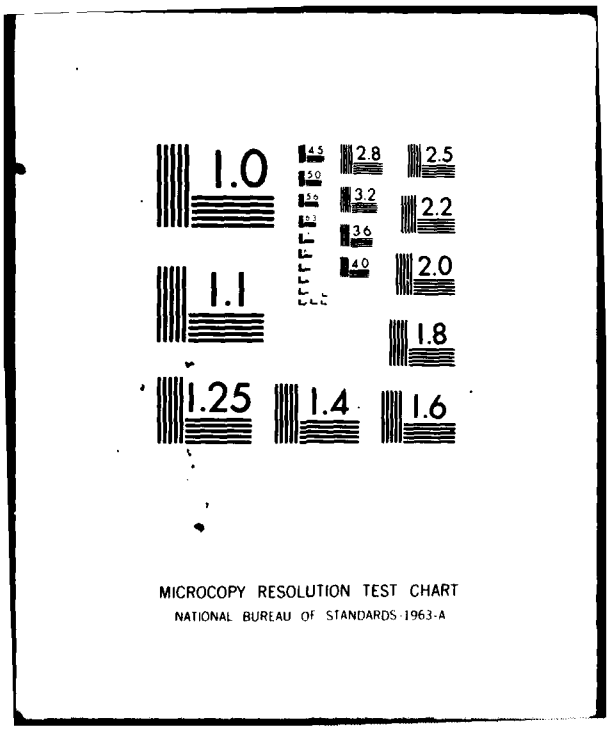

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Master's THESIS

(6) SUCCESS OF JOB CORPS PERSONNEL ENTERING THE MILITARY.

by

(10) Guy Joseph Carrier

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Thesis Advisor: R. S. Elster

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Success of Job Corps Personnel
Entering the Military

by

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Lieutenant, United States Navy
B.S., United States Naval Academy, 1972

Submitted in partial fulfillment of the
requirements for the degree of

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ABSTRACT

This thesis studied the performance in the military of non-prior-service males entering the military after they were members of the Department of Labor's Job Corps program. Data analyzed included age, educational level, race and success in the military. Multivariate analysis was conducted and regression and Automatic Interaction Detection models developed to predict military entrance and success rates of Job Corps trained individuals. Policy implications and recommendations for the recruitment of Job Corps personnel are presented.

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I. INTRODUCTION

A. PURPOSE OF STUDY

The purpose of this thesis is to investigate the performance of Job Corps participants who have enlisted in the military service of the United States during the period 1968-1978. The intent of this introductory chapter is twofold. First, a short description of the demographic situation will be presented. Second, arguments will be presented in support of the benefits that might be enjoyed if a pool of available talent (i.e., the Job Corps) were properly recruited.

B. DEMOGRAPHIC SITUATION

As the projected population of the U.S. goes from 220,016,000 in 1980 to 241,370,000 in 1990, an increase of almost 10%, the projected population in the 17-21 year old bracket (i.e., those eligible and desirable to be recruited) is dropping by over 17%. This, in effect, means that the supply of recruitable youngsters is diminishing not only in terms of percentage of population in that group, but also in actual numbers, as the 17-21 year

old population goes from over 20 million in 1980 to about 17 million in 1990.[1]

Coupled with this dramatic drop in eligible numbers of recruits, one must realize that the military is in direct competition with the private sector for the services of these young men and women. As the numbers available drop, unless the private sector's demands for labor decrease, employers will increase wages they pay (as long as there is a positive net return to them) so as to attain the supply of labor they require. It has been shown that the mean length of service is positively correlated to military wages, and negatively correlated to both civilian wage levels, and to the probability of finding alternative civilian employment.[2]

The fact that the real numbers of recruitable males is dropping is coupled with the realization that little can be done to raise the number. Some alternatives for coping with recruiting shortfalls which have been studied are: to recruit more women, to increase the number of careerists and, therefore, lower the turnover rate making additional recruits unnecessary, to turn more "military"

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[1]The National Commission for Manpower Policy, a Special Report of; Report 12, Demographic Trends and Full Employment, p. 27-99, December 1976.

[2]Manpower Research and Advisory Services Report to the Office of Naval Research, Naval Personnel Supply, p. 11, September 1979.

duties over to civilians, thus releasing service personnel to perform military-only duties; and, to lower entrance standards in order to keep projected population of acceptable recruits at an equivalent level. Each of these alternative measures must be studied carefully in order to foresee their long range implications.

C. JOB CORPS RECRUITING

The Department of Labor's Job Corps offers a group of youths from which the services can recruit. Many of the 17-21 year old youngsters in the Job Corps have limited economic alternatives, which may make the services a particularly attractive possibility for them. The questions this thesis will try to address are whether or not enlistees entering the military via the Job Corps are statistically different on quality and performance variables from the overall military enlistee population of recruits, and whether or not it is advisable for the services to recruit actively from the population of youths in the Job Corps.

II. THE DEPARTMENT OF DEFENSE/DEPARTMENT OF LABOR INTERFACE

From the end of World War II, until July 1, 1973, when the Universal Military Service and Training Act was allowed to expire, the services enjoyed an almost unlimited labor resource.[3] Faced with the "all-volunteer" force structure, the military services have been forced to compete with the private sector since FY74 for their manpower resource.

A. DOD/DOL MEMORANDUM OF UNDERSTANDING

As mentioned in the introductory chapter, many alternatives have been considered to alleviate the problems of shortfalls in recruiting. One of the ideas presently being tried began as a memorandum of understanding between Department of Defense (DOD) and Department of Labor (DOL) in December of 1977.[4]

This memorandum of understanding basically states that Department of Labor will establish military preparation activities in Job Corps Advanced Career Training Centers, and that the services will consider graduates of these activities for enlistment.[5]

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[3]The Rand Corporation, Military Manpower and the All Volunteer Force, p. 8, 1977.

[4]Department of Defense/Department of Labor Memo of Understanding on Job Corps Programs, 5 December 1977.

[5]Ibid.

B. BACKGROUND

The enactment of the Comprehensive Employment and Training Act (CETA) of 1973, consolidated many of the nation's employment and training activites under one administrative system. The CETA legislation was influenced by three major factors:[6]

- o a high rate of unemployment (>6% for the previous five years);
- o growing need to do away with racial discrimination as the civil rights movement gained momentum;
- o commitment at the national level to defeat and eliminate poverty.

The declaration of the "war on poverty" in 1964, and the passage of the Economic Opportunity Act (EOA), led to the consolidation of several employment and training programs under CETA. Among them, the Job Corps, "an intensive skill training program, usually in a residential setting, for disadvantaged youth.[7]

Consolidated as Title IV under CETA, the program was designed for 16-21 year old men and women who were "economically disadvantaged," or who came from an

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[6]The National Commission for Manpower Policy, a Special Report of; Report 23, CETA: An Analysis of the Issues, p. 33-37, May 1978.

[7]Ibid.

"economically disadvantaged" family. ("Economically disadvantaged" as far as eligibility goes may simply be read as unemployed). The program is expected to provide the enrollee with "classroom training, vocational training, and occupational exploration."[8] In addition, Job Corps Centers, which are sponsored by awards of funds to eligible operators on a competitive basis, are required to provide intensive remedial education, health and dental care, job development, and counseling.

In 1977, the President, as part of his economic stimulus program, expanded Job Corps by doubling its training availability from 22,000 to 44,000 positions. Congress was quick to point out to DOD and DOL that coordination regarding this pool of available talent would benefit both departments, and this resulted in the Memorandum of Understanding.

The complete Memorandum of Understanding is included as Appendix A. The following portions of that memorandum are extracted from the responsibilities and benefits section of the document and carry with them the spirit of the agreement.[9]

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[8]Congressional Budget Office, Congress of the United States, CETA Reauthorization Issues, August, 1978.

[9]Benefits and Responsibilities, portion of DOD/DOL Memorandum of Understanding, December, 1977.

Benefits

The DOD will be provided with:

- o a mechanism for the screening and selection of potential enlistees before entry into the military services, thus decreasing subsequent attrition among this group;

- o a setting for the assessment of innovative training techniques for prospective enlistees.

The DOL will be:

- o assisted in reaching the Administrative's goal of doubling the size of the Job Corps by the end of FY 1978;

- o provided additional means to expand job opportunities for Job Corps enrollees and to enable these enrollees to make responsible choices within as wide a range of career possibilities as is practicable, with increased potential for success in the chosen field.

Responsibilities

The DOD will be responsible to:

- o refer young people who are rejected for military service to the Department of Labor for possible enrollment in the Job Corps Advanced Career Training Centers or other training and

employment programs. Defense will provide the Department of Labor with information on the reason for the rejection in accordance with Privacy Act procedures.

- o have Mobile Examining Teams visit Job Corps centers to examine young people to determine whether they meet service entrance standards.

- o consider for enlistment graduates of the military preparation activity of the ACT centers, or graduates of other Job Corps programs who meet service standards. (No quotas will be established that would require the enlistment of any given number of Job Corps applicants at any time.)

The DOL will be responsible for:

- o establishing military component preparation activities in Job Corps Advanced Career Training (ACT) centers. These military activities will provide 3000 slots. The training period of an individual will be about six months;

- o aiming the military orientation of the program so as to raise verbal and arithmetic skills.

The memorandum further specifically delineates evaluation criteria. Stating that the program shall be reviewed by both departments initially three months after DOD accept the first graduates of the program, and then at six month intervals thereafter.

This thesis will look at the Job Corps' military population prior to the inception of Military Preparation Components (MPC). As military performance data become available from the MPS entrants to the military, a study could be conducted in order to evaluate the MPC program of the Job Corps.

III. THE DATA BASE

In this chapter, the available data will be discussed. The initial data base consisted of slightly more than 391,000 Job Corps personnel records. The records include Job Corps entrances as early as 1968, or prior to Job Corps consolidation under CETA, and as late as 1978, the point at which military preparation components came under discussion.

A. DATA REDUCTION AND RECODING

As would be expected of such a large data collection, some of the variable fields had either missing data or contained information which was out of the possible range of values. The first decisions to reduce the case numbers were made with the intention of merging the Job Corps record with the military cohort file, maintained by Defense Manpower Data Center (DMDC), in order to identify those members of Job Corps who had entered military service. Cases were removed from the original set of 391,000 cases if they met one or more of the following criteria:[10]

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[10] A complete breakdown of case deletion and division is included as Appendix B.

- o The social security number (SSN) was outside the range of those possible, and therefore, matching the person with the cohort file was impossible.
- o The sex variable was missing or contained other than the male/female code.
- o The reason for termination from Job Corps code showed death as the reason.

In addition to removing cases, each variable field of all the remaining cases was inspected and recoded to missing data codes if:

- o no entry was made in the field
- o the field contained unreadable characters
- o the value of the field was an unrealistic or non-existent code (i.e., a case where the highest year of education variable was equal to 80, when the range on the variable is 00-13).

As a result of these data screening procedures, the data base was reduced from 391,552 records to 384,590 records, a reduction of about 1.8%. The remaining Job Corps records were merged with military cohort records of those members of Job Corps who had entered the service either prior to or after their entrance to Job Corps.

B. MERGING JOB CORPS WITH MILITARY RECORDS

The 384,590 cases were divided into various subsets in order to leave the records of only non-prior-service

males. Around 104,000 women and 42,000 prior-service or duplicate record cases were removed, leaving a population of 238,350 non-prior-service males, 46,000 of whom entered the service after their Job Corps experience.

As can be seen from the data, roughly 20% of the non-prior-service males leaving the Job Corps entered the service at some point after they left Job Corps.

The Job Corps records and the military cohort records consist of data fields described in Appendix D. Some of the key variables included in the Job Corps data are: race, highest year education completed, reading level, General Education Development certificate (GED) status, and reason for termination from Job Corps. With these variables, it is possible to describe the population that entered the service, and this will be done in Chapter IV of this thesis. Furthermore, by using the Job Corps data as predictors of "success" in the military, recruiting selection screens might be developed which will lower the military attrition rates of Job Corps graduates entering the military.

As a measure of "success" in the military, the DOD uses interservice separation codes (ISC). According to these codes, a man is demonstrating success, or has been "successful," in the military, if:

- He is still on active duty (largely the reason why data after 1978 are not yet very useful);

- He finishes his term of enlistment and leaves the service with an honorable discharge;
- He moves from the enlisted ranks to an officer program.

These ISC codes are included in the military cohort records of all the Job Corps personnel who have left the service and are blank for those still on active duty. The codes were used as the success-nonsuccess criterion for this thesis.

The number of cases have at times in the study been reduced further. This has been done when attempts have been made to model, e.g., with multiple regression, Job Corps participants' military performance and then to test the model against data not included in the formulation of the model to see if predictive power was retained. At other times, reductions in number of cases used have occurred due to shortcomings in computer software coupled with the volume of data being manipulated, i.e., computer memory or time requirements were excessive. In all analyses where data were not used, the section describing the outcome gives the total number of cases considered.

IV. THE JOB CORPS PERSONNEL

In the analysis of the data from the Job Corps personnel records, there are two groups to be considered. First, the overall Job Corps group made up of all non-prior-service males whose records remained after the initial screening process described in Chapter III.

Second, data from the subgroup of this population consisting of those who actually entered the service were analyzed. The analyses described in this section are univariate in nature; multivariate analyses will be presented later in this thesis.

The Job Corps population as a whole is described using the Job Corps variables in the following tables. Included in these tables are percentages and actual numbers of personnel entering the service.

A. A DESCRIPTION OF THE JOB CORPS POPULATION

TABLE I

AGE AT ENTRY TO JOB CORPS

Age in Years	% of Population	# in Population	% Eventually Entering Military	# Entering Military
15	.1	283	21.6	61
16	34.9	82,445	23.6	19,482
17	28.3	66,758	20.7	13,848
18	16.4	38,864	17.8	6,916
19	10.5	24,829	14.6	3,635
20	6.2	14,712	11.2	1,655
21	3.3	7,904	8.8	697
22	.3	411	7.1	29
	100.0%	236,206		46,510

NOTE: The population consisted of 238,350 males entering the Job Corps between 1967-1978. Individuals with no entry for the variable were eliminated from the table. See Chapter III of this thesis for additional information.

TABLE II

LENGTH OF STAY IN JOB CORPS TRAINING

Days	% of Population	# in Population	% Entering Military	# Entering Military
0-30	25.6	60,941	21.5	9,997
31-60	12.4	29,451	11.8	5,448
61-120	15.8	37,635	16.8	7,777
121-180	8.3	19,719	9.6	4,484
181-240	12.8	30,511	13.9	6,490
241-1 yr	13.1	31,316	14.5	6,750
>1 yr	12.0	28,775	11.9	5,564
	100.0%	238,348		46,510

NOTE: The population consisted of 238,350 males entering the Job Corps between 1967-1978. Individuals with no entry for the variables were eliminated from the table. See Chapter III of this thesis for additional information.

TABLE III

READING LEVEL AT TIME OF ENTRY TO JOB CORPS

Grade Level	% of Population	# in Population	% Entering Military	# Entering Military
≤-4th	34.4	58,111	9.8	5,723
5th-6th	25.0	42,337	19.7	8,348
7th-8th	23.2	39,171	28.3	11,102
>-8th	17.4	29,553	32.1	9,515
	100.0%	169,172		34,688

NOTE: The population consisted of 238,350 males entering the Job Corps between 1967-1978. Individuals with no entry for the variable were eliminated from the table. See Chapter III of this thesis for additional information. Also, 69,000 (29%) of the Job Corps personnel records did not have B Score (reading level) grades. Out of these 69,000 records, 17% (11,730) of them joined the military.

TABLE IV

EDUCATIONAL LEVEL AT TIME OF ENTRANCE
TO JOB CORPS

# Years of School	% of Population	# in Population	% Entering Military	# Entering Military
0	9.9	23,486	15.3	3,605
1	0.0004	110	14.5	16
2	0.0005	123	10.6	13
3	0.1	257	5.8	15
4	0.2	520	5.0	26
5	0.5	1,150	6.9	79
6	2.0	4,832	8.6	417
7	5.6	13,453	14.0	1,880
8	17.2	41,067	18.2	7,477
9	26.7	63,665	21.9	13,931
10	21.7	51,667	22.7	11,732
11	10.1	24,040	19.4	4,674
12	5.8	13,784	19.0	2,618
13	0.1	187	12.3	23
Other	0.1	--	--	--
	100.0%	238,340		46,510

Note 1: The large number of cases included as 0 years of education indicate either missing data, or actual lack of education. The number in each category is not determinable from the data.

Note 2: The population consisted of 238,350 males entering the Job Corps between 1967-1978. Individuals with no entry for the variable were eliminated from the table. See Chapter III of this thesis for additional information.

TABLE V

POPULATION OF HOMETOWNS OF JOB CORPS TRAINEES

Size of Hometown	% of Population	# in Population	% Entering Military	# Entering Military
Under 2,500	14.8	31,981	19.2	6,152
2,500-50,000	30.0	65,041	20.8	13,516
50,000-250,000	18.0	38,912	21.2	8,244
Over 250,000	37.2	80,300	18.9	15,199
	100.0%	216,234		43,111

NOTE: The population consisted of 238,350 males entering the Job Corps between 1967-1978. Individuals with no entry for the variable were eliminated from the table. See Chapter III of this thesis for additional information.

TABLE VI

PLACEMENT STATUS LEAVING JOB CORPS

Placement	% of Population	# in Population	% Entering Military	# Entering Military
Job	46.8	111,589	16.4	18,355
Armed Forces	4.8	11,347	73.3	8,325
Training Program or School	10.7	25,630	19.5	5,008
Unknown	37.7	89,784	16.5	14,822
	100.0%	238,350		46,510

Note 1: The population consisted of 238,350 males entering the Job Corps between 1967-1978. Individuals with no entry for the variable were eliminated from the table. See Chapter III of this thesis for additional information.

Note 2: Placement status in Table VI was obtained from Job Corps data while percent entering service was found from merging Job Corps files with DMDC files. Hence, only 73.3% of those placed in Armed Forces according to Job Corps records actually entered the service.

TABLE VII

REASON FOR TERMINATION OF JOB CORPS TRAINING

Reason	% of Population	# in Population	% Entering Military	# Entering Military
Completion (Graduate)	25.5	60,723	24.3	14,782
Max Benefits Completed (Not Graduated)	0.9	2,054	11.7	240
Resignation	33.9	80,899	18.0	14,570
AWOL Discharge	21.3	50,812	19.0	9,646
Admin Discharge	3.3	7,925	20.0	1,582
Withdrawal of Parental Consent	3.1	7,438	15.6	1,164
Disciplinary Discharge	10.5	25,022	16.3	4,077
Medical	0.8	1,932	10.5	203
Missing Data	0.7	1,542	15.9	246
	100.0%	238,350		46,510

Note 1: AWOL means Absent Without Leave.

Note 2: The population consisted of 238,350 males entering the Job Corps between 1967-1978. Individuals with no entry for the variable were eliminated from the table. See Chapter III of this thesis for additional information.

TABLE VIII

RACIAL MAKEUP OF JOB CORPS

	Total in Group	% of Population
White	95,870	28.1
Black	202,150	59.2
Spanish	32,662	9.6
Asiatic	2,991	0.8
American Indian	8,060	2.3
	341,733	100.0%

NOTE: The population consisted of 238,350 males entering the Job Corps between 1967-1978. Individuals with no entry for the variable were eliminated from the table. See Chapter III of this thesis for additional information.

TABLE IX

RACIAL MAKEUP ENTERING PARTICULAR SERVICE FROM JOB CORPS

	Army	Navy	Air Force	Marine Corps	Inductee	Reserves
White	33.9	49.0	40.4	34.9	24.6	41.2
Black	55.9	42.7	50.6	52.7	56.2	48.8
Spanish	7.9	6.7	7.6	9.6	15.0	6.8
Asiatic	1.1	0.5	1.0	0.6	2.9	1.6
American Indian	1.2	1.1	0.4	2.2	1.3	1.6
	100.0	100.0	100.0	100.0	100.0	100.0
Total # Entering the Service	21,373	5,403	2,221	6,594	621	428

B. COMPARING THE JOB CORPS PERSONNEL TO THE MILITARY NON-PRIOR-SERVICE MALE POPULATION

In this section, a number of factors and measures of performance for the Job Corps enlistee population are compared with those from the non-prior-service (NPS) male military population as a whole.

1. Age at Entry to Military

The test selected for the analysis is the Kolmogorov-Smirnov non-parametric test. The null hypothesis will be rejected if the absolute difference between the Job Corps distribution and the NPS male population distribution equals or exceeds a predetermined critical value.

TABLE X

AGE AT ENTRY TO MILITARY

-Data are cumulative percentages

	17	18	19	20	21	22	23	24	25	30
F(x) Mil. Population	17.6	48.5	71.5	84.1	90.1	94.4	97.0	98.4	99.2	1.0
$F_N(x)$ Job Corps Pop.	23.2	52.0	71.1	83.1	90.4	94.7	97.1	98.5	99.2	1.0
$D=\|F(x)-F_N(x)\|$	5.7	3.5	0.4	1.0	0.3	0.3	0.1	0.1	0.0	0.0

NOTE: Each cell contains percent of population that age or younger at military entrance.

For N = 46,510

Critical Value for D = .756 α = .01

Result: Since the largest D value of 5.7 is greater than .756, we conclude the age distribution of the two populations are not equal. Observing that the largest differences are in the young years, by inspection it appears that Job Corps entrants to the military are younger at military entrance than are enlistees in general.

2. High School vs. Non-High School

The following table shows the percentage of high school graduates among the Job Corps personnel entering the military during the years 1971-1977.

TABLE XI

HIGH SCHOOL GRADUATES (%)

	1971	1972	1973	1974	1975	1976	1977
Job Corps Population	9%	11%	9%	16%	20%	11%	19%
Military Population	69%	68%	67%	61%	66%	70%	68%

NOTE: The military population is based on non-prior-service males' statistics compiled by the Defense Manpower Data Center. The Job Corps Data are based on 39,019 NPS males who entered the service from 1971-1977. Job Corps personnel entering the service prior to 1971 are eliminated from the study because military population data were not available.

With differences as large as shown in Table XI, a formal statistical analysis is not necessary. Suffice it to say, the enlistee entering via the Job Corps is less likely to be a high school graduate than is the average recruit.

3. Race

Continuing to compare the Job Corps enlistee population to the military as a whole, the next variable to be considered is race.

TABLE XII

RACE OF MILITARY NPS MALE ACCESSIONS

	1971	1972	1973	1974	1975	1976	1977
White	85%	84%	82%	78%	81%	81%	77%
Black	14%	15%	17%	21%	18%	17%	20%
Other	1%	1%	1%	1%	1%	2%	3%

TABLE XIII

RACE OF JOB CORPS PERSONNEL ENLISTING IN THE MILITARY

	1971	1972	1973	1974	1975	1976	1977
White	50%	46%	40%	43%	52%	47%	44%
Black	48%	52%	58%	54%	46%	49%	50%
Other	2%	2%	2%	3%	2%	4%	6%

The Job Corps enlistee population differs quite drastically in its racial makeup from that of the military enlistee population as a whole. The Job Corps enlistees in the military included a high proportion of minorities.

Table XIV gives a breakdown of race, and whether or not the individual entered the service. The Job Corps population was made up of over 70% blacks and other minorities (See Table VIII).

TABLE XIV

JOB CORPS PERSONNEL ENTERING
OR NOT ENTERING SERVICE - BY RACE

	Entered Service	Did Not Enter Service	% Who Entered Service
White	15,410	48,451	24.1%
Black	22,654	99,141	18.6%
Other	4,437	22,724	16.3%

NOTE: Table includes the 212,817 Job Corps Trainees who had race information available in their Job Corps records.

As can be seen, a higher proportion of white Job Corps personnel than minority personnel entered the services. Table XV shows the distribution of highest year of education for whites and highest year of education for minorities for Job Corps personnel entering the military.

TABLE XV

HIGHEST YEAR OF EDUCATION
AMONG JOB CORPS ENTRANTS TO THE MILITARY

	Highest Year of Education				
	<4	5	6	7	8
White	101 (114)	17 (27)	115 (141)	638 (635)	2866 (2434)
Black	176 (165)	40 (39)	218 (203)	940 (918)	3115 (3517)
Other	34 (33)	16 (8)	51 (40)	157 (181)	664 (694)
Total	311	73	384	1735	6645

	Highest Year of Education				
	9	10	11	12	TOTAL
White	4724 (4388)	3425 (3605)	999 (1368)	584 (757)	13,469
Black	5967 (6342)	5432 (5211)	2324 (1978)	1256 (1095)	19,468
Other	1290 (1251)	988 (1028)	413 (390)	228 (216)	3,841
Total	11981	9845	3736	2068	36,778

NOTE 1: Data in parentheses are expected frequences.

NOTE 2: Only 36,778 personnel records of the 46,510 who entered the military have highest year of education data available.

Chi-square = 443.8, $p << .01$.

df = 16

Using the highest year of education data, a Kolmogorov-Smirnov test was run to determine if there was a statistically significant difference between the distribution of years of education of white Job Corps enlistees and the distribution of years of education of minority Job Corps enlistees.

TABLE XVI

HIGHEST YEARS OF EDUCATION OF WHITE AND MINORITY JOB CORPS PERSONNEL ENLISTING IN THE MILITARY

(Data are Cumulative Percentages)

	<4	5	6	7	8	9	10	11	12
F(x) White Military Recruits	0.7	0.9	1.7	6.5	27.7	62.8	88.2	95.7	100
F(x) Minority Military Recruits	0.9	1.1	2.3	7.0	23.2	54.3	82.0	93.6	100
$D=\lvert F(x)-F_N(x)\rvert$	0.2	0.2	0.6	0.5	4.5	8.5	6.2	2.1	0.0

NOTE: Each cell contains percent of population with that many years of education or fewer.

N = 36,778

Critical Value for D = .709

α = .01

The conclusion is that the population of white recruits and minority military recruits from the Job Corps differ significantly in highest year of education completed.

4. Mental Group Comparison

As an individual is screened for enlistment, he is given a mental test and placed into a mental group (I-IV) according to his performance on the test. The Job Corps (JC) population entering the service is compared with the military population as a whole in the following table:

TABLE XVII

MENTAL GROUP ACCESSIONS FOR THE JOB CORPS AND NPS MILITARY MALE POPULATION

			Year of Service Entrance						
			1971	1972	1973	1974	1975	1976	1977
MENTAL GROUP	I	Military Population	5.0	4.2	3.7	2.8	3.3	4.5	6.5
		JC Recruit Population	0.6	0.4	0.3	0.5	0.5	1.2	1.0
	II	Military Population	30.2	30.9	31.1	30.6	32.8	35.0	32.4
		JC Recruit Population	8.3	8.6	13.2	12.1	16.2	16.3	9.5
	III	Military Population	43.5	48.2	51.8	56.3	57.5	55.5	56.4
		JC Recruit Population	46.6	53.3	22.1	67.9	76.2	74.0	79.7
	IV	Military Population	21.3	16.7	13.4	10.3	6.4	5.0	4.7
		JC Recruit Population	44.5	37.7	20.9	19.5	7.1	8.5	9.8

Legend: Mental Group IV = 9-31
III = 32-65
II = 66-93
I = 94-100

NOTE: Each cell contains the percentage of personnel (according to DMDC Records) from each population (Job Corps or military) who were classified in Groups I-IV during that year.

The data in Table XVII indicate that during any of the seven years for which there were data, those members of the Job Corps entering the military fell mainly into Mental Groups III and IV, and fell far below the percentages of the military population in Mental Groups I and II.

5. Summary of the Univariate Analyses

The comparisons between Job Corps and military enlistee populations have shown that the Job Corps entrant to the military is, on the average younger, more apt to be a minority, have fewer years of education, and more likely to be classified in a lower mental group than the average military recruit. These factors by themselves do not address the military performance of the Job Corps recruit. The next section of this thesis will address performance of Job Corps entrants to the military.

6. Comparing Inter-Service Separation Codes (ISC)

As described in Chapter III, "success" in the military, for the purpose of this thesis, will be measured utilizing Inter-Service Separation Codes (ISC).

Using frequency data obtained from DMDC for each year between 1971-1978, an expected number of Job Corps personnel who would be classified in each ISC was calculated. The following table was produced. A Chi-Square goodness of fit test was conducted for each year and then for the table as a whole.

TABLE XVIII

INTERSERVICE SEPARATION CODES RECEIVED BY JOB CORPS PERSONNEL ENTERING THE MILITARY EACH YEAR

	Year of Military Entry							
ISC	1971	1972	1973	1974	1975	1976	1977	1978
0	1747 (2743)	2927 (4646)	2084 (3541)	2636 (4306)	1904 (2882)	2785 (3782)	2589 (3143)	2622 (2893)
1	207 (175)	334 (336)	315 (267)	310 (339)	231 (203)	296 (287)	202 (189)	125 (106)
2	37 (94)	48 (142)	30 (102)	25 (89)	27 (50)	35 (58)	15 (29)	8 (14)
3	33 (19)	40 (32)	24 (24)	36 (29)	20 (18)	23 (21)	9 (11)	5 (15)
4-5	3 (39)	0 (50)	2 (27)	1 (19)	2 (14)	1 (20)	—	—
6-8	1921 (834)	3600 (1668)	3086 (1529)	4107 (2289)	2391 (1367)	2586 (1536)	1488 (916)	744 (472)
9	71 (114)	164 (238)	112 (163)	177 (220)	91 (133)	144 (167)	102 (103)	76 (81)
TOTAL	4019	7113	5653	7292	4666	5870	4405	3580
	5046	3012	Chi-Square Statistics 2288	2168	1137	1011	1474	196
df	7	7	7	7	7	7	6	6

Total Chi-Square = 16,331, $p << .01$

Total df = 54

NOTE 1: A full breakout of ISC codes is included as Appendix C. The following information gives broad categories of ISC codes for use in interpreting Table XVIII.

ISC Code	Broad Category
0	Release from active service
1	Medical disqualification
2	Dependency or hardship
3	Death
4	Entry into officer programs
5	Retirement (other than medical)
6-8	Failure to meet minimum behavioral or performance criteria
9	Other separations or discharges

NOTE 2: The expected frequency (computed from overall military performance for each of the above years) is in parentheses below the observed value in each cell. In group 4-5 for 1977 and 1978, observed and expected values were both zero.

The Chi-Square statistics obtained from the separate years are as large as to leave no doubt that the two populations, Job Corps and military men in general differ statistically.

As a further test, the population was grouped into success and non-success categories. (This dichotomization is also used later in this thesis when regression and automatic interaction detection techniques are applied to the data.) The following results were obtained:

TABLE XIX

SUCCESS VS. NON-SUCCESS IN THE MILITARY-JOB CORPS ENLISTEES COMPARED WITH THE NPS MALE MILITARY POPULATION

	Success (Note 2)	Non-Success
Job Corps	22,262 (47.9%)	24,243 (62.1%)
Expected Frequencies From Military as a Whole (Note 1)	29,809 (64.1%)	16,696 (35.9%)

$X^2 = 5322.16, p<<.01$

df = 1

NOTE 1: Expected frequencies were calculated using all NPS males who entered service between 1967 and late 1979.

NOTE 2: Success means he is still on active duty, or has been honorably discharged, or has moved to an officer program. (See Chapter III for complete definition).

NOTE 3: Expected proportion of successful enlistees for the military population as a whole is 64% from DMDC data 1971-1977. Success information prior to 1971 is not available.

The results of the Chi-Square analysis of the data in Table XIX clearly indicate that Job Corps participants are less apt to be successful in the military than are men-in-general who enter the military.

C. SUMMARY OF JOB CORPS POPULATION COMPARISON

The final conclusion drawn from the statistical analysis of the population of Job Corps participants who enter the military is that they do differ in a highly significant

manner from the men in general who enter the service. In addition, using these guidelines for "success" described in Chapter III, it is also apparent that the proportion of Job Corps participants who are "successful" in the military is smaller than the percentage successful among the population of men in general entering the military.

The facts concerning the Job Corps participants who enter the military are clear in the population overall; however, there may be groups that could be uncovered by multivariate analysis whose "success" potential would be well above the means success rate for the group as a whole. By identifying these "desirable" groups and directing recruiting programs at them, a better military recruit could be obtained from the Job Corps. These and other topics will be addressed in the next chapter.

V. DATA EVALUATION UTILIZING THE ORISIS COMPUTER SOFTWARE SYSTEM

The results presented in this chapter are based on data evaluation using the OSIRIS computer software system, which was jointly developed by the Centers of the Institute for Social Research, the University of Michigan and the Inter-University Consortium for Political Research.[11]

The system offers most of the standard statistical routines found in other software packages (e.g., SPSS and SAS) and in addition offers a program called Automatic Interaction Detector (AID3) which has been used extensively in the evaluation of these data.

A. AID3

The AID3 algorithm uses a repeated one-way analysis of variance technique to explain as much of the variance of a dependent variable as possible. It does this by using a dependent variable, a set of predicting characteristics, and some strategy parameters. It then examines the full data set using each predictor, and with each, searches for the "best" single division according to that predictor. "Best" means the largest reduction in error in predicting to which of two subgroups on that predictor each case

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[11] Sonquist, J. A., Baker, E. L., and Morgon, J. N., Searching for Structure, p. VIII, Institute for Social Research, 1973.

belongs.[12] This procedure is repeated until one of the stopping rules defined by the strategy parameters is met.

B. REGRESSION

Multiple linear regression was also used as a model for analyzing the data. Multiple regression, given a linear model of the form,

$$Y = B_o + B_1 X_1 + \ldots + B_N X_N$$

which finds the values of $(B_o,\ldots,B_N)$ which minimize $\Sigma(Yi-y)^2$ where Yi is the value of the dependent variable observed when values $(X_1,\ldots,X_N)$ are observed for the independent variables and Y is the model's predicted value.[13] In other words, regression minimizes the sum of squares between the observed value and the predicted value of the dependent variable.

Most statistical software packages contain a regression analysis program, and the OSIRIS version is easily implemented after an OSIRIS data set or "dictionary" is written. This "dictionary" allows one to access data from any program in the OSIRIS system without using long format statements to describe the input data. OSIRIS has the option of using standard FORTRAN format for input, but if multiple OSIRIS

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[12] Sonquist, J. A., Baker, E. L., and Morgon, J. N., Searching for Structure, p. 41, Institute for Social Research, 1973.

[13] Degroot, Morris H., Probability and Statistics, p. 509, Addison-Weslye, 1975.

program types are being implemented, it is easier and faster to spend the initial time creating a "dictionary" to circumvent the need for formatting input data.

C. MODELING THE MILITARY ENLISTEE WHO COMES FROM THE JOB CORPS

Using both AID3 and regression, the first goal was to model what characteristics differentiate the 20% of the Job Corps population who have joined the military from those who have not joined the military.

1. Regression Results

The OSIRIS stepwise linear regression program was used to discover which of nine variables chosen from a person's Job Corps record might best be used to predict whether or not that person joined the military. The model is based upon 12,615 cases picked at random from the total file of 240,000 non-prior-service Job Corps male records. The overall percentage of men entering the service from the random sample was 20.7% as opposed to 19.5% of the Job Corps file as a whole. The number of cases used to develop the model was limited by software capability.

The variables selected from the Job Corps records for use in the regression analysis were chosen if they represented ordinally scaled data or higher (interval or ratio scaled data).

The variables chosen from the Job Corps file for use in the regression analyses are shown in Table XX, and the results of the regression are shown in Table XXI.

TABLE XX

KEY VARIABLES USED FOR PREDICTION OF MILITARY ENLISTMENT

Hometown Population Size

Variable Value	Size Hometown
1	<2,500
2	2,500 - 50,000
3	50,000-250,000
4	>250,000

B-Score (Reading Level)

Variable Value	Reading Skill Grade Level
0 - 9	<4th
10-14	5th-6th
15-19	7th-8th
20-25	>8th

Reason for Termination From Job Corps

Variable Value	Reason for Termination
1	Completion of training (graduate)
2	Max benefits completed
3	Resignation
4	Admin discharge (parental consent withdrawn)
5	Admin discharge
6	Medical discharge
7	AWOL discharge
8	Disciplinary discharge

School Level

Variable Value	School Level
1	Non-high school
2	GED graduate
3	High school graduate

TABLE XXI

PREDICTION OF MILITARY ENLISTMENT FROM JOB CORPS VARIABLES

	Variable	Range	B	Beta	Marginal R-Squared
1.	Hometown Population	1-4	-.0029	-.0077	.0001
2.	B-Score (reading level)	0-25	.0135	.2151	.0419
3.	Highest Year of Education	0-13	.0138	.0595	.0026
4.	Job Corps Entrance Year	67-78	.0002	.0011	.00
5.	Job Corps Termination Year	70-78	-.0249	-.1584	.0005
6.	Reason for Termination from Job Corps	1-8	-.0069	-.0429	.0013
7.	Length of Enrollment	0-886	.0001	.0234	.0002
8.	Age at Entry to Job Corps	14-24	-.0379	-.1313	.0147
9.	School Level	1-3	.0112	.0148	.0002
	Constant Term	2.387			
	Multiple correlation Coefficient	.3043			
	Proportion of variance explained	.0926			

NOTE: Those variables which require additional explanation are shown in Table XX.

The fraction of variance explained or R-square value is .0926 which, while not indicating a particularly powerful model has been produced, is comparable with R-squares attained in, for instance, military attrition prediction models (see, for instance, Sands, 1977). In addition, using the model on new data, an R-square value of 0.0770 was

obtained, showing that the model retains its validity. The variables with the strongest associations with enlistment were (see Table XXI): B-score (reading level), termination year, and age at entry. Termination year is negatively correlated to joining or not joining the service, which is perhaps to be expected since the later a person leaves the Job Corps, the less time he has had to chose the military as an option.

B-score and age at entry being positively and negatively correlated to enlistment, respectively, indicate that the younger more skillful reader from the Job Corps population is more apt to be enlisted into the military.

2. AID3 Results

AID3, when applied to a sample of 15,744 cases, showed a Job Corps military entrance percentage of 19.8% or within 0.3% of the Job Corps file as a whole.

AID3 was used to determine what percentage of each of a number of different subgroups joined the military. Some interesting subgroups were developed by AID3; the results supported the findings from the linear regression analysis.

AID3 split the cases as shown in Table XXII.

TABLE XXII

AID3 ANALYSIS OF MILITARY ENLISTMENT USING JOB CORPS VARIABLES AS PREDICTORS

Group Description	No. In Group	% of Group Entering Military	Percentage of Entire Job Corps Military Population (Note 2)
I. Eligible for GED Training in Job Corps, and:			
A. Age Entering Job Corps ≤18 and;			
1. Completed GED	1274	38.4	15.7
2. Did not complete GED and;			
a. B-Score ≥15	1464	32.7	15.3
b. ≥10 B-Score ≤15	591	20.0	3.8
c. No B-Score recorded	889	22.8	6.5
B. Age Entering Job Corps >18	955	15.8	4.8
II. Not Eligible for GED Training in Job Corps and;			
A. B-Score ≥15 and;			
1. Age <18	1403	28.6	12.8
2. Age ≥18	943	19.9	6.1
B. 10≤ B-Score ≥15	2015	17.1	11.1
C. No B-Score recorded	2921	15.0	14.0
III. B-Score <10	3289	9.3	9.9
Total	15,744		100.0

NOTE 1: Data are for a sample from years 1970-1978.

NOTE 2: Calculated as: number entering military from this Job Corps group ÷ total number of Job Corps entrants into the military.

At this point, using those nominal scale variables indicated by AID3 to be most predictive of enlistment, it is possible to go back to the regression model and use a binary predictor variable to indicate GED status (0/1=not-eligible/eligible). This regression model is shown in Table XXIII.

TABLE XXIII

IMPROVED REGRESSION ANALYSIS FOR PREDICTING MILITARY ENLISTMENT FROM JOB CORPS VARIABLES

Variable	Range	B	Beta	Marginal RSQD
1. B score (reading level)	1-4	.0119	.1897	.0301
2. Job Corps Termination Year	70-78	-.0247	-.1573	.0238
3. Age at Entry to Job Corps	14-24	-.0349	-.1209	.0130
4. Eligible for GED	0-1	.0706	.0807	.0057
5. Highest Year Education Completed	0-13	.0150	.0649	.0035
Constant Term		2.311		
Multiple Correlation Coefficient		.307		
Proportion of Variance Explained (RSQD)		.0943		

NOTE: This model has only a slightly higher R-Squared than the previous regression (Table 21) which had an R-Squared of .0926. When tested on 11,917 new cases, the model had an R-Squared value of .0582.

With an R-squared of .0943 using only 5 variables (vs. 9), the model has a slightly increased (over the analysis shown in Table XXI) predictive power from using AID3 information. (That is, AID allowed identification of nominal data that could be grouped into binary indicator variables in order to improve the linear fit.)

One additional regression using binary (0/1) indicator variables to indicate Job Corps school level, hometown size and white or minority was tried. This resulted in an R-square value of .085. Once again, the validity of the predictive model was not overwhelming.

D. SUCCESS IN THE MILITARY

Success in the military, as previously defined in Chapter III, is predicted using key Job Corps variables, just as entrance/non-entrance into the military was modeled in the previous section.

Variables were chosen initially with the idea that they would be available to a recruiter and he could use them to predict success in the military prior to enlisting a recruit.

Variables selected for the regression are shown in Table XXIV, and the regression results are shown in Table XXV.

TABLE XXIV

KEY VARIABLES USED FOR PREDICTION
OF "SUCCESS" IN THE MILITARY

Hometown Population Size

Variable Value	Size Hometown
1	<2,500
2	2,500-50,000
3	50,000-250,000
4	>250,000

B-Score (Reading Level)

Variable Value	Reading Skill Grade Level
0-9	<4th
10-14	5th-6th
15-19	7th-8th
20-25	>8th

Reason for Termination from Job Corps

Variable Value	Reason for Termination
1	Completion of training (graduate)
2	Maximum benefits completed
3	Resignation
4	Administrative discharge (parental consent withdrawn)
5	Administrative discharge
6	Medical discharge
7	AWOL discharge
8	Disciplinary discharge

School Level

Variable Value	School Level
1	Non-High School
2	GED Graduate
3	High School Graduate

TABLE XXIV (Contd)

Marital Status

First Digit

1	Unmarried, divorced, etc.
2	Married

Second Digit

1	No dependents
2	One dependent
3	Two dependents
4	Three dependents

(i.e., 24 indicates married with three dependents)

AFQT Group

Variable	Group	AFQT Score
8	I	93-100
7	II	65-92
6	IIIU	50-64
5	IIIL	32-49
4	IVA	22-31
3	IVB	17-21
2	IVC	10-16
1	V	1-9

TABLE XXV

REGRESSION ANALYSIS OF "SUCCESS" IN THE MILITARY

Variable	Range	B	Beta	Marginal RSQD
1. Hometown Population	1-4	-.0169	-.0365	.0013
2. Highest Year Education	0-13	.0114	.0355	.0009
3. B Score (reading level)	0-25	-.0001	-.0013	.00
4. Job Corps Entrance Year	67-78	.0191	.0895	.0002
5. Job Corps Termination Year	70-78	.0080	.0372	.00
6. Reason for Job Corps Termination	1-8	-.0079	-.0397	.0011
7. Length of Enrollment in Job Corps (days)	0-877	.0004	.1355	.0060
9. Age at Entry to Job Corps	14-26	-.0083	-.0202	.0002
10. Age at Entry to Military	17-26	.0252	.0979	.0043
11. Marital Status	11-24	.0060	.0633	.0018
12. AFQT Group	1-8	-.0159	-.0369	.0012

Constant Term	-1.92
Correlation Coefficient	0.278
Proportion of Variance Explained (RSQD)	0.077

Note 1: 10,065 cases are included in this regression. analysis. When tested on 11,997 new cases, the model had an R-square value of .0760.

Note 2: Those variables which require additional explanation are shown in Table XXIV.

Note 3: See Chapter III for a discussion of how success is defined.

As in the previous regression analysis (predicting entrance/non-entrance), the R-Squared value in Table XXV is not very large, and the resulting model will not yield particularly accurate predictions.

Length of Job Corps enrollment is positively correlated with success, as is higher age at entry to the military, being married, and being a member of a higher AFQT group. The predictor with the largest negative relationship with success is reason for termination from Job Corps. This would be expected since lower numbers for this variable indicate a successful completion of Job Corps training, and higher numbers indicate termination of training prior to completion for various administrative or behavioral reasons.

Using AID3 with these same data, the subgroups shown in Table XXVI were identified.

Table XXVI supports the regression analysis and puts increased emphasis on the completion of Job Corps as a measure of expected success in the military. One explanation of this might be that those persons entering Job Corps find a regimented lifestyle, and completion of the Job Corps training indicates they were able to adapt to this lifestyle. Those entering the military find a way of life in some ways similar to their Job Corps experience. If they can adapt to Job Corps training, they are also apt to complete their military enlistment without problems.

TABLE XXVI

AID3 ANALYSIS OF "SUCCESS" IN THE MILITARY

	Job Corps School Level (Note 3)		
	NHS	GED	High School
Completed Job Corps Training (see Note 2)	57.3%	60.6%	76.7%
Did Not Complete Job Corps Training	40.7%	54.0%	55.9%

Note 1: Variables used to construct Table XXVI are Job Corps variables as defined in Appendix D. 7,706 cases were used to construct Table XXVI.

Note 2: Completion of Job Corps training was defined as receiving COM or CMX codes for reasons for termination from Job Corps, see Appendix D for explanation of Job Corps variables.

Note 3: Job Corps School level variable was constructed from Job Corps highest year of education data and Job Corps GED status variable. (See Appendix D, Variable 24.)

Note 4: Success is defined as still on active duty or has completed enlistment with honorable discharge or has entered an officer program. (See Chapter III for further explanation.)

Approximately one-quarter of all Job Corps entrants complete (either graduated or exhausted the maximum benefits possible) Job Corps training. Even non-high school Job Corps personnel who complete Job Corps training are in a higher military success category than personnel with any educational background in the "did not complete" Job Corps category. (See Table XXVI.) Assuming 40,000 personnel enter the Job Corps annually, it

would be expected that approximately 10,000 (25% of 40,000; see Table VII) of them would complete Job Corps training each year, and their military success rate would be 59.8% (combining all educational levels and weighting by a number of cases). As compared with the overall military success rate of 64% (see Chapter III), the group who completed Job Corps training is much more desirable to recruit than the Job Corps population in general, which has a military success rate of only 47% (see Table XIX).

An additional regression was run using Job Corps hometown size, school level, and white/minority variables as binary (0/1) indicator variables and trying to predict success in the military with them. An R-square value of .069 resulted. This model was less successful than the previous regression at predicting success in the military using Job Corps variables. (See Table XXVII.)

Another regression was run using binary (0/1) indicator variables to represent the following: Job Corps hometown size, school level, white/minority, resignation from Job Corps, and medical or administrative discharge from Job Corps. The year of termination from Job Corps was removed as a continuous variable. This regression resulted in an R-square value of .0521. This model was slightly less successful than the previous regression at predicting success in the military. (See Table XXVIII.)

E. COMPARING MILITARY "SUCCESS" RATES WITH ENLISTMENT RATES

Using AID3, a set of cases may be divided into predefined groups established by the investigator. This feature of AID3 was used to determine if there were groups which might have high military "success" rates, but low military entrance rates. Such groups could be good targets for military recruiting. The analysis yielded the results shown in Table XXIX.

TABLE XXVII

REGRESSION MODEL PREDICTING "SUCCESS" IN THE MILITARY USING BINARY JOB CORPS VARIABLES

Variable	Range	B	Beta	Marginal R-Square
1. Hometown population less than 2,500	0-1	Note 2		0.00
2. Hometown population between 2,500 and 50,000	0-1	-0.0156	-0.0147	0.0002
3. Hometown population between 50,000 and 250,000	0-1	Note 2		0.00
4. Hometown population Greater than 250,000	0-1	-0.0504	-0.0470	0.0017
5. Highest year of education from Job Corps record	0-13	0.0127	0.0387	0.0010
6. B-Score (reading level)	0-25	0.0002	0.0017	0.00
7. Job Corps termination year	70-78	0.0303	0.1402	0.0183
8. Job Corps length of enrollment (days)	0-856	0.0004	0.1300	0.0092

TABLE XXVII (Contd)

Variable	Range	B	Beta	Marginal R-Square
9. Age at entry to Job Corps	14-26	0.0110	0.0271	0.0006
10. Eligible for GED	0-1	0.0172	0.0171	0.0002
11. White or Minority Race	0-1	Note 2		0.00
12. Completed Job Corps (see Note 3)	0-1	0.0556	0.0532	0.0015
13. Non-High School Grad (see variable 24, Appendix D)	0-1	-0.0137	-0.0116	0.0001
14. GED (see variable 24, Appendix D)	0-1	Note 2		0.0001
15. High School Grad (see variable 24, Appendix D)	0-1	0.1006	0.0461	0.0011
Constant Term		-2.1096		
Correlation Coefficient		0.26364		
Proportion of Variance Explained (RSQD)		0.06951		

Note 1: 5141 cases were considered in this analysis.

Note 2: A variable was not made a part of the regression equation if the value of its F level was below 0.01.

Note 3: A person who receives a COM or CMX code on his Job Corps record is considered to have completed Job Corps. For a full description of Job Corps variables, see Appendix D.

TABLE XXVIII

REGRESSION MODEL PREDICTING "SUCCESS" IN THE MILITARY USING BINARY MILITARY AND JOB CORPS VARIABLES

Variable	Range	B	Beta	Marginal R-Square
1. Hometown population less than 2,500	0-1	0.0480	0.0346	0.0009
2. Hometown population between 2,500 and 50,000	0-1	0.0400	0.0376	0.0010
3. Hometown population greater than 250,000	0-1	0.0551	0.0437	0.0015
4. Highest year of education from Job Corps record	0-13	0.0551	0.0437	0.0015
5. White or minority race	0-1	0.0263	0.0259	0.0005
6. B-score (reading level)	0-25	0.0018	0.0197	0.0003
7. Length of enrollment in Job Corps (days)	0-856	0.0004	0.1356	0.0099
8. Reason for termination from Job Corps was graduation (Note 2)	0-1	0.0546	0.0520	0.0011
9. Reason for termination from Job Corps was completed maximum benefits (Note 2)	0-1	0.1082	0.0181	0.0003
10. Reason for termination from Job Corps was resignation (Note 2)	0-1	-0.0193	-0.0178	0.0002

TABLE XXVIII (Contd)

Variable	Range	B	Beta	Marginal R-Square
11. Reason for termination from Job Corps was medical or admin discharge (Note 2)	0-1	0.0045	0.0018	0.00
12. GED (Note 3)	0-1	0.0325	0.0249	0.0004
13. High School Graduate (Note 3)	0-1	0.1026	0.0470	0.0016
14. Married or unmarried from military records	0-1	0.0662	0.0237	0.0006
Constant Term		-0.12664		
Correlation Coefficient		0.22817		
Proportion of Variance Explained		0.05206		

Note 1: 5141 cases were considered in this analysis.

Note 2: Reason for termination variable and all other Job Corps variables are explained in Appendix D.

Note 3: See Variable 24, Appendix D, for criteria used to place person in school level category.

TABLE XXIX

COMPARING RATE OF ENTRANCE
AND "SUCCESS" IN THE MILITARY

Group Description	% of Group Entering Military	Of Those in Group Entering Military, % Who Successful (Note 1)
I. Completed Job Corps Training (Note 2)	19.1	76.7
A. High School Grad	19.1	76.7
B. GED	31.7	60.6
C. Non-High School	20.2	57.3
II. Did Not Complete Job Corps Training		
A. High School Grad	21.0	55.9
B. GED	37.6	54.0
C. Non-High School	17.5	40.7

NOTE 1: Success rates are taken from Table XXVI and success is defined as Note 4, Table XXVI.

NOTE 2: Completion of Job Corps training is defined as having received a COM or CMX code as reason for Job Corps training termination. (See Appendix D).

NOTE 3: 7,706 cases were used to construct Table XXIX.

Table XXIX shows that although personnel who complete Job Corps and who are high school graduates (about 3% of the cases on the Job Corps file have a military success rate of 76.7%, they join the military at the rate of only 19.1%.

If 40,000 personnel join the Job Corps annually, it would be expected that 1200 (3%) of them would be high school graduates who would eventually complete the Job Corps training program. (This should not be read as saying only 3% of high school graduates entering the Job Corps finish their Job Corps training.) A recruiting campaign aimed at these individuals (possible offering career guidance are highlighting available training opportunities) has an excellent change to increase recruiting potential and provide high "success" rate personnel. This is a potential which would be exploited by the Military Preparation Components (see Chapter II) and the military services.

F. SHORTCOMINGS OF AID3

AID3, which was used extensively in this analysis, has several shortcomings which severely hamper its large scale use. Since AID3 utilized single precision mathematics (i.e., only approximately eight decimal places of accuracy) computational problems occur. In the case of the Job Corps data, 16,000 cases were the maximum number which could be run using AID3. In addition to the single precision problem, computer time (wall clock time rather than central processing unit

(CPU) time) grows unmanageably as the number of cases increase. A solution to this second problem was worked out using a high speed storage drum for part of the program itself in order to reduce input/output slowdowns. The final program took approximately four minutes of CPU and one hour of wall clock time to process 15,890 cases (using an IBM 360/67).

VI. CONCLUSION

A. INTRODUCTION

With the demographic problems (described in Chapter I), facing the military services in the next ten years, it is going to be very difficult for the services to meet their recruiting goals. The services are faced with the challenge of filling their ranks with skilled and dedicated young men and women capable of working in the evermore technologically oriented military. This thesis has studied the Job Corps as a source of young male personnel and examined their performance in the military.

In addition to the challenge of recruiting enough men, the increasing cost of recruiting and training these individuals has dictated that the services must enlist the right kind of personnel. The enlistment selection process must be done carefully in order to maximize the odds that individuals will be successful in the military.

B. SELECTION USING TRADITIONAL VARIABLES

Presently, the screening table used by recruiters to select male recruits uses variables such as years of school completed, age and AFQT performance (mental group). In Table XXX, a screening table for use with male Job Corps personnel, is shown.

TABLE XXX

"SUCCESS" RATE OF JOB CORPS ENLISTEES IN THE MILITARY: USING TYPICAL SCREENING VARIABLES

MENTAL GROUP	AGE: 18 or Less, Non-High School	AGE: 18 or Less, High School	AGE: 19 or More, Non-High School	AGE: 19 or More, High School
I	46.3	60.5	46.2	75.8
II	35.6	43.0	49.2	60.4
III	38.6	49.3	44.2	61.8
IV	40.6	46.2	51.5	60.9

NOTE 1: All variables in Table XXX are from military records on DMDC data files.

NOTE 2: Success is defined as still on active duty, or was honorably discharged from service or has entered officer program. (See Chapter III for discussion of success in military.)

NOTE 3: Data from GED holders are not included in this table.

Utilizing the success criterion described in Chapter III (still on active duty, receiving an honorable discharge or entering an officer program), the Job Corps personnel have success rates as shown in Table XXX.

Keeping in mind that the military non-prior-service male population as a whole has a "success" rate of approximately 60%, (see Chapter IV for military success rate), it is obvious that few of the groups shown in Table XXX exceed a success rate of 60% by very much. Therefore, few of the

groups would be eligible for enlistment if a 60% "success" rate were a criterion.

C. SELECTION USING JOB CORPS DATA

Using variables available from Job Corps records, the recruiter would have additional knowledge (beyond that available for most recruits) of a man's background and characteristics. As stated in Chapter V of this thesis, the fact that a man finishes his Job Corps Training (receives either a COM or CMX code on his Job Corps termination record)[14] historically has given him a 60% "success" rate in the military, while those who leave Job Corps prior to completion of training for any reason, have only a 42% "success" rate.

Expanding on this Job Corps completion variable gives further insight into a man's expected "success" rate in the military. Table XXXI shows the pertinent results.

TABLE XXXI

USING JOB CORPS VARIABLES TO PREDICT "SUCCESS" IN THE MILITARY

	Non-High School or GED	High School Graduate
Completed Job Corps Training (COM or CMX code)	58.4	73.1
Did not Complete Job Corps Training (any other codes)	55.0	41.5

NOTE: "Success" is defined in Chapter III of this thesis.

[14]See Appendix D for full description of Job Corps variables.

With the "success" chart shown in Table XXXI, it is possible to place prospective recruits with Job Corps backgrounds into expected success categories using only two Job Corps variables.

In Table XXX, only the group labeled "High school graduate over 19 years of age" is broken out as having a high success rate. Using Table XXXI along with Table XXX provides the recruiter with additional probability of "success" information.

Table XXXII is an example of a success table expanded with the Job Corps completion variable (i.e., a code of COM or CMX is considered completion, see Appendix D).

TABLE XXXII

USING MILITARY AND JOB CORPS VARIABLES
TO PREDICT SUCCESS IN THE MILITARY

			≤18		>18	
			Non-High School	High School	Non-High School	High School
MENTAL GROUP	I	Completed J.C.	33.3	45.5	93.8	78.0
		Not Completed J.C.	32.4	50.0	59.4	74.0
	II	Completed J.C.	38.8	52.5	46.0	67.8
		Not Completed J.C.	37.3	45.1	41.3	54.4
	III	Completed J.C.	51.3	48.5	61.4	66.4
		Not Completed J.C.	35.6	40.4	44.4	58.1
	IV	Completed J.C.	56.9	54.9	61.0	68.0
		Not Completed J.C.	36.4	41.6	47.3	55.7

NOTE 1: Age, mental group and high school/non-high school are military record entries and completed/not completed Job Corps is a Job Corps record entry. 15,464 cases were used to construct Table XXXII.

NOTE 2: Success in the military is defined as still on active duty, or has completed enlistment and received an honorable discharge or has entered officer program.

As can be seen by carefully studying Table XXXII, completion of Job Corps in Mental Groups III and IV (approximately 90% of all Job Corps enlistees fall into these two groups) is indicative of increased success rates in those groups. By using this key factor of Job Corps completion in a screening table, the recruiter gains additional insight into the attrition rates of prospective enlistees with a Job Corps background, and can better target his recruiting efforts.

D. THE OPPORTUNITY FOR FURTHER STUDY

The military preparation components (MPC) described in Chapter II of this thesis will provide those personnel interested in entrance to the military with an opportunity to improve their desirability to the services. As a six month Job Corps training program, MPC completion would be expected to give the potential recruit a much higher success potential than that of the personnel who drop out of the Job Corps training--for whatever reason. This will be an interesting opportunity for further study as attrition data become available for Job Corps MPC trained personnel.

Additional Job Corps data of the type described in Chapter III are presently available for women and for individuals having multiple military entrance records (more than one enlistment). These data were not used in this thesis, but could provide the basis for future research.

APPENDIX A

MEMORANDUM OF UNDERSTANDING BETWEEN DEPARTMENT OF LABOR AND THE DEPARTMENT OF DEFENSE FOR SUPPORT OF YOUTH EMPLOYMENT AND TRAINING PROGRAMS

The Secretary of Labor and Secretary of Defense agree to the following policies, procedures and conditions under which the Department of Labor and the Department of Defense will cooperate on youth employment and training programs administered by the Department of Labor.

Background

The Armed Forces represent a major source of employment and training for youth. Each year some 400,000 young people age 18 to 24 enter the Armed Forces. The military absorbs roughly a third of all non-college bound males.

In March 1977, the President presented plans for implementing his economic stimulus program. As part of these economic stimulus measures, employment and training programs for civilian youth were dramatically expanded. Congress has enacted legislation requested by the President which will provide employment and training opportunities to an additional 400,000 young people during FY 1978. As part of this expanded youth program, the Job Corps will double from 22,000 to 44,000 training slots.

There is increasing recognition in Congress, the Department of Defense, and the Department of Labor that coordination should occur regarding military and civilian activities dealing with the same groups. Persons in need of training assistance for both military and civilian employment can derive great benefit from such coordinated activities.

Benefits

The creation of linkages between the Department of Defense and the Department of Labor offers several advantages to each agency, in addition to the opportunity to demonstrate that government agencies are capable of cooperative efforts to deal with pressing national needs on a timely basis. Some of the advantages are the following:

The Department of Defense will be provided with:

- o A mechanism for the screening and selection of potential enlistees before entry into the military services, thus decreasing subsequent attrition among this group;

- o A setting for the assessment of innovative training techniques for prospective enlistees.

The Department of Labor will be:

- o Assisted in reaching the Administration's goal of doubling the size of the Job Corps by the end of Fiscal Year 1978;

- o Provided additional means to expand job opportunities for Job Corps enrollees and to enable these enrollees to make responsible choices within as wide a range of career possibilities as practicable, with increased potential for success in the chosen field.

Job Corps

Department of Labor Responsibilities:

-- Establish military component preparation activities in Job Corps Advanced Career Training (ACT) centers. These military component preparation activities will provide 3,000 training slots. The training period for each individual will be about six months. Approximately 3,000 graduates per year are expected to meet the criteria for entering military service.

-- The ACT center will provide enrollees with intensive individualized testing, counseling, education, and training services to enable the enrollees to make intelligent career decisions. The military orientation of the program will be aimed at raising verbal and arithmetic skills.

Department of Defense Responsibilities:

-- Refer young people who are rejected for military service to the Department of Labor for possible enrollment in Job Corps Advanced Career Training Centers or other training and employment programs. Defense will provide the Department of Labor with information on the reason for the rejection in accordance with Privacy Act procedures.

-- Have Mobile Examining Teams visit Job Corps Centers to examine young people to determine whether they meet Service entrance standards. Applicants failing the test will be retested no earlier than six months from the previous test, as is consistent with current policy of the Services.

-- Consider for enlistment graduates of the military component preparation part of the ACT centers, or graduates of other Job Corps programs, who meet Service mental, physical, medical, and moral standards for enlistment.

-- Provide the Department of Labor with Service standards for enlistment for each military occupational specialty.

-- Provide assistance to the Department of Labor in the establishment of the training program by participating in development of the program design, counseling materials and curricula.

-- Provide the Department of Labor with applicable military course materials.

-- Establish a system for tracking graduates of Job Corps centers who enter Military Service to attempt to measure the impact of the Job Corps training on performance in the military.

Conditions for Enlistment of Job Corps Graduates

-- Job Corps graduates who desire to enter military service are required to meet service enlistment standards in effect at the time of application for enlistment.

-- Military enlistment standards are subject to change.

-- Job Corps enlistments for specific military jobs or training will be subject to availability of vacancies in the desired skill. Job Corps graduates will be advised of alternative opportunities for enlistment.

-- The Services may not be able to enlist qualified personnel on the date they complete Job Corps training. The Services will consider enlisting them in delayed entry programs which specify a future date for reporting to active duty.

-- No quotas will be established that would require the enlistment of any given number of Job Corps applicants in a specific period of time or into a specific service or specific skill area.

Facilities and Equipment Support

With regard to all relevant youth employment and training programs, the Department of Defense will:

-- Assist the Department of Labor in acquiring excess military facilities.

-- Pursuant to regulations of the General Services Administration, furnish to the Department of Labor excess equipment, supplies and Government-owned contractor inventory.

-- Lend to the Department of Labor Defense equipment and Government-owned industrial manufacturing equipment, if such loans would not adversely impact on the Defense mission.

Implementation of Coordination

As necessary, the details of the above memorandum of agreement will be governed by expanded memoranda of understanding to be mutually agreed upon between the two Departments and by coordination between responsible staff officials of the two Departments.

The effectiveness of the procedures outlined in this program will be evaluated three months after the initial Job Corps graduates are accepted by DoD. Further evaluations will be made at six-month intervals thereafter, and they will take into account all suggested and agreed-upon revisions from the first evaluation.

Secretary of Labor	Secretary of Defense
Date	Date

APPENDIX B

RECODING AND SEPARATION OF DATA

ORIGINAL JOB CORPS CASES	391,552
Removed for:	
-- SSN out of range	6,689
-- Indeterminate Sex Code in Job Corps Data	87
-- Death Listed as Reason for Termination from Job Corps	186
NUMBER OF CASES AFTER FIRST SCREENING	384,590
CATEGORIES DATA DIVIDED INTO	
Non Prior Service Males	238,350
Women	104,352
Prior Service Males/Duplicate Records	41,888
NON-PRIOR-SERVICE MALES	
Entered Service	46,510
Did Not Enter Service	191,840

APPENDIX C

INTERSERVICE SEPARATION CODES

The Interservice Separation Codes (ISC) were developed to enable meaningful cross-service comparison of separation reason for both enlisted and officer personnel. Originally developed with Separation Program Numbers (SPN), the ISC codes are now based on the DoD Standard Data Element, Separation Program Designator (SPD). ISC codes, in addition to providing cross-service comparisons, now also enable longitudinal comparison of separation reason in spite of the change from SPN to SPD.

ISC codes are meaningful at the 1 and 2 digit level. The first position of the code puts the cause for separation in a broad category (e.g., 0=Release from Active Service), the second position specifies the cause within that broad category (e.g., 03=Early Release to Attend School).

For officers, the ISC code is a direct conversion from the SPD code. For enlisted personnel, ISC codes are an interaction between SPD and character of service. Most often, a man who fails to meet minimum behavioral or performance criteria for retention in the Armed Services will be given an SPD which reflects this failure. For a separation of this type, it is quite easy to pin down the cause for the man's separation. Occasionally, however, a man will receive an SPD which implies a successful tour, paired with a character of service that is other than "Honorable." Here the implication is clear that the man failed, in some way, to perform at the level expected, but where the man failed is not clear under this set of circumstances. The ISC coding, in order to reflect this failure, would assign a man, under these circumstances, a code of 82: Unsuitability (Reason Unknown). It is important to note that this occurs only when the man's SPD implies a successful completion and the character of service is other than "Honorable." More specifically if the man has a character service other than "Honorable" and his SPD would yield an ISC of 01-08, 10-16, 22, 40-42, 50-52, 90, 98 or 99, this man would be assigned an ISC code of 82 Unsuitability (Reason Unknown).

Interservice Separation Codes
Part I: Enlisted

00 Transactions
FHC, KHC, MHC. Air Force: 475, 490, 491, 493, 900-912
Marine Corps: JKF.

0 Release from Active Service

01 Expiration of Term of Service
FBK, FBL, JBK, KBK, KEA, KEC, LBK, MBK, MBN, MEA, MEC

02 Early Release - Insufficient Retainability
JBM, JED, KBM, LBM, LED, MBM. Air Force: J10

03 Early Release - To Attend School
KCE, KCF, MCE, MCF

04 Early Release - Police Duty
KCG, MCG

05 Early Release - In the National Interest
JDJ, KCK, KDJ, MCK, MDJ

06 Early Release - Seasonal Employment
KCJ, MCJ

07 Early Release - Seasonal Employment
KCH, MCH

08 Early Release - Other (Including RIF)
JCC, JDM, JDR, KCC, KDM, KDR, KEB, LCC, LDM, LDR, LGJ, MCC, MDM, MDR, MEB, MGJ, XDM. Air Force: 711, 712, 715, 716, 717

1 Medical Disqualifications

10 Conditions Existing Prior to Service
GFN, JFM, JFN, KFN

11 Disability - Severance Pay
JFL

12 Permanent Disability - Retired
RFJ, SFJ, VFJ

13 Temporary Disability - Retired
RFK, SFK, VFK, WFK

14 Disability - Non EPTS - No Severance Pay
JFR, LFR

15 Disability - Title 10 Retirement

16 Unqualified for Active Duty - Other
GFT, GFV, HFT, HFV, JFT, JFV, KFT, KFU, KFV, LFT, MFT, XFT

2 Dependency or Hardship

22 Dependency or Hardship
KDB, KDH, MDB, MDH, XDH

3 Death

30 Battle Casualty
Army: 944. Marine Corps: H61-H69, 861-869.
Navy: 870-879.

31 Non-Battle - Disease
Army: 945. Marine Corps: H24, 824. Navy: 892.

32 Non-Battle - Other
Army: 946. Marine Corps: H4G, H21-H23, H25-H59, 82B, 82E, 82I, 83C, 83I, 84B, 85B, 85D, 821-823, 825-859. Navy: 880-891, 893-899

33 Death - Cause Not Specified
Air Force: 474

4 Entry into Officer Programs

40 Officer Commissioning Program
KGL, KGM, KGN, KGS, KGX, MGX

41 Warrant Officer Program
KGT, KGW

42 Service Academy
KGU, MGU, PGU

5 Retirement (Other than Medical)

50 20-30 Years of Service
JBD, KBD, NBD, RBD, SBD

51 Over 30 Years of Service
RBC

52 Other Categories
RBB, VBK, XBK, XDS

6 Failure to Meet Minimum Behavioral of Performance Criteria

60 Character or Behavior Disorder
GMB, GMK, HMB, JMB, JMK, KMB

61 Motivational Problems
GMJ, HMJ, JMJ

62 Enuresis
GMC, HMC, JMC

63 Inaptitude
GMD, HMD, JMD

64 Alcoholism
GMG, HMD, JMD

65 Discreditable Incidents - Civilian or Military
GKA, GLB, HKA, HLB, JKA, JLB

66 Shirking
GKJ, GLJ, HKJ, HLJ, JKJ, JLJ

67 Drugs
BLF, GKK, GLF, GMM, GPB, HKK, HLF, HMM, JKK, JLF, JMM, JPB

68 Financial Irresponsibility
GKE, GLG, GMH, HKE, HLG, HMH, JKE, JLG, JMH, KLG

69 Lack of Dependent Support
GKH, GLH, HKH, HLH, JKH, JLH

70 Unsanitary Habits
GLK, GMP, HLK, HMP, JKV, JLK, JMP

71 Civil Court Conviction
GKB, HKB, JKB

72 Security
BDK, GDK, HDK, JDK, LDK

73 Court Martial
GJB, HJB, JJB, JJC, JJD

74 Fraudulent Entry
GKG, HKG, JKG, YKG

75 AWOL, Desertion
GKD, GKF, HKD, HKF, JKD. Air Force, Army, Navy: JKF

76 Homosexuality
BLC, BML, DLC, GKC, GLC, GML, HKC, HLC, HML, JKC, JLC, JML

77 Sexual Perversion
GKL, GLL, GMF, HKL, HLL, HMF, JKL, JLL, JMF

78 Good of the Service
BFS, DFS, JFS, KFS, KNL

79 Juvenile Offender
JFE

80 Misconduct (Reason Unknown)
BNS, GNC, HNC, JFP, JHM, JNC. Air Force: J11

81 Unfitness (Reason Unknown)
BLM, JNG, KLM

82 Unsuitability (Reason Unknown)
BHJ, BHK, BMN, CBL, GHJ, GHK, GMN, HHJ, HMN, JHK
Army, Marine Corps, Air Force: JHJ
Navy, Marine Corps, Air Force: KMN

84 Basic Training Attrition

85 Failure to Meet Minimum Qualifications for Retention
JGF, JHE, KGF
Army, Navy, Marine Corps: JET, JGZ
Navy, Marine Corps, Air Force: LEM
Navy, Marine Corps: JEM, JGH

86 Expeditious Discharge
Army: JGH, KMN
Navy: JHJ
Marine Corps: JFG8
Air Force: JEM, JGH

87 Trainee Discharge
Army: JEM, JNF, LEM, LNF
Air Force: JET, JGZ
Marine Corps: JFG9

9 Other Separations or Discharges

90 Secretarial Authority
JFF, KFF, LFF, MFF. Air Force: 713

91 Erroneous Enlistment or Induction
JFC, KFC, LFC, MFC, YFC

92 Sole Surviving Son
KCQ, MCQ

93 Marriage
KDC, MDC

94 Pregnancy
FDF, HDF, JDF, KDF, MDF

95 Minority
JFB, KFB, YFB

96 Conscientious Objector
FCM, JCM, KCM

97 Parenthood
FDG, JDG, KDG, MDG

98 Breach of Contract
JDP, KDP, KDS, KDQ, LDP, MDP, MDS, XDP

99 Other
FBC, FND, GHF, JBB, JBC, JBH, JCP, JDN, JHD, JHF, JND, KBH, KBJ, KCP, KDN, KFG, KHD, KHF, KND, KNF, LBH, LDN, LFG, LND, MDN, MFG, MHD, MND, MNF, VNF, XND, YCP, YDN, YND.
Army, Navy, Air Force: JFG
Navy, Marine Corps, Air Force: JNF, LNF

APPENDIX D

JOB CORPS VARIABLE DESCRIPTIONS

	Field	Contents
1.	SSN-1	Social Security Number or Temporary ID# (9XX-XX-XXXX).
2.	Last-Name	First five characters of enrolee's last name
3.	Birth-Date	Date of Birth, YYMMDD
4.	Sex	1=Male, 2=Female
5.	Race	1=Caucasian, 2=Negro, 3=Asiatic, 0=Other
6.	Ethnic-Group	1=Latin American, 2=Caribbean, 3=Pacific, 4=Indian, 0=Other

NOTE: We combine Race/Ethnic-Group as follows:

Ethnic-Group Code	and Race Code	=
1	any	"Spanish"
2	any	"Spanish"
3	3, 0 or bl	"Oriental"
4	any	"Indian"
0 or blank	1	"White"
0 or blank	2	"Black"
0 or blank	3	"Oriental"
0 or blank	0 or blank	"Other or Unknown"

Sometimes it is convenient to categorize the groups as White, Black, Spanish and Other.

7.	Enrollee-State	State of origin, prior to enrollment, Codes are 01-55.

8.	Enrollee-Zip Code	Zip code pertaining to enrollee's address pre-enrollment.
9.	City-Size	Size of enrollee's home town, grouped as follows: Under 2,500 = 1 2,500-50,000 = 2 50,000-250,000 = 3 Over 250,000 = 4
10.	High-Grade-Completed	The highest school grade completed by the enrollee. Range = 00-13.
11.	Test-B-Score	Score of enrollee's Job Corps Entry Reading Test. Range of scores = 00-25. See attached card for grade level equivalents.
12.	Type-Discharge	If Code = 1-6, enrollee had military service prior to enrollment in Job Corps.
13.	Arrival-Date	Date of enrollment in Job Corps, YYMMDD
14.	Term-Date	Date of termination from Job Corps, YYMMDD.
15.	Term-Center	The ID number of the Job Corps center from which the enrollee terminated. Range = 009-999, with about 150 valid center numbers within that range.
16.	Reason-for-Termination	3-letter codes: CCM-Completion (graduation), CMX=Maximum Benefits Completion, RES=Resignation, AWD=AWOL Discharge, ADD=Administrative Discharge, APC=Admin. Discharge for Withdrawal of Parental Consent, DID=Disciplinary Discharge, RLD=Resignation in Lieu of Disciplinary Action, MED=Medical Discharge, DEA=Death
17.	GED	GED status at time of termination: 1=Passed GED, 2=Failed GED test, 3=Incomplete, 4=Ineligible for GED program, and not enrolled, 5=Eligible for GED program but not enrolled. NOTE: Code 4 (Ineligible) - enrollee not enrolled in GED program because (a) did not score high enough to qualify for GED-level training, b) enrollee already had high school diploma or GED certificate.
18.	LOS-Days	Length of stay in Job Corps, in days. (Interval between Arrival Date and Termination Date.) Range = 0 to 1,000.

19.	Cluster	2-digit code describing the general type of vocational training the enrollee took. See attached table.
20.	Sub-Cluster	Single alphabetic code which, in conjunction with Cluster code, describes specific vocational training taken by enrollee.
21.	Placed-By	Enrollee's initial placement status after leaving Job Corps: 1=Job, 2=Armed Forces enlistment (or drafted), 3=School or Other Training Program, including college, 4=Other or Unknown.

The following variables have been constructed from Job Corps variables and are used in the analysis.

		Range
22.	Age at Entry to Job Corps	14-24
23.	Race/Ethnic Group	1 - White 2 - Black 3 - Spanish 4 - Asiatic 5 - Indian
24.	School Level	1 - Non-High School (Job Corps highest year of education less than 12 years and person eligible for GED) 2 - GED (GED code on Job Corps record) 3 - High School Graduate (Highest year of education 12 or 13 and person not eligible for GED)

REFERENCES

Congressional Budget Office, Congress of the United States, CETA Reautnorization Issues, August, 1978.

Department of Defense/Department of Labor Memo of Understanding on Job Corps Programs, 5 December 1977.

Degroot, Morris H., Probability and Statistics, p. 509, Addison-Wesley, 1975.

Manpower Research and Advisory Services Report to Office of Naval Research, Naval Personnel Supply, p. 11, September 1979.

Naval Personnel Research Development Center Report 77.34, Screening Male Applicants for Navy Enlistment, by Sands, W. A., June 1977.

Sonquist, J.A., Baker, E.L., and Morgon, J.N., Searching for Structure, p. VIII, Institute for Social Research, 1973.

The National Commission for Manpower Policy, a Special Report of; Report 23, CETA: An Analysis of the Issues, pp. 33-37, May 1978.

The National Commission for Manpower Policy, a Special Report of; Report 12, Demographic Trends and Full Employment, pp. 27-99, December 1976.

The Rand Corporation, Military Manpower and the All Volunteer Force, p. 8, 1977.

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