STUDY OF EFFECTIVENESS OF ARMY CONTINUING EDUCATION SYSTEM

J. R. Brink, S. Newman, M. Spurgeon and J. R. Stock
Battelle Columbus Laboratories

BASIC SKILLS INSTRUCTIONAL SYSTEMS TECHNICAL AREA

Research Institute for the Behavioral and Social Sciences
August 1981

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The purpose of the research was to evaluate the impact of participation in the Army Continuing Education System (ACES) upon soldier performance. Four ACES programs were selected for evaluation: Basic Skills Education Program I, Literacy Phase (BSEP I-Lit); Basic Skills Program I English as a Second Language (BSEP I-ESL); Skill Development - General Vocational Technical (Vc-Tech); and Veterans Educational Assistance Program (VEAP). Independent, dependent and control variables were selected and sample sizes were determined. Sources for...
obtaining the variable data were identified, including computerized sources and four installations were selected for manual collection of Vo-Tech data. A methodology was designed for the collection, storage and management of data. A comparative statistical analysis of the results was not completed due to problems encountered in accessing, obtaining and processing computerized and manual soldier performance data.

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STUDY OF EFFECTIVENESS OF ARMY CONTINUING EDUCATION SYSTEM

J. R. Brink, S. Newman, M. Spurgeon and J. R. Cock
Battelle Columbus Laboratories

Submitted by:
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EXECUTIVE SUMMARY

The Study of Effectiveness of Army Continuing Education System (ACES) was undertaken as part of the Army Research Institute for the Behavioral and Social Sciences' efforts to meet the need for an objective evaluation of ACES program participation effects on soldier performance. Part I of the study documented a methodology for conducting a cross-sectional and potential longitudinal research study designed to perform this evaluation. The objective of Part II was to conduct the cross-sectional study designed in Part I.

Four major tasks were completed in Part I which provided background for the conduct of Part II: (1) based on predetermined selection criteria, four ACES programs were chosen for evaluation: Basic Skills Education Program I, Literacy Phase (BSEP I-Lit), Basic Skills Program I, English as a Second Language (BSEP I-ESL), Skill Development - General Vocational-Technical (Vo-Tech), and Veterans Educational Assistance Program (VEAP); (2) potential independent, dependent, and control measurement variables were selected; (3) sources for obtaining the variable data were identified, including computerized sources and four installations selected for manual collection of the Vo-Tech program data: Forts Bliss, Bragg, Ord and Polk; and, (4) an evaluation design was developed for the comparative statistical analysis.

The Part II proposed methodology included three stages. The following two were completed at the conclusion of the project: (1) the final selection of measurement variables and estimation of the sample sizes and (2) the collection, storage and management of data. The third proposed stage, the comparative statistical analysis of the results, was not completed. The efforts required in accessing, obtaining, and processing soldier performance data from Army computerized data files exhausted the time schedule and resources available for the project.

The final variable selections were based on a preliminary examination of the data available from the identified sources and a refinement of the evaluation design. In addition, two efforts were eliminated from the planned methodology: the VEAP evaluation and Vo-Tech data collection from Fort Ord.

The collection, storage and management of data is documented according to the two data collection modes: manual and computerized. The manual data collection effort involved the development, pilot testing, and revision of forms and procedures; site visits; and tabulating and processing results. Problems encountered with education or personnel records which might have an impact on soldier record accuracy were noted and reported.
The computerized data collection and processing included developing a data accession plan, describing the data sought, procedure development, and describing procedures for performing the analysis. The data accession plan presented strategies for defining and selecting samples, collecting data for the four ACES programs, and obtaining control and dependent variables from the computerized sources. The data sought was based on the defined program sample. Requests for the data were made to the Training and Doctrine Command (TRADOC), Military Personnel Center (MILPERCEN), Defense Manpower Data Center (DMDC), and the Vo-Tech data were encoded on the computer.

The procedures developed for updating and creating records served three distinct purposes: (1) to add data to the master file, (2) to obtain data from the master file, and (3) the manipulation of tapes. The procedures were self-documenting and specifications for those implemented were developed. Ten files, envisioned during the design phase, and the basic purposes and procedures for these files are described. Several procedures for performing the analysis were implemented which simplified gaining access to the data and execution of an SPSS program (Statistical Package for the Social Sciences), including procedures to create or extract from the master file. A sample SPSS program is presented with the appropriate set of program variables appended. Problems encountered in the development and implementation of these procedures were noted.

A preliminary analysis was performed which demonstrated that the system operated as planned, but the quality of the data obtained was less than expected. The sample sizes obtained and matching birthdate and sex variable comparisons among the various data sources are presented and discussed. Low retrieval rates and low matching rates (53 to 76 percent) on the basic variables selected for quality checks, birthdate and sex, decreased confidence in the quality of the remaining data. Potential causes for the discrepancies and suggested actions required to overcome the problems are discussed.

A summary of problems encountered during the collection, storage and management of data is presented. The Vo-Tech data collection problems encountered included lack of standardization in data records, missing follow-up course data, and low incidence of recorded data on participation in ACES programs in general, which affects obtaining satisfactory sample sizes for groups of soldier participants.

The problems encountered in the computerized data collection efforts included the use of the not up-to-date Exec 8 operating system, arbitrary file limitations placed on the users, lack of direct access to personnel with expertise in using this system, the time expended in going through the "hierarchy" to execute requests or obtain answers to questions, and problems in signing-on due to overworked phone trunk lines. Suggested causes and a discussion of possible resolutions for overcoming these problems are discussed. These considerations present implications for any subsequent linking of ACES data and soldier performance data in an evaluation of ACES program impact.
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PART II TECHNICAL REPORT

on

STUDY OF EFFECTIVENESS OF ARMY CONTINUING EDUCATION SYSTEM (CONTRACT MDA903 79-C-0397)

to

U.S. ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL SCIENCES

from

BATTELLE-COLUMBUS LABORATORIES

August 12, 1981

INTRODUCTION

The Army Continuing Education System (ACES) provides programs designed to enhance the educational development of active duty personnel as well as increase military job progression and skill proficiency. The Education Directorate, Adjutant General's Center, as the administering agency of ACES, has expressed a need for an objective evaluation of the relationship between participation in ACES and effects on soldier performance.

Factors contributing to the need for this evaluation include: (1) the General Educational Development (GED) program charter in 1956, which included education for increased military efficiency, (2) ACES' focus on personal development of individual service members, and (3) the increasing importance of the impact of ACES on Army career development and Army job progression.

In Part I of this project, Battelle designed a methodology for an empirical cross-sectional and potential longitudinal study to determine whether or not there is evidence that ACES has a statistically significant positive impact on duty performance of soldiers. The objective of Part II was to conduct the cross-sectional study designed in Part I. Figure 1 is a Draft Final Report Outline, developed during the last reporting period of the project, which describes the major steps anticipated to obtain and process the data, conduct the statistical analysis, and prepare a research report of the results. This report documents the implementation of the
study methodology through the summary of problems encountered during the collection, storage, and management of data. The comparative statistical analysis, and subsequent results, conclusions and recommendations based on the analysis were not completed because of the problems encountered in accessing, obtaining, and processing soldier performance data from the computerized data files at the Defense Manpower Data Center (DMDC) and the Military Personnel Center (MILPERCEN). Several extensions of the contract performance period were required because of these data accession and processing problems. Both the Battelle-Columbus staff and the Army Research Institute representatives extended their best efforts to overcome these problems. However, project time schedules and resources were exhausted in this effort. Moreover, the quality of the data accessed through these efforts precluded the performance of the planned comparative statistical analysis.
I. SUMMARY

II. INTRODUCTION
A. Problem -- ACES Program Benefits to the Army (Participation Effects on Soldier Performance)
B. Objectives of Part II
   Conduct Cross-Sectional Study Designed in Part I
   1. Obtaining and Processing Data
   2. Conducting Statistical Analysis
   3. Prepare Research Report

III. BACKGROUND -- Summary of Part I Results
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B. Measurement Variables Selected
C. Army Posts Selected for Vo-Tech Data
D. Data Sources Identified
E. Evaluation Design

IV. METHODOLOGY
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B. Collection, Storage, and Management of Data
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      a. Development of Procedures and Forms
      b. Pilot Test of Forms and Procedures
      c. Data Collection Site Visits and Results
      d. Problems Encountered
   2. Computerized Data Collection and Processing
      a. Data Accession Plan
      b. Data Sought
      c. Procedure Development
      d. General Comments of Data Processing
      e. Procedures to Perform Analysis
      f. Preliminary Analysis
   3. Summary of Problems Encountered During Collection, Storage and Management of Data
      a. Vo-Tech Data Collection
      b. Computerized Data Collection
C. Statistical Analysis
   1. Evaluation Measures and Research Hypothesis
   2. Sampling Plan
   3. Analysis

V. RESULTS AND CONCLUSIONS

VI. RECOMMENDATIONS

VII. APPENDICES

FIGURE 1. FINAL REPORT OUTLINE ON STUDY OF EFFECTIVENESS OF ARMY CONTINUING EDUCATION SYSTEMS, PART II
BACKGROUND

Part I of this study involved completion of four major activities:
(1) development of criteria for and selection of the ACES programs for
evaluation, (2) selection of measurement variables for ACES participant
versus nonparticipant comparisons, (3) identification of sources for
needed data, and (4) creation of an evaluation design for the Part II
cross-sectional analysis and the potential longitudinal analysis. The
results of Part I are fully documented in the Part I Technical Report,
dated January 25, 1980 and revised March 3, 1980. A summary of these
results is presented below.

ACES Programs Selected

Eleven ACES programs were considered for potential evaluation.
Program descriptions, data available, and potential problems with the
evaluation were documented. Criteria for program selection were then
developed and presented in a rating scale format. Rating scales were
completed by ARI, TAGCEN, and Battelle staff representatives and then
combined into a consensual rating, shown in Figure 2. Using the rating
scale results and previously identified program evaluation problems, the
following four ACES programs were selected.

- Basic Skills Education Program I - Literacy Phase
  (BSEP I - LIT)
- Basic Skills Education Program I - English as a
  Second Language (BSEP I - ESL)
- Skill Development - General Vocational Technical
  Program (Vo-Tech)
- Veteran's Educational Assistance Program (VEAP)

Five technologies within the Vo-Tech program area were selected
for study: Automotive, Diesel, Welding, Electronics, and Construction.
These particular Vo-Tech courses provide soldiers opportunities in MOS
related skills as well as marketable civilian skills.

A decision was made during Part II not to analyze the VEAP
program since these data are analyzed annually in an ongoing Department
of Defense-wide study.
<table>
<thead>
<tr>
<th>Program</th>
<th>Available Size of Participant Group</th>
<th>Available Size of Non PARTICIPANTS</th>
<th>Operational Indicators of Program</th>
<th>Completion of Program</th>
<th>Prevalence Impact on Military Proficiency</th>
<th>Rate of Attrition in Program</th>
<th>Rate of Data Collection</th>
<th>Total</th>
<th>A Variety of ACS Programs, C.E.</th>
<th>MADC Skill Development, &amp; AID Documentation</th>
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<td>1. Basic Skills Education Program I</td>
<td>+</td>
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<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>8</td>
<td>1</td>
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<td>2. Basic Skills Education Program II</td>
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<td>+</td>
<td>0</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>0</td>
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<td>3. High School Completion Program</td>
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<td>+</td>
<td>0</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>0</td>
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<td>4. Association Degree Program (SOCAD)</td>
<td>+</td>
<td>+</td>
<td>0</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>0</td>
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<td>5. Bachelor's Degree &amp; Higher Degree Programs (SOC)</td>
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<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>0</td>
<td>3</td>
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<tr>
<td>6. Army Apprenticeship Program</td>
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<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>0</td>
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<td>7. Skill Development Program</td>
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<td>0</td>
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<td>-</td>
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<td>a. MOS Refresher Program</td>
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<td>b. Vo-Tech Program</td>
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<td>8. HEADSTART/GATEWAY</td>
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<td>10. Veterans' Educational Assistance Program</td>
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**FIGURE 2. ACES PROGRAM SELECTION RATING FORM**
Measurement Variables Identified

Tables 1 through 3 present the potential measurement variables identified and documented in Part I of the study. The independent variables listed in Table 1 are program-specific factors such as participation/eligibility, completion status, length of instruction, pre- and post-test scores. The dependent variables presented in Table 2 are indicators of soldier value to the Army through measures such as performance on the job, career progression, and attitude. The selected control variables presented in Table 3 are used to compare the experimental groups on basic demographic, background, and aptitude characteristics. These potential measurement variables were further refined and selections were made in Part II based on such criteria as accessibility and accuracy of records.

Primary Data Sources

Also listed in Tables 1 through 3 are the potential sources identified for the variable data. The primary sources to be used from these lists are:

- TRADOC - Training and Doctrine Command, Fort Monroe, VA
- DMDC - Defense Manpower Data Center, Washington, DC
- MILPERCEN - Military Personnel Center, Alexandria, VA
- TSC - Training Support Center, Fort Eustis, VA
- EREC - Enlisted Records Evaluation Center, Fort Benjamin, Harrison, IN
- MPRJ - Military Personnel Records Jacket (DA Form 201), Military Personnel Offices (MILPOS) at selected Army posts
- Education Development Record (DA Form 669), Education Offices at selected Army posts.

Most of the measurement variables were available through computerized data sources with the exception of the Vo-Tech program. This information was only available in individual soldier education and personnel records and therefore had to be accessed manually.
## TABLE 1. POTENTIAL INDEPENDENT VARIABLES

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<td>DA Form 66F(5)</td>
<td>DA 201 Pile located at resident post</td>
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<td></td>
<td></td>
<td>TASX(6)</td>
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<td>The Adjutant General’s Center</td>
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<td>Defense Manpower Data Center</td>
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<td></td>
<td>Military Personnel Center</td>
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<td></td>
<td></td>
<td>DA 201 File located at resident post - Master Personnel Records File</td>
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### BSEP I
- Participation/Eligibility
  - Successful Completion
  - Unsuccessful Completion
  - Incomplete Participation
  - No Participation

### BSEP II
- Participation/Eligibility
  - Successful Completion
  - Unsuccessful Completion
  - Incomplete Participation
  - No Participation
- Program Variables
  - Days Enrolled
  - Period of Enrollment
  - Pre/Post Scores
  - Primary Language

### BSEP
- Participation/Eligibility
  - Successful Completion
  - Unsuccessful Completion
  - Incomplete Participation
  - No Participation
- Program Variables
  - Highest Year of Education
  - No. of Units Acquired by Subject

### BOC/SOCAD
- Participation/Eligibility
  - Successful Completion AA
  - Successful Completion BA
  - Successful Completion Other
  - Non Participant but Eligible: HSD or GED
- Program Variables
  - Length of Time Since Eligible
  - Presently Participating No. of Residential Credits
  - Period of Enrollment
  - Time Since Last Enrollment

*to be computed from other data

1. BSEP Data form kept at TRADOC
2. BSEP II form kept at TASX
3. A form which lists a soldier’s civilian/military education and training, kept at the soldier’s resident Education Center
4. Post education center records
5. The Adjutant General’s Center
6. Defense Manpower Data Center
7. Military Personnel Center
8. DA 201 File located at resident post - Master Personnel Records File
TABLE 1. (Continued)

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**SKILL DEVELOPMENT-GENERAL VOCATIONAL TECHNICAL**

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<td>Length of Time Since Acquired MOS (AIT Graduation Date)</td>
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**SKILL DEVELOPMENT-MOS REFRESHER/DEVELOPMENT**

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**SEL (ONLY BY TEST REFERRAL)**

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**VEAP**

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<tr>
<th>Participation/Eligibility</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Variables</td>
<td>X</td>
</tr>
<tr>
<td>Length of Time Contributing</td>
<td>X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Data Sources</th>
<th>Records</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Form</td>
</tr>
<tr>
<td>Variables</td>
<td>Kept At</td>
</tr>
</tbody>
</table>
TABLE 2. POTENTIAL DEPENDENT VARIABLES AND RELATED IDENTIFIERS

<table>
<thead>
<tr>
<th>Variables</th>
<th>MILPERCM(1)</th>
<th>DOC(2)</th>
<th>ERE/ERE(3)</th>
<th>ZC(4)</th>
<th>ERC(5)</th>
<th>PPUS(6)</th>
<th>TSC(7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Skill and Knowledge Proficiency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• SQT - Performance Certification Component</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• SQT - Written Component</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• SQT - Hands-on Component</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• SQT - Overall (% of &quot;GO&quot; units)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• SQT - Form Number</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Scope of Knowledge About Duties(6)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Demonstrated Overall Performance (8)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• ERE - Total Score</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• ERE - Weighted Average</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• PMOS - in Which Tested (SQT)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• PMOS - Evaluation Score</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• PMOS - Evaluation Score Date</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• PMOS - in Which Tested</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• PMOS - Skill Level - SQ Identifier</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promotion/Advancement</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Promotion Potential (8)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Career Progression (Ranks and Dates)</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Promotion Potential Score (1000 Pt. Rating)</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reenlistment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Reenlistment Eligibility</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Number of Times Enlisted/Reenlisted</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discipline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Personal Coop. (6)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Ability to Work in Harmony (6)</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Character of Separation (Discharge from service)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• AWOL</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Type of Last Return to Military Control</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) Military Personnel Center
(2) Defense Manpower Data Center
(3) Enlisted Evaluation Report/Senior Enlisted Evaluation Report, both located in 201 File
(4) DA 201 File located at resident base - Master Personnel Records File containing all personnel records for a soldier
(5) Enlisted Records Evaluation Center at Ft. Benjamin Harrison, Indiana (Official Master Personnel File plus some computerized SQT/ERE data)
(6) Promotion Point Worksheet located in 201 File
(7) Training Support Center located at Ft. Rustin, Va.
(8) These scores are still under consideration and are found on the ERE and/or SSE. They are the subscores from which the total ERE score is based.
<table>
<thead>
<tr>
<th>Variables</th>
<th>Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MILITARY ENGINEER</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Data Sources</strong></td>
<td></td>
</tr>
<tr>
<td><strong>DNOC</strong></td>
<td>X</td>
</tr>
<tr>
<td><strong>ER/ISE</strong></td>
<td>X</td>
</tr>
<tr>
<td><strong>201</strong></td>
<td>X</td>
</tr>
<tr>
<td><strong>EREC</strong></td>
<td></td>
</tr>
<tr>
<td><strong>PPUS</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TSC</strong></td>
<td></td>
</tr>
</tbody>
</table>

**MOTIVATION**
- Effort directed toward realization of potential (8)
- Average pursuit of methods to improve (8)
- Awards and Decorations

**ATTITUDE**
- Attitude Toward Duties (8)
- Dependability (8)

**LEADERSHIP**
- Exerts Positive Influence on Others (8)

**MILITARY BEARING**
- Military Bearing (8)
- Physically Fit (8)

**TRAINING RECEIVED**
- MCD Education System
- PMOS - Now Acquired
- AIT Graduation Date
- Military Education
TABLE 3. SELECTED CONTROL VARIABLES AND IDENTIFIERS

<table>
<thead>
<tr>
<th>Personal Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Age</td>
</tr>
<tr>
<td>- Race and Ethnic Group</td>
</tr>
<tr>
<td>- Sex</td>
</tr>
<tr>
<td>- Marital Status</td>
</tr>
<tr>
<td>- Number Years of Education</td>
</tr>
<tr>
<td>- Native Language</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Job-Related</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Duty MOS</td>
</tr>
<tr>
<td>- Career Management Field</td>
</tr>
<tr>
<td>- Number Years of Service</td>
</tr>
<tr>
<td>- Time Since AIT Completion</td>
</tr>
<tr>
<td>- Grade Level</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>- AFQT Score</td>
</tr>
<tr>
<td>- GT Score (General Technical Aptitude)</td>
</tr>
<tr>
<td>- Mental Category (General Mental Ability)</td>
</tr>
<tr>
<td>- Specific Aptitude Test Scores from ASVAB (as and if appropriate)</td>
</tr>
<tr>
<td>- SelectABLE Scores</td>
</tr>
</tbody>
</table>
Four CONUS installations were selected for manual collection of Vo-Tech data from soldier education and personnel records. The selection of the installations was based on the size of the military population (the largest posts were preferred), the number of Vo-Tech courses provided on-post (the larger number was preferred), type of command (both Forces Command (FORSCOM) and Training Doctrine Command (TRADOC) to be represented), and ease of data collection. Based on this criteria, the following four posts were selected in addition to Fort Knox, Kentucky, the site selected to pilot-test data collection procedures and forms.

- Fort Bragg, North Carolina
- Fort Bliss, Texas
- Fort Polk, Louisiana
- Fort Ord, California

Fort Ord was subsequently dropped as a data collection site. It was determined by the Battelle project team and ARI representatives that data collection from Forts Polk, Bragg, and Bliss would reflect an adequate mix of the FORSCOM and the TRADOC activities and the elimination of this site visit would conserve resources.

**Evaluation Design**

The basic study design called for comparisons of participant and nonparticipant groups for each of the four selected ACES programs, with respect to criteria reflecting a soldier's value to the Army. This design was intended to yield the "impact" each program has on soldiers' value to the Army. Two methods of analysis were anticipated: regression analysis and matched group comparisons. For the evaluation of a given ACES program, the data would be analyzed using both regression analysis and a matching design. If the results of the two analyses disagreed, then the reason for disagreement would be sought. If the results of the two analyses agreed, then a stronger conclusion could be drawn about the program.
METHODOLOGY

The proposed methodology involved three major tasks: (1) the final selection of measurement variables and estimation of the sample sizes, (2) the collection, storage, and management of data, and (3) a statistical analysis of the results. Tasks 1 and 2 were completed at the conclusion of the project and are discussed below. Task 3, the statistical analysis of results, was not conducted for reasons stated previously in the INTRODUCTION section of this report.

Final Selection of Measurement Variables And Estimated Sample Sizes

Tables 4 through 6 present the final variable selections based on a refinement of the evaluation design and preliminary examination of the data available from the identified sources. Table 7 lists the approximate sample sizes needed for the evaluation of each program. As reported in the Computerized Data Collection and Processing section of this report, additional refinement was made to the variable selections due to problems encountered after the sources were accessed. The Vo-Tech sample size was also redefined as the result of the elimination of the Fort Ord data-collection site.

Collection, Storage, and Management of Data

This section is presented according to the two data collection modes: manual and computerized. The Vo-Tech manual data collection efforts describe the development of data collection procedures and forms, pilot test of forms and procedures, data collection site visits and results, and problems encountered. The computerized data collection and processing documents the data accession plan, the data sought, procedure development, general comments on data processing, procedures to perform analysis, and preliminary analysis. The remainder of this section lists the problems encountered during the data collection, storage and management phase of the project.

Vo-Tech Program Data Collection

During the first stages of this task, arrangements were made to visit the selected posts, including setting dates for visits, obtaining names of individuals coordinating the on-site visits, and preparation of documentation for official permission to access files. The Vo-Tech program data were then collected manually from individual soldier's education and personnel records. Described below are the development of procedures and forms, pilot test, data collection site visits and results, and problems encountered.
TABLE 4. BASIC SKILLS EDUCATION PROGRAM (BSEP I - LITERACY PHASE) - VARIABLES AND SOURCES

<table>
<thead>
<tr>
<th>Control Variables</th>
<th>Primary Source</th>
<th>Alternate Source(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSN</td>
<td>TRADOC</td>
<td>MILPERCEN</td>
</tr>
<tr>
<td>AGE</td>
<td>DMDC</td>
<td>DMDC/MILPERCEN</td>
</tr>
<tr>
<td>SEX</td>
<td>TRADOC</td>
<td>DMDC/MILPERCEN</td>
</tr>
<tr>
<td>RACE</td>
<td>TRADOC</td>
<td>MILPERCEN</td>
</tr>
<tr>
<td>ETHNIC GROUP</td>
<td>DMDC</td>
<td>MILPERCEN</td>
</tr>
<tr>
<td>NUMBER YEARS OF EDUCATION</td>
<td>TRADOC</td>
<td>DMDC/MILPERCEN</td>
</tr>
<tr>
<td>NUMBER MONTHS OF SERVICE</td>
<td>MILPERCEN</td>
<td>MILPERCEN</td>
</tr>
<tr>
<td>AFQT SCORES</td>
<td>DMC</td>
<td>MIlPERCEN</td>
</tr>
<tr>
<td>GT SCORES</td>
<td>MILPERCEN</td>
<td>MILPERCEN</td>
</tr>
<tr>
<td>MENTAL CATEGORY</td>
<td>TRADOC</td>
<td>TRADOC</td>
</tr>
<tr>
<td>SelectABLE SCORE</td>
<td>TRADOC</td>
<td>TRADOC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAREER PROGRESSION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-GRADE LEVEL ATTAINED</td>
<td>MILPERCEN</td>
<td>TSC</td>
</tr>
<tr>
<td>-TIME TO GRADE E2</td>
<td>MILPERCEN</td>
<td></td>
</tr>
<tr>
<td>-TIME TO GRADE E3</td>
<td>MILPERCEN</td>
<td></td>
</tr>
<tr>
<td>TRAINING SUCCES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-SUCCESSFUL COMPLETION OF AIT</td>
<td>TRADOC</td>
<td>MILPERCEN</td>
</tr>
<tr>
<td>vs NOT</td>
<td>TRADOC</td>
<td>MILPERCEN</td>
</tr>
<tr>
<td>DISCHARGED FROM SERVICE (because of poor training performance) vs NOT</td>
<td>TRADOC</td>
<td>MILPERCEN</td>
</tr>
</tbody>
</table>

* For selected cases, data was obtained from both primary and alternate sources as a cross check for accuracy.
### Table 5. Basic Skills Education Program (BSEP I - ESL Phase) - Variables and Sources

<table>
<thead>
<tr>
<th>Control Variables</th>
<th>Primary Source</th>
<th>Alternate Source(s)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSN</td>
<td>TRADOC</td>
<td>MILPERCEN</td>
</tr>
<tr>
<td>AGE</td>
<td>DMDC</td>
<td>TRADOC</td>
</tr>
<tr>
<td>SEX</td>
<td>TRADOC</td>
<td>DMDC/MILPERCEN</td>
</tr>
<tr>
<td>RACE</td>
<td>TRADOC</td>
<td>DMDC/MILPERCEN</td>
</tr>
<tr>
<td>ETHNIC GROUP</td>
<td>DMDC</td>
<td>MILPERCEN</td>
</tr>
<tr>
<td>NUMBER YEARS OF EDUCATION</td>
<td>TRADOC</td>
<td>DMDC/MILPERCEN</td>
</tr>
<tr>
<td>NUMBER MONTHS OF SERVICE</td>
<td>MILPERCEN</td>
<td></td>
</tr>
<tr>
<td>AFQT Scores</td>
<td>DMDC</td>
<td>MILPERCEN</td>
</tr>
<tr>
<td>GT Scores</td>
<td>MILPERCEN</td>
<td></td>
</tr>
<tr>
<td>MENTAL CATEGORY</td>
<td>TRADOC</td>
<td></td>
</tr>
<tr>
<td>ECLT Score</td>
<td>TRADOC</td>
<td></td>
</tr>
<tr>
<td>NATIVE LANGUAGE</td>
<td>TRADOC</td>
<td></td>
</tr>
</tbody>
</table>

| Dependent Variables                |                  |                      |
| CARRIER PROGRESSION                |                  |                      |
| -GRADE LEVEL ATTAINED              | MILPERCEN        | TSC                  |
| -TIME TO GRADE E2                  | MILPERCEN        |                      |
| -TIME TO GRADE E3                  | MILPERCEN        |                      |
| TRAINING SUCCESS                   |                  |                      |
| -SUCCESSFUL COMPLETION OF AIT     | TRADOC           | MILPERCEN            |
| vs NOT                             |                  |                      |
| DISCHARGED FROM SERVICE (because of poor training performance) vs NOT | TRADOC | MILPERCEN |

*For selected cases, data, was obtained from both primary and alternate sources as a cross check for accuracy.*
### TABLE 6. SKILL DEVELOPMENT - GENERAL VOCATIONAL TECHNICAL PROGRAM (VO-TECH) - VARIABLES AND SOURCES

<table>
<thead>
<tr>
<th>Control Variables</th>
<th>Primary Source</th>
<th>Alternate Source(s)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSN</td>
<td>MPRJ Form 201</td>
<td>DMDC/MILPERCENT</td>
</tr>
<tr>
<td>AGE</td>
<td>MPRJ Form 201</td>
<td>DMDC/MILPERCENT</td>
</tr>
<tr>
<td>SEX</td>
<td>MPRJ Form 201</td>
<td>DMDC/MILPERCENT</td>
</tr>
<tr>
<td>RACE</td>
<td>MPRJ Form 201</td>
<td>DMDC/MILPERCENT</td>
</tr>
<tr>
<td>ETHNIC GROUP</td>
<td>MPRJ Form 201</td>
<td>MILPERCENT</td>
</tr>
<tr>
<td>NUMBER OF YEARS OF EDUCATION</td>
<td>MPRJ Form 201</td>
<td>DMDC/MILPERCENT</td>
</tr>
<tr>
<td>NUMBER MONTHS OF SERVICE</td>
<td>MPRJ Form 201</td>
<td>DMDC/MILPERCENT</td>
</tr>
<tr>
<td>NATIVE LANGUAGE</td>
<td>MPRJ Form 201</td>
<td>MILPERCENT</td>
</tr>
<tr>
<td>CAREER MANAGEMENT FIELD</td>
<td>MPRJ Form 201</td>
<td>MILPERCENT</td>
</tr>
<tr>
<td>ACCESSION DATE</td>
<td>MPRJ Form 201</td>
<td>MILPERCENT</td>
</tr>
<tr>
<td>VO-TECH COURSE TITLES/HOURS</td>
<td>DA Form 669</td>
<td>MILPERCENT</td>
</tr>
<tr>
<td>VO-TECH COURSE COMPLETIONS</td>
<td>DA Form 669</td>
<td>MILPERCENT</td>
</tr>
<tr>
<td>BASIC PAY ENTRY DATE (BPED)</td>
<td>DA Form 669</td>
<td>MILPERCENT</td>
</tr>
<tr>
<td>ESTIMATED TIME OF SEPARATION(ETS)</td>
<td>DA Form 669</td>
<td>MILPERCENT</td>
</tr>
<tr>
<td>One of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFQT SCORES</td>
<td>MPRJ Form 201</td>
<td>MILPERCENT</td>
</tr>
<tr>
<td>GT SCORES</td>
<td>MPRJ Form 201</td>
<td>MILPERCENT</td>
</tr>
<tr>
<td>MENTAL CATEGORY</td>
<td>MPRJ Form 201</td>
<td>TRADOC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Primary Source</th>
<th>Alternate Source(s)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAREER PROGRESSION</td>
<td>MPRJ Form 201</td>
<td>MILPERCENT</td>
</tr>
<tr>
<td>-GRADE LEVEL ATTAINED</td>
<td>MPRJ Form 201</td>
<td>MILPERCENT</td>
</tr>
<tr>
<td>-TIME TO GRADE E5</td>
<td>MPRJ Form 201</td>
<td>MILPERCENT</td>
</tr>
<tr>
<td>-TIME TO GRADE E6</td>
<td>MPRJ Form 201</td>
<td>MILPERCENT</td>
</tr>
<tr>
<td>MOST RECENT EER (selected parts)</td>
<td>MPRJ Form 201</td>
<td>EREC</td>
</tr>
<tr>
<td>MOST RECENT SQT (selected parts)</td>
<td>MPRJ Form 201</td>
<td>MILPERCENT/TSC</td>
</tr>
<tr>
<td>MOST RECENT PROMOTION POINTS (selected parts)</td>
<td>MPRJ Form 201</td>
<td>MILPERCENT/TSC</td>
</tr>
<tr>
<td>NUMBER OF DISCIPLINARY ACTIONS</td>
<td>MPRJ Form 201</td>
<td>MILPERCENT</td>
</tr>
<tr>
<td>RE-ENLISTMENTS</td>
<td>MPRJ Form 201</td>
<td>MILPERCENT</td>
</tr>
</tbody>
</table>

* Data was collected from DA Form 669 and MPRJ Form 201 when not computerized. Form 669 is computerized at Fort Polk and the Standard Installation/Division Personnel System (SIDPERS) maintain some computerized data and this was utilized.

** For selected cases, data was obtained from both primary and alternate sources as a cross check for accuracy.
TABLE 7. APPROXIMATE SAMPLE SIZE NEEDED OR AVAILABLE 
FOR EACH PROGRAM EVALUATION AND DATA SOURCES*

<table>
<thead>
<tr>
<th>Program</th>
<th>Sources</th>
<th>Approximate Number</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSEP I - Literacy Phase</td>
<td>TRADOC, MILPERCEN, DMDC</td>
<td>14,000</td>
<td>(includes participants and eligible nonparticipants from 10/1/78)</td>
</tr>
<tr>
<td>BSEP I - ESL Phase</td>
<td>TRADOC, MILPERCEN, DMDC</td>
<td>3,400</td>
<td>(includes participants and eligible nonparticipants from 10/1/78)</td>
</tr>
<tr>
<td>SKILL DEVELOPMENT (VO-TECH)</td>
<td>MILPERCEN, TRADOC, TSC, DMDC</td>
<td>1,000</td>
<td>(includes 500 participants and 500 nonparticipants - 200-300 from each post, depending on post size)</td>
</tr>
<tr>
<td></td>
<td>MPRJ FORM 201, DA FORM 669</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VEAP</td>
<td>VA, MILPERCEN, TRADOC, DMDC</td>
<td>7,000</td>
<td>(includes all new accessions during April 1977 - approximately 1400 participants and 5600 nonparticipants)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>25,000</td>
<td></td>
</tr>
</tbody>
</table>

*For the total number of soldiers in the sample, Social Security Numbers and Date of Birth from each source are required as identification variables.
Development of Data Collection Procedures and Forms. The number of enlisted personnel at each site for which data were to be collected was determined by dividing the number of enlisted personnel stationed at a given post by the total number of enlisted personnel at all selected posts, then multiplying the obtained decimal fraction by 1,000 (the original sample size for the Vo-Tech program). This operation provided an equal number of participants and nonparticipants from the enlisted personnel at a given post. Data were then collected in two stages.

The first stage involved collection of data from the DA Form 669 records. A systematic sampling with a random start procedure was used to select the sample. Sample selection and collection of data from the DA Form 669 records involved the following six steps:

Step 1. Determine the physical length of DA 669 Forms stored at a given post by multiplying the number of drawers by the length of each full drawer containing records.

Step 2. Determine the interval length to be used to select the sample by dividing the physical length of forms as determined in Step 1 by the desired number of program participants.

Step 3. Determine the random starting point by counting the number of forms in the first interval and, using a table of random numbers, select a starting point which was less than or equal to the number of forms in that interval.

Step 4. Select a participant for the sample by examining each DA Form 669 from the starting point until a form is found that meets the participant criteria in one of the five selected Vo-Tech courses: automotive, diesel, welding, electronics or construction technology on or after June 1977. Transcribe course data onto the data collection form.

Step 5. Select the "matched" nonparticipant by choosing the next DA Form 669 for a soldier who has completed Advanced Individual Training but did not participate in a vocational-technical course. Transcribe demographic "control" data onto the data collection form.

Step 6. Select each subsequent participant and nonparticipant by repeating Steps 4 and 5 at the designated intervals determined in Step 2. If no participant was found in a given interval, then two participants were selected from the next interval. The record selected in this manner for the second participant could come before or after the first nonparticipant selected.
The second stage involved collecting data from the DA Form 201 records for both participants and nonparticipants selected in Stage 1. At each installation, most of the 201 Jackets were located at a central location, either the Military Personnel Office (MILPO) or the Adjutant General Office (AG). When the selected 201 Jackets were obtained at this central location, data were transcribed onto the data collection form. When the 201 Jackets were not in the files, these data were not obtained. Records (201 Jackets) missing from the files were almost always attributable to the soldier being currently outprocessed or already having left the installation. Due to time constraints, no effort was made to locate the missing records.

Figure 3 presents the two-sided form developed for collection of the Vo-Tech participant/nonparticipant data, with the DA Form 669 data and the DA Form 201 data to be recorded on opposite sides. The Vo-Tech 669 data collection form consisted of identification information (SSN and ETS), Vo-Tech participation, description of courses taken, completion status, and other AGES program participation. The Vo-Tech 201 Data Collection form listed identification and demographic information (SSN, birthdate, Race, Sex and Education Level), grade rank, selected test and/or rating scores, disciplinary action events, and selected relevant dates.

Pilot Test of Forms and Procedures. The purpose of the Vo-Tech program pilot test was to rigorously test the data collection forms and procedures. This was done during a one-day site visit to Fort Knox, Kentucky. Using the procedures previously described, data were collected on 15 participants and 15 nonparticipants of the Vo-Tech program courses selected. The data were collected from two Education Centers and two Military Personnel Offices.

The results of the pilot test indicated that only minor modifications of the sampling and data collection procedures and the data collection forms were required. The sampling procedure had to be modified to the plan previously reported, i.e., matching nonparticipants were selected from the DA Form 669 files. It was originally planned to collect participant data from the 669 files, then proceed to the 201 Jackets to select nonparticipants. The modification was necessary because the data collectors were not given direct access to the DA Form 201 Jackets. The requested 201 Jackets had to be "pulled" by military personnel, which required selecting the nonparticipants as well as the participants in advance.

The data collection form was modified as a result of the pilot test to exclude Armed Forces Qualification Test (AFQT) scores, because this information could not be obtained from the 201 Jackets. Other minor modifications were also made to the form.
FIGURE 3. VO-TECH DATA COLLECTION FORM
### VO/TECH 201 DATA COLLECTION FORM

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. SSN</td>
<td>2-9</td>
</tr>
<tr>
<td>41. GT Score</td>
<td>12</td>
</tr>
<tr>
<td>42. Education Level</td>
<td>13</td>
</tr>
<tr>
<td>52. Date of Birth</td>
<td>YR MO DAY 19 20 21</td>
</tr>
<tr>
<td>53. Race</td>
<td>20</td>
</tr>
<tr>
<td>54. Sex</td>
<td>21</td>
</tr>
<tr>
<td>18. Grade</td>
<td>23</td>
</tr>
<tr>
<td>18. Appointment Date E5</td>
<td>YR MO DAY 29</td>
</tr>
<tr>
<td>18. Appointment Date E6</td>
<td>YR MO DAY 35</td>
</tr>
<tr>
<td>20. Basic Enlisted Service Date</td>
<td>YR MO DAY 41</td>
</tr>
<tr>
<td>35. Date of First MOS</td>
<td>YR MO DAY 47</td>
</tr>
<tr>
<td>35. Duty MOS</td>
<td>52</td>
</tr>
<tr>
<td>9. Previous Active Military Service</td>
<td>DD 4 YRS MOS DAYS 58</td>
</tr>
<tr>
<td>10. Agreement Date</td>
<td>YR MO DAY 64</td>
</tr>
<tr>
<td>DA 2166 or USAEREC 10A</td>
<td>EER Score (REPT Score or EERWA)</td>
</tr>
<tr>
<td></td>
<td>1. REPT</td>
</tr>
<tr>
<td></td>
<td>2. EERWA</td>
</tr>
<tr>
<td></td>
<td>DATE 67 68</td>
</tr>
<tr>
<td>DA 268</td>
<td>Disciplinary Actions</td>
</tr>
<tr>
<td></td>
<td>DA 2627</td>
</tr>
<tr>
<td></td>
<td>Disciplinary Actions</td>
</tr>
<tr>
<td></td>
<td>DA 74</td>
</tr>
<tr>
<td></td>
<td>79 80</td>
</tr>
</tbody>
</table>
Data Collection Site Visits and Results. The Vo-Tech site visits to Fort Polk and Fort Bragg were made by two data collectors during the weeks of July 7-11, 1980 and July 14-18, 1980, respectively. Data from Fort Bliss were collected by one person during the week of August 10-15, 1980. A total of 675 cases were collected: 341 Vo-Tech participants and 334 Vo-Tech nonparticipants. Table 8 presents a summary of the Vo-Tech data collected by post. Since the starting point for all manual data collection was the DA Form 669, these data exist for all of the 675 cases. A 201 Jacket was not found for every previously collected 669 case. Partial "201" data were collected at two installations. At Fort Bragg, there were some cases where the 201 Jacket was not available, but a computer listing with some of the needed data was available. The partial data that could be obtained from the computer listing was used in these cases. At Fort Bliss, only partial 201 data were collected for each soldier. The 201 data that was collected was the information that was not available from any known computerized source.

Problems Encountered

As previously stated, data were collected manually for the Vo-Tech program at three installations and pre-tested at a fourth installation. In collecting data at four different bases, four problems were encountered at the Education Centers: (1) lack of standardization; (2) lack of follow-up; (3) missing demographic data; and (4) missing AEES program data.

Lack of Standardization. Each Education Center has its own coding techniques. The title for any Vo-Tech course only has meaning within the installation where the course was taught, and sometimes only within the particular education center. There is then no way of equating a course title with the level of difficulty or with the actual subject matter covered. For example, a notation might read "auto mechanics course" and could be an identifier for anything from Introduction to Auto Repair to Steering Suspension Systems. Lack of standardization in course content identifiers creates a problem for the soldier when he/she changes bases and for the next Education Center. It becomes impractical for the new Education Center to ascertain from the record exactly what the soldier has been taught in the past. One solution to this problem would be a post-wide uniformity of course titles, with the pertinent course descriptions included in each soldier's education record. Another is an Army-wide determination of what must be covered in each Vo-Tech course. This latter solution would make it easier for the soldier to document this type of coursework for the civilian community.

Lack of Follow-Up. The data collectors observed that in many cases, courses are recorded when a soldier enrolls, but the outcome of that course is not noted. From the record it is impossible to determine
### TABLE 8. SUMMARY OF VO-TECH DATA COLLECTED

<table>
<thead>
<tr>
<th>Participants</th>
<th>Polk</th>
<th>Bragg</th>
<th>Bliss</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete 201 data</td>
<td>84</td>
<td>101</td>
<td>-</td>
<td>185</td>
</tr>
<tr>
<td>Partial 201 data</td>
<td>-</td>
<td>3</td>
<td>66</td>
<td>69</td>
</tr>
<tr>
<td>No 201 data</td>
<td>25</td>
<td>42</td>
<td>20</td>
<td>87</td>
</tr>
<tr>
<td>Total</td>
<td>109</td>
<td>146</td>
<td>86</td>
<td>341</td>
</tr>
</tbody>
</table>

| Non-Participants      |      |       |       |       |
| Complete 201 data     | 89   | 106   | -     | 195   |
| Partial 201 data      | -    | 7     | 64    | 71    |
| No 201 data           | 22   | 25    | 21    | 68    |
| Total                 | 111  | 138   | 85    | 334   |
| **TOTAL**             | **220** | **284** | **171** | **675** |

*The number of unique cases was 672 (3 of those collected were duplicates).*
if that course was completed and, if completed, whether the soldier passed and with what grade, or if he/she completed the course and failed, or if the soldier dropped out before course completion. To correct this situation, counselors would probably have to institute some sort of flagging system for follow-up. The time required for this might make it prohibitive for most counselors. But, without this, any course lacking closure documentation is almost worthless to the soldier.

**Missing Demographic Data.** The only demographic data that was frequently found missing or expired was the ETS (Estimated Time of Separation). Since this datum is available on the Military Personal Records, it should be obtained and recorded on the Education Record.

**Missing ACES Program Data.** Examination of the Education Record revealed that participation in ACES programs such as SOCAD, SOC, Apprenticeship and VEAP was rarely recorded. Since it is known that these programs have greater participation than was recorded, it can be assumed that these Education Records are incomplete and that this incompleteness of recording is also true for the Vo-Tech program.

Most, if not all, of the problems mentioned could be corrected if reporting and recording educational data were mandatory during either inprocessing or outprocessing, or both.

There were only two minor problems that were encountered in collecting demographic data from the DA Form 201 Jackets. The first was that many forms in the jacket had to be examined in order to get the data for variables that were needed for this study. The second problem was that folders were occasionally missing from the file because they were being used for outprocessing, etc. These problems were encountered because of the type of data collection used in this study and do not appear to pose a problem for Army operations.

**Computerized Data Collection and Processing**

**Data Accession Plan**

During Part I of the project, the project team determined that data would be required from TRADOC, MILPERCEN, DMDC, VA, TSC, possibly EREC, and from the selected Army posts. Consequently, a plan for accessing these data was created that would minimize the number of requests required and, yet, acquire all desired data. That plan is presented pictorially in Figure 4. Basically, the plan can be summarized as follows:
FIGURE 4. DATA ACCESS FLOW
1. Define and select BSEP I LIT and BSEP I ESL samples and capture data for several independent variables from TRADOC.

2. Define and select Vo-Tech sample and collect data manually at the selected Army posts.

3. Define and select VEAP sample by accessing the USAREC file at DMDC of all soldiers who entered the Army during a particular time period.

4. Obtain data for other control and dependent variables for the above samples from DMDC, MILPERCEN, EREC, TSC, and VA.

5. Merge these data into a computer file capable of being read by the Statistical Package for the Social Sciences* (SPSS).

The accession plan was not carried out quite as planned. Data were obtained from TRADOC and from the Army posts as planned in June through August, 1980. During August, a tape was received from MILPERCEN containing data on all soldiers who entered the Army after January, 1977. This tape was requested because the soldiers in the BSEP I study entered the Army after this date. Consequently, this tape should have satisfied most of the needs for data from MILPERCEN.

A decision to not study the VEAP program had been made in the interim. Therefore, the data requests to MILPERCEN and DMDC were simplified. After a list of SSN's (Social Security Numbers) had been constructed from the TRADOC and Vo-Tech sources, the list was sent to DMDC. The list was not immediately sent to MILPERCEN because a low match-rate on the earlier MILPERCEN tape (approximately 50 percent) indicated there might be problems either at TRADOC or at MILPERCEN. The list was not sent to TSC because TSC needed information on soldier accession dates to access their files.

Because of problems at DMDC, the data tape was not received until April, 1981. In the meantime, the SSN list was sent to MILPERCEN in spite of potential problems, and a tape was received, also in April, 1981.

At this point, all data was merged onto a file on the UNIVAC 1108 computer at Edgewood Arsenal and a preliminary analysis was performed. Because incomplete responses to the data requests were found, no further requests were made.

Data Sought

(1) TRADOC

- TRADOC was requested to send all data collected in connection with the BSEP I Literacy and BSEP I ESL programs. The variables available for study are located in the B-record.
- These data were dumped from tape ARI 162 to a disk file using the utility program ATX. The disk file was loaded into the Master file via procedure TRADOC.
- There were 9,418 records on the tape, of which 8,893 were eligible for inclusion in the Literacy or ESL study. A record was rejected if it was a duplicate or if the SelectABLE score was too high.

(2) Army Posts

- Data on the Vo-Tech program was collected manually at three Army posts. The data were encoded on computer cards and loaded into the T-record.
- The cards were loaded onto a disk file and from there loaded into the Master file via procedure VOTECH.
- There were 672 soldiers for whom data were collected for the Vo-Tech study.

(3) MILPERCEN

- MILPERCEN was requested to send data which would be used as control and dependent variables in the analysis. Two requests were made, one for all soldiers who entered the Army after January, 1977, the other for soldiers whose SSN's were on a list supplied to MILPERCEN. These data are located in columns 38-116 of the A-record.
- The first request was sent on tape ARI 182 which contained 380,490 records. The tape was dumped to disk using procedure TAPEDMP and from there loaded into the Master file via procedure MILPERCEN.
- This process resulted in approximately 50 percent matches between the TRADOC and Vo-Tech records and those from MILPERCEN, an unexpectedly low figure.
The second request was sent on tape ARI 306 which contained 4,050 records (9,566 SSN's were submitted). This tape was dumped to disk via procedure TAPEDMP (which was modified because of a change in record length) and from there loaded into the Master file via the procedure MILPERCEN (also modified because of a change in record layout).

4,048 of these records were placed in the Master file (the others were duplicate).

DMDC

DMDC was also requested to supply data which would be used as control and independent variables. Some of these overlapped those requested from MILPERCEN for two reasons:

1. There should be some measure of reliability between the two sources
2. MILPERCEN purges soldiers who have left the Army, so those soldiers would only be present on DMDC's USAREC and Master and Loss files.

The variables available for study are located in columns 121 to 244 of the A-record.

These data were dumped from tape ARI 317 to a disk file using the utility program ATX. One problem occurred in this dump in that ATX could not handle 133 character length records (132 is maximum). Fortunately, 133 = 17 x 19, so seven 19-character records were written for each logical record on the tape. The disk file was then loaded into the Master file via procedure DMDC.

5,627 of the DMDC records had data for the 9,566 requested (DMDC filled the record with zeros when a match wasn't possible).

Procedure Development

The procedures were designed in such a way that they could be used for updating or creation. This was deemed appropriate since numerous problems were expected. There are essentially three types of procedures:

1. Procedures to add data to the Master file. These include INITIALIZE, TRADOC, VOTECH, DMDC, MILPERCEN, EREC, TSC, and VEAP. All are very similar in that they merge a sequential file, ordered by SSN, into the Master file.
2. Procedures to obtain data from the Master file. These include SSN and SPSS ACCESS. They basically pass sequentially through the file and write data to a sequential file.

3. Procedures to manipulate tapes. The only one developed is TAPEDMP.

These procedures, which are located in Appendix A, are written in such a way as to be self-documenting. The specifications procedures which were implemented are located in Appendix B. The following comments were used as general rules in implementing the procedures.

(1) All dates are stored in the format YYMMD.

(2) Whenever a record is added to the Master file, the birthdate and sex are placed into the control area if not already present. Consequently, the control birthdate and sex represent those items for the first sources accessed.

(3) Whenever any of the four status flags are non-zero, there must be a corresponding B, T, or V record present.

(4) Data from sources are moved via a MOVE CORRESPONDING so that

(a) Only required data are stored.

(b) If later, more data are needed, the procedure can be easily modified to add data, by just changing the layout in the Data Division.

(5) Records in the ACES-STUDY-MASTER-FILE are accessed as though already present. If not present, they are initialized. The advantages to this scheme are:

(a) The same procedures can be used for record creation and updating (though initial processing will take slightly longer).

(b) The order of execution of the various procedures is less strict.

(c) Soldiers involved in more than one study are easy to process.

(6) In all procedures, processing includes a dump of a sufficient number of records for sigma verification, e.g.,

For the first 25 A-records updated, dump --
1. All records to that point on the input data tape

2. The A-record before and after updating.

(7) In the data division, levels are initially assigned odd numbers (01, 03, 05, etc.).

(8) Initialization phase always includes —

(a) A message identifying which procedure is beginning execution.

(b) A 1-line print of the 000 00 0000 Z record.

(9) All procedures begin and end by printing the Master File Status, Figure 5 on the following page, plus other information as appropriate.

There were 10 files envisioned during the design phase of the procedures. These are listed in Table 9 together with information on those that were accessed. Appendix B presents the basic purpose of each procedure together with the files needed and the general processing design.

Procedures to Perform Analysis

Several procedures have been implemented to simplify gaining access to the data and to execute an SPSS program (all are under project ID: ACES). The procedures are as follows:

(1) To create an extract of the Master file which can be read by SPSS, enter:

   @ ASG,A FILES

   @ ADD FILESCREATE

   When prompted, enter the type of file desired.

(2) To create an SPSS program, use the standard editor. Some examples are in filename SPSS.

(3) To execute an SPSS program, whose control statements are in SPSS.ALL1, for instance, enter:

   @ ASG,A FILES

   @ ADD FILES RUN

   @ ADD SPSS.ALL1
I. MASTER FILE STATUS

TIME 125314
DATE 810701

<table>
<thead>
<tr>
<th>TYPE RECORD</th>
<th>FREQUENCIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0</td>
</tr>
<tr>
<td>R</td>
<td>0</td>
</tr>
<tr>
<td>T</td>
<td>0</td>
</tr>
<tr>
<td>V</td>
<td>0</td>
</tr>
</tbody>
</table>

TOTAL 000

DATE INITIALIZED 810701
DATE LAST MODIFIED 810701

II. PROCEDURE STATUS COUNTERS (procedure dependent)

- A. Number of records on tape file
- B. Number of B records written
- C. Types of errors encountered
  ...etc.

III. ACES PROCEDURE STATUS COUNTERS (procedure dependent)

- A. Number of participants in BSEP I Literacy phase.

FIGURE 5. MASTER FILE STATUS REPORT
### TABLE 9. FILE DESCRIPTION SUMMARY

1. **ACES-STUDY-MASTER-FILE**
   - This indexed-sequential file has a 10-character key constructed from the SSN/ASN and the record-type descriptor. It contains all data available for analysis for the cross-sectional study.
   - Record size: 300 characters, blocking factor: 30 records.

2. **TRADOC-DATA-TAPE**
   - This tape file is received from TRADOC and contains all data collected in conjunction with the BSEP I program. Record size: 80 characters, unblocked.

3. **VO-TECH-DATA-TAPE**
   - This card file contains the data collected at the posts to be used in studying the Vo-Tech program. Up to three cards per soldier.

4. **SSN-LIST-TAPE**
   - This tape file is created from the ACES-STUDY-MASTER-FILE. It contains the SSN/ASN of every soldier currently on file. This tape is sequentially ordered by SSN. Record size: 30 characters. Blocking factor: Variable, depending on destination.

5. **DMDC-DATA-TAPE**
   - This tape file is received from DMDC and it contains data requested on certain soldiers. This tape is sequentially ordered by SSN. Record size: 133 characters, blocking factor: 40 records.

6. **MILPERCEN-DATA-TAPE**
   - This tape file from MILPERCEN contains selected data on all soldiers currently in the service (enlisted personnel). This tape is sequentially ordered by SSN.
TABLE 9. (Continued)

| ARI 182: Record size: 83 characters, blocking factor: | 30 records. |
| ARI 306: Record size: 88 characters, blocking factor: | 30 records. |

7. TSC-DATA-TAPE

This tape from TSC contains the SQT component scores for all soldiers in the study. This tape is sequentially ordered by SSN. (This tape was not requested.)

8. VEAP-DATA-TAPE

This tape file contains all data available at the VA for soldiers in the study. This tape is sequentially ordered by SSN. (This tape was not requested.)

9. EREC-DATA-TAPE

If EREC is accessed, this file will contain the data. (This tape was not requested.)

10. SPSS-DATA-TAPE

This tape is created from the ACES-STUDY-MASTER-FILE. It contains all data needed for a particular study in a format compatible with SPSS. For each record type requested, 3 records of 120 characters each are written (UNIVAC SPSS has a maximum input record length of 132 characters).
A sample SPSS program using this system is described in the following pages (see Figure 6). Appendix C presents the set of SPSS program variables developed. This is the program used to define the sample sizes and calculate the discrepancies presented in this report. Only the first task control cards are described. This program was created using the UNIVAC editor on a file called SPSS.ALL1. It was executed as follows:

> @ ASG,A FILES
> @ ADD FILES.CREATE
> @ 2 (In response to the type of raw file to be created)
> @ ADD FILES.RUN
> @ ADD SPSS.ALL1.

There were numerous problems that had to be overcome in the development and implementation of these procedures. Some of the more noteworthy include:

- The use of an outdated, overworked computer system, the Edgewood Arsenal UNIVAC 1108 under the EXEC 8 operating system.

- The arbitrary limitations placed on the user in the, supposedly, ANSI COBOL and SPSS on this computer. (Especially, on records sizes of files used for I/O (Input/Output).

- The lack of expert assistance of the staff operating this computer. For instance, apparently few personnel operating this computer have used random access files or COBOL.

- The inability to contact directly those personnel who supply the requested data. Requests for data had to be routed through intermediaries. This process caused communication problems and loss of time.

- The necessity to go through a hierarchy of contacts to get even a simple question answered.

- Problems of signing on the computer because of overused phone trunk lines into Edgewood Arsenal.
SPSS BATCH SYSTEM

SPSS FOR SPERRY UNIVAC 1100 EXEC 8, VERSION H, RELEASE B.1-UN1.1, DECEMBER 1980

SPACE ALLOCATION
WORKSPACE 17500 WORDS ALLOWS FOR 87 TRANSFORMATIONS
TRANSSPACE 2500 WORDS 332 RECODE VALUES - LAS VARIABLES

1. RUN NAME ALL1 - GENERAL STATS AND SAMPLE SIZES
2. FILE NAME ALL1
3. VARIABLE LIST SSN, LITFLG, ESLFLG, TECHFLG, MILPFLG, DMDCFLG,
   DOBYY, DOBMM, DOBDD, SEXCNTRL, SEXMILP, MYY, MMD, MOD.
   PQDES, PSQDT, PSQCR, PQPER,
   DTY, DMM, DDD, SEXMDC,
   SSNTRAD, SSSTRAD, SKTECH, TTY, TMM, TDD, SKTECH
4. INPUT MEDIUM TAPE
5. INPUT FORMAT FIXED (F9.0,1X,3F1.0,1X,2F1.0,1X,3F2.0,2AI,2X,3A2,
   52X,A4,A4,A3,A2,/,)
6. ACCORDING TO YOUR INPUT FORMAT, VARIABLES ARE TO BE READ AS FOLLOWS

   VARIABLE FORMAT RECORD COLUMNS

   SSN  F 9.0  1  1- 9
   LITFLG F 1.0  1  11- 11
   ESLFLG F 1.0  1  12- 12
   TECHFLG F 1.0  1  13- 13
   MILPFLG F 1.0  1  15- 15
   DMDCFLG F 1.0  1  16- 16
   DOBYY F 2.0  1  31- 32
   DOBMM F 2.0  1  33- 34
   DOBDD F 2.0  1  35- 36
   SEXCNTRL A 1  1  37- 37
   SEXMILP  A 1  1  38- 38
   MYY  A 2  1  41- 42
   MMD  A 2  1  43- 44
   MOD  A 2  1  45- 46
   PQDES  A 4  1  99-102
   PSQDT  A 4  1  103-106
   PSQCR  A 3  1  107-109
   PQPER  A 2  1  110-111
   DTY  F 2.0  2  1- 2
   DMM  F 2.0  2  3- 4
   DDD  F 2.0  2  5- 6
   SEXMDC  A 1  2  9- 9
   SSNTRAD F 9.0  4  1- 9
   SSSTRAD  A 1  4  36- 36
   SKTECH  F 9.0  7  1- 9
   TTY  F 2.0  7  15- 16
   TMM  F 2.0  7  17- 18
   TDD  F 2.0  7  19- 20

   ALL1 - GENERAL STATS AND SAMPLE SIZES

FIGURE 6. SAMPLE SPSS PROGRAM
According to your input format, variables are to be read as follows:

**VARIABLE FORMAT RECORD COLUMNS**

**SEXTech** A 1 7 22-22

The input format provides for 29 variables. 29 will be read.

It provides for 9 records ('cards') per case. A maximum of 111 'columns' are used on a record.

12. N of cases
13. Recode NTy, NMm, NdD (' ' = 'OO')
14. Recode NTy, NMm, NdD (Convert)
15. Compute BOTHPLG = O
16. IF (MILFPLG EQ 1 AND DMDCFPLG EQ 1) BOTHPLG = 1
17. IF (SSNTRAD GT 0) TRAHER = 1
18. IF (SSNTECH GT 0) TECHHERE = 1
19. Compute CNTDats = YRModa (DYty, MYbmn, MMdDD)
20. Compute MILFdatS = YRModa (TTY, NMM, MDD)
21. Compute DMDCDatS = YRModa (DYY, DMM, DDD)
22. Compute TECHDatS = YRModa (TYY, MMm, TDD)
23. Compute CNThin = ABS (CNTDats - MILFdatS)
24. Compute CNTmkn = ABS (CNTDats - DMDCDatS)
25. Compute CNThin = ABS (CNTDats - TECHDatS)
26. Compute MILNen = ABS (MILFdatS - DMDCDatS)
27. Compute MILNen = ABS (MILFdatS - TECHDatS)
28. Compute DMNen = ABS (DMDCDatS - TECHDatS)
29. Recode CNThin TO DMNen (O THRU 3O = 1) (31 THRU HI = 2)
30. Recode SExMDC ('1' = 'N') ('2' = 'F')
31. Do Repeat IN = SExMILP, SExMDDC, SExTECH /
32. OUT = SCNThin, SCNMDm, SCNTECH /
33. Compute OUT = O
34. IF (SEXCNTRL EQ 'N' OR 'F' AND IN EQ 'N' OR 'F') OUT = 1
35. IF (OUT EQ 1 AND SEXCNTRL EQ IN) OUT = 2
36. End Repeat

37. Do Repeat IN = SExMDmC, SExTECH /
38. OUT = SCNMILP, SVNTECH /
39. Compute OUT = O
40. IF (SExMILP EQ 'N' OR 'F' AND IN EQ 'N' OR 'F') OUT = 1
41. IF (OUT EQ 1 AND SEXCNTRL EQ IN) OUT = 2
42. End Repeat

43. Compute SExMDTC = 0
44. IF (SExMDmC EQ 'N' OR 'F' AND SExTECH EQ 'N' OR 'F') SExMDTC = 1
45. IF (SExMDTC EQ 1 AND SExMDmC EQ SExTECH) SExMDTC = 2
46. Assign Missing CNTDats TO DMNen (-1)
47. Print Formats SEXCNTRL, SExMDDC, SExMILP, SExTRAD, SExTECH (A)
48. Pudos, PROD, PSQUR, PSQER (A)
49. Task Name INTEGRITY CHECK
50. *Select IF (SSN NE SSNTRAD AND SSNTECH)
51. List Cases CASES=5 / VARIABLES = ALL

All - General Stats and Sample Sizes

Integrity Check 07/01/81

52. Frequencies General = SEXCNTRL
53. Options 5

Given workspace allows for 4375 values and 1749 labels per variable for 'frequencies'

*Execution terminated*

**Figure 6. (Continued)**
Preliminary Analysis

Only a very rudimentary analysis was performed. The purpose of this analysis was to verify that the system operated properly and to determine the quality of some of the data obtained.

The analysis demonstrated that the system operated as planned. However, the quality of the data obtained was less than was expected. The first indicator of poor quality was the low retrieval rate at both DMDC and MILPERCEN. The achieved sample sizes of each study, broken out by the number of matches at DMDC and MILPERCEN, is presented in Table 10. The table reveals that only 34 percent of the BSEP I Literacy sample have both records, 54 percent of the BSEP I ESL sample have both records, and 68 percent of the Vo-Tech sample have both records. Because almost all of these soldiers entered the Army after January, 1977, it was expected that the match rate at DMDC would approach 100 percent. Data for soldiers who have dropped out of the Army should be missing at MILPERCEN, so 100 percent retrieval was not expected. However, almost 100 percent retrieval of the data for the Vo-Tech sample was expected.

The next quality check performed was to conduct a comparison between the birthdates available at the various sources. The results are presented in Table 11. As can be seen in the table, there is some disagreement even when permitting a 30-day error in birthdate matches. A similar check was performed on the sex designation of the soldier by source and those results are presented in Table 12. The discrepancy numbers, i.e., cases for which both sources have data on birthdate or sex but the data do not match, in these two tables are not large, but any discrepancy on basic variables like birthdate and sex decreases confidence in the quality of the remaining data. It is especially disappointing to observe the disagreement between MILPERCEN and DMDC (DMDC files contain refined MILPERCEN raw data).

The other check performed was to determine the quality of the SQT data provided by MILPERCEN. This check was made to determine if accessing TSC for SQT data would be necessary. For the Vo-Tech sample of 672 shown in Table 10, only 139 SQT scores were recorded in the MILPERCEN data. Thus, MILPERCEN does not appear to be a good source of SQT data.

It was not possible to identify the causes of the missing and discrepant data. However, some questions concerning potential causes are appropriate:

- Are the SSN's supplied by TRADOC accurate? There is some doubt that the TRADOC SSN's are accurate because they did not match SSN's supplied by MILPERCEN using two different access methods.
<table>
<thead>
<tr>
<th></th>
<th>Sample Size</th>
<th>Those With DMDC Data</th>
<th>%</th>
<th>Those With MILPERCENT Data</th>
<th>%</th>
<th>Those With Both</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BSEP I LITERACY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participant</td>
<td>6482</td>
<td>3453</td>
<td>53.3</td>
<td>2291</td>
<td>35.3</td>
<td>2185</td>
<td>33.7</td>
</tr>
<tr>
<td>Non-Participant</td>
<td>2138</td>
<td>1307</td>
<td>61.1</td>
<td>879</td>
<td>41.1</td>
<td>845</td>
<td>39.5</td>
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<tr>
<td></td>
<td>4344</td>
<td>2146</td>
<td>49.4</td>
<td>1412</td>
<td>32.5</td>
<td>1340</td>
<td>30.8</td>
</tr>
<tr>
<td><strong>BSEP I ESL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participant</td>
<td>2411</td>
<td>1667</td>
<td>69.1</td>
<td>1352</td>
<td>56.1</td>
<td>1304</td>
<td>54.1</td>
</tr>
<tr>
<td>Non-Participant</td>
<td>1395</td>
<td>1068</td>
<td>76.6</td>
<td>897</td>
<td>64.3</td>
<td>864</td>
<td>61.9</td>
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<td></td>
<td>1016</td>
<td>599</td>
<td>59.0</td>
<td>455</td>
<td>44.8</td>
<td>440</td>
<td>43.3</td>
</tr>
<tr>
<td><strong>Vo-Tech</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participant</td>
<td>672</td>
<td>508</td>
<td>75.6</td>
<td>581</td>
<td>86.5</td>
<td>454</td>
<td>67.6</td>
</tr>
<tr>
<td>Non-Participant</td>
<td>338</td>
<td>248</td>
<td>73.4</td>
<td>283</td>
<td>83.7</td>
<td>213</td>
<td>63.0</td>
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<tr>
<td></td>
<td>334</td>
<td>260</td>
<td>77.8</td>
<td>298</td>
<td>89.2</td>
<td>241</td>
<td>72.2</td>
</tr>
<tr>
<td>Comparison</td>
<td>Sample Size</td>
<td>Dates Within 30 Days</td>
<td>Dates Not Within 30 Days</td>
<td>Comparison Possible**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-------------</td>
<td>----------------------</td>
<td>--------------------------</td>
<td>-----------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONTROL* vs. MILPERCEN</td>
<td>9564</td>
<td>4194</td>
<td>9</td>
<td>5361</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONTROL vs. DMDC</td>
<td>9564</td>
<td>5537</td>
<td>89</td>
<td>3938</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>MILPERCEN vs. DMDC</td>
<td>9564</td>
<td>3850</td>
<td>91</td>
<td>5623</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>MILPERCEN vs. Vo-Tech</td>
<td>672</td>
<td>352</td>
<td>4</td>
<td>9208</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DMDC vs. Vo-Tech</td>
<td>672</td>
<td>295</td>
<td>6</td>
<td>9263</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* CONTROL is from either TRADOC or Vo-Tech.
** Not computable because one or both birthdates are not present or not a valid date.
**TABLE 12. SEX COMPARISONS**

<table>
<thead>
<tr>
<th></th>
<th>Sample Size</th>
<th>Sex Matches</th>
<th>Sex Mismatch</th>
<th>Not Comparable**</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTROL* vs. MILPERCEN</td>
<td>9564</td>
<td>4217</td>
<td>6</td>
<td>5341</td>
</tr>
<tr>
<td>CONTROL vs. DMDC</td>
<td>9564</td>
<td>5618</td>
<td>9</td>
<td>3937</td>
</tr>
<tr>
<td>MILPERCEN vs. DMDC</td>
<td>9564</td>
<td>3938</td>
<td>64</td>
<td>5562</td>
</tr>
<tr>
<td>MILPERCEN vs. Vo-Tech</td>
<td>672</td>
<td>367</td>
<td>0</td>
<td>9197</td>
</tr>
<tr>
<td>DMDC vs. Vo-Tech</td>
<td>672</td>
<td>309</td>
<td>0</td>
<td>9255</td>
</tr>
</tbody>
</table>

*CONTROL is either from TRADOC or Vo-Tech.
**Not comparable means one or both sex data are missing or not a valid type.
Which data source is more reliable? (Accessing still other sources might shed some light on this.)

If the SSN's are accurate, has DMDC been unable to properly respond to Battelle's data request? (DMDC recently installed a new computer system, and some of the problems encountered indirectly demonstrate staff inexperience.)

Other data were also collected from both sources, do these data indicate similar problems?

The actions required to overcome the problems would be as follows. An attempt could be made to resolve the problems encountered and perform an analysis along the lines planned. More work on the data file could overcome or alleviate the discrepancies found thus far and permit an analysis of data. Certainly, the sample sizes are large enough. The comparative statistical analysis would be performed as specified in the Part I Technical Report using SPSS routines. Planned analysis using SQT scores would be eliminated.

Summary of Problems Encountered During Collection, Storage, and Management of Data

It is appropriate to examine, in summary, the problems encountered by the Battelle staff during collection, storage, and management of Vo-Tech Program and computerized soldier performance data and the implications for subsequent linking of ACES data and soldier performance data in the evaluation of program impact. These considerations will provide an opportunity to assess what was learned in the efforts to resolve these problems.

Vo-Tech Data Collection

The data recorded on the Form 669's regarding Vo-Tech course identification and content was not standardized either within Army posts or between posts. This lack of standardization in course identification and content makes the classification of soldier participants into groups with homogeneous educational experiences extremely difficult. Therefore, the formation of such groups for comparative analysis of program impact is experimentally spurious.

The lack of standardization in data records is further compounded by the observed missing data on course follow-up. In a significant number of instances, data were not recorded on the Form 669's regarding course completion, course grade, and course drop-out. Hence, the extent of the educational experience for these soldier participants with missing
data could not be determined. This circumstance further complicates the classification of soldiers to the ACES program participation - non-participation categories for comparative analysis.

The further observation during manual data collection from the Form 669's of a spuriously low incidence of recorded data on participation in other ACES programs such as SOC, SOCAD, and Apprenticeship Training indicates potential problems for evaluating impact across ACES programs. Significant incidence of missing data on participation in these other ACES programs may preclude, or make costly, obtaining satisfactory sample sizes for groups of soldier participants. The levels of precision and validity of participant versus nonparticipant comparisons may be less than desired to the extent they are affected by the missing data.

Computerized Data Collection

The development and implementation of procedures for processing and storage of data on the UNIVAC 1108 computer at Edgewood, Maryland did not progress as rapidly as planned because of the age and perceived "overworked" circumstance of the computer system. The EXEC 8 operating system was judged not to be as "up-to-date" as possible. Delays were experienced in getting on to the system, seemingly unexpected "bugs" were encountered that were not explained by system documentation, and limitations on input-output file sizes hampered procedures development and subsequent processing. The random access files and COBOL routines used in the data storage and management procedures were not familiar to some of the UNIVAC 1108 operating staff. These staff members could not provide assistance when developmental and operational problems were encountered. For these reasons, it is anticipated that not infrequent operational problems would be encountered in conducting an ongoing ACES program impact analysis on the UNIVAC 1108 computer at Edgewood, Maryland. The assignment of a contractor employed, data processing and analysis specialist to the UNIVAC 1108 computer site could eliminate, or resolve, some of the anticipated problems. (The Battelle staff accessed the UNIVAC 1108 computer by means of telephone lines from Columbus, Ohio.)

Requesting and obtaining data from multiple, computerized data sources was hampered by the lack of direct contact between the Battelle staff and the person from each agency supplying the data. All questions concerning uncertainties in formats and specifications of both the request and the source had to be resolved by means of contacts through several intermediaries. This mode of contact caused delays in resolving these questions, introduced errors in interpretation, and degraded the value of feedback. It is recognized that this mode of contact is necessary for the initial cycle of contacts in order to legitimize the request for
data and to establish the authorization for supply of data. In subsequent contact cycles, however, the contacts should be made directly between requesting and source personnel, with notification and explanation of contacts sent to cognizant intermediaries. It is believed that this latter mode of contact is more efficient and effective in requesting and obtaining data from computerized sources.

The specific cause(s) for the perceived, low matching and/or retrieval rates on SSN’s, birthdates, and sex among the TRADOC data tape, manually collected Vo-Tech Program data, DMD data tape, and MILPERCEN data tape is (are) not known. It was anticipated that the matching and/or retrieval rates would be much higher than those achieved, e.g., it was expected that the match rate on SSN’s between TRADOC and Vo-Tech data and DMD data would approach .00 percent, but the achieved rates ranged from about 53 percent to about 76 percent. It is not known which data source is most reliable. The cause(s) of the low matching and/or retrieval rates must be isolated and the mechanism understood (perhaps, it (they) need not be corrected) before the data can be used for comparative statistical analysis of ACES program impact. The sample sizes of the program groups for which matches and/or retrievals were obtained are large enough to justify comparative analysis. Therefore, direct contacts between the personnel performing the comparative analysis and the TRADOC, DMD, and MILPERCEN operating personnel would likely result in isolating and defining the mechanism(s) causing the low matching and/or retrieval rates. The need for and nature of appropriate corrective actions could then be determined. Then, the comparative statistical analysis of program impact could be performed consistent with the Part I Technical Report analysis plans. Of course, analysis involving SQT scores would have to be eliminated unless the appropriate SQT data were requested and obtained from the TSC.
APPENDIX A

DATA PROCESSING PROCEDURES IMPLEMENTED
APPENDIX A

DATA PROCESSING PROCEDURES IMPLEMENTED

IDENTIFICATION DIVISION.
PROGRAM-ID. INITIALIZ.
INSTALLATION. ABERDEEN PROVING GROUND, MD, 21010.
DATE-WRITTEN. MAY 1980.
REMARKS. THE PURPOSE OF THIS PROGRAM IS
I TO GENERATE ONE Z TYPE RECORD
INDEXED BY OOOOOO0Z
THE Z RECORD CONTAINS THE FREQUENCIES
OF THE A,B,T, AND Z TYPE RECORDS
AND IS FOUND ON ACES-MASTER-FILE
II TO ESTABLISH AN INITIAL DATA BASE TO
ACCEPT VARIOUS INFORMATION AND BE
PLACED INTO THE DATA BASE VIA A SPECIFIC
RECORD TYPE
A-TYPE
B-TYPE
T-TYPE
V-TYPE
III TO GENERATE A STATUS REPORT
WITH FREQUENCY OF A,B,T,V, RECORDS.

ENVIRONMENT DIVISION.

CONFIGURATION SECTION.
SOURCE-COMPUTER. UNIVAC-1108.
OBJECT-COMPUTER. UNIVAC-1108.

INPUT-OUTPUT SECTION.
FILE-CONTROL.

SELECT ACES-MASTER-FILE ASSIGN TO MASS-STORAGE MASTER

DATA DIVISION.

FILE SECTION.

FD ACES-MASTER-FILE.
LABEL RECORDS ARE STANDARD,
RECORD CONTAINS 300 CHARACTERS,
BLOCK CONTAINS 30 RECORDS.
01 MASTER-RECORD.
  03 SEARCH-KEY.
    05 SSN PIC 9(9).
    05 RECORD-TYPE PIC X.
  03 DATA-AREA PIC X(290).
FD PRINTER1
  LABEL RECORDS ARE OMITTED
  DATA RECORD IS PRINT-LINE.
01 PRINT-LINE.
  03 CARRIAGE-CONTROL-CHARACTER PIC X.
  03 PRINT-DATA PIC X(121).
WORKING-STORAGE SECTION.
77 MASTER-SEARCH-KEY PIC X(10).
* MACHINE DATE-TIME IS ACCEPTED FROM THE SYSTEM AND
  IS PRINTED OUT WHEN FILES ARE OPENED AND CLOSED
  SEQUENCED DATE IS THE DATE IN THE FORM YYYYMMDD TO ALLOW
  FOR SORTING ON THE 6 FIELD CODE
  SEARCH KEY IS THE INDEX INTO THE INDEXED SEQUENTIAL
  DATA BASE IT CONSISTS OF A SOCIAL SECURITY NUMBER
  AND SOME RECORD TYPE (A, B, T, OR V)
  THE A RECORD IS THE MASTER RECORD FOR THE ACES FILE
  A SOLDIER MUST HAVE AN A RECORD TO HAVE A B, T, OR V
  TYPE OF RECORD INDEXED BY NNNNNNNNA WHERE N IS A
  NUMERIC VALUE
  THE Z-RECORD IS ALWAYS MAINTAINED ON THE ACES MASTER FILE
  IT CARRIES THE RECORDS COUNTS, AND OTHER FILE INFORMATION
  CONSULT SYSTEM DOCUMENTATION FOR RECORD LAYOUT
  INDEX FOR Z RECORD IS OOOOOO0Z
Z-RECORD.
O3 SSN-TYPE.
O5 SSN PIC 9(9).
O5 RECORD-TYPE PIC X VALUE 'Z'.
O3 INITIALIZED-DATE.
O5 INITIALIZED-YY PIC 99.
O5 INITIALIZED-MM PIC 99.
O5 INITIALIZED-DD PIC 99.
O3 LAST-MODIFIED-DATE.
O5 LAST-MODIFIED-YY PIC 99.
O5 LAST-MODIFIED-MM PIC 99.
O5 LAST-MODIFIED-DD PIC 99.
O3 RECORD-COUNTS.
O5 NUMBER-OF-A-RECORDS PIC 9(7).
O5 NUMBER-OF-B-RECORDS PIC 9(7).
O5 NUMBER-OF-T-RECORDS PIC 9(7).
O5 NUMBER-OF-V-RECORDS PIC 9(7).
O5 TOTAL-RECORDS PIC 9(11).

THE FOLLOWING ARE THE PRINT LINES FOR THE STATUS REPORT

O1 STATUS-REPORT.
O3 LINE-1.
O5 FILLER PIC X(40) VALUE SPACES.
O5 FILLER PIC X(40) VALUE 'STATUS REPORT ON Aces MASTER FILE'.
O3 LINE-2.
O5 FILLER PIC X(50) VALUE SPACES.
O5 FILLER PIC X(8) VALUE 'TIME'.
O5 SHOW-TIME PIC X(6).
O3 LINE-3.
O5 FILLER PIC X(50) VALUE SPACES.
O5 FILLER PIC X(8) VALUE 'DATE'.
O3 LINE-4.
O5 FILLER PIC X(23) VALUE SPACES.
O5 FILLER PIC X(11) VALUE 'TYPE RECORD'.
O5 FILLER PIC X(9) VALUE SPACES.
O5 FILLER PIC X(13) VALUE 'FREQUENCIES'.
O5 FILLER PIC X(23) VALUE SPACES.
O5 FILLER PIC X(23) VALUE 'DATE INITIALIZED'.
O3 LINE-5.
O5 FILLER PIC X(32) VALUE SPACES.
O5 FILLER PIC X(15) VALUE 'A'.
O3 LINE-6.
O5 FILLER PIC X(32) VALUE SPACES.
O5 FILLER PIC X(15) VALUE 'B'.
O5 SHOW-B-COUNT PIC ZZZ,ZZ9.
A-4

141: 03 LINE-7.
142: 05 FILLER PIC X(32) VALUE SPACES.
143: 05 FILLER PIC X(15) VALUE 'T'.
144: 05 SHOW-T-COUNT PIC ZZZ,ZZ9.
145: 05 FILLER PIC X(25) VALUE SPACES.
146: 05 FILLER PIC X(20) VALUE 'DATE LAST MODIFIED'.
148: 03 LINE-8.
149: 05 FILLER PIC X(32) VALUE SPACES.
150: 05 FILLER PIC X(15) VALUE 'V'.
151: 05 SHOW-V-COUNT PIC ZZZ,ZZ9.
152: 03 LINE-9.
153: 05 FILLER PIC X(46) VALUE SPACES.
154: 05 FILLER PIC X(6) VALUE '---'.
155: 03 LINE-10.
156: 05 FILLER PIC X(29) VALUE SPACES.
157: 05 FILLER PIC X(15) VALUE 'TOTAL'.
158: 05 SHOW-SUM-ABTV-RECORDS PIC ZZZ,ZZ-,999.
159: PROCEDURE DIVISION.
160: MAIN-LINE.
161: PERFORM OPEN-FILE-WRITE-Z-RECORD.
162: PERFORM SET-UP-ACES-MASTER-FILE.
163: PERFORM SHUT-DOWN-ACES-MASTER-FILE.
164: STOP RUN.
165: *
166: INITIALIZE-DATE-TIME.
167: * ************************************ *
168: * WHEN RUN ON A UNIVAC THE FOLLOWING TWO STATEMENTS
169: * SHOULD BE DELETED THEN SUBSTITUTE THIS
170: * ACCEPT MACHINE-DATE-TIME FROM DATE-TIME.
171: * ************************************
172: *
173: MOVE CORRESPONDING MACHINE-DATE TO SEQUENCED-DATE.
174: *
175: *
176: OPEN-FILE-WRITE-Z-RECORD.
177: PERFORM INITIALIZE-DATE-TIME.
178: OPEN OUTPUT ACES-MASTER-FILE,
179: PRINTER.
180: MOVE ZEROS TO SSN OF Z-RECORD, RECORD-COUNTS OF Z-RECORD,
181: SSN OF SEARCH-KEY.
182: MOVE 'Z' TO RECORD-TYPE OF SEARCH-KEY.
183: MOVE SEQUENCED-DATE TO LAST-MODIFIED-DATE, INITIALIZED-DATE
184: OF Z-RECORD.
185: MOVE SEARCH-KEY TO MASTER-SEARCH-KEY.
186: DISPLAY 'Z WRITTEN - ', Z-RECORD UPON PRINTER.
187: WRITE MASTER-RECORD FROM Z-RECORD,
188: INVALID KEY DISPLAY 'ERROR ON Z WRITE' UPON PRINTER.
189: CLOSE ACES-MASTER-FILE.
190: DISPLAY 'ACES MASTER SHUT DOWN' UPON PRINTER.
191: * OPEN INPUT ACES-MASTER-FILE.
192: MOVE ZEROES TO SSN OF SEARCH-KEY.
193: * MOVE 'Z' TO RECORD-TYPE OF SEARCH-KEY.
194: MOVE SEARCH-KEY TO MASTER-SEARCH-KEY.
195: READ ACES-MASTER-FILE INTO Z-RECORD,
196: INVALID KEY DISPLAY 'Z READ ERROR' UPON PRINTER.
197: DISPLAY Z-RECORD, 'TESTER' UPON PRINTER.
198: * CLOSE ACES-MASTER-FILE.
199: SET-UP-ACES-MASTER-FILE.
200: * TH.|. ROUTINE WILL BE THE FIRST STEP IN ANY RUN
201: * INVOLVING THE ACES-MASTER-FILE.
202: * OPEN I-O ACES-MASTER-FILE.
203: MOVE ZEROES TO SSN OF SEARCH-KEY.
204: MOVE 'Z' TO RECORD-TYPE OF SEARCH-KEY.
205: MOVE SEARCH-KEY TO MASTER-SEARCH-KEY.
206: READ ACES-MASTER-FILE INTO Z-RECORD,
207: INVALID KEY DISPLAY 'Z READ ERROR' UPON PRINTER.
208: PERFORM PRINT-STATUS-REPORT.
209: PRINT-STATUS-REPORT.
210: * MOVE THE DATA OFF Z-RECORD TO REPORT PRINT LINES
211: MOVE INITIALIZED-DATF OF Z-RECORD TO SHOW-INITIALIZED-DATE
OF STATUS-REPORT.
212: MOVE LAST-MODIFIED-DATE TO SHOW-MODIFY-DATE.
213: MOVE NUMBER-OF-A-RECORDS TO SHOW-A-COUNT.
214: MOVE NUMBER-OF-B-RECORDS TO SHOW-B-COUNT.
215: MOVE NUMBER-OF-T-RECORDS TO SHOW-T-COUNT.
216: MOVE NUMBER-OF-V-RECORDS TO SHOW-V-COUNT.
217: MOVE TOTAL-RECORDS TO SHOW-SUM-ACTV-RECORDS.
218: GET THE CORRECT TIME AND DATE
219: PLACE TIME, DATE INTO REPORT PAGE
227: PERFORM INITIALIZE-DAY-TIME.
228: MOVE MACHINE-TIME TO SHOW-TIME OF STATUS-REPORT.
229: MOVE SEQUENCED-DATE TO SHOW-DATE OF STATUS-REPORT.
230: * WRITE THE STATUS REPORT
231: * WRITE PRINT-LINE FROM LINE-1 OF STATUS-REPORT AFTER
232: * HEAD-OF-FORM.
233: WRITE PRINT-LINE FROM LINE-2 OF STATUS-REPORT AFTER 2 LINES.
234: WRITE PRINT-LINE FROM LINE-3 OF STATUS-REPORT AFTER 2 LINES.
235: WRITE PRINT-LINE FROM LINE-4 OF STATUS-REPORT AFTER 2 LINES.
236: WRITE PRINT-LINE FROM LINE-5 OF STATUS-REPORT AFTER 2 LINES.
237: WRITE PRINT-LINE FROM LINE-6 OF STATUS-REPORT AFTER 2 LINES.
238: WRITE PRINT-LINE FROM LINE-7 OF STATUS-REPORT AFTER 2 LINES.
239: WRITE PRINT-LINE FROM LINE-8 OF STATUS-REPORT AFTER 2 LINES.
240: WRITE PRINT-LINE FROM LINE-9 OF STATUS-REPORT AFTER 2 LINES.
241: WRITE PRINT-LINE FROM LINE-10 OF STATUS-REPORT AFTER 2 LINES.
242: SHUT-DOWN-ACES-MASTER-FILE.
243: * A STATUS REPORT WILL BE GENERATED
244: * A MODIFIED Z-RECORD WILL BE REWRITTEN
245: * ACES-MASTERFILE WILL BE CLOSED
246: PERFORM PRINT-STATUS-REPORT.
247: PERFORM RE-WRITE-Z-RECORD.
248: CLOSE ACES-MASTER-FILE, PRINTER.
249: * RE-WRITE-Z-RECORD.
250: MOVE SEQUENCED-DATE TO LAST-MODIFIED-DATE OF Z-RECORD.
251: MOVE ZEROS TO SSN OF SEARCH-KEY.
252: MOVE 'Z' TO RECORD-TYPE OF SEARCH-KEY.
253: MOVE SEARCH-KEY TO MASTER-SEARCH-KEY.
254: REWRITE MASTER-RECORD FROM Z-RECORD
255: INVALID KEY DISPLAY 'Z RECORD NOT WRITTEN'
256: UPON PRINTER.
257: WRITE-EOF-MARKER.
258: MOVE SPACES TO MASTER-RECORD.
259: MOVE 999999999 TO SSN OF SEARCH-KEY.
260: MOVE 'Z' TO RECORD-TYPE OF SEARCH-KEY.
261: MOVE SEARCH-KEY TO MASTER-SEARCH-KEY.
262: WRITE MASTER-RECORD
263: INVALID KEY DISPLAY 'EOF NOT WRITTEN' UPON PRINTER.
264: MOVE SEARCH-KEY TO MASTER-SEARCH-KEY.
265: * THIS CREATES AN END OF FILE MARKER RECORD
266: * DENOTED BY RECORD KEY 9999999992
267: EOF:267
O:>
IDENTIFICATION DIVISION.

PROGRAM-ID. TRADOC.

INSTALLATION. ABERDEEN PROVING GROUND, MD, 21010.

DATE-WRITTEN. MAY 1980.

SECURITY. NO SECURITY CLEARANCE.

REMARKS. THE PURPOSE OF THIS PROGRAM IS PRODUCE TWO TYPES OF OUTPUT

I) THOSE SOLDIERS WHO HAVE BEEN ACCEPTED INTO THE PROGRAM IF SELECTABLE-ABLE-TEST-SCORE OF LESS THAN 50 OR ECL-PRETEST

II) THOSE SOLDIERS WHO HAVE NOT BEEN ACCEPTED INTO THE PROGRAM (WHICH SHOULD BE FEW) AND HAVE HIGHER ECL PRE TEST SCORES AND SELECT-ABLE-TEST-Scores

ENVIRONMENT DIVISION.

CONFIGURATION SECTION.

SOURCE-COMPUTER. UNIVAC-1108.

OBJECT-COMPUTER. UNIVAC-1108.

INPUT-OUTPUT SECTION.

FILE-CONTROL.

SELECT ACES-MASTER-FILE ASSIGN TO MASS-STORAGE MASTER ORGANIZATION IS INDEXED, ACCESS MODE IS RANDOM FILE-LIMIT IS 20000 ACTUAL KEY IS SEARCH-KEY.

SELECT PRINTER1 ASSIGN TO PRINTER.

SELECT TRADOC ASSIGN TO CARDREADER TRDATA.

DATA DIVISION.

FILE SECTION.

*FD ACES-MASTER-FILE

LABEL RECORDS ARE STANDARD,

RECORD CONTAINS 300 CHARACTERS,

BLOCK CONTAINS 30 RECORDS.

*FD TRADOC

LABEL RECORDS ARE STANDARD,

RECORD CONTAINS 80 CHARACTERS.

01 TRADOC-RECORD.

02 TRADOC-RECORD-DUMMY.

05 LAST-NAME PIC X(12).

05 FIRST-INIT PIC XX.

05 SSN PIC 9(9).
02 TRADOC-DATA-AREA.
05 SEX PIC X.
05 RACE PIC X.
 05 PRIMARY-LANGUAGE PIC X.
05 ESL PIC X.
05 EDUCATION-LEVEL PIC X.
05 MILITARY-COMPONENT PIC X.
05 MENTAL-CATEGORY PIC X.
05 MOS PIC X(3).
05 SELECTABLE-TEST-SCORE PIC XX.
05 SELECTABLE-SUB-SCORE.
   07 SS-1 PIC 99.
   07 SS-2 PIC 99.
   07 SS-3 PIC 99.
   07 SS-4 PIC 99.
   07 SS-5 PIC 99.
   07 SS-6 PIC 99.
   07 SS-7 PIC 99.
   07 SS-8 PIC 99.
   07 SS-9 PIC 99.
   07 SS-10 PIC 99.
   07 SS-11 PIC 99.
   07 SS-12 PIC 99.
   07 SS-13 PIC 99.
   07 SS-14 PIC 99.
   07 SS-15 PIC 99.
 05 GRADE-LEVEL-CHANGE PIC X.
 05 CHANGE-IN-GRADE PIC 99.
 05 ECL-PRE-TEST PIC 99.
 05 ECL-POST-TEST PIC 99.
 05 DAYS-ENROLLED PIC XX.
 05 SUCCESS PIC X.
 05 DISCHARGE PIC X.
 05 INSTALLATION-IDENT PIC 99.
 05 MONTH PIC X.
 05 YEAR PIC X.
FD PRINTER.
LABEL RECORDS ARE OMITTED
DATA RECORD IS PRINT-LINE.
01 PRINT-LINE.
03 CARRIAGE-CONTROL-CHARACTER PIC X.
03 MESSAGE-1 PIC X(20).
03 PRINT-DATA PIC X(101).
WORKING-STORAGE SECTION.
77 DUMMY-COUNTER PIC 9(5) VALUE 0.
96: 77 R-MESSAGE PIC X(20) VALUE 'REJECTED-'.
97: * THESE ARE THE COUNTERS FOR THE RECORDS
98: 01 A-RECORD-COUNTERS.
99: 05 NEW-A-RECORDS-WRITTEN PIC 9(9) VALUE 0.
100: 05 OLD-A-RECORDS-REWRITTEN PIC 9(9) VALUE 0.
101: 01 B-RECORD-COUNTERS.
102: 05 NEW-B-RECORDS-WRITTEN PIC 9(9) VALUE 0.
103: 05 OLD-B-RECORDS-REWRITTEN PIC 9(9) VALUE 0.
104: *
105: 01 PATICIPANT-COUNTERS.
106: 05 BSEP-LIT-STATUS-1 PIC 9(9) VALUE 0.
107: 05 BSEP-LIT-STATUS-2 PIC 9(9) VALUE 0.
108: 05 BSEP-ESL-STATUS-1 PIC 9(9) VALUE 0.
109: 05 BSEP-ESL-STATUS-2 PIC 9(9) VALUE 0.
110: * MACHINE DATE-TIME IS ACCEPTED FROM THE SYSTEM AND
111: * IS PRINTED OUT WHEN FILES ARE OPENED AND CLOSED
112: *
113: 01 MACHINE-DATE-TIME.
114: 03 MACHINE-DATE.
115: 05 YY-DATE PIC 99.
116: 05 MM-DATE PIC 99.
117: 05 DD-DATE PIC 99.
118: 03 MACHINE-TIME.
119: 05 HOUR-DATE PIC 99.
120: 05 MIN-DATE PIC 99.
121: 05 SEC-DATE PIC 99.
122: *
123: * SEQUENCED DATE IS THE DATE IN THE FORM YWMMDD TO ALLOWN
124: * FOR SORTING ON THE 6 FIELD CODE
125: *
126: 01 SEQUENCED-DATE.
127: 03 YY-DATE PIC 99.
128: 03 MM-DATE PIC 99.
129: 03 DD-DATE PIC 99.
130: *
131: * SEARCH KEY IS THE INDEX INTO THE INDEXEXED SEQUENTIAL
132: * DATA BASE IT CONSISTS OF A SOCIAL SECURITY NUMBER
133: * AND SOME RECORD TYPE (A,B,T, OR V)
134: *
135: *
136: * THE A RECORD IS THE MASTER RECORD FOR THE ACES FILE
137: * A SOLDIER MUST HAVE AN A RECORD TO HAVE A B,T, OR V
138: * TYPE OF RECORD INDEXED BY NNNNNNNNNA WHERE N IS A
139: * NUMERIC VALUE
01 A-RECORD.
  02 A-RECORD-DUMMY.
  03 SSH-TYPE.
      05 SSH PIC 9(9).
  05 RECORD-TYPE PIC X VALUE 'A'.
  03 MASTER-FLAGS.
      05 BSEP-LIT-STATUS PIC 9.
      05 NO-B-RECORD VALUE 0.
      05 BSEP-LIT-PARTIC VALUE 1.
      05 BSEP-LIT-NON-PARTIC VALUE 2.
      05 BSEP-ESL-STATUS PIC 9.
      05 NO-B-RECORD VALUE 0.
      05 BSEP-ESL-PARTIC VALUE 1.
      05 BSEP-ESL-NON-PARTIC VALUE 2.
      05 VO-TECH-STATUS PIC 9.
      05 NO-T-RECORD VALUE 0.
      05 VO-TECH-PARTIC VALUE 1.
      05 VO-TECH-NON-PARTIC VALUE 2.
      88 VO-TECH-NON-PARTIC VALUE 2.
      05 VEAP-STATUS PIC 9.
      05 NO-V-RECORD VALUE 0.
      05 VEAP-PARTIC VALUE 1.
      05 VEAP-WITHDRAW-RETURN VALUE 2.
      05 VEAP-WITHDRAW-NO-RETURN VALUE 3.
      05 VEAP-NON-PARTIC VALUE 4.
  03 A-RECORD-STATUS.
      05 MILPERCEN-FLAG PIC 9.
      05 MILPERCEN-PRES'T VALUE 1.
      05 DMDC-FLAG PIC 9.
      05 DMDC-PRESENT VALUE 1.
      05 TSC-FLAG PIC 9.
      05 TSC-PRESENT VALUE 1.
      05 EREC-FLAG PIC 9.
      05 EREC-PRESENT VALUE 1.
      05 CREATE-DATE.
      07 CREATE-YY PIC 99.
      07 CREATE-MM PIC 99.
      07 CREATE-DD PIC 99.
      05 LAST-MOD-DATE.
      07 LAST-MOD-YY PIC 99.
      07 LAST-MOD-MM PIC 99.
      07 LAST-MOD-DD PIC 99.
  03 CONTROL-INFORMATION.
      05 DOB.
      07 DOB-YY PIC 99.
      07 DOB-MM PIC 99.
      07 DOB-DD PIC 99.
      05 SEX PIC X.
      05 MALE VALUE 'M'.
      05 FEMALE VALUE 'F'.
03 MILPERCEN-DATA.
07 SEX PIC X.
07 RACE PIC X.
07 MARST PIC X.
07 DOB PIC X(6).
07 TERMS PIC X.
07 EMTD PIC X(6).
07 EGPDC PIC X.
07 BMEDT PIC XXX.
07 PAYGR PIC X.
07 DOR PIC X(6).
07 AFQSC PIC XX.
07 CIVED PIC X.
07 PMOS PIC X(5).
07 DMOS PIC X(5).
07 TTFLA PIC XX.
07 DATLA PIC X(6).
07 FSVCI PIC X.
07 ERWPA PIC XXX.
07 CMF PIC XX.
07 AITDT PIC XXX.
07 GTSCR PIC XXX.
07 PQDES PIC X(4).
07 PQDES PIC X(4).
07 PSQDT PIC X(4).
07 PQSCR PIC XXX.
07 PQPER PIC XX.
07 SMOS PIC X(5).
07 FILLER PIC X(4).
03 DMDC-DATA PIC X(124).
03 TSC-DATA PIC X(56).

* CONNSULT DOCUMENTATION FOR FILE LAYOUT
* ALL ARE REFERENCED BY NMNNNNNNNMB WHERE N IS A NUMERIC VALUE
* 

01 B-RECORD.
02 B-RECORD-DUMMY.
03 SSN-TYPE.
05 SSN PIC 9(9).
05 RECORD-TYPE PIC X VALUE 'B'.
03 B-RECORD-STATUS.
05 CREATE-DATE.
07 CREATE-YY PIC 99.
07 CREATE-MM PIC 99.
07 CREATE-DD PIC 99.
05 MODIFY-DATE.
07 MODIFY-YY PIC 99.
07 MODIFY-MM PIC 99.
07 MODIFY-DD PIC 99.
05 LAST-NAME PIC X(12).
05 FIRST-INIT PIC X.
05 BSIF-DATA.
05 SEX PIC 9.
05 RACE PIC X.
05 PRIMARY-LANGUAGE PIC X.
05 ESL PIC X.
05 EDUCATION-LEVEL PIC X.
05 MILITARY-COMPONENT PIC X.
05 MENTAL-CATEGORY PIC X.
05 MOS PIC X(3).
05 SELECTABLE-TEST-SCORE PIC XX.
05 SELECTABLE-SUB-SCORE.
07 SS-1 PIC 99.
07 SS-2 PIC 99.
07 SS-3 PIC 99.
07 SS-4 PIC 99.
07 SS-5 PIC 99.
07 SS-6 PIC 99.
07 SS-7 PIC 99.
07 SS-8 PIC 99.
07 SS-9 PIC 99.
07 SS-10 PIC 99.
07 SS-11 PIC 99.
07 SS-12 PIC 99.
07 SS-13 PIC 99.
07 SS-14 PIC 99.
07 SS-15 PIC 99.
05 GRADE-LEVEL-CHANGE PIC X.
05 CHANGE-IN-GRADE PIC 99.
05 ECL-PRE-TEST PIC 99.
05 ECL-POST-TEST PIC 99.
05 DAYS-ENROLLED PIC XX.
05 SUCCESS PIC X.
05 DISCHARGE PIC X.
05 INSTALLATION-IDENT PIC XX.
05 MONTH PIC X.
05 YEAR PIC X.

* THE Z-RECORD IS ALWAYS MAINTAINED ON THE ACES MASTER FILE
* IT CARRIES THE RECORDS COUNTS, AND OTHER FILE INFORMATION
* CONSULT SYSTEM DOCUMENTATION FOR RECORD LAYOUT
* INDEX FOR Z RECORD IS OOOOOOOOZ

01 Z-RECORD.
05 SSN-TYPE.
05 SSN PIC 9(9).
05 RECORD-TYPE PIC X VALUE 'Z'.
03 INITIALIZED-DATE.
05 INITIALIZED-YY PIC 99.
05 INITIALIZED-MM PIC 99.
05 INITIALIZED-DD PIC 99.
A-13

292:  03 LAST-MODIFIED-DATE.
293:      05 LAST-MODIFIED-YY PIC 99.
294:      05 LAST-MODIFIED-MM PIC 99.
295:      05 LAST-MODIFIED-DD PIC 99.
296:  03 RECORD-COUNTS.
297:      05 NUMBER-OF-A-RECORDS PIC 9(7).
298:      05 NUMBER-OF-B-RECORDS PIC 9(7).
299:      05 NUMBER-OF-T-RECORDS PIC 9(7).
300:      05 NUMBER-OF-V-RECORDS PIC 9(7).
301:      05 TOTAL-RECORDS PIC 9(11).
302:  *  THE FOLLOWING ARE THE PRINT LINES FOR THE STATUS REPORT
303:  *
304:  01 STATUS-REPORT.
305:      03 LINE-1.
306:      05 FILLER PIC X(20) VALUE SPACES.
307:      05 FILLER PIC X(40) VALUE 'STATUS REPORT ON ACES MASTER FILE'.
308:      03 LINE-2.
309:      05 FILLER PIC X(30) VALUE SPACES.
310:      05 FILLER PIC X(8) VALUE 'TIME'.
311:      05 SHOW-TIME PIC X(6).
312:      03 LINE-3.
313:      05 FILLER PIC X(30) VALUE SPACES.
314:      05 FILLER PIC X(8) VALUE 'DATE'.
316:      03 LINE-4.
317:      05 FILLER PIC X(5) VALUE SPACES.
318:      05 FILLER PIC X(11) VALUE 'TYPE RECORD'.
319:      05 FILLER PIC X(9) VALUE SPACES.
320:      05 FILLER PIC X(13) VALUE 'FREQUENCIES'.
321:      05 FILLER PIC X(23) VALUE SPACES.
322:      05 FILLER PIC X(23) VALUE 'DATE INITIALIZED'.
324:      03 LINE-5.
325:      05 FILLER PIC X(12) VALUE SPACES.
326:      05 FILLER PIC X(15) VALUE 'A'.
328:      03 LINE-6.
329:      05 FILLER PIC X(12) VALUE SPACES.
330:      05 FILLER PIC X(15) VALUE 'B'.
331:      05 SHOW-B-COUNT PIC ZZZ,ZZ9.
332:      03 LINE-7.
333:      05 FILLER PIC X(12) VALUE SPACES.
334:      05 FILLER PIC X(15) VALUE 'T'.
335:      05 SHOW-T-COUNT PIC ZZZ,ZZ9.
336:      05 FILLER PIC X(25) VALUE SPACES.
337:      05 FILLER PIC X(20) VALUE 'DATE LAST MODIFIED'.
A-14

03 LINE-8.
 05 FILLER PIC X(12) VALUE SPACES.
 05 FILLER PIC X(15) VALUE 'V'.
 05 SHOW-V-COUNT PIC ZZZ,ZZZ.
03 LINE-9.
 05 FILLER PIC X(28) VALUE SPACES.
 05 FILLER PIC X(6) VALUE '-----'.
03 LINE-10.
 05 FILLER PIC X(9) VALUE SPACES.
 05 FILLER PIC X(15) VALUE 'TOTAL'.
05 SHOW-SUM-ABTV-RECORDS PIC ZZZ,ZZZ,999.
 88 OLD-A-RECORD VALUE 0.
 01 CREATED-B-RECORD-FLAG PIC 9.
 88 OLD-B-RECORD VALUE 0.
 88 NEW-B-RECORD VALUE 1.
 01 TRADOC-FILE-FLAG PIC 9.
 88 EOF-TRADOC-DATA-TAPE VALUE 1.
 01 RECORD-COUNTERS.
 03 TRADOC-RECORD-COUNTER PIC 9(9) VALUE 0.
 03 REJECTED-TRADOC-COUNTER PIC 9(9) VALUE 0.
 03 CREATED-A-COUNTER PIC 9(9) VALUE 0.
 03 CREATED-B-COUNTER PIC 9(9) VALUE 0.
 01 TRADOC-RECORD-FLAG PIC 9.
 88 RECORD-REJECTED VALUE 1.
PROCEDURE DIVISION.
MAIN-LINE.
 09 OPEN OUTPUT PRINTER1.
 10 PERFORM SET-UP-ACES-MASTER-FILE.
 11 CLOSE ACES-MASTER-FILE.
 12 OPEN OUTPUT ACES-MASTER-FILE.
 13 PERFORM SET-UP-TRADOC-DATA-TAPE.
 14 PERFORM PROCESS-SOLDIER THROUGH INPUT-TRADOC-RECORD
     UNTIL EOF-TRADOC-DATA-TAPE.
 15 CLOSE ACES-MASTER-FILE.
 16 OPEN 1-0 ACES-MASTER-FILE.
 17 CHANGE THE 10 TIMES TO EOF MARKER AFTER TESTING JNH
 18 PERFORM SHUT-DOWN-ACES-MASTER-FILE.
 19 CLOSE TRADOC.
 21 STOP RUN.
 18 PERFORM SET-UP-TRADOC-DATA-TAPE.
 23 OPEN INPUT TRADOC.
 24 CLOSE TRADOC.
 25 OPEN INPUT TRADOC.
 26 MOVE 0 TO TRADOC-FILE-FLAG.
 27 PERFORM INPUT-TRADOC-RECORD.
 28 •
 29 •
SET-UP-ACES-MASTER-FILE.
* THIS ROUTINE WILL BE THE FIRST STEP IN ANY RUN INVOLVING THE ACES-MASTER-FILE.
* OPEN I-O ACES-MASTER-FILE.
* MOVE ZEROES TO SSN OF SEARCH-KEY.
* MOVE 'Z' TO RECORD-TYPE OF SEARCH-KEY.
READ ACES-MASTER-FILE INTO Z-RECORD,
INVALID KEY DISPLAY ' NO Z RECORD', Z-RECORD UPON PRINTER.
PERFORM PRINT-STATUS-REPORT.
PRINT-STATUS-REPORT.
MOVE THE DATA OFF Z-RECORD TO REPORT PRINT LINES
MOVE INITIALIZED-DATE OF Z-RECORD TO SHOW-INITIALIZED-DATE OF STATUS-REPORT.
MOVE LAST-MODIFIED-DATE TO SHOW-MODIFY-DATE.
MOVE NUMBER-OF-A-RECORDS TO SHOW-A-COUNT.
MOVE NUMBER-OF-B-RECORDS TO SHOW-B-COUNT.
MOVE NUMBER-OF-T-RECORDS TO SHOW-T-COUNT.
MOVE NUMBER-OF-V-RECORDS TO SHOW-V-COUNT.
MOVE TOTAL-RECORDS TO SHOW-SUM-ABTV-RECORDS.

GET THE CORRECT TIME AND DATE
PLACE TIME, DATE INTO REPORT PAGE
PERFORM INITIALIZE-DATE-TIME.
MOVE MACHINE-TIME TO SHOW-TIME OF STATUS-REPORT.
MOVE SEQUENCED-DATE TO SHOW-DATE OF STATUS-REPORT.
WRITE THE STATUS REPORT
WRITE PRINT-LINE FROM LINE-1 OF STATUS-REPORT AFTER PAGE- TOP LINES.
WRITE PRINT-LINE FROM LINE-2 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-3 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-4 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-5 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-6 OF STATUS-REPORT AFTER 2 LINES.
A-16

426: WRITE PRINT-LINE FROM LINE-7 OF STATUS-REPORT AFTER 2 LINES.
427: WRITE PRINT-LINE FROM LINE-8 OF STATUS-REPORT AFTER 2 LINES.
428: WRITE PRINT-LINE FROM LINE-9 OF STATUS-REPORT AFTER 2 LINES.
429: WRITE PRINT-LINE FROM LINE-10 OF STATUS-REPORT AFTER 2 LINES.
430: * INITIALIZE-DAY-TIME.
431: * ACCEPT MACHINE-DAY-TIME FROM DATE-TIME.
432: MOVE CORRESPONDING MACHINE-DAY TO SEQUENCED-DAY.
433: * SHUT-DOWN-ACES-MASTER-FILE.
434: * A STATUS REPORT WILL BE GENERATED
435: * ALL COUNTERS WILL BE UPDATED
436: * A MODIFIED Z-RECORD WILL BE REWRITTEN
437: * ACES-MASTERFILE WILL BE CLOSED
438: PERFORM UPDATE-COUNTERS.
439: PERFORM PRINT-STATUS-REPORT.
440: PERFORM WRITE-Z-RECORD.
441: CLOSE ACES-MASTER-FILE.
442: * UPDATE-COUNTERS.
443: * THE PURPOSE OF THIS ROUTINE IS TO UPDATE THE Z-RECORD
444: COUNTERS
445: ADD NEW-A-RECORDS-WRITTEN TO NUMBER-OF-A-RECORDS.
446: ADD NEW-B-RECORDS-WRITTEN TO NUMBER-OF-B-RECORDS.
447: DISPLAY ' ', NEW-A-RECORDS-WRITTEN, 'NEW A RECS'
448: UPON PRINTER.
449: DISPLAY ' ', OLD-A-RECORDS-REWRITTEN, 'OLD A RECS'
450: UPON PRINTER.
451: DISPLAY ' ', NEW-B-RECORDS-WRITTEN, 'NEW B RECS'
452: UPON PRINTER.
453: DISPLAY ' ', OLD-B-RECORDS-REWRITTEN, 'OLD B RECS'
454: UPON PRINTER.
455: DISPLAY ' ', BSEP-LIT-STATUS-1, 'BSEP LIT STATUS 1'
456: UPON PRINTER.
457: DISPLAY ' ', BSEP-LIT-STATUS-2, 'BSEP LIT STATUS 2'
458: UPON PRINTER.
459: DISPLAY ' ', BSEP-ESL-STATUS-1, 'BSEP ESL STATUS 1'
460: UPON PRINTER.
461: DISPLAY ' ', BSEP-ESL-STATUS-2, 'BSEP ESL STATUS 2'
462: UPON PRINTER.
463: MOVE 0 TO TOTAL-RECORDS.
464: ADD NUMBER-OF-A-RECORDS TO TOTAL-RECORDS.
465: ADD NUMBER-OF-B-RECORDS TO TOTAL-RECORDS.
466: ADD NUMBER-OF-T-RECORDS TO TOTAL-RECORDS.
467: ADD NUMBER-OF-V-RECORDS TO TOTAL-RECORDS.
468: WRITE-Z-RECORD.
469: MOVE SEQUENCED-DAY TO LAST-MODIFIED-DAY OF Z-RECORD.
470: MOVE Z-RECORD TO MASTER-RECORD.
476: REWRITE MASTER-RECORD
477: INVALID KEY DISPLAY 'Z RECORD NOT WRITTEN'
478: UPON PRINTER.
479: ################################################################################
480: * THE FOLLOWING PORTION OF THE PROGRAM IS STRICTLY FOR TRADOC
481: * FILE PROCESSING
482: ################################################################################
483: * THIS IS THE TOP OF THE TRADOC PROCESSING LOOP
484: * IT WILL BE REPEATED A NUMBER OF TIMES EQUAL TO THE
485: * NUMBER OF TRADOC DATA RECORDS
486: ################################################################################
487: PROCESS-SOLDIER.
488: * HERE WE WILL CHECK TO SEE IF THE TRADOC RECORD MEETS MINIMUM
489: * REQUIREMENTS OTHERWISE WE WILL REJECT THE RECORD
490: * PERFORM EXAMINE-TRADOC-RECORD.
491: *
492: * NEXT WE WILL SEE IF THERE IS AN A-RECORD ON THIS SOLDIER AND
493: * DETERMINE BY MEANS OF A SEX COMPARISON IF THE TWO ARE THE
494: * SAME IE TRADOC INPUT AND THE A-RECORD
495: * IF NOT RECORD-REJECTED
496: * PERFORM FIND-CREATE-A-RECORD.
497: *
498: * NOW IF WE HAVE FOUND-VERIFIED THE A-RECORD OR CREATED IT
499: * WE WILL TRY TO FIND OR CREATE THE B-RECORD
500: * NOTE THAT IF THE A-RECORD IS VERIFIED THE B-RECORD IS
501: * IPSO FACTO VERIFIED
502: * IF NOT RECORD-REJECTED,
503: * PERFORM FIND-CREATE-B-RECORD,
504: * PERFORM EXAMINE-B-RECORD,
505: * PERFORM REWRITE-WRITE-A-RECORD,
506: * PERFORM REWRITE-WRITE-B-RECORD.
507: INPUT-TRADOC-RECORD.
508: READ TRADOC AT END MOVE 1 TO TRADOC-FILE-FLAG,
509: SUBTRACT 1 FROM TRADOC-RECORD-COUNTER.
510: ADD 1 TO TRADOC-RECORD-COUNTER.
511: ADD 1 TO DUMMY-COUNTER.
512: IF DUMMY-COUNTER EQUALS 100
513: MOVE ZEROS TO DUMMY-COUNTER,
514: DISPLAY TRADOC-RECORD-COUNTER,
515: SSN OF TRADOC-RECORD UPON PRINTER.
516: ################################################################################
517: * THIS IS THE BOTTOM OF THE LOOP FOR TRADOC PROCESSING
518: ################################################################################
EXAMINE-TRADOC-RECORD.

MOVE 0 TO TRADOC-RECORD-FLAG.
IF SSN OF TRADOC-RECORD NOT NUMERIC
MOVE 1 TO TRADOC-RECORD-FLAG.
IF SELECT-ABLE-TEST-SCORE OF TRADOC-RECORD
EQUALS 'CR' MOVE 1 TO TRADOC-RECORD-FLAG.
IF RECORD-REJECTED
ADD 1 TO REJECTED-TRADOC-COUNTER,
MOVE SPACES TO PRINT-LINE
MOVE R-MESSAGE TO MESSAGE-1,
MOVE TRADOC-RECORD TO PRINT-DATA,
WRITE PRINT-LINE AFTER 1 LINES.

FIND-CREATE-A-RECORD.
MOVE 0 TO CREATED-A-RECORD-FLAG.
MOVE SSN OF TRADOC-RECORD TO SSN OF SEARCH-KEY.
MOVE 'A' TO RECORD-TYPE OF SEARCH-KEY.
READ ACES-MASTER-FILE INTO A-RECORD
INVALID KEY PERFORM CREATE-A-RECORD-FROM-TRADOC.
PERFORM CREATE-A-RECORD-FROM-TRADOC.
IF NOT NEW-A-RECORD
PERFORM VERIFY-A-RECORD.
MOVE O TO TRADOC-RECORD-FLAG.
IF SEX OF TRADOC-RECORD
NOT EQUAL SEX OF A-RECORD
DISPLAY 'BAD MATCH ON TRADOC RECORD A EXISTS '
UPON PRINTER,
MOVE 1 TO TRADOC-RECORD-FLAG.

FIND-CREATE-B-RECORD.
MOVE 0 TO CREATED-B-RECORD-FLAG.
MOVE 'B' TO RECORD-TYPE OF SEARCH-KEY.
READ ACES-MASTER-FILE INTO B-RECORD,
INVALID KEY PERFORM CREATE-A-RECORD-FROM-TRADOC.
PERFORM CREATE-B-RECORD-FROM-TRADOC.

CREATE-A-RECORD-FROM-TRADOC.
MOVE 1 TO CREATED-A-RECORD-FLAG.
PERFORM BLANK-OUT-A-RECORD.
MOVE SSN OF TRADOC-RECORD TO SSN OF A-RECORD.
ADD 1 TO CREATED-A-COUNTER.
MOVE SEQUENCED-DATE TO CREATE-DATE OF A-RECORD,
LAST-MOD-DATE OF A-RECORD.
MOVE 999999 TO DOB OF CONTROL-INFORMATION.
MOVE SEX OF TRADOC-RECORD TO SEX OF CONTROL-INFORMATION.
CREATE-B-RECORD-FROM-TRADOC.
563: MOVE 1 TO CREATED-B-RECORD-FLAG.
564: PERFORM BLANK-OUT-B-RECORD.
565: MOVE TRADOC-DATA-AREA TO BSEP-DATA.
566: MOVE SSN OF TRADOC-RECORD TO SSN OF B-RECORD.
567: ADD 1 TO CREATED-B-COUNTER.
568: MOVE SEQUENCED-DATE TO CREATE-DATE OF B-RECORD.
569: EXAMINE-B-RECORD.
570: IF SELECT-ABLE-TEST-SCORE OF TRADOC-RECORD NOT EQUAL 'ER'
571: IF (DAYS-ENROLLED OF B-RECORD EQUALS '---' OR
572: DAYS-ENROLLED OF B-RECORD EQUALS '00' OR
573: DAYS-ENROLLED OF B-RECORD EQUALS '-' OR
574: DAYS-ENROLLED OF B-RECORD EQUALS '-0')
575: MOVE 2 TO BSEP-LIT-STATUS OF A-RECORD
576: ADD 1 TO BSEP-LIT-STATUS-2,
577: ELSE
578: ADD 1 TO BSEP-LIT-STATUS-1,
579: MOVE 1 TO BSEP-LIT-STATUS OF A-RECORD
580: ELSE
581: IF ESL OF TRADOC-RECORD EQUALS 'E'
582: MOVE 1 TO BSEP-ESL-STATUS OF A-RECORD
583: ADD 1 TO BSEP-ESL-STATUS-1,
584: ELSE
585: ADD 1 TO BSEP-ESL-STATUS-2,
586: MOVE 2 TO BSEP-ESL-STATUS OF A-RECORD.
587: MOVE SEX OF B-RECORD TO SEX OF CONTROL-INFORMATION.
588: REWRITE-WRITE-A-RECORD.
589: MOVE SSN OF TRADOC-RECORD TO SSN OF SEARCH-KEY.
590: MOVE 'A' TO RECORD-TYPE OF SEARCH-KEY.
591: MOVE SEQUENCED-DATE TO LAST-MOD-DATE OF A-RECORD.
592: IF OLD-A-RECORD
593: ADD 1 TO OLD-A-RECORDS-REWRITTEN,
594: REWRITE MASTER-RECORD FROM A-RECORD
595: INVALID KEY DISPLAY
596: 'INVALID ATTEMPT REWRI *A* REC - ',
597: SSN OF TRADOC-RECORD UPON PRINTER,
598: SUBTRACT 1 FROM OLD-A-RECORDS-REWRITTEN,
599: ELSE
600: ADD 1 TO NEW-A-RECORDS-WRITTEN,
601: WRITE MASTER-RECORD FROM A-RECORD
602: INVALID KEY DISPLAY
603: 'INVALID ATTEMPT WRI *A* REC - ',
604: SSN OF TRADOC-RECORD UPON PRINTER,
605: SUBTRACT 1 FROM NEW-A-RECORDS-WRITTEN.
606:  REWRITE-WRITE-B-RECORD.
607:  MOVE SSN OF TRADOC-RECORD TO SSN OF SEARCH-KEY.
608:  MOVE SEQUENCED-DATE TO MODIFY-DATE OF B-RECORD.
609:  MOVE 'B' TO RECORD-TYPE OF SEARCH-KEY.
610:  IF OLD-B-RECORD
611:    ADD 1 TO OLD-B-RECORDS-REWRITTEN
612:    REWRITE MASTER-RECORD FROM B-RECORD
613:    INVALID KEY DISPLAY
614:      ' INVALID ATTEMPT REWRIT *B* REC - '
615:    SSN OF TRADOC-RECORD UPON PRINTER,
616:    SUBTRACT 1 FROM OLD-B-RECORDS-REWRITTEN,
617:    ELSE
618:    ADD 1 TO NEW-B-RECORDS-WRITTEN,
619:    WRITE MASTER-RECORD FROM B-RECORD
620:    INVALID KEY DISPLAY
621:      ' INVALID ATTEMPT WRIT *B* REC - '
622:    SSN OF TRADOC-RECORD UPON PRINTER,
623:    SUBTRACT 1 FROM NEW-B-RECORDS-WRITTEN.
624:    BLANK-OUT-A-RECORD.
625:    MOVE SPACES TO MILPERCENT-DATA OF A-RECORD.
626:    MOVE O TO MASTER-FLAGS OF A-RECORD,
627:    A-RECORD-STATUS.

628:    BLANK-OUT-B-RECORD.
629:    MOVE SPACES TO BSEP-DATA OF B-RECORD.
630:    MOVE O TO B-RECORD-STATUS.

EOF:630 SCAN:2
0:>}
IDENTIFICATION DIVISION.
PROGRAM-ID. VOTECH.
INSTALLATION. ABERDEEN PROVING GROUND, MD, 21010.
DATE-WRITTEN. MAY 1960.
SECURITY. NO SECURITY CLEARANCE.
ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
SOURCE-COMPUTER. UNIVAC-1108.
OBJECT-COMPUTER. UNIVAC-1108.
INPUT-OUTPUT SECTION.
FILE-CONTROL.
SELECT ACES-MASTER-FILE ASSIGN TO MASS-STORAGE MASTER,
ACCESS MODE IS RANDOM,
ORGANIZATION IS Indexed,
FILE-LIMIT IS 20000,
ACTUAL KEY IS SEARCH-KEY,
PROCESSING MODE IS RANDOM.
SELECT PRINTER1 ASSIGN TO PRINTER.
SELECT RAW-VOTECH-FILE ASSIGN TO CARD-READER POSTS.
SELECT VOTECH-FILE ASSIGN TO CARD-READER VSRT.
SELECT TEMP-SORT ASSIGN TO MASS-STORAGE XA.
DATA DIVISION.
FILE SECTION.
FD ACES-MASTER-FILE
LABEL RECORDS ARE STANDARD,
RECORD CONTAINS 300 CHARACTERS,
BLOCK CONTAINS 30 RECORDS.
FD VOTECH-FILE
LABEL RECORDS ARE STANDARD,
RECORD CONTAINS 80 CHARACTERS.
FD RAW-INPUT-CARD PIC X(80).
SD TEMP-SORT
 DATA RECORD IS SORT-CARD.

01 SORT-CARD.
  03 SSN PIC 9(9).
  03 FILLER PIC X(70).
  03 CARD-CODE PIC 9.

FD RAW-VOTECH-FILE
 LABEL RECORDS ARE STANDARD,
 RECORD CONTAINS 50 CHARACTERS.

01 RAW-VOTECH-RECORD PIC X(80).

FD PRINTER1
 LABEL RECORDS ARE OMITTED
 DATA RECORD IS PRINT-LINE.

01 PRINT-LINE.
  03 CARRIAGE-CONTROL-CHARACTER PIC X.
  03 PRINT-DATA PIC X(121).

WORKING-STORAGE SECTION.

* 77 OLD-SSN PIC 9(9).
  77 DIFFERENCE PIC S9(6).
  77 DUMMY-COUNTER PIC 9(11) VALUE 0.

01 ACES-RECORD-COUNTERS.
  05 NEW-A-RECORDS-WRITTEN PIC 9(5) VALUE 0.
  05 OLD-A-RECORDS-REWRITTEN PIC 9(5) VALUE 0.
  05 NEW-T-RECORDS-WRITTEN PIC 9(5) VALUE 0.
  05 OLD-T-RECORDS-REWRITTEN PIC 9(5) VALUE 0.

* MACHINE DATE-TIME IS ACCEPTED FROM THE SYSTEM AND
* IS PRINTED OUT WHEN FILES ARE OPENED AND CLOSED

01 MACHINE-DATE-TIME.
  03 MACHINE-DATE.
   05 MM-DATE PIC 99.
   05 DD-DATE PIC 99.
   05 YY-DATE PIC 99.
  03 MACHINE-TIME.
   05 HOUR-DATE PIC 99.
   05 MIN-DATE PIC 99.
   05 SEC-DATE PIC 99.

* SEQUENCED DATE IS THE DATE IN THE FORM YYMMDDD TO ALLOW
* FOR SORTING ON THE 6 FIELD CODE
SEARCH KEY IS THE INDEX INTO THE INDEXED SEQUENTIAL DATA BASE IT CONSISTS OF A SOCIAL SECURITY NUMBER AND SOME RECORD TYPE (A,B,T, OR V)

THE INPUT CARD IS THE COMMON RECORD FORMAT OF ALL OF THE VOTECH INPUT CARDS THERE COMMON FIELDS (SSN,CARD-CODE)

THE A RECORD IS THE MASTER REQuired FOR THE ACES FILE A SOLDIER MUST HAVE AN A RECORD TO HAVE A B,T, OR V TYPE OF RECORD INDEXED BY NNNNNNNNA WHERE N IS A NUMERIC VALUE

A-RECORD.

01 SEQUENCED-DATE.
100: 05 YY-DATE PIC 99.
101: 05 MM-DATE PIC 99.
102: 05 DD-DATE PIC 99.
103: * SEARCH KEY IS THE INDEX INTO THE INDEXED SEQUENTIAL
104: * DATA BASE IT CONSISTS OF A SOCIAL SECURITY NUMBER
105: * AND SOME RECORD TYPE (A,B,T, OR V)
106: *
107: *
108: *
109: 01 DUMMY .
110: 05 SSN PIC 9(9).
111: 05 RECORD-TYPE PIC X.
112: *
113: *
114: * THE INPUT CARD IS THE COMMON RECORD
115: *
116: * FORMAT OF ALL OF THE VOTECH INPUT CARDS
117: *
118: * THERE COMMON FIELDS (SSN,CARD-CODE)
119: *
120: 01 INPUT-CARD.
121: 03 SSN PIC 9(9).
122: 03 DATA-AREA.
123: *
124: 05 FILLER PIC X(4).
125: 05 DOP PIC 9(6).
126: 05 FILLER PIC X(60).
127: 03 CARD-CODE PIC 9.
128: *
129: * THE A RECORD IS THE MASTER RECORD FOR THE ACES FILE
130: * A SOLDIER MUST HAVE AN A RECORD TO HAVE A B,T, OR V
131: * TYPE OF RECORD INDEXED BY NNNNNNNNA WHERE N IS A
132: * NUMERIC VALUE
133: *
134: 01 A-RECORD.
135: 02 A-RECORD-DUMMY.
136: 03 SSN-TYPE.
137: 05 SSN PIC 9(9).
138: 05 RECORD-TYPE PIC X VALUE 'A'.
139: 03 MASTER-FLAGS.
140: 05 BSEP-LIT-STATUS PIC 9.
141: 88 NO-B-RECORD VALUE 0.
142: 88 BSEP-LIT-PARTIC VALUE 1.
143: 88 BSEP-LIT-NON-PARTIC VALUE 2.
144: 05 BSEP-ESL-STATUS PIC 9.
145: 88 NO-B-RECORD VALUE 0.
146: 88 BSEP-ESL-PARTIC VALUE 1.
147: 88 BSEP-ESL-NON-PARTIC VALUE 2.
148:  05 VO-TECH-STATUS PIC 9.
149:   88 NO-T-RECORD VALUE 0.
150:   88 VO-TECH-PARTIC VALUE 1.
151:   88 VO-TECH-NON-PARTIC VALUE 2.
152:  05 VEAP-STATUS PIC 9.
153:   88 NO-V-RECORD VALUE 0.
154:   88 VEAP-PARTIC VALUE 1.
155:   88 VEAP-WITHDRAW-RETURN VALUE 2.
156:   88 VEAP-WITHDRAW-NO-RETURN VALUE 3.
158:  03 A-RECORD-STATUS.
159:  05 MILPERCEN-FLAG PIC 9.
160:   88 MILPERCEN-PRESENT VALUE 1.
161:  05 DMDC-FLAG PIC 9.
162:   88 DMDC-PRESENT VALUE 1.
163:  05 TSC-FLAG PIC 9.
164:   88 TSC-PRESENT VALUE 1.
165:  05 EREC-FLAG PIC 9.
166:   88 EREC-PRESENT VALUE 1.
167:  05 CREATE-DATE.
171:  05 LAST-MOD-DATE.
175:  03 CONTROL-INFORMATION.
176:  05 DOB.
177:   07 DOB-YY PIC 99.
178:   07 DOB-MM PIC 99.
179:   07 DOB-DD PIC 99.
180:  05 SEX PIC X.
181:   88 MALE VALUE 'M'.
182:   88 FEMALE VALUE 'F'.
183: 03 MILPERCEN-DATA.
184: 07 SEX PIC X.
185: 07 RACE PIC X.
186: 07 MABST PIC X.
187: 07 DOB PIC X(6).
188: 07 TERMS PIC X.
189: 07 ETSDT PIC X(6).
190: 07 EOPCD PIC X.
191: 07 BPEDT PIC XXXX.
192: 07 PAYGR PIC X.
193: 07 DOR PIC X(6).
194: 07 APQSC PIC XX.
195: 07 GIVED PIC X.
196: 07 FMOS PIC X(5).
197: 07 DMSG PIC X(5).
198: 07 TURNS PIC X.
199: 07 MTSDT PIC X(6).
200: 07 EOPCD PIC X.
201: 07 BPEDT PIC XXXX.
202: 07 PAYGR PIC X.
203: 07 DOR PIC X(6).
204: 07 APQSC PIC XX.
205: 07 GIVED PIC X.
206: 07 FMOS PIC X(5).
207: 07 DMSG PIC X(5).
208: 07 TURNS PIC X.
209: 07 MTSDT PIC X(6).
210: 07 EOPCD PIC X.
211: 03 DMDC-DATA PIC X(124).
212: 03 TSC-DATA PIC X(56).
213: *
214: *
215: * CONSULT DOCUMENTATION FOR FILE LAYOUT
216: * ALL ARE REFERENCED BY NNNNNNNNNB WHERE N IS A
217: * NUMERIC VALUE
218: *
219: *
220: * THE Z-RECORD IS ALWAYS MAINTAINED ON THE Aces MASTER FILE
221: * IT CARRIES THE RECORDS COUNTS, AND OTHER FILE INFORMATION
222: * CONSULT SYSTEM DOCUMENTATION FOR RECORD LAYOUT
223: * INDEX FOR Z RECORD IS O0000000Z
224: *
225: 01 Z-RECORD.
226: 03 SSN-TYPE.
227: 05 SSN PIC 9(9).
228: 05 RECORD-TYPE PIC X VALUE 'Z'.
229: 03 INITIALIZED-DATE.
230: 05 INITIALIZED-YY PIC 99.
231: 05 INITIALIZED-MM PIC 99.
232: 05 INITIALIZED-DD PIC 99.
A-26

233: 03 LAST-MODIFIED-DATE.
234: 05 LAST-MODIFIED-YY PIC 99.
235: 05 LAST-MODIFIED-MM PIC 99.
236: 05 LAST-MODIFIED-DD PIC 99.
237: 03 RECORD-COUNTS.
238: 05 NUMBER-OF-A-RECORDS PIC 9(7).
239: 05 NUMBER-OF-B-RECORDS PIC 9(7).
240: 05 NUMBER-OF-T-RECORDS PIC 9(7).
241: 05 NUMBER-OF-V-RECORDS PIC 9(7).
242: 05 TOTAL-RECORDS PIC 9(11).
243: *THE FOLLOWING ARE THE PRINT LINES FOR THE STATUS REPORT
244: *
245: 01 STATUS-REPORT.
246: 03 LINE-1.
247: 05 FILLER PIC X(20) VALUE SPACES.
248: 05 FILLER PIC X(40) VALUE 'STATUS REPORT ON ACES MASTER
249: FILE'.
250: 03 LINE-2.
251: 05 FILLER PIC X(30) VALUE SPACES.
252: 05 FILLER PIC X(8) VALUE 'TIME '.
253: 05 SHOW-DAYS PIC X(6).
254: 03 LINE-3.
255: 05 FILLER PIC X(30) VALUE SPACES.
256: 05 FILLER PIC X(8) VALUE 'DATE '.
258: 03 LINE-4.
259: 05 FILLER PIC X(3) VALUE SPACES.
260: 05 FILLER PIC X(11) VALUE 'TYPE RECORD'.
261: 05 FILLER PIC X(9) VALUE SPACES.
262: 05 FILLER PIC X(13) VALUE 'FREQUENCIES'.
263: 05 FILLER PIC X(23) VALUE SPACES.
264: 05 FILLER PIC X(23) VALUE 'DATE INITIALIZED '.
266: 03 LINE-5.
267: 05 FILLER PIC X(12) VALUE SPACES.
268: 05 FILLER PIC X(15) VALUE 'A'.
270: 03 LINE-6.
271: 05 FILLER PIC X(12) VALUE SPACES.
272: 05 FILLER PIC X(15) VALUE 'B'.
273: 05 SHOW-B-COUNT PIC ZZZ,ZZ9.
274: 03 LINE-7.
275: 05 FILLER PIC X(12) VALUE SPACES.
276: 05 FILLER PIC X(15) VALUE 'T'.
277: 05 SHOW-T-COUNT PIC ZZZ,ZZ9.
278: 05 FILLER PIC X(25) VALUE SPACES.
279: 05 FILLER PIC X(20) VALUE 'DATE LAST MODIFIED '.
03 LINE-8.
  05 FILLER PIC X(12) VALUE SPACES.
  05 FILLER PIC X(15) VALUE 'V'.
  05 SHOW-V-COUNT PIC ZZZ,ZZ9.
  03 LINE-9.
  05 FILLER PIC X(28) VALUE SPACES.
  05 FILLER PIC X(6) VALUE '-----'.
  03 LINE-10.
  05 FILLER PIC X(9) VALUE SPACES.
  05 FILLER PIC X(15) VALUE 'TOTAL'.
  05 SHOW-SUM-IN-VOTECH-RECORDS PIC ZZZ,ZZZ,999.
  88 OLD-A-RECORD VALUE 0.
  88 REJECTED-A-RECORD VALUE 2.
  01 CREATED-T-RECORD-FLAG PIC 9.
  88 OLD-T-RECORD VALUE 0.
  88 NEW-T-RECORD VALUE 1.
  88 REJECTED-VOTECH-FILE VALUE 2.
  01 VOTECH-FILE-FLAG PIC 9.
  88 EOF-VOTECH-FILE VALUE 1.
  01 RECORD-COUNTERS.
  03 VOTECH-RECORD-COUNTER PIC 9(9) VALUE 0.
  03 CARD-IMAGES-READ PIC 9(9) VALUE 0.
  03 IMPROPER-MATCH-DOB PIC 9(9) VALUE 0.
  03 IMPROPER-MATCH-SEX PIC 9(9) VALUE 0.
  03 SOLDIERS-IN-RAW-DATA-FILE PIC 9(9) VALUE 0.
  03 REJECTED-VOTECH-COUNTER PIC 9(9) VALUE 0.
  03 CREATED-A-COUNTER PIC 9(9) VALUE 0.
  03 CREATED-T-COUNTER PIC 9(9) VALUE 0.
  03 UPDATED-T-RECORD-COUNTER PIC 9(9) VALUE 0.
  01 VOTECH-INPUT-DATA.
  03 CARD-1.
  05 SSN PIC 9(9).
  05 GT-SCORE PIC 999.
  05 EDU-LEVEL PIC X.
  05 DOB PIC 9(6).
  05 RACE PIC X.
  05 SEX PIC X.
  05 GRADE PIC XX.
  05 APPT-DATE-E5 PIC 9(6).
  05 APPT-DATE-E6 PIC 9(6).
  05 BASIC-ENLIST-SERV-DATE PIC 9(6).
  05 DATE-FIRST-MOS PIC X(5).
  05 DUTY-MOS PIC X(5).
  05 PREVIOUS-ACTIVE-MILITARY-SERV PIC 9(6).
  05 AGREEMENT-DATE PIC 9(6).
  05 EER-EERWA-SCORE PIC 9(3).
  05 EER-EERWA-FORM PIC 9.
05 PROMOTION-POINTS PIC 9(4).
05 DISCIPLINARY-ACTIONS PIC 9.
05 DISCIPLINARY-ACTIONS-2627 PIC 9.
05 FILLER PIC XX.
05 CARDS-PER-CASE PIC 9.
05 TWO-O-1-COMPLETE PIC 9.
05 POST-BASE-ED-CENTER PIC X.
05 CARD-CODE PIC 9.
03 CARD-2.
05 SSN PIC 9(9).
05 ETS PIC 9(6).
05 VOTECH-PARTICIP PIC 9.
05 VOTECH-PARTICIPANT-TYPE.
07 AUTO PIC 9.
07 DIESEL PIC 9.
07 WELDING PIC 9.
07 ELECTRONICS PIC 9.
07 CONSTRUCTION PIC 9.
05 OTHER-ACES-PARTICIP.
07 NONE PIC 9.
07 BSEP-I-II-ESL PIC 9.
07 HSCP PIC 9.
07 SOCAD-SOC PIC 9.
07 APPRENTICSHIP PIC 9.
07 MOS-REFRESHER PIC 9.
07 HEAD-GATE-ESL PIC 9.
07 VEAP PIC 9.
05 VOTECH-COURSES.
07 COURSE-1.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.
07 COURSE-2.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.
07 COURSE-3.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.
07 COURSE-4.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.
07 COURSE-5.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.
05 CARD-CODE PIC 9.
03 CARD-3.
05 SSN PIC 9(9).
05 VOTECH-COURSES.
07 COURSE-6.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.
07 COURSE-7.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.
07 COURSE-8.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.
07 COURSE-9.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.
07 COURSE-10.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.
03 CARD-4.
05 SSN PIC 9(9).
05 VOTECH-COURSES.
07 COURSE-11.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.
07 COURSE-12.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.
A-30

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07 COURSE-13.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.
07 FILLER PIC X(40).
05 CARD-CODE PIC 9.
03 T-RECORD.
03 SSN PIC 9(9).
03 RECORD-TYPE PIC X VALUE 'T'.
03 CARD-1.
05 GT-SCORE PIC 999.
05 EDU-LEVEL PIC X.
05 DOB PIC 9(6).
05 RACE PIC X.
05 SEX PIC X.
05 GRADE PIC X.
05 APPT-DATE-E5 PIC 9(4).
05 APPT-DATE-E6 PIC 9(6).
05 BASIC-ENLIST-SERV-DATE PIC 9(6).
05 DATE-FIRST-MOS PIC X(5).
05 DUTY-MOS PIC X(5).
05 PREVIOUS-ACTIVE-MILITARY-SERV PIC 9(6).
05 AGREEMENT-DATE PIC 9(6).
05 EER-EERWA-Score PIC 9(3).
05 EER-EERWA-FORM PIC 9.
05 PROMOTION-POINTS PIC 9(4).
05 DISCIPLINARY-ACTIONS PIC 9.
05 DISCIPLINARY-ACTIONS-2627 PIC 9.
0% FILLER PIC XX.
05 CARDS-PER-CASE PIC 9.
05 TWO-O-1-COMPLETE PIC 9.
05 POST-BASE-ED-CENTER PIC X.
03 CARD-2.
05 ETS PIC 9(6).
05 VOTECH-PARTICIP PIC 9.
05 VOTECH-PARTICIPANT-TYPE.
07 AUTO PIC 9.
07 DIESEL PIC 9.
07 WELDING PIC 9.
07 ELECTRONICS PIC 9.
07 CONSTRUCTION PIC 9.
05 OTHER-ACES-PARTICIPANT.
07 NONE PIC 9.
07 BSEP-I-II-ESL PIC 9.
07 HSCP PIC 9.
07 SOCAD-SOC PIC 9.
07 APRENTICESHIP PIC 9.
07 MOS-REFRESHER PIC 9.
07 HEAD-GATE-ESL PIC 9.
07 VEAP PIC 9.
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05 VOTECH-COURSES.

07 COURSE-1.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.

07 COURSE-2.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.

07 COURSE-3.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.

07 COURSE-4.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.

07 COURSE-5.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.

07 COURSE-6.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.

07 COURSE-7.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.

07 COURSE-8.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.
07 COURSE-10.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.
03 CARD-4.
05 VOTECH-COURSES.
07 COURSE-11.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.
07 COURSE-12.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.
07 COURSE-13.
09 COURSE-CODE PIC 999.
09 BASE PIC 999.
09 HOURS PIC 999.
09 FINISHED PIC 9.
* PROCEDURE DIVISION.
MAINLINE.
PERFORM SET-UP-ACES-MASTER-FILE.
PERFORM SET-UP-VOTECH-DATA.
PERFORM SET-UP-VOTECH-DATA-TAPE.
PERFORM PROCESS-VOTECH-FILE.
PERFORM SHUT-DOWN-ACES-MASTER-FILE.
PERFORM SUMMARY-STATISTICS.
STOP RUN.
* *****************************************************************
SET-UP-ACES-MASTER-FILE.
* THIS ROUTINE WILL BE THE FIRST STEP IN ANY RUN
* INVOLVING THE ACES-MASTER-FILE.
* OPEN I-O ACES-MASTER-FILE.
MOVE ZEROES TO SSN OF SEARCH-KEY.
MOVE 'Z' TO RECORD-TYPE OF SEARCH-KEY.
READ ACES-MASTER-FILE INTO Z-RECORD, INVALID KEY DISPLAY ' NO Z RECORD', UPON PRINTER
STOP RUN.
OPEN OUTPUT PRINTER1.
PERFORM PRINT-STATUS-REPORT.
PRINT-STATUS-REPORT.
* MOVE THE DATA OFF Z-RECORD TO REPORT PRINT LINES
A-33

MOVE INTIALIZED-DATE OF Z-RECORD TO SHOW-INTIALIZED-DATE OF STATUS-REPORT.
MOVE LAST-MODIFIED-DATE TO SHOW-MODIFY-DATE.
MOVE NUMBER-OF-A-RECORDS TO SHOW-A-COUNT.
MOVE NUMBER-OF-B-RECORDS TO SHOW-B-COUNT.
MOVE NUMBER-OF-T-RECORDS TO SHOW-T-COUNT.
MOVE NUMBER-OF-V-RECORDS TO SHOW-V-COUNT.
MOVE TOTAL-RECORDS TO SHOW-SUM-ABTV-RECORDS.

GET THE CORRECT TIME AND DATE
PLACE TIME, DATE INTO REPORT PAGE
PERFORM INITIALIZE-DATE-TIME.
MOVE MACHINE-TIME TO SHOW-TIME OF STATUS-REPORT.
MOVE SEQUENCED-DATE TO SHOW-DATE OF STATUS-REPORT.
WRITE THE STATUS REPORT
WRITE PRINT-LINE FROM LINE-1 OF STATUS-REPORT AFTER PAGE-TOP LINES.

WRITE PRINT-LINE FROM LINE-2 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-3 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-4 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-5 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-6 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-7 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-8 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-9 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-10 OF STATUS-REPORT AFTER 2 LINES.

INITIALIZE-DATES-TIME.
THIS WILL CHANGE DATE TO FORM YYMMDD
ACCEPT MACHINE-DATE-TIME FROM DATE-TIME.
MOVE CORRESPONDING MACHINE-DATE TO SEQUENCED-DATE.

SHUT-DOWN-ACES-MASTER-FILE.
A STATUS REPORT WILL BE GENERATED
A MODIFIED Z-RECORD WILL BE REWRITTEN
ACES-MASTERFILE WILL BE CLOSED
FIRST WE UPDATE THE COUNTERS
PERFORM UPDATE-COUNTERS.
PERFORM PRINT-STATUS-REPORT.
PERFORM WRITE-Z-RECORD.
CLOSE ACES-MASTER-FILE.
617: UPDATE-COUNTERS.
618: ADD NEW-A-RECORDS-WRITTEN TO NUMBER-OF-A-RECORDS.
619: ADD NEW-T-RECORDS-WRITTEN TO NUMBER-OF-T-RECORDS.
620: DISPLAY 'NEW A RECORDS', NEW-A-RECORDS-WRITTEN
621: UPON PRINTER.
622: DISPLAY 'OLD A RECORDS', OLD-A-RECORDS-REWRITTEN
623: UPON PRINTER.
624: DISPLAY 'NEW T RECORDS', NEW-T-RECORDS-WRITTEN
625: UPON PRINTER.
626: DISPLAY 'OLD T RECORDS', OLD-T-RECORDS-REWRITTEN
627: UPON PRINTER.
628: MOVE 0 TO TOTAL-RECORDS.
629: ADD NUMBER-OF-A-RECORDS TO TOTAL-RECORDS.
630: ADD NUMBER-OF-B-RECORDS TO TOTAL-RECORDS.
631: ADD NUMBER-OF-T-RECORDS TO TOTAL-RECORDS.
632: ADD NUMBER-OF-V-RECORDS TO TOTAL-RECORDS.
633: WRITE-Z-RECORD.
634: MOVE SEQUENCED-DATE TO LAST-MODIFIED-DATE OF Z-RECORD.
635: MOVE Z-RECORD TO MASTER-RECORD.
636: REWRITE MASTER-RECORD
637: INVALID KEY DISPLAY 'Z RECORD NOT WRITTEN'
638: UPON PRINTER.
639: * *************************************
640: * THE FOLLOWING PORTION OF THE PROGRAM IS STRICTLY FOR
641: * FILE PROCESSING OF VOTECH DATA
642: *SORT-VOTECH-DATA SECTION. *
643: *DUMMY-PARAGRAPH-NAME.
644: * SORT TEMP-SORT
645: * ON ASCENDING
646: * SSN OF SORT-CARD
647: * ASCENDING
648: * CARD-CODE OF SORT-CARD
649: * USING RAW-VOTECH-FILE
650: * GIVING VOTECH-FILE.
651: *
652: ANOTHER-BIG SECTION.
653: SET-UP-VOTECH-DATA-TAPE.
654: OPEN INPUT VOTECH-FILE.
655: MOVE 0 TO VOTECH-FILE-FLAG.
656: PROCESS-VOTECH-FILE.
657: PERFORM INPUT-SORTED-VOTECH-CARD-IMAGE.
658: PERFORM PROCESS-SOLDIER
659: UNTIL EOF-VOTECH-FILE.
660: PROCESS-SOLDIER.
661: MOVE SSN OF INPUT-CARD TO OLD-SSN.
662: MOVE 0 TO CREATED-A-RECORD-FLAG,
663: CREATED-T-RECORD-FLAG.
35

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665: * CHECK TO SEE THAT THE SSN OF DATA IS NUMERIC
666: * IF IT IS THEN TRY TO FIND-VERIFY THE A-RECORD
667: * PERFORM EXAMINE-DATA.
668: * IF NOT REJECTED-VOTECH-DATA
669: PERFORM FIND-CREATE-A-RECORD.
670: * IF NOT REJECTED-VOTECH-DATA
671: PERFORM FIND-CREATE-T-RECORD,
672: PERFORM EXAMINE-T-RECORD,
673: PERFORM WRITE-REWRITE-A-RECORD,
674: PERFORM WRITE-REWRITE-T-RECORD.
675: * IF THE DATA WAS REJECTED WE MUST PLACE A NEW CARD IN THE
676: THE INPUT STREAM NORMALLY THIS IS DONE IN *PROCESS-CARDS*
677: * IF REJECTED-VOTECH-DATA
678: PERFORM INPUT-SORTED-VOTECH-CARD-IMAGE.
679: * * ************************************************************************
680: * HERE WE WILL CHECK ANY PRELIMINARY REQUIREMENTS TO
681: * WILL MOVE 2 TO CREATED-T-RECORD-FLAG
682: IF SSN OF INPUT-CARD IS NOT NUMERIC
683: OR CARD-CODE OF INPUT-CARD IS NOT NUMERIC
684: MOVE 2 TO CREATED-T-RECORD-FLAG,
685: ADD 1 TO REJECTED-VOTECH-COUNTER,
686: DISPLAY SSN OF INPUT-CARD, 'BAD INPUT CARD'
687: UPON PRINTER.
688: * F顺德-CREATE-A-RECORD.
689: MOVE SSN OF INPUT-CARD TO SSN OF SEARCH-KEY.
690: MOVE 'A' TO RECORD-TYPE OF SEARCH-KEY.
691: READ ACES-MASTER-FILE INTO A-RECORD,
692: INVALID KEY PERFORM CREATE-A-RECORD.
693: IF NOT NEW-A-RECORD PERFORM
694: VERIFY-A-RECORD-MATCH.
695: CREATE-A-RECORD.
696: MOVE 1 TO CREATED-A-RECORD-FLAG.
697: MOVE SPACES TO A-RECORD.
698: MOVE 'A' TO RECORD-TYPE OF A-RECORD.
699: MOVE 0 TO MASTER-FLAGS OF A-RECORD.
700: MOVE SEQUENCED-DATE TO CREATE-DATE OF A-RECORD.
701: MOVE SSN OF INPUT-CARD TO SSN OF A-RECORD.
702: MOVE DOB OF INPUT-CARD TO
703: DOB OF CONTROL-INFORMATION.
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714: VERIFY-A-RECORD-MATCH.
715: MOVE INPUT-CARD TO CARD-1 OF VOTECH-INPUT-DATA.
716: * THE PURPOSE HERE IS TO VERIFY THAT THE A-RECORD IS THE
717: SAME, HOWEVER IF THE A-RECORD WAS CREATED FROM BSEP DAT
718: * THERE WILL BE NO DOB ONLY 999999 IN THAT PLACE
719: * THE IDEA HERE IS TO LET THE VERIFICATION CHECK BE
720: * DONE ON THE SEX COMPARISON
721: IF DOB OF CONTROL-INFORMATION NOT EQUAL TO 999999
722: MOVE DOB OF CONTROL-INFORMATION TO DIFFERENCE,
723: SUBTRACT DOB OF VOTECH-INPUT-DATA FROM DIFFERENCE,
724: IF DIFFERENCE IS GREATER THAN 9 OR LESS THAN -9
725: DISPLAY 'SSN MATCH REJECT ON DOB', SSN OF INPUT-CARD,
726: UPON PRINTER,
727: ADD 1 TO IMPROPER-MATCH-DOB,
728: MOVE 2 TO CREATED-T-RECORD-FLAG.
729: * IMPROPER-MATCH-DOB
730: IF DOB OF VOTECH-INPUT-DATA EQUAL 999999
731: AND SEX OF CONTROL-INFORMATION NOT EQUAL SEX
732: OF VOTECH-INPUT-DATA
733: MOVE 2 TO CREATED-T-RECORD-FLAG,
734: DISPLAY 'SSN MATCH REJECT ON SEX', SSN OF INPUT-CARD,
735: UPON PRINTER,
736: ADD 1 TO IMPROPER-MATCH-SEX.
737: FIND-CREATE-T-RECORD.
738: MOVE 'T' TO RECORD-TYPE OF SEARCH-KEY.
739: READ ACES-MASTER-FILE INTO T-RECORD,
740: INVALID KEY PERFORM CREATE-T-RECORD.
741: PERFORM INCORPORATE-DATA-CARDS.
742: CREATE-T-RECORD.
743: MOVE SPACES TO T-RECORD.
744: MOVE 1 TO CREATED-T-RECORD-FLAG.
745: PERFORM INCORPORATE-DATA-CARDS.
746: MOVE SSN OF INPUT-CARD TO SSN OF T-RECORD.
747: MOVE 'T' TO RECORD-TYPE OF T-RECORD.
748: INCORPORATE-DATA-CARDS.
749: PERFORM PROCESS-CARDS
750: THROUGH INPUT-SORTED-VOTECH-CARD-IMAGE
751: UNTIL SSN OF INPUT-CARD NOT
752: EQUAL OLD-SSN
753: OR
754: EOF-VOTECH-FILE.
755: *
EXAMINE-T-RECORD.

HERE WE WILL SEND THE FLAGS IN THE A-RECORD DEPENDING
UPON WHETHER A VOTECH PART, OR NOT IT MUST BE ONE OR OTHER

MOVE SEX OF T-RECORD TO
SEX OF CONTROL-INFORMATION OF A-RECORD.
IF VOTECH-PARTICIP OF T-RECORD EQUAL 1
MOVE 1 TO VO-TECH-STATUS OF A-RECORD
ELSE
MOVE 2 TO VO-TECH-STATUS OF A-RECORD.

WRITE-REWRITE-A-RECORD.

MOVE 'A' TO RECORD-TYPE OF SEARCH-KEY.
MOVE 'A' TO RECORD-TYPE OF A-RECORD.
MOVE SEQUENCED-DATE TO LAST-MOD-DATE OF A-RECORD.
IF NEW-A-RECORD
ADD 1 TO NEW-A-RECORDS-Written, DUMMY-COUNTER,
WRITE MASTER-RECORD FROM A-RECORD,
INVALID KEY DISPLAY 'BAD WRITE ON A RECORD',
UPON PRINTER,
ELSE
ADD 1 TO OLD-A-RECORDS-REWRITTEN,
DISPLAY ' ', SSN OF SEARCH-KEY, 'OLD A RECORD REWRIT',
UPON PRINTER,
REWRITE MASTER-RECORD FROM A-RECORD,
INVALID KEY DISPLAY 'BAD REWRITE ON A RECORD',
UPON PRINTER.

IF DUMMY-COUNTER EQUALS 75,
MOVE O TO DUMMY-COUNTER,
DISPLAY ' NEW-A-RECORDS', NEW-A-RECORDS-Written,
UPON PRINTER.
WRITE-REWRITE-T-RECORD.
MOVE 'T' TO RECORD-TYPE OF SEARCH-KEY.
MOVE 'T' TO RECORD-TYPE OF T-RECORD.
MOVE OLD-SSN TO SSN OF T-RECORD.
IF NEW-T-RECORD
ADD 1 TO NEW-T-RECORDS-Written,
WRITE MASTER-RECORD FROM T-RECORD,
INVALID KEY DISPLAY 'BAD WRITE ON T REC',
UPON PRINTER,
ELSE
ADD 1 TO OLD-T-RECORDS-REWRITTEN,
REWRITE MASTER-RECORD FROM T-RECORD,
INVALID KEY DISPLAY 'BAD REWRITE ON T REC',
UPON PRINTER.

**************************************************
PROCESS-CARDS.

IF FIRST-CARD PERFORM HANDLE-CARD-1,
ELSE
IF SECOND-CARD PERFORM HANDLE-CARD-2,
ELSE
IF THIRD-CARD PERFORM HANDLE-CARD-3,
ELSE
IF FOURTH-CARD PERFORM HANDLE-CARD-4,
ELSE
PERFORM BAD-CARD-NUMBER.

* " INPUT-SORTED-VOTECH-CARD-IMAGE.
READ VOTECH-FILE INTO INPUT-CARD AT END MOVE 1
TO VOTECH-FILE-FLAG.
ADD 1 TO CARD-IMAGES-READ.

* ******************************************************
HANDLE-CARD-1.
MOVE DATA-AREA OF INPUT-CARD TO CARD-1 OF T-RECORD.
HANDLE-CARD-2.
MOVE DATA-AREA OF INPUT-CARD TO CARD-2 OF T-RECORD.
HANDLE-CARD-3.
MOVE DATA-AREA OF INPUT-CARD TO CARD-3 OF T-RECORD.
HANDLE-CARD-4.
MOVE DATA-AREA OF INPUT-CARD TO CARD-4 OF T-RECORD.
BAD-CARD-NUMBER.
DISPLAY 'BAD CARD NUMBER', INPUT-CARD UPON PRINTER.

SUMMARY-STATISTICS.
DISPLAY 'CARDS IMAGES READ' CARD-IMAGES-READ
UPON PRINTER.
DISPLAY 'NEW A RECORDS' NEW-A-RECORDS-WRITTEN
UPON PRINTER.
DISPLAY 'NEW T RECORDS' NEW-T-RECORDS-WRITTEN
UPON PRINTER.
DISPLAY 'OLD A RECORDS' OLD-A-RECORDS-REWRITTEN
UPON PRINTER.
DISPLAY 'OLD T RECORDS' OLD-T-RECORDS-REWRITTEN
UPON PRINTER.

EOF: 842 SCAN: 252
0: >
IDENTIFICATION DIVISION.

PROGRAM-ID. MILPERCEN.

AUTHOR. JOHN HAMIL.

INSTALLATION. ABERDEEN PROVING GROUND, MD, 21010.

DATE-WRITTEN. MAY 1980.

DATE-COMPILED.

SECURITY. NO SECURITY CLEARANCE.

REMARKS. THE PURPOSE OF THIS PROGRAM IS TO INCORPORATE MILPERCEN DATA ON TO A-RECORDS.

ENVIRONMENT DIVISION.

CONFIGURATION SECTION.

SOURCE-COMPUTER. UNIVAC-1108.

OBJECT-COMPUTER. UNIVAC-1108.

INPUT-OUTPUT SECTION.

FILE-CONTROL.

SELECT ACES-MASTER-FILE ASSIGN TO MASS-STORAGE MASTER

ORGANIZATION IS INDEXED,

ACCESS MODE IS SEQUENTIAL,

PROCESSING MODE IS SEQUENTIAL,

FILE-LIMIT IS 20000,

ACTUAL KEY IS SEARCH-KEY.

SELECT PRINTER1 ASSIGN TO PRINTER.

SELECT MILPERCEN ASSIGN TO CARD-READER EMFDATA.

FILE SECTION.

FD ACES-MASTER-FILE

LABEL RECORDS ARE STANDARD,

RECORD CONTAINS 300 CHARACTERS,

BLOCK CONTAINS 30 RECORDS.

FD MILPERCEN

LABEL RECORDS ARE STANDARD,

RECORD CONTAINS 90 CHARACTERS.

FD MILPERCEN-RECORD.

01 MASTER-RECORD.

05 SEARCH-KEY.

05 SSN PIC 9(9).

05 RECORD-TYPE PIC X.

05 DATA-AREA PIC X(290).

FD MILPERCEN.

01 MILPERCEN-RECORD.

02 MILPERCEN-RECORD-DUMMY.

05 SSN PIC 9(9).

05 MILPERCEN-DATA.

07 SEX PIC X.

07 RACE PIC X.

07 MARST PIC X.

07 DOB PIC X(6).

07 TERMS PIC X.

07 ETSDT PIC X(6).

07 EGPCL PIC X.

07 BPEDT PIC XXX.
THE SMOS FIELD WAS SENT ON THE REQUEST TAPE
* HOWEVER IT WAS NOT ON THE ORIGINAL TAPE OF
* ALL SOLDIERS
*  
07 SMOS PIC X(5).

07 DMOS PIC X(5).

07 TYPLA PIC X(5).

07 DATLA PIC X(6).

07 PSQDT PIC X.

07 BERRA PIC XXX.

07 CMF PIC XX.

07 AITDT PIC XXX.

07 GTSCR PIC XXX.

07 PQDES PIC X(4).

07 PQSRT PIC X(4).

07 PQSCR PIC XXX.

07 PQSRT PIC X(4).

07 PQSRT PIC XX.

07 FILLER PIC XX.

FD PRINTER!

LABEL RECORDS ARE OMITTED
DATA RECORD IS PRINT-LINE.

01 PRINT-LINE.

03 CARRIAGE-CONTROL-CHARACTER PIC X.

03 PRINT-DATE PIC X(121).

WORKING-STORAGE SECTION.

77 DUMMY-COUNTER PIC 9(6) VALUE 0.

77 NO-MIL-DATA-COUNTER PIC 9(11) VALUE 0.

77 SEQ-CHECK PIC 9(9) VALUE 0.

* MACHINE DATE-TIME IS ACCEPTED FROM THE SYSTEM AND
* IS PRINTED OUT WHEN FILES ARE OPENED AND CLOSED

01 MACHINE-DATE-TIME.

03 MACHINE-DATE.

05 MM-DATE PIC 99.

05 DD-DATE PIC 99.

05 YY-DATE PIC 99.

03 MACHINE-TIME.

05 HOUR-DATE PIC 99.

05 MIN-DATE PIC 99.

05 SEC-DATE PIC 99.
* SEQUENCED DATE IS THE DATE IN THE FORM YYMMDD TO ALLOW FOR SORTING ON THE 6 FIELD CODE

01 SEQUENCED-DATE.

03 YY-DATE PIC 99.

03 MM-DATE PIC 99.

03 DD-DATE PIC 99.

* SEARCH KEY IS THE INDEX INTO THE INDEXED SEQUENTIAL DATA BASE IT CONSISTS OF A SOCIAL SECURITY NUMBER AND SOME RECORD TYPE (A,B,T, OR V)

THE A RECORD IS THE MASTER RECORD FOR THE ACES FILE A SOLDIER MUST HAVE AN A RECORD TO HAVE A B,T, OR V TYPE OF RECORD INDEXED BY NNNNNNNNNA WHERE N IS A NUMERIC VALUE

01 A-RECORD.

02 A-RECORD-DUMMY.

03 SSN-TYPE.

05 SSN PIC 9(9).

05 RECORD-TYPE PIC X VALUE 'A'.

03 MASTER-FLAGS.

05 BSEP-LIT-STATUS PIC 9.

88 NO-B-RECORD VALUE 0.

88 BSEP-LIT-PARTIC VALUE 1.

88 BSEP-LIT-NON-PARTIC VALUE 2.

05 BSEP-ESL-STATUS PIC 9.

88 NO-B-RECORD VALUE 0.

88 BSEP-ESL-PARTIC VALUE 1.

88 BSEP-ESL-NON-PARTIC VALUE 2.

05 VO-TECH-STATUS PIC 9.

88 NO-T-RECORD VALUE 0.

88 VO-TECH-PARTIC VALUE 1.

88 VO-TECH-NON-PARTIC VALUE 2.

05 VEAP-STATUS PIC 9.

88 NO-V-RECORD VALUE 0.

88 VEAP-PARTIC VALUE 1.

88 VEAP-WITHDRAW-RETURN VALUE 2.

88 VEAP-WITHDRAW-NO-RETURN VALUE 3.

88 VEAP-NON-PARTIC VALUE 4.

03 A-RECORD-STATUS.

05 MILPERCEN-FLAG PIC 9.

88 MILPERCEN-PRESENT VALUE 1.

05 DMDC-FLAG PIC 9.

88 DMDC-PRESENT VALUE 1.

05 TSC-FLAG PIC 9.

88 TSC-PRESENT VALUE 1.

05 EREC-FLAG PIC 9.

88 EREC-PRESENT VALUE 1.
THE Z-RECORD IS ALWAYS MAINTAINED ON THE ACES MASTER FILE

IT CARRIES THE RECORDS COUNTS, AND OTHER FILE INFORMATION

CONSULT SYSTEM DOCUMENTATION FOR RECORD LAYOUT

INDEX FOR Z RECORD IS OOOOGOOOOGZ

Z-RECORD.

03 SSN-TYPE.

05 SSN PIC 9(9).

05 RECORD-TYPE PIC X VALUE 'Z'.

03 INITIALIZED-DATE.

05 INITIALIZED-YY PIC 99.

05 INITIALIZED-MM PIC 99.

05 INITIALIZED-DD PIC 99.

03 LAST-MODIFIED-DATE.

05 LAST-MODIFIED-YY PIC 99.

05 LAST-MODIFIED-MM PIC 99.

05 LAST-MODIFIED-DD PIC 99.

03 RECORD-COUNTS.

05 NUMBER-OF-A-RECORDS PIC 9(7).

05 NUMBER-OF-B-RECORDS PIC 9(7).

05 NUMBER-OF-T-RECORDS PIC 9(7).

05 NUMBER-OF-V-RECORDS PIC 9(7).

05 TOTAL-RECORDS PIC 9(11).

THE FOLLOWING ARE THE PRINT LINES FOR THE STATUS REPORT

01 STATUS-REPORT.

03 LINE-1.

05 FILLER PIC X(20) VALUE SPACES.

05 FILLER PIC X(40) VALUE 'STATUS REPORT ON ACES MASTER FILE'.

03 LINE-2.

05 FILLER PIC X(30) VALUE SPACES.

05 FILLER PIC X(2) VALUE 'TIME '.

05 SHOW-TIME PIC X(6).

03 LINE-3.

05 FILLER PIC X(30) VALUE SPACES.

05 FILLER PIC X(8) VALUE 'DATE '.


03 LINE-4.

05 FILLER PIC X(3) VALUE SPACES.

05 FILLER PIC X(11) VALUE 'TYPE RECORD'.

05 FILLER PIC X(9) VALUE SPACES.

05 FILLER PIC X(13) VALUE 'FREQUENCIES'.

05 FILLER PIC X(23) VALUE SPACES.

05 FILLER PIC X(23) VALUE 'DATE INITIALIZED '.


03 LINE-5.

05 FILLER PIC X(12) VALUE SPACES.

05 FILLER PIC X(15) VALUE 'A'.

03 LINE-6.
  05 FILLER PIC X(12) VALUE SPACES.
  05 FILLER PIC X(15) VALUE 'B'.
  05 SHOW-B-COUNT PIC ZZZ,ZZ9.
03 LINE-7.
  05 FILLER PIC X(12) VALUE SPACES.
  05 FILLER PIC X(15) VALUE 'T'.
  05 SHOW-T-COUNT PIC ZZZ,ZZ9.
  05 FILLER PIC X(25) VALUE SPACES.
  05 FILLER PIC X(20) VALUE 'DATE LAST MODIFIED'.
03 LINE-8.
  05 FILLER PIC X(12) VALUE SPACES.
  05 FILLER PIC X(15) VALUE 'V'.
  05 SHOW-V-COUNT PIC ZZZ,ZZ9.
03 LINE-9.
  05 FILLER PIC X(28) VALUE SPACES.
  05 FILLER PIC X(6) VALUE '-------'.
03 LINE-10.
  05 FILLER PIC X(9) VALUE SPACES.
  05 FILLER PIC X(15) VALUE 'TOTAL'.
  05 SHOW-SUM-ABTV-RECORDS PIC ZZZ,ZZZ,999.
01 RECORD-COUNTERS.
  03 MILPERCEN-RECORDS-READ PIC 9(9) VALUE 0.
  03 UPDATED-A-RECORDS PIC 9(9) VALUE 0.
  01 MILPERCEN-RECORD-FLAG PIC 9.
  88 MILPERCEN-RECORD-MATCHES VALUE 0.
  88 RECORD-REJECTED VALUE 1.
  01 ACES-FILE-FLAG PIC 9 VALUE 0.
  88 EOF-ACES-MASTER-FILE VALUE 1.
  01 MILPERCEN-FILE-FLAG PIC 9 VALUE 0.
  88 EOF-MILPERCEN-FILE VALUE 1.
PROCEDURE DIVISION.
MAIN-LINE.
OPEN OUTPUT PRINTER1.
PERFORM SET-UP-ACES-MASTER-FILE.
PERFORM SET-UP-MILPERCEN-DATA-TAPE.
PERFORM INPUT-NEXT-A-RECORD.
DISPLAY 'BEGIN MILPERCEN UPDATE, PRIMING RECORDS ARE '
  UPON PRINTER.
DISPLAY ' MASTER-RECORD - MASTER-RECORD.'
DISPLAY ' MILPERCEN-RECORD - MILPERCEN-RECORD.'
PERFORM PROCESS-SOLDIER THROUGH INPUT-NEXT-A-RECORD
  UNTIL EOF-ACES-MASTER-FILE OR EOF-MILPERCEN-FILE.
  CHANGE THE 10 TIMES TO EOF-ACES-MASTER-FILE MARKER AFTER TESTING JNH
  AND EOF-MILPERCEN-FILE NOTE THAT BOTH WILL SHUT OFF PROCESS
PERFORM SHUT-DOWN-ACES-MASTER-FILE.
PERFORM SUMMARY-STATS.
STOP RUN.
301: SET-UP-MILPERCEN-DATA-TAPE.
302: OPEN INPUT MILPERCEN.
303: CLOSE MILPERCEN.
304: OPEN INPUT MILPERCEN.
305: MOVE 0 TO MILPERCEN-FILE-FLAG.
306: PERFORM INPUT-MILPERCEN-RECORD.
307: * *************************************************************
308: SET-UP-ACES-MASTER-FILE.
309: * THIS ROUTINE WILL BE THE FIRST STEP IN ANY RUN INVOLVING THE ACES-MASTER-FILE.
310: *
311: OPEN I-O ACES-MASTER-FILE.
312: MOVE ZEROES TO SSN OF SEARCH-KEY.
313: MOVE 'Z' TO RECORD-TYPE OF SEARCH-KEY.
314: READ ACES-MASTER-FILE INTO Z-RECORD,
315: AT END MOVE 1 TO ACES-FILE-FLAG.
316: PERFORM PRINT-STATUS-REPORT.
317: PRINT-STATUS-REPORT.
318: * MOVE THE DATA OFF Z-RECORD TO REPORT PRINT LINES
319: *
320: MOVE INITIALIZED-DATE OF Z-RECORD TO SHOW-INITIALIZED-DATE OF STATUS-REPORT.
321: MOVE LAST-MODIFIED-DATE TO SHOW-MODIFY-DATE.
322: MOVE NUMBER-OF-A-RECORDS TO SHOW-A-COUNT.
323: MOVE NUMBER-OF-B-RECORDS TO SHOW-B-COUNT.
324: MOVE NUMBER-OF-T-RECORDS TO SHOW-T-COUNT.
325: MOVE NUMBER-OF-V-RECORDS TO SHOW-V-COUNT.
326: MOVE TOTAL-RECORDS TO SHOW-SUM-ABTV-RECORDS.
327: *
328: * GET THE CORRECT TIME AND DATE
329: * PLACE TIME, DATE INTO REPORT PAGE
330: PERFORM INITIALIZE-DATE-TIME.
331: MOVE MACHINE-TIME TO SHOW-TIME OF STATUS-REPORT.
332: MOVE SEQUENCED-DATE TO SHOW-DATE OF STATUS-REPORT.
333: * WRITE THE STATUS REPORT
334: * WRITE PRINT-LINE FROM LINE-1 OF STATUS-REPORT AFTER PAGE-TOP LINES.
335: WRITE PRINT-LINE FROM LINE-2 OF STATUS-REPORT AFTER 2 LINES.
336: WRITE PRINT-LINE FROM LINE-3 OF STATUS-REPORT AFTER 2 LINES.
337: WRITE PRINT-LINE FROM LINE-4 OF STATUS-REPORT AFTER 2 LINES.
338: WRITE PRINT-LINE FROM LINE-5 OF STATUS-REPORT AFTER 2 LINES.
339: WRITE PRINT-LINE FROM LINE-6 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-7 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-8 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-9 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-10 OF STATUS-REPORT AFTER 2 LINES.

* INITIALIZE-DATE-TIME.
* ACCEPT MACHINE-DATE-TIME FROM DATE-TIME.
MOVE CORRESPONDING MACHINE-DATE TO SEQUENCED-DATE.

SHUT-DOWN-ACES-MASTER-FILE.
* A STATUS REPORT WILL BE GENERATED
* ALL COUNTERS WILL BE UPDATED
* A MODIFIED Z-RECORD WILL BE REWRITTEN
* ACES-MASTERFILE WILL BE CLOSED
PERFORM PRINT-STATUS-REPORT.
PERFORM WRITE-Z-RECORD.
CLOSE Aces-MASTER-FILE, MILPERCENT.

WRITE-Z-RECORD.
MOVE SEQUENCED-DATE TO LAST-MODIFIED-DATE OF Z-RECORD.
MOVE Z-RECORD TO MASTER-RECORD.
REWRITE MASTER-RECORD
INVALID KEY DISPLAY 'Z RECORD NOT WRITTEN'
UPON PRINTER.

* *********************************************
* THE FOLLOWING PORTION OF THE PROGRAM IS STRICTLY FOR MILPERCENT
* FILE PROCESSING
* *********************************************
* THIS IS THE TOP OF THE MILPERCENT PROCESSING LOOP
* IT WILL BE REPEATED A NUMBER OF TIMES EQUAL TO THE
* NUMBER OF MILPERCENT DATA RECORDS
* *********************************************
PROCESS-SOLDIER.

ADD 1 TO DUMMY-COUNTER.
IF DUMMY-COUNTER EQUALS 200
MOVE ZEROS TO DUMMY-COUNTER
DISPLAY ', SSN OF MASTER-RECORD, ' AT MIL - ',
MILPERCENT-RECORDS-READ UPON PRINTER.
* NEXT WE WILL SEE IF THERE IS MILPERCENT A-RECORD ON THIS SOLDIER AND
* DETERMINE BY MEANS OF A SEX COMPARISON IF THE TWO ARE THE
* SAME IE MILPERCENT INPUT AND THE A-RECORD
PERFORM INPUT-MILPERCENT-RECORD UNTIL
SSN OF MILPERCENT-RECORD IS NOT LESS THAN
SSN OF MASTER-RECORD.
* IF THERE IS A MILPERCEN RECORD IT WILL NOW BE IN CORE NEXT WE CHECK TO SEE IF THEY MATCH
   PERFORM VERIFY-MILPERCEN-MATCH.
   * NOW IF THE A-RECORD WAS MATCHED WITH MILPERCEN THE A-RECORD CAN BE UPDATED AND REWRITTEN OTHERWISE WE WILL PRINT THE A-RECORD FOR NOT HAVING A MILPERCEN RECORD
   IF MILPERCEN-RECORD-MATCHES
   PERFORM UPDATE-A-RECORD,
   PERFORM REWRITE-A-RECORD,
   ELSE
   ADD 1 TO NO-MIL-DATA-COUNTER.
   * SINCE THERE IS MORE THAN ONE TYPE OF RECORD WE SELECT ONLY THE MASTER RECORD FOR EACH SOLDIER
   PERFORM INPUT-NEXT-LOGICAL-RECORD.
   PERFORM INPUT-NEXT-LOGICAL-RECORD UNTIL EOF-ACES-MASTER-FILE OR RECORD-TYPE OF MASTER-RECORD EQUALS 'A'.
   READING ACES-MASTER-FILE INTO A-RECORD
   AT END MOVE 1 TO ACES-FILE-FLAG.
   IF SSN OF A-RECORD EQUALS 999999999
   MOVE 1 TO ACES-FILE-FLAG.
   VERIFY-MILPERCEN-MATCH.
   * NOTE THAT ANY VALIDATION OF THE RECORDS SHOULD BE DONE HERE
   MOVE 0 TO MILPERCEN-RECORD-FLAG.
   IF SSN OF MILPERCEN-RECORD NOT EQUAL SSN OF MASTER-RECORD MOVE 1 TO MILPERCEN-RECORD-FLAG,
   DISPLAY ' NO DATA - ', SSN OF MASTER-RECORD,
   ' - NEXT MIL - ', SSN OF MILPERCEN-RECORD
   UPON PRINTER.
   IF MILPERCEN-RECORD-MATCHES AND SEX OF MILPERCEN-RECORD NOT EQUAL SEX OF CONTROL-INFORMATION OF A-RECORD
   DISPLAY ' BAD MATCH ON SEX',
   SEX OF MILPERCEN-RECORD, 'MIL',
   SEX OF CONTROL-INFORMATION OF A-RECORD,
   'A' UPON PRINTER.
   MOVE 1 TO MILPERCEN-RECORD-FLAG.
   * UPDATE-A-RECORD.
   * HERE WE WILL MOVE ALL THE DATA WE WISH OFF THE MIL RECORD
   AND INTO THE A-RECORD
   MOVE CORRESPONDING MILPERCEN-DATA OF MILPERCEN-RECORD TO MILPERCEN-DATA OF A-RECORD.
* PLACE BIRTH DATE AND SEX IN CONTROL IF NOT THERE ALREADY

IF DOB-YY OF CONTROL-INFORMATION LESS THAN 20
OR GREATER TO
MOVE DOB OF MILPERCEN-RECORD TO DOB OF
CONTROL-INFORMATION.
IF SEX OF CONTROL-INFORMATION EQUAL SPACES
MOVE SEX OF MILPERCEN-RECORD TO
SEX OF CONTROL-INFORMATION.
ADD 1 TO UPDATED-A-RECORDS.
MOVE 1 TO MILPERCEN-FLAG.
REWRITE-A-RECORD.
MOVE 'A' TO RECORD-TYPE OF SEARCH-KEY.
MOVE SEQUENCED-DATE TO LAST-MOD-DATE OF A-RECORD.
MOVE A-RECORD TO MASTER-RECORD.
REWRITE MASTER-RECORD
INVALID KEY DISPLAY
' INVALID ATTEMPT REWRI *A* REC'
UPON PRINTER.
INPUT-MILPERCEN-RECORD.
READ MILPERCEN AT END MOVE 1 TO MILPERCEN-FILE-FLAG.
ADD 1 TO MILPERCEN-RECORDS-READ.
* WANT TO DO A SEQUENCE CHECK ON THESE RECORDS
* IF SSN OF MILPERCEN-RECORD NOT GREATER THAN SEQ-CHECK
DISPLAY 'SEQUENCE PROBLEM - NEW REC ' SSN OF
MILPERCEN-RECORD
DISPLAY ' OLD REC ' SEQ-CHECK.
MOVE SSN OF MILPERCEN-RECORD TO SEQ-CHECK.
* IF MILPERCEN-RECORDS-READ GREATER THAN 119200
MOVE 1 TO MILPERCEN-FILE-FLAG.
SUMMARY-STATS.
DISPLAY MILPERCEN-RECORDS-READ, 'MIL RECS READ'
UPON PRINTER.
DISPLAY NO-MIL-DATA-COUNTER, 'NO MIL DATA'
UPON PRINTER.
DISPLAY UPDATED-A-RECORDS, 'UPDATED & RECS'
UPON PRINTER.
IDENTIFICATION DIVISION.

PROGRAM-ID. SSN.

AUTHOR. JOHN HAMILL.

INSTALLATION. ABERDEEN PROVING GROUND, MD, 21010.

DATE-WRITTEN. MAY 1980.

DATE-COMPILED.

SECURITY. NO SECURITY CLEARANCE.

REMARKS. THE PURPOSE OF THIS PROGRAM IS

PRODUCE TWO TYPES OF OUTPUT

I) THOSE SOLDIERS WHO HAVE BEEN ACCEPTED INTO

THE PROGRAM IE SELECTABLE-ABLE-TEST-SCORE

OF LESS THAN 50 OR ECL-PRETEST

OF LESS THAN 70

II) THOSE SOLDIERS WHO HAVE NOT BEEN ACCEPTED

INTO THE PROGRAM (WHICH SHOULD BE FEW)

AND HAVE HIGHER ECL PRE TEST SCORES

AND SELECT-ABLE-TEST-SCORES

ENVIRONMENT DIVISION.

CONFIGURATION SECTION.

SOURCE-COMPUTER. UNIVAC-1108.

OBJECT-COMPUTER. UNIVAC-1108.

INPUT-OUTPUT SECTION.

FILE-CONTROL.

SELECT ACES-MASTER-FILE

ASSIGN TO MASS-STORAGE MASTER

ORGANIZATION IS INDEXED,

ACCESS MODE IS SEQUENTIAL,

FILE-LIMIT IS 2300

ACTUAL KEY IS DUM-SEARCH-KEY.

SELECT PRINTER1 ASSIGN TO PRINTER.

SELECT SSN-LIST ASSIGN TO PRINTER SSNLIST.

DATA DIVISION.

FILE SECTION.

FD ACES-MASTER-FILE

LABEL RECORDS ARE STANDARD,

RECORD CONTAINS 300 CHARACTERS,

BLOCK CONTAINS 30 RECORDS.

FD PRINTER1

LABEL RECORDS ARE OMITTED

DATA RECORD IS PRINT-LINE.

FD PRINT-LINE.

LABEL RECORDS ARE OMITTED

DATA RECORD IS PRINT-LINE.

O1 MASTER-RECORD.

O3 SEARCH-KEY.

O5 SSN PIC 9(9).

O5 RECORD-TYPE PIC X.

O3 DATA-AREA PIC X(290).

O3 CARRIAGE-CONTROL-CHARACTER PIC X.

O3 PRINT-DATA PIC X(121).
FD SSN-LIST
  LABEL RECORDS ARE OMITTED
  DATA RECORD IS SSN-DATA.
01 SSN-DATA.
  03 SSN-CODE PIC 9(9).
  03 REST PIC X(71).
WORKING-STORAGE SECTION.
77 DUM-SEARCH-KEY PIC X(10).
77 DUMMY-COUNTER PIC 9(6) VALUE 0.
01 SOLDIER-PRINT-AREA.
  03 PRINT-AREA-1.
    05 SSN PIC 9(9).
    05 FILLER PIC X(10) VALUE 'DOB'.
    05 FILLER PIC X(3) VALUE SPACES.
    05 DOB PIC XX/XX/XX.
  *
* MACHINE DATE-TIME IS ACCEPTED FROM THE SYSTEM AND
* IS PRINTED OUT WHEN FILES ARE OPENED AND CLOSED
* *
01 MACHINE-DATE-TIME.
  03 MACHINE-DATE.
    05 MM-DATE PIC 99.
    05 DD-DATE PIC 99.
    05 YY-DATE PIC 99.
  03 MACHINE-TIME.
    05 HOUR-DATE PIC 99.
    05 MIN-DATE PIC 99.
    05 SEC-DATE PIC 99.
  *
* SEQUENCED DATE IS THE DATE IN THE FORM YMDHDD TO ALLOW
* FOR SORTING ON THE 6 FIELD CODE
* *
01 SEQUENCED-DATE.
  03 YY-DATE PIC 99.
  03 MM-DATE PIC 99.
  03 DD-DATE PIC 99.
  *
* SEARCH KEY IS THE INDEX INTO THE INDEXED SEQUENTIAL
* DATA BASE IT CONSISTS OF A SOCIAL SECURITY NUMBER
* AND SOME RECORD TYPE (A,B,T, OR V)
* *
* THE A RECORD IS THE MASTER RECORD FOR THE ACES FILE
* A SOLDIER MUST HAVE AN A RECORD TO HAVE A B,T, OR V
* TYPE OF RECORD INDEXED BY NNNNNNNNA WHERE N IS A
* NUMERIC VALUE
A-51

01 A-RECORD.
  02 A-RECORD-DUMMY.
  03 SSN-TYPE.
  04 SSN PIC 9(9).
  05 RECORD-TYPE PIC X VALUE 'A'.
  06 MASTER-FLAGS.
  07 BSEP-LIT-STATUS PIC 9.
  08 BSEP-LIT-PARTIC VALUE 1.
  09 BSEP-LIT-NON-PARTIC VALUE 2.
  10 BSEP-ESL-STATUS PIC 9.
  11 BSEP-ESL-PARTIC VALUE 1.
  12 BSEP-ESL-NON-PARTIC VALUE 2.
  13 VO-TECH-STATUS PIC 9.
  14 VO-TECH-PARTIC VALUE 1.
  15 VO-TECH-NON-PARTIC VALUE 2.
  16 VEAP-STATUS PIC 9.
  17 VEAP-PARTIC VALUE 1.
  18 VEAP-NON-PARTIC VALUE 4.
  19 A-RECORD-STATUS.
  20 MILPERCEN-FLAG PIC 9.
  21 MILPERCEN-PRESENT VALUE 1.
  22 DMDC-FLAG PIC 9.
  23 DMDC-PRESENT VALUE 1.
  24 TSC-FLAG PIC 9.
  25 TSC-PRESENT VALUE 1.
  26 EREC-FLAG PIC 9.
  27 EREC-PRESENT VALUE 1.
  28 CREATE-DATE.
  29 CREATE-YY PIC 99.
  30 CREATE-MM PIC 99.
  31 CREATE-DD PIC 99.
  32 LAST-MOD-DATE.
  33 LAST-MOD-YY PIC 99.
  34 LAST-MOD-MM PIC 99.
  35 LAST-MOD-DD PIC 99.
  36 CONTROL-INFORMATION.
  37 DOB.
  38 DOB-YY PIC 99.
  39 DOB-MM PIC 99.
  40 DOB-DD PIC 99.
  41 SEX PIC X.
  42 MALE VALUE 'M'.
  43 FEMALE VALUE 'F'.
THE Z-RECORD IS ALWAYS MAINTAINED ON THE ACES MASTER FILE
IT CARRIES THE RECORDS COUNTS, AND OTHER FILE INFORMATION
CONSULT SYSTEM DOCUMENTATION FOR RECORD LAYOUT
INDEX FOR Z RECORD IS OOOOOGOGOZ
03 RECORD-COUNTS.
05 NUMBER-OF-A-RECORDS PIC 9(7).
05 NUMBER-OF-B-RECORDS PIC 9(7).
05 NUMBER-OF-T-RECORDS PIC 9(7).
05 NUMBER-OF-V-RECORDS PIC 9(7).
05 TOTAL-RECORDS PIC 9(11).

01 SOLDIER-LINE.
03 FILLER PIC X VALUE SPACES.
03 SSN PIC 9(9).
03 FILLER PIC X(5) VALUE SPACES.
03 DOB PIC 9(6).

* THE FOLLOWING ARE THE PRINT LINES FOR THE STATUS REPORT.

01 STATUS-REPORT.
03 LINE-1.
05 FILLER PIC X(20) VALUE SPACES.
05 FILLER PIC X(40) VALUE 'STATUS REPORT ON ACES MASTER FILE'.

03 LINE-2.
05 FILLER PIC X(30) VALUE SPACES.
05 FILLER PIC X(8) VALUE 'TIME '.
05 SHOW-TIME PIC X(6).

03 LINE-3.
05 FILLER PIC X(30) VALUE SPACES.
05 FILLER PIC X(8) VALUE 'DATE '.

03 LINE-4.
05 FILLER PIC X(3) VALUE SPACES.
05 FILLER PIC X(11) VALUE 'TYPE RECORD'.
05 FILLER PIC X(9) VALUE SPACES.
05 FILLER PIC X(13) VALUE 'FREQUENCIES'.
05 FILLER PIC X(23) VALUE SPACES.
05 FILLER PIC X(23) VALUE 'DATE INITIALIZED '.

03 LINE-5.
05 FILLER PIC X(12) VALUE SPACES.
05 FILLER PIC X(15) VALUE 'A'.

03 LINE-6.
05 FILLER PIC X(12) VALUE SPACES.
05 FILLER PIC X(15) VALUE 'B'.
05 SHOW-B-COUNT PIC ZZZ,ZZ9.

03 LINE-7.
05 FILLER PIC X(12) VALUE SPACES.
05 FILLER PIC X(15) VALUE 'T'.
05 SHOW-T-COUNT PIC ZZZ,ZZ9.

05 FILLER PIC X(25) VALUE SPACES.
05 FILLER PIC X(20) VALUE 'DATE LAST MODIFIED '.
**A-34**

248: 03 LINE-8.
249: 05 FILLER PIC X(12) VALUE SPACES.
250: 05 FILLER PIC X(15) VALUE 'V'.
251: 05 SHOW-V-COUNT PIC ZZZ,ZZZ.
252: 03 LINE-9.
253: 05 FILLER PIC X(28) VALUE SPACES.
254: 05 FILLER PIC X(6) VALUE '-----'.
255: 03 LINE-10.
256: 05 FILLER PIC X(9) VALUE SPACES.
257: 05 FILLER PIC X(15) VALUE 'TOTAL'.
258: 05 SHOW-SUM-ACS-RECORDS PIC ZZZ,ZZZ,999.
260: 88 OLD-A-RECORD VALUE 0.
262: 01 CREATED-B-RECORD-FLAG PIC 9.
263: 88 OLD-B-RECORD VALUE 0.
264: 88 NEW-B-RECORD VALUE 1.
265: 01 TRADOC-FILE-FLAG PIC 9.
266: 88 EOF-TRADOC-DATE-TAPE VALUE 1.
267: 01 RECORD-COUNTERS.
268: 03 NUMBER-RECORDS-READ PIC 9(9).
269: 03 NUMBER-RECORDS-PRINTED PIC 9(9).
270: 01 ACES-FILE-FLAG PIC 9 VALUE 0.
272: PROCEDURE DIVISION.
273: MAIN-LINE.
274: OPEN OUTPUT PRINTER1, SSN-LIST.
275: DISPLAY 'BEGIN EXECUTION OF SSN DUMP' UPON PRINTER.
276: PERFORM SET-UP-ACES-MASTER-FILE.
277: PERFORM INITIALIZE-SOLDIER-COUNTERS.
278: PERFORM PROCESS-SOLDIERS
279: UNTIL EOF-ACES-FILE.
280: PERFORM SHUT-DOWN-ACES-MASTER-FILE.
281: CLOSE SSN-LIST, PRINTER1.
282: DISPLAY 'RECORDS READ', NUMBER-RECORDS-READ
283: UPON PRINTER.
284: DISPLAY 'RECORDS WRITTEN TO'
285: FILE SSN-LIST UPON PRINTER.
286: DISPLAY 'END OF EXECUTION SSN.' UPON PRINTER.
287: STOP RUN.
288: * ******************
289: SET-UP-ACES-MASTER-FILE.
290: * THIS ROUTINE WILL BE THE FIRST STEP IN ANY RUN
291: * INVOLVING THE ACES-MASTER-FILE.
292: * OPEN INPUT ACES-MASTER-FILE.
293: READ ACES-MASTER-FILE INTO Z-RECORD,
294: AT END DISPLAY 'NO Z RECORD' UPON PRINTER,
295: STOP RUN.
296: PERFORM PRINT-STATUS-REPORT.
PRINT-STATUS-REPORT.

MOVE THE DATA OFF Z-RECORD TO REPORT PRINT LINES

MOVE INITIALIZED-DATE OF Z-RECORD TO SHOW-INITIALIZED-DATE OF STATUS-REPORT.

MOVE LAST-MODIFIED-DATE TO SHOW-MODIFY-DATE.

MOVE NUMBER-OF-A-RECORDS TO SHOW-A-COUNT.

MOVE NUMBER-OF-B-RECORDS TO SHOW-B-COUNT.

MOVE NUMBER-OF-Z-RECORDS TO SHOW-Z-COUNT.

MOVE NUMBER-OF-V-RECORDS TO SHOW-V-COUNT.

MOVE TOTAL-RECORDS TO SHOW-SUM-ABTV-RECORDS.

GET THE CORRECT TIME AND DATE

PLACE TIME, DATE INTO REPORT PAGE

PERFORM INITIALIZE-DATE-TIME.

MOVE MACHINE-TIME TO SHOW-TIME OF STATUS-REPORT.

MOVE SEQUENCED-DATE TO SHOW-DATE OF STATUS-REPORT.

WRITE THE STATUS REPORT

WRITE PRINT-LINE FROM LINE-1 OF STATUS-REPORT AFTER PAGE-TOPO LINES.

WRITE PRINT-LINE FROM LINE-2 OF STATUS-REPORT AFTER 2 LINES.

WRITE PRINT-LINE FROM LINE-3 OF STATUS-REPORT AFTER 2 LINES.

WRITE PRINT-LINE FROM LINE-4 OF STATUS-REPORT AFTER 2 LINES.

WRITE PRINT-LINE FROM LINE-5 OF STATUS-REPORT AFTER 2 LINES.

WRITE PRINT-LINE FROM LINE-6 OF STATUS-REPORT AFTER 2 LINES.

WRITE PRINT-LINE FROM LINE-7 OF STATUS-REPORT AFTER 2 LINES.

WRITE PRINT-LINE FROM LINE-8 OF STATUS-REPORT AFTER 2 LINES.

WRITE PRINT-LINE FROM LINE-9 OF STATUS-REPORT AFTER 2 LINES.

WRITE PRINT-LINE FROM LINE-10 OF STATUS-REPORT AFTER 2 LINES.

INITIALIZE-DATE-TIME.

ACCEPT MACHINE-DAY FROM DATE.

ACCEPT MACHINE-TIME FROM TIME.

MOVE CORRESPONDING MACHINE-DAY TO SEQUENCED-DAY.

SHUT-DOWN-ACES-MASTER-FILE.

ACES-MASTERFILE WILL BE CLOSED

CLOSE ACES-MASTER-FILS.

THE FOLLOWING PORTION OF THE PROGRAM IS STRICTLY FOR SSN FILE PROCESSING

THIS IS THE TOP OF THE SSN PROCESSING LOOP

IT WILL BE REPEATED A NUMER OF TIMES EQUAL TO THE

NUMBER OF DATA RECORDS
348: INITIALIZE-SOLDIER-COUNTERS.
349: MOVE ZEROS TO RECORD-COUNTERS.
350: PROCESS-SOLDIERS.
351: * IF JUST A LISTING OF SSN IS DESIRED THE FOLLOWING
352: * CODE SHOULD BE LEFT IN
353: PERFORM INPUT-ACES-RECORD UNTIL
354: RECORD-TYPE OF MASTER-RECORD EQUAL 'A'
355: OR
356: EOF-ACES-FILE.
357: IF RECORD-TYPE OF MASTER-RECORD IS EQUAL TO 'A'
358: MOVE MASTER-RECORD TO A-RECORD
359: PERFORM PRINT-SOLDIER.
360: IF NOT EOF-ACES-FILE PERFORM INPUT-ACES-RECORD.
361: *
362: * IN THE EVENT THAT A PARTICULAR CONDITION IS REQUESTED
363: * IS SATISFIED ONE OF THE STATUS FLAGS IT WILL
364: * BE IMPLEMENTED HERE
365: * NOTE THE REMAINING LINES ARE CODED IN ANSI BUT ARE
366: * ENTRIES MERELY PULL THE * COMMENT CHARACTER
367: * THE REST WERE NOT IMPLEMENTED AS DEEMED UNNECESSARY
368: INPUT-ACES-RECORD.
369: READ ACES-MASTER-FILE
370: AT END MOVE 1 TO ACES-FILE-FLAG
371: MOVE 999999999 TO SSN OF MASTER-RECORD
372: MOVE 'X' TO RECORD-TYPE OF MASTER-RECORD.
373: IF SSN OF MASTER-RECORD EQUALS 999999999 MOVE
374: 1 TO ACES-FILE-FLAG.
375: ADD 1 TO NUMBER-RECORDS-READ.
376: ADD 1 TO DUMMY-COUNTER.
377: IF DUMMY-COUNTER GREATER THAN 500
378: DISPLAY ' COUNT - ', NUMBER-RECORDS-PRINTED
379: UPON PRINTER,
380: MOVE ZEROS TO DUMMY-COUNTER.
381: IF RECORD-TYPE OF MASTER-RECORD NOT EQUAL
382: 'A' AND 'B' AND 'T'
383: DISPLAY ' UNKNOWN RECORD TYPE FOUND - ' SEARCH-KEY OF
384: MASTER-RECORD.
385: PRINT-SOLDIER.
386: ADD 1 TO NUMBER-RECORDS-PRINTED.
387: MOVE SSN OF A-RECORD TO SSN-CODE.
388: MOVE SPACES TO REST.
389: WRITE SSN-DATA .

EOF:389
0:1>
IDENTIFICATION DIVISION.
PROGRAM-ID. DMDC.
AUTHOR. JOHN HAMILL.
INSTALLATION. ABERDEEN PROVING GROUND, MD, 21010.
DATE-WRITTEN. MAY 1980.
DATE-COMPILED.
SECURITY. NO SECURITY CLEARANCE.
REMARKS. THE PURPOSE OF THIS PROGRAM IS INCORPORATE DMDC DATA ON TO A-RECORDS.
ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
SOURCE-COMPUTER. UNIVAC-1108.
OBJECT-COMPUTER. UNIVAC-1108.
INPUT-OUTPUT SECTION.
FILE-COMTROL.
SELECT ACES-MASTER-FILE ASSIGN TO MASS-STORAGE MASTER
ORGANIZATION IS INDEXED,
ACCESS MODE IS SEQUENTIAL
PROCESSING MODE IS SEQUENTIAL,
FILE-LIMIT IS 20000
ACTUAL KEY IS SEARCH-KEY.
SELECT PRINTER ASSIGN TO PRINTER.
SELECT DMDC ASSIGN TO CARD-READER DMCDATA.
DATA DIVISION.
FILE SECTION.
FD ACES-MASTER-FILE
LABEL RECORDS ARE STANDARD,
RECORD CONTAINS 300 CHARACTERS,
BLOCK CONTAINS 30 RECORDS.

DATA DIVISION.
FILE SECTION.
FD ACES-MASTER-FILE
LABEL RECORDS ARE STANDARD,
RECORD CONTAINS 19 CHARACTERS.
DMDC-RECORD-DUMMY.
LABEL RECORDS ARE STANDARD,
RECORD CONTAINS 19 CHARACTERS.
FD PRINTER!
LABEL RECORDS ARE OMITTED
DATA RECORD IS PRINT-LINE.

01 PRINT-LINE.
  03 CARRIAGE-CONTROL-CHARACTER PIC X.
  03 PRINT-DATA PIC X(121).

WORKING-STORAGE SECTION.

77 DUMMY-COUNTER PIC 9(6) VALUE 0.

77 NO-DMDC-DATA-COUNTER PIC 9(11) VALUE 0.
77 INDEX PIC 9 VALUE 0.
77 SSN-HOLD PIC 9(9) VALUE 0.

* MACHINE DATE-TIME IS ACCEPTED FROM THE SYSTEM AND
* IS PRINTED OUT WHEN FILES ARE OPENED AND CLOSED

01 MACHINE-DATE-TIME.
  03 MACHINE-DATE.
    05 MM-DATE PIC 99.
    05 DD-DATE PIC 99.
    05 YY-DATE PIC 99.
  03 MACHINE-TIME.
    05 HOUR-DATE PIC 99.
    05 MIN-DATE PIC 99.
    05 SEC-DATE PIC 99.

* SEQUENCED DATE IS THE DATE IN THE FORM YYMMDD TO ALLOW
* FOR SORTING ON THE 6 FIELD CODE

01 SEQUENCED-DATE.
  03 YY-DATE PIC 99.
  03 MM-DATE PIC 99.
  03 DD-DATE PIC 99.

* THIS RECORD HOLDS THE DMDC RECORD TO BE BUILT

01 DMDC-RECORD.
  02 SSN PIC 9(9).
  02 DMDC-DATA.
    03 DMDC-PART-O.
      05 DMDC-BIRTH PIC 9(6).
      05 FILLER PIC X(2).
      05 SEX PIC X.
      05 FILLER PIC X.
    03 DMDC-PART OCCURS 6 TIMES PIC X(19).

* SEARCH KEY IS THE INDEX INTO THE INDEXED SEQUENTIAL
* DATA BASE IT CONSISTS OF A SOCIAL SECURITY NUMBER
* AND SOME RECORD TYPE (A,E,T, OR V)
THE A RECORD IS THE MASTER RECORD FOR THE ACES FILE
A SOLDIER MUST HAVE AN A RECORD TO HAVE A B, T, OR V
TYPE OF RECORD INDEXED BY NNNNNNNNA WHERE N IS A NUMERIC VALUE

01 A-RECORD.
  02 A-RECORD-DUMMY.
  03 SSN-TYPE.
    05 SSN PIC 9(9).
    05 RECORD-TYPE PIC X VALUE 'A'.
  03 MASTER-FLAGS.
    05 BSEP-LIT-STATUS PIC 9.
      88 NO-B-RECORD VALUE 0.
      88 BSEP-LIT-PARTIC VALUE 1.
      88 BSEP-LIT-NON-PARTIC VALUE 2.
    05 BSEP-ESL-STATUS PIC 9.
      88 NO-B-RECORD VALUE 0.
      88 BSEP-ESL-PARTIC VALUE 1.
      88 BSEP-ESL-NON-PARTIC VALUE 2.
    05 VO-TECH-STATUS PIC 9.
      88 NO-V-RECORD VALUE 0.
      88 VO-TECH-PARTIC VALUE 1.
      88 VO-TECH-NON-PARTIC VALUE 2.
    05 VEAP-STATUS PIC 9.
      88 NO-V-RECORD VALUE 0.
      88 VEAP-PARTIC VALUE 1.
      88 VEAP-NON-PARTIC VALUE 2.
      88 VEAP-NON-PARTIC RETURN VALUE 3.
      88 VEAP-NON-PARTIC NO-RETURN VALUE 4.
  03 A-RECORD-STATUS.
    05 MILPERCEN-FLAG PIC 9.
      88 MILPERCEN-PRESENT VALUE 1.
    05 DMDC-FLAG PIC 9.
      88 DMDC-PRESENT VALUE 1.
    05 TSC-FLAG PIC 9.
      88 TSC-PRESENT VALUE 1.
    05 EREC-FLAG PIC 9.
      88 EREC-PRESENT VALUE 1.
    05 CREATE-DATE.
      07 CREATE-YY PIC 99.
      07 CREATE-MM PIC 99.
      07 CREATE-DD PIC 99.
    05 LAST-MOD-DATE.
      07 LAST-MOD-YY PIC 99.
      07 LAST-MOD-MM PIC 99.
      07 LAST-MOD-DD PIC 99.
  03 CONTROL-INFORMATION.
    05 DOB.
      07 DOB-YY PIC 99.
      07 DOB-MM PIC 99.
      07 DOB-DD PIC 99.
A-60

05 SEX PIC X.
05 MALE VALUE 'M'.
05 FEMALE VALUE 'F'.

03 MILPERCENT-DATE.
07 SEX PIC X.
07 RACE PIC X.
07 MARST PIC X.
07 DOB PIC X(6).
07 TERMS PIC X.
07 ETS DT PIC X(6).
07 EGPCD PIC X.
07 BPEDT PIC XXX.
07 PAYGR PIC X.
07 DOR PIC X(6).
07 AFQSC PIC XX.
07 CIVED PIC X.
07 PMOS PIC X(5).
07 DQOS PIC X(5).
07 TYPLA PIC XX.
07 DATLA PIC X(6).
07 PSVCI PIC X.
07 EERWA PIC XXX.
07 CMF PIC XX.
07 AITDT PIC XXX.
07 GTSCR PIC XXX.
07 PQDES PIC X(4).
07 PSQDT PIC X(4).
07 PQSCR PIC XXX.
07 PQPER PIC XX.
07 SMOS PIC X(5).
07 FILLER PIC X(4).
03 DMDC-DATA PIC X(124).
03 TSC-DATA PIC X(56).

THE Z-RECORD IS ALWAYS MAINTAINED ON THE ACES MASTER FILE
IT CARRIES THE RECORDS COUNTS, AND OTHER FILE INFORMATION
CONSULT SYSTEM DOCUMENTATION FOR RECORD LAYOUT
INDEX FOR Z RECORD IS OOOOOOOOZ

01 Z-RECORD.
03 SSN-TYPE.
05 SSN PIC 9(9).
05 RECORD-TYPE PIC X VALUE 'Z'.
03 INITIALIZED-DATE.
05 INITIALIZED-YY PIC 99.
05 INITIALIZED-MM PIC 99.
05 INITIALIZED-DD PIC 99.
THE FOLLOWING ARE THE PRINT LINES FOR THE STATUS REPORT

01 STATUS-REPORT.
   03 LINE-1.
      05 FILLER PIC X(20) VALUE SPACES.
      05 FILLER PIC X(40) VALUE 'STATUS REPORT ON ACES MASTER FILE'.
   03 LINE-2.
      05 FILLER PIC X(30) VALUE SPACES.
      05 FILLER PIC X(8) VALUE 'TIME '.
      05 SHOW-TIME PIC X(6).  
   03 LINE-3.
      05 FILLER PIC X(30) VALUE SPACES.
      05 FILLER PIC X(8) VALUE 'DATE '.
   03 LINE-4.
      05 FILLER PIC X(3) VALUE SPACES.
      05 FILLER PIC X(11) VALUE 'TYPE RECORD'.
      05 FILLER PIC X(9) VALUE SPACES.
      05 FILLER PIC X(13) VALUE 'FREQUENCIES'.
      05 FILLER PIC X(23) VALUE SPACES.
      05 FILLER PIC X(23) VALUE 'DATE INITIALIZED '.
      05 SHOW-INITIALIZED-DATE PIC 99/97/99.
   03 LINE-5.
      05 FILLER PIC X(12) VALUE SPACES.
      05 FILLER PIC X(15) VALUE 'A'.
   03 LINE-6.
      05 FILLER PIC X(12) VALUE SPACES.
      05 FILLER PIC X(15) VALUE 'B'.
      05 SHOW-B-COUNT PIC ZZZ,ZZ9.
   03 LINE-7.
      05 FILLER PIC X(12) VALUE SPACES.
      05 FILLER PIC X(15) VALUE 'T'.
      05 SHOW-T-COUNT PIC ZZZ,ZZ9. 
      05 FILLER PIC X(25) VALUE SPACES.
      05 FILLER PIC X(20) VALUE 'DATE LAST MODIFIED '.
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254: 03 LINE-8.
255: 05 FILLER PIC X(12) VALUE SPACES.
256: 05 FILLER PIC X(15) VALUE 'V'.
257: 05 SHOW-V-COUNT PIC ZZZ,ZZ9.
258: 03 LINE-9.
259: 05 FILLER PIC X(28) VALUE SPACES.
260: 05 FILLER PIC X(6) VALUE '----'.
261: 03 LINE-10.
262: 05 FILLER PIC X(9) VALUE SPACES.
263: 05 FILLER PIC X(15) VALUE 'TOTAL'.
264: 05 SHOW-SUM-ABTV-RECORDS PIC ZZZ,ZZZ,999.
265: 01 RECORD-COUNTERS.
266: 03 DMDC-RECORDS-READ PIC 9(9) VALUE 0.
267: 03 UPDATED-A-RECORDS PIC 9(9) VALUE 0.
268: 01 DMDC-RECORD-FLAG PIC 9.
269: 88 DMDC-RECORD-MATCHES VALUE 0.
270: 88 RECORD-REJECTED VALUE 1.
271: 01 ACES-FILE-FLAG PIC 9 VALUE 0.
273: 01 DMDC-FILE-FLAG PIC 9 VALUE 0.
274: 88 EOF-DMDC-FILE VALUE 1.
275: PROCEDURE DIVISION.
276: MAIN-LINE.
277: OPEN OUTPUT PRINTER1.
278: PERFORM SET-UP-ACES-MASTER-FILE.
279: PERFORM SET-UP-DMDC-DATA-TAPE.
280: PERFORM INPUT-NEXT-A-RECORD.
281: DISPLAY 'DMDC EXECUTION PRIMING RECORDS'.
282: DISPLAY 'DMDC-RECORD = DMDC-RECORD-DUMMY.'
283: DISPLAY 'MASTER-RECORD = MASTER-RECORD.'
284: PERFORM PROCESS-SOLDIER THROUGH INPUT-NEXT-A-RECORD
285: UNTIL EOF-ACES-MASTER-FILE OR EOF-DMDC-FILE.
286: * CHANGE THE 10 TIMES TO EOF-ACES-MASTER-FILE MARKER AFTER TESTING JNH
287: * AND EOF-DMDC-FILE NOTE THAT BOTH WILL SHUT OFF PROCESS
288: PERFORM SHUT-DOWN-ACES-MASTER-FILE.
289: PERFORM SUMMARY-STATS.
290: STOP RUN.
291: SET-UP-DMDC-DATA-TAPE.
292: OPEN INPUT DMDC.
293: CLOSE DMDC.
294: OPEN INPUT DMDC.
295: MOVE 0 TO DMDC-FILE-FLAG.
296: PERFORM INPUT-DMDC-RECORD.
297: * ******************************
298: SET-UP-ACES-MASTER-FILE.
299: * THIS ROUTINE WILL BE THE FIRST STEP IN ANY RUN
300: * INVOLVING THE ACES-MASTER-FILE.
OPEN I-O ACES-MASTER-FILE.

MOVE ZEROS TO SSN OF SEARCH-KEY.

MOVE 'Z' TO RECORD-TYPE OF SEARCH-KEY.

READ ACES-MASTER-FILE INTO Z-RECORD,

AT END MOVE 1 TO ACES-FILE-FLAG.

PERFORM PRINT-STATUS-REPORT.

PRINT-STATUS-REPORT.

* MOVE THE DATA OFF Z-RECORD TO REPORT PRINT LINES

* MOVE INITIALIZED-DATE OF Z-RECORD TO SHOW-INITIALIZED-DATE

* OF STATUS-REPORT.

* MOVE LAST-MODIFIED-DATE TO SHOW-MODIFY-DATE.

* MOVE NUMBER-OF-A-RECORDS TO SHOW-A-COUNT.

* MOVE NUMBER-OF-B-RECORDS TO SHOW-B-COUNT.

* MOVE NUMBER-OF-T-RECORDS TO SHOW-T-COUNT.

* MOVE NUMBER-OF-V-RECORDS TO SHOW-V-COUNT.

* MOVE TOTAL-RECORDS TO SHOW-SUM-ABTV-RECORDS.

GET THE CORRECT TIME AND DATE

PLACE TIME, DATE INTO REPORT PAGE

PERFORM INITIALIZED-DATETIME.

MOVE MACHINE-TIME TO SHOW-TIME OF STATUS-REPORT.

MOVE SEQUENCED-DAY TO SHOW-DAY OF STATUS-REPORT.

WRITE THE STATUS REPORT

WRITE PRINT-LINE FROM LINE-1 OF STATUS-REPORT AFTER PAGE-TOP LINES.

WRITE PRINT-LINE FROM LINE-2 OF STATUS-REPORT AFTER 2 LINES.

WRITE PRINT-LINE FROM LINE-3 OF STATUS-REPORT AFTER 2 LINES.

WRITE PRINT-LINE FROM LINE-4 OF STATUS-REPORT AFTER 2 LINES.

WRITE PRINT-LINE FROM LINE-5 OF STATUS-REPORT AFTER 2 LINES.

WRITE PRINT-LINE FROM LINE-6 OF STATUS-REPORT AFTER 2 LINES.

WRITE PRINT-LINE FROM LINE-7 OF STATUS-REPORT AFTER 2 LINES.

WRITE PRINT-LINE FROM LINE-8 OF STATUS-REPORT AFTER 2 LINES.

WRITE PRINT-LINE FROM LINE-9 OF STATUS-REPORT AFTER 2 LINES.

WRITE PRINT-LINE FROM LINE-10 OF STATUS-REPORT AFTER 2 LINES.

INITIALIZED-DATETIME.

ACCEPT MACHINE-DAY-TIME FROM DATE-TIME.

MOVE CORRESPONDING MACHINE-DAY TO SEQUENCED-DAY.

SHUT-DOWN-ACES-MASTER-FILE.

A STATUS REPORT WILL BE GENERATED

ALL COUNTERS WILL BE UPDATED

A MODIFIED Z-RECORD WILL BE REWRITTEN

ACES-MASTFILE WILL BE CLOSED

PERFORM PRINT-STATUS-REPORT.

PERFORM WRITE-Z-RECORD.

CLOSE ACES-MASTER-FILE, DMDC.
WRITE-Z-RECORD.
   MOVE SEQUENCED-DATE TO LAST-MODIFIED-DATE OF Z-RECORD.
   MOVE Z-RECORD TO MASTER-RECORD.
   REWRITE MASTER-RECORD
   INVALID KEY DISPLAY 'Z RECORD NOT WRITTEN'
   UPON PRINTER.
*
* THE FOLLOWING PORTION OF THE PROGRAM IS STRICTLY FOR DMDC
* FILE PROCESSING
* *
* THIS IS THE TOP OF THE DMDC PROCESSING LOOP
* IT WILL BE REPEATED A NUMBER OF TIMES EQUAL TO THE
* NUMBER OF DMDC DATA RECORDS
* *
* PROCESS-SOLDIER.
*
ADD 1 TO DUMMY-COUNTER.
IF DUMMY-COUNTER EQUALS 200
   MOVE ZEROS TO DUMMY-COUNTER
   DISPLAY ' ', SSN OF MASTER-RECORD, ' AT DMDC - ',
   DMDC-RECORDS-READ UPON PRINTER.
* NEXT WE WILL SEE IF THERE IS A DMDC-RECORD ON THIS SOLDIER
PERFORM INPUT-DMDC-RECORD UNTIL
   SSN OF DMDC-RECORD IS NOT LESS THAN
   SSN OF MASTER-RECORD.
*
* IF THERE IS A DMDC RECORD IT WILL NOW BE IN
* MEMORY NEXT WE CHECK TO SEE IF THEY MATCH
   PERFORM VERIFY-DMDC-MATCH.
*
   IF DMDC-RECORD-MATCHES
      PERFORM UPDATE-A-RECORD,
      PERFORM REWRITE-A-RECORD,
   ELSE
      ADD 1 TO NO-DMDC-DATA-COUNTER.
   INPUT-NEXT-A-RECORD.
* SINCE THERE IS MORE THAN ONE TYPE OF RECORD WE SELECT ONLY
* THE MASTER RECORD FOR EACH SOLDIER
   PERFORM INPUT-NEXT-LOGICAL-RECORD.
PERFORM INPUT-NEXT-LOGICAL-RECORD UNTIL
EOF-ACES-MASTER-FILE
   EOF-ACES-MASTER-FILE
   EOF-ACES-MASTER-FILE
OR
   RECORD-TYPE OF MASTER-RECORD EQUALS 'A'.
   INPUT-NEXT-LOGICAL-RECORD.
READ ACES-MASTER-FILE INTO A-RECORD
   AT END MOVE 1 TO ACES-FILE-FLAG.
   IF SSN OF A-RECORD EQUALS 999999999
   MOVE 1 TO ACES-FILE-FLAG.
VERIFY-DMDC-MATCH.

* NOTE THAT ANY VALIDATION OF THE RECORDS SHOULD BE DONE HERE

* MOVE 0 TO DMDC-RECORD-FLAG.

* IF SSN OF A-RECORD NOT EQUAL TO SSN OF DMDC-RECORD,
  MOVE 1 TO DMDC-RECORD-FLAG.

* DMDC SENT BACK ALL SSN 0 SENT BY FILLING NON-MATCHES
* WITH ZEROS. CONSEQUENTLY, A MATCH WILL BE DECIDED
* BY THE PRESENCE OF A NONZERO DATE OF BIRTH.

* IF DMDC-BIRTH EQUAL ZEROS,
  MOVE 1 TO DMDC-RECORD-FLAG.

UPDATE A-RECORD.

* HERE WE WILL MOVE ALL THE DATA WE WISH OFF THE DMDC RECORD
* AND INTO THE A-RECORD

* MOVE DMDC-DATA OF DMDC-RECORD
  TO DMDC-DATA OF A-RECORD.

* PLACE BIRTH DATE AND SEX IN CONTROL IF NOT THERE ALREADY

* IF DOB-YY OF CONTROL-INFORMATION LESS THAN 20
  OR GREATER 70
  MOVE DMDC-BIRTH TO DOB OF
  CONTROL-INFORMATION.

* IF SEX OF CONTROL-INFORMATION EQUAL SPACES
  IF SEX OF DMDC-RECORD EQUALS '1'
  MOVE 'M' TO SEX OF CONTROL-INFORMATION
  ELSE IF SEX OF DMDC-RECORD EQUALS '2'
  MOVE 'F' TO SEX OF CONTROL-INFORMATION.

* ADD 1 TO UPDATED-A-RECORD.

* MOVE 1 TO DMDC-FLAG OF A-RECORD.

REWRITE A-RECORD.

* MOVE 'A' TO RECORD-TYPE OF SEARCH-KEY.
* MOVE SEQUENCED-DATE TO LAST-MOD-DATE OF A-RECORD.
* MOVE A-RECORD TO MASTER-RECORD.
* REWRITE MASTER-RECORD

* INVALID KEY DISPLAY

* INVALID ATTEMPT REWRI *A* REC
  UPON PRINTER.

* INPUT DMDC-RECORD.

* THE DMDC FILE MUST BE READ 7 TIMES TO BUILD
* ONE DMDC RECORD.
READ DMDC AT END MOVE 1 TO DMDC-FILE-FLAG.
MOVE SSN OF DMDC-RECORD-DUMMY TO SSN OF DMDC-RECORD.
MOVE DMDC-SUB-TO TO DMDC-PART-Q.
IF SSN OF DMDC-RECORD NOT GREATER THAN SSN-HOLD
   DISPLAY 'SEQUENCING PROBLEM - HOLD SSN - ' SSN-HOLD
   DISPLAY 'NEW DMDC RECORD - ', DMDC-DUMMY.
MOVE SSN OF DMDC-RECORD TO SSN-HOLD.
PERFORM GET-DMDC-PARTS VARYING INDX FROM 1 BY 1.
UNTIL INDX GREATER 6.

ADD 1 TO DMDC-RECORDS-READ.

GET-DMDC-PARTS.
READ DMDC AT END MOVE 1 TO DMDC-FILE-FLAG.
MOVE DMDC-DUMMY TO DMDC-PART (INDX).

SUMMARY-STATS.
DISPLAY 'DMDC-RECORDS-READ, 'DMDC RECS READ' UPON PRINTER.
DISPLAY NO-DMDC-DATA-COUNTER, 'NO DMDC DATA' UPON PRINTER.
DISPLAY UPDATED-A-RECORDS, 'UPDATED A RECS' UPON PRINTER.
EOF: 469
O: >
IDENTIFICATION DIVISION.
PROGRAM-ID. ACESS.
AUTHOR. JOHN HAMILL.
INSTALLATION. ABERDEEN PROVING GROUND, MD, 21010.
DATE-WRITTEN. MAY 1980.
DATE-Compiled.
SECURITY. NO SECURITY CLEARANCE.
REMARKS. THE PURPOSE OF THIS PROGRAM IS
GENERATE AN SPSS READABLE FILE
INPUTS ARE SOLICITED FROM THE TERMINAL
VALID INPUTS ARE
1 ALL A-RECORDS
3 ESL PARTICIPANTS (A+B) RECORDS
4 LIT PARTICIPANTS A+B RECORDS
5 VOTECII PARTICIPANTS (A+T) RECORDS
2 ALL RECORDS (A-B-T)
ONLY THESE INPUTS ALLOWED (1,3,4,5,2).
ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
SOURCE-COMPUTER. UNIVAC-1108.
OBJECT-COMPUTER. UNIVAC-1108.
INPUT-OUTPUT SECTION.
FILE-CONTROL.
SELECT ACESS-MASTER-FILE
ASSIGN TO MASS-STORAGE MASTER
ORGANIZATION IS INDEXED,
ACCESS MODE IS SEQUENTIAL,
FILE-LIMIT IS 2300
ACTUAL KEY IS DUM-SEARCH-KEY.
SELECT PRINTER ASSIGNED TO PRINTER.
SELECT SPSS-FILE ASSIGN TO PRINTER SPFILE.
DATA DIVISION.
FILE SECTION.
FD ACES-MASTER-FILE
LABEL RECORDS ARE STANDARD,
RECORD CONTAINS 300 CHARACTERS,
BLOCK CONTAINS 30 RECORDS.
FD PRINTER
LABEL RECORDS ARE OMITTED
DATA RECORD IS PRINT-LINE.
FD PRINT-LINE
LABEL RECORDS ARE OMITTED
DATA RECORD IS PRINT-LINE.
FD SPSS-FILP

LABEL RECORDS ARE OMITTED
DATA RECORD IS SPSS-DATA.

01 SPSS-LINE.
03 REST PIC X(132).

WORKING-STORAGE SECTION.
77 DUM-SEARCH-KEY PIC X(10).
77 DUMMY-COUNTER PIC 9(8) VALUE 0.
77 OLD-SSN PIC 9(9) VALUE 0.
01 RECORD-TABLE.
03 RECORD-TABLE1 PIC X(300).
03 RECORD-TABLE2 PIC X(300).
03 RECORD-TABLE3 PIC X(300).
03 RECORD-TABLE4 PIC X(300).

MACHINE DATE-TIME IS ACCEPTED FROM THE SYSTEM AND
IS PRINTED OUT WHEN FILES ARE OPENED AND CLOSED

01 MACHINE-DATE-TINE.
03 MACHINE-DATE.
05 MM-DATE PIC 99.
05 DD-DATE PIC 99.
05 YY-DATE PIC 99.
03 MACHINE-TINE.
05 HOUR-DATE PIC 99.
05 MIN-DATE PIC 99.
05 SEC-DATE PIC 99.

SEQUENCED DATE IS THE DATE IN THE FORM YYMMDD TO ALLOW
FOR SORTING ON THE 6 FIELD CODE

01 SEQUENCED-DATE.
03 YY-DATE PIC 99.
03 MM-DATE PIC 99.
03 DD-DATE PIC 99.

THIS DUMMY HOLD ERROR IS BECAUSE NO WAY WAS FOUND
TO WRITE A 300 CHARACTER RECORD AND READ IT USING
THE SPSS PACKAGE

01 HOLD-OUT.
03 SUBSET-1 PIC X(120).
03 SUBSET-2 PIC X(120).
03 SUBSET-3 PIC X(120).

SEARCH KEY IS THE INDEX INTO THE INDEXED SEQUENTIAL
DATA BASE IT CONSISTS OF A SOCIAL SECURITY NUMBER
AND SOME RECORD TYPE (A,B,T, OR V)
A SOLDIER MUST HAVE AN A RECORD TO HAVE A D, T, OR V TYPE RECORD INDEXED BY NNEEENNNA WHERE N IS A NUMERIC VALUE
05 SEX PIC X.
   88 MALE VALUE 'M'.
   86 FEMALE VALUE 'F'.

03 MILPERSER-DATA.
  07 SEX PIC X.
  07 RACE PIC X.
  07 MARGT PIC X.
  07 DOB PIC X(6).
  07 TERMS PIC X.
  07 B567T PIC X(6).
  07 FHPCD PIC X.
  07 BPEDT PIC XXXX.
  07 PAYGR PIC X.
  07 DOR PIC X(6).
  07 AFQSC PIC XX.
  07 CIVED PIC X.
  07 P.POSS PIC X(5).
  07 DMOS PIC X(5).
  07 TIPLA PIC XX.
  07 DATA PIC X(6).
  07 PSVCI PIC X.
  07 EERWA PIC XXX.
  07 CMF PIC XX.
  07 ATITD PIC XXX.
  07 GTSCR PIC XXX.
  07 PQDES PIC X(4).
  07 PSQDT PIC X(4).
  07 PSQCR PIC XXX.
  07 PQPER PIC XX.
  07 SMOS PIC X(5).
  07 FILLER PIC X(4).

03 DMDC-DATA PIC X(124).
03 TSC-DATA PIC X(56).

THE Z-RECORD IS ALWAYS MAINTAINED ON THE ACES MASTER FILE
IT CARRIES THE RECORDS COUNTS, AND OTHER FILE INFORMATION
CONSULT SYSTEM DOCUMENTATION FOR RECORD LAYOUT
INDEX FOR Z RECORD IS OOOOOOOOZ

01 Z-RECORD.
  03 SSN-TYPE.
  05 SSN PIC 9(9).
  05 RECORD-TYPE PIC X VALUE 'Z'.
  03 INITIALIZED-DATE.
  05 INITIALIZED-YY PIC 99.
  05 INITIALIZED-MN PIC 99.
  05 INITIALIZED-DD PIC 99.
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03 LAST-MODIFIED-DATE.
  05 LAST-MODIFIED-YY PIC 99.
  05 LAST-MODIFIED-MM PIC 99.
  05 LAST-MODIFIED-DD PIC 99.

03 RECORD-COUNTS.
  05 NUMBER-OF-A-RECORDS PIC 9(7).
  05 NUMBER-OF-B-RECORDS PIC 9(7).
  05 NUMBER-OF-T-RECORDS PIC 9(7).
  05 NUMBER-OF-V-RECORDS PIC 9(7).
  05 TOTAL-RECORDS PIC 9(11).

THE FOLLOWING ARE THE PRINT LINES FOR THE STATUS REPORT

01 STATUS-REPORT.
  03 LINE-1.
    05 FILLER PIC X(20) VALUE SPACES.
    05 FILLER PIC X(40) VALUE 'STATUS REPORT ON ACES MASTER FILE'.

03 LINE-2.
    05 FILLER PIC X(30) VALUE SPACES.
    05 FILLER PIC X(8) VALUE 'TIME '.
    05 SHOW-TIME PIC X(6).

03 LINE-3.
    05 FILLER PIC X(30) VALUE SPACES.
    05 FILLER PIC X(8) VALUE 'DATE '.

03 LINE-4.
    05 FILLER PIC X(3) VALUE SPACES.
    05 FILLER PIC X(11) VALUE 'TYPE RECORD'.
    05 FILLER PIC X(9) VALUE SPACES.
    05 FILLER PIC X(13) VALUE 'FREQUENCIES'.
    05 FILLER PIC X(23) VALUE SPACES.
    05 FILLER PIC X(23) VALUE 'DATE INITIALIZED '.

03 LINE-5.
    05 FILLER PIC X(12) VALUE SPACES.
    05 FILLER PIC X(15) VALUE 'A'.

03 LINE-6.
    05 FILLER PIC X(12) VALUE SPACES.
    05 FILLER PIC X(15) VALUE 'B'.
    05 SHOW-B-COUNT PIC ZZZ,ZZ9.

03 LINE-7.
    05 FILLER PIC X(12) VALUE SPACES.
    05 FILLER PIC X(15) VALUE 'T'.
    05 SHOW-T-COUNT PIC ZZZ,ZZ9.
    05 FILLER PIC X(25) VALUE SPACES.
    05 FILLER PIC X(20) VALUE 'DATE LAST MODIFIED '.
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251: 03 LINE-8.
252:    05 FILLER PIC X(12) VALUE SPACES.
253:    05 FILLER PIC X(15) VALUE 'V'.
254:    05 SHOW-V-COUNT PIC ZZZ,ZZ9.
255: 03 LINE-9.
256:    05 FILLER PIC X(28) VALUE SPACES.
257:    05 FILLER PIC X(6) VALUE '----------'.
258: 03 LINE-10.
259:    05 FILLER PIC X(9) VALUE SPACES.
260:    05 FILLER PIC X(15) VALUE 'TOTAL'.
261: 05 SHOW-SUM-ABTV-RECORDS PIC ZZZ,ZZZ,999.
262: 01 RECORD-COUNTERS.
263: 03 NUMBER-RECORDS-READ PIC 9(9).
264: 03 LIT-COUNT PIC 9(9) VALUE 0.
265: 03 ESL-COUNT PIC 9(9) VALUE 0.
266: 03 VOTECH-COUNT PIC 9(9) VALUE 0.
267: 03 ALL-COUNT PIC 9(9) VALUE 0.
268: 03 A-COUNT PIC 9(9) VALUE 0.
269: 01 WANT-CRITERIA-SETUP.
270:    03 WANT-CRITERIA PIC 9.
271:     88 WANT-A VALUE 1.
272:     88 WANT-ALL VALUE 2.
273:     88 WANT-ESL VALUE 3.
275:     88 WANT-VOTECH VALUE 5.
276: 03 NUMBER-RECORDS-PRINTED PIC 9(9).
277: 01 ACES-FILE-FLAG PIC 9 VALUE 0.
278:     88 EOF-ACES-FILE VALUE 1.
279: PROCEDURE DIVISION.
280: MAIN-LINE.
281: OPEN OUTPUT PRINTER1, SPSS-FILE.
282: PERFORM SET-UP-ACES-MASTER-FILE.
283: PERFORM GET-WRITE-CRITERIA.
284: DISPLAY ' WANT CRITERIA - ', WANT-CRITERIA.
285: PERFORM PROCESS-FILE.
286: DISPLAY 'END OF FILE PROCESSING'.
287: PERFORM SHUT-DOWN-ACES-MASTER-FILE.
288: CLOSE SPSS-FILE, PRINTER1.
289: DISPLAY ' RECORDS READ - ', NUMBER-RECORDS-READ.
290: DISPLAY ' END OF EXECUTION ACES'.
291: DISPLAY ' LIT COUNT - ', LIT-COUNT.
292: DISPLAY ' VOTECH-COUNT - ', VOTECH-COUNT.
293: DISPLAY ' A COUNT - ', A-COUNT.
294: DISPLAY ' ESL COUNT - ', ESL-COUNT.
295: DISPLAY ' ALL COUNT - ', ALL-COUNT.
296: STOP RUN.
297: * ******************************************************
298: SET-UP-ACES-MASTER-FILE.
299: * THIS ROUTINE WILL BE THE FIRST STEP IN ANY RUN
300: * INVOLVING THE ACES-MASTER-FILE.
OPEN INPUT ACES-MASTER-FILE.
READ ACES-MASTER-FILE INTO Z-RECORD,
AT END DISPLAY ' NO Z RECORD' UPON PRINTER.
STOP RUN.
PERFORM PRINT-STATUS-REPORT.
PRINT-STATUS-REPORT.
* MOVE THE DATA OFF Z-RECORD TO REPORT PRINT LINES
* MOVE INITIALIZED-DATE OF Z-RECORD TO SHOW-INITIALIZED-DATE
OF STATUS-REPORT.
MOVE LAST-MODIFIED-DATE TO SHOW-MODIFY-DATE.
MOVE NUMBER-OF-A-RECORDS TO SHOW-A-COUNT.
MOVE NUMBER-OF-B-RECORDS TO SHOW-B-COUNT.
MOVE NUMBER-OF-T-RECORDS TO SHOW-T-COUNT.
MOVE NUMBER-OF-V-RECORDS TO SHOW-V-COUNT.
MOVE TOTAL-RECORDS TO SHOW-SUM-ABTV-RECORDS.
* GET THE CORRECT TIME AND DATE
* PLACE TIME, DATE INTO REPORT PAGE
PERFORM INITIALIZE-DATE-TIME.
MOVE MACHINE-TIME TO SHOW-TIME OF STATUS-REPORT.
MOVE SEQUENCED-DATE TO SHOW-DATE OF STATUS-REPORT.
* WRITE THE STATUS REPORT
WRITE PRINT-LINE FROM LINE-1 OF STATUS-REPORT AFTER PAGE-TOP LINES.
WRITE PRINT-LINE FROM LINE-2 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-3 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-4 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-5 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-6 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-7 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-8 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-9 OF STATUS-REPORT AFTER 2 LINES.
WRITE PRINT-LINE FROM LINE-10 OF STATUS-REPORT AFTER 2 LINES.
* INITIALIZE-DATE-TIME.
* ACCEPT MACHINE-DATE FROM DATE.
ACCEPT MACHINE-TIME FROM TIME.
MOVE CORRESPONDING MACHINE-DATAT TO SEQUENCED-DATE.
* SHUT-DOWN-ACES-MASTER-FILE.
ACES-MASTERFILE WILL BE CLOSED
CLOSE ACES-MASTER-FILE.
THE FOLLOWING PORTION OF THE PROGRAM IS STRICTLY FOR ACES FILE PROCESSING.

THIS IS THE TOP OF THE SSN PROCESSING LOOP.

IT WILL BE REPEATED A NUMBER OF TIMES EQUAL TO THE NUMBER OF DATA RECORDS.

GET-WRITE-CRITERIA.

MOVE ZEROS TO RECORD-COUNTERS.
DISPLAY 'ENTER EXTRACT TYPE DESIRED AS FOLLOWS '.
DISPLAY ' 1 - FOR ALL A RECORDS'.
DISPLAY ' 2 - FOR ALL RECORDS'.
DISPLAY ' 3 - FOR ESL RECORDS'.
DISPLAY ' 4 - FOR LIT RECORDS'.
DISPLAY ' 5 - FOR VO-TECH RECORDS'.
ACCEPT WANT-CRITERIA.

IF WANT-CRITERIA LESS THAN 1 OR GREATER THAN 5
DISPLAY '*****INVALID CRITERIA*****TRY AGAIN - ' WANT-CRITERIA
GO TO GET-WRITE-CRITERIA.

PROCESS-FILE.
DISPLAY 'FILE PROCESSING INITIATED '.
PERFORM INPUT-ACES-RECORD UNTIL
RECORD-TYPE OF MASTER-RECORD EQUAL 'A'
OR EOF-ACES-FI LE.
DISPLAY 'RECORD KEY OF PRIMING RFCORD - ', SEARCH-KEY OF MASTER-RECORD.
PERFORM PROCESS-SOLDIER UNTIL EOF-ACES-FILE.

PROCESS-SOLDIER.
PERFORM BLANK-OUT-TABLE.
MOVE SSN OF MASTER-RECORD TO OLD-SSN.
ADD 1 TO DUMMY-COUNTER.
IF DUMMY-COUNTER GREATER 200
MOVE ZEROS TO DUMMY-COUNTER
DISPLAY 'CURRENTLY EXECUTING SSN ', OLD-SSN.
IF RECORD-TYPE OF MASTER-RECORD EQUAL 'A'
PERFORM LOAD-INPUT-TABLE UNTIL SSN OF MASTER-RECORD NOT EQUAL OLD-SSN OR EOF-ACES-FI LE
PERFORM UNLOAD-INPUT-TABLE
ELSE DISPLAY 'A-RECORD MISSING - ' SEARCH-KEY OF MASTER-RECORD
PERFORM INPUT-ACES-RECORD.

BLANK-OUT-TABLE.
MOVE ZEROS TO RECORD-TABLE1.
MOVE ZEROS TO RECORD-TABLE2.
MOVE ZEROS TO RECORD-TABLE3.
MOVE ZEROS TO RECORD-TABLE4.
LOAD-INPUT-TABLE.
399: IF RECORD-TYPE OF MASTER-RECORD EQUAL 'A'
400: MOVE MASTER-RECORD TO A-RECORD
401: MOVE MASTER-RECORD TO RECORD-TABLE1
402: ELSE
403: IF RECORD-TYPE OF MASTER-RECORD EQUAL 'B'
404: MOVE MASTER-RECORD TO RECORD-TABLE2
405: ELSE
406: IF RECORD-TYPE OF MASTER-RECORD EQUAL 'T'
407: MOVE MASTER-RECORD TO RECORD-TABLE3
408: ELSE
409: DISPLAY 'UNKNOWN RECORD TYPE ' SEARCH-KEY
410: OF MASTER-RECORD.
411: PERFORM INPUT-ACES-RECORD.
412: UNLOAD-INPUT-TABLE.
413: IF WANT-A
414: MOVE RECORD-TABLE1 TO HOLD-OUT
415: PERFORM WRITE-SPSS-FILE
416: ADD 1 TO A-COUNT.
417: IF WANT-ALL
418: MOVE RECORD-TABLE1 TO HOLD-OUT
419: PERFORM WRITE-SPSS-FILE
420: MOVE RECORD-TABLE2 TO HOLD-OUT
421: PERFORM WRITE-SPSS-FILE
422: MOVE RECORD-TABLE3 TO HOLD-OUT
423: PERFORM WRITE-SPSS-FILE
424: ADD 1 TO ALL-COUNT.
425: IF WANT-ESL
426: AND (BSEP-ESL-PARTIC OR BSEP-ESL-NON-PARTIC)
427: MOVE RECORD-TABLE1 TO HOLD-OUT
428: PERFORM WRITE-SPSS-FILE
429: MOVE RECORD-TABLE2 TO HOLD-OUT
430: PERFORM WRITE-SPSS-FILE
431: MOVE RECORD-TABLE3 TO HOLD-OUT
432: PERFORM WRITE-SPSS-FILE
433: ADD 1 TO ESL-COUNT.
434: IF WANT-LIT
435: AND (BSEP-LIT-PARTIC OR BSEP-LIT-NON-PARTIC)
436: MOVE RECORD-TABLE1 TO HOLD-OUT
437: PERFORM WRITE-SPSS-FILE
438: MOVE RECORD-TABLE2 TO HOLD-OUT
439: PERFORM WRITE-SPSS-FILE
440: ADD 1 TO LIT-COUNT.
441: IF WANT-VOTECH
442: AND (VO-TECH-PARTIC OR VO-TECH-NON-PARTIC)
443: MOVE RECORD-TABLE1 TO HOLD-OUT
444: PERFORM WRITE-SPSS-FILE
445: MOVE RECORD-TABLE2 TO HOLD-OUT
446: PERFORM WRITE-SPSS-FILE
447: ADD 1 TO VOTECH-COUNT.
448: INPUT-ACES-RECORD.
449: READ ACES-MASTER-FIIL
450: AT END MOVE 1 TO ACES-FILE-FLAG
451: MOVE 999999999 TO SSN OF MASTER-RECORD
452: MOVE 'X' TO RECORD-TYPE OF MASTER-RECORD.
453: IF SSN OF MASTER-RECORD EQUALS 999999999 MOVE
454: 1 TO ACES-FILE-FLAG.
455: ADD 1 TO NUMBER-RECORDS-READ.
456: WRITE-SPSS-FILE.
457: WRITE SPSS-LINE FROM SUBSET-1.
458: WRITE SPSS-LINE FROM SUBSET-2.
459: WRITE SPSS-LINE FROM SUBSET-3.
A-76

1: DIMENSION IBLK(700), IREC(100)

2: INTEGER BLKSIZ, NUMREC, WRTREC, RECSIZ, PADSIZ

3:

4: SET UP VARIABLE BLOCK SIZE AND WORD SIZE

5:

6: BLKSIZ = 482

7: \textbf{FORMAT} (492A6)

8: RECSIZ = 16

9: WRTREC = 15

10: \textbf{FORMAT} (15A6)

11: PADSIZ = 3

12: NUMREC = 30

13: IN = 0

14: IOUT = 0

15: ISKIP = 0

16: \textbf{READ} (5,3) :ISTR

17: \textbf{FORMAT} (16)

18: IF (ISTR.LE.0) \textbf{GO TO} 900

19: ISKIP = ISTR / NUMREC

20: IOUT = ISKIP * NUMREC + 1

21: WRITE (6,4) ISTR, ISKIP, IOUT

22: \textbf{FORMAT} (' SKIP ',16,' RECORDS, ',16,' BLOCKS WILL BE SKIPPED ',

23: + '/ ', 'RECORDING STARTS WITH RECORD ',16)

24: \textbf{DO} 850 I = 1,ISKIP

25: IN = IN + 1

26: CALL NTRAN(11,2,BLKSIZ,IBLK,IST,22)

27: IF (IST.EQ.-2) \textbf{GO TO} 5000

28: 850 \textbf{CONTINUE}

29: 900 \textbf{CONTINUE}

30: WRITE(6,5) IN

31: \textbf{FORMAT} (' BEGIN EXECUTION OF TAPE DUMP',16,' BLOCKS SKIPPED')

32: 1000 \textbf{CONTINUE}

33: CALL NTRAN(11,2,BLKSIZ,IBLK,IST,22)

34: IF (IST.EQ.-2) \textbf{GO TO} 5000

35: IN = IN + 1

36:

37: UNBLOCK THE RECORD AND WRITE

38:

39: \textbf{DO} 1020 I = 1,NUMREC

40: \textbf{DO} 1010 J = 1,WRTREC

41: ISPOT = PADSIZ + (I-1) * RECSIZ + J

42: IREC(J) = IBLK(ISPOT)

43: 1010 \textbf{CONTINUE}

44: WRITE(12,20) (IREC(KK), KK-1,WRTREC)

45: IOUT = IOUT + 1

46: III = IOUT / 400

47: III = IOUT - III * 400

48: IF (III.EQ.0.OR.IOUT.LE.15) WRITE (6,25) IOUT, IN,

49: \textbf{FORMAT} ('RECORD = ',7A6)

50: 25 \textbf{CONTINUE}

51: 1020 \textbf{CONTINUE}

52: \textbf{GO TO} 1000

53: 5000 \textbf{CONTINUE}

54: \textbf{DO} 6000 I = 1,RECSIZ

55: 6000 \textbf{IREC} (I) = 6999999

56: WRITE(12,20) (IREC(KK), KK-1,WRTREC)

57: WRITE(6,30) IN, IOUT

58: \textbf{FORMAT} (' IN - ',17,' ---- OUT - ',17)

59: \textbf{STOP}

60: \textbf{END}
APPENDIX B

FUNCTIONAL DESIGN OF COMPUTER PROCESSING PROCEDURES IMPLEMENTED
APPENDIX B

FUNCTIONAL DESIGN OF COMPUTER PROCESSING PROCEDURES IMPLEMENTED

PROCEDURE: INITIALIZE (INIT. CODE)

PURPOSE: Initialize the main system data base:
ACES-STUDY-MASTER-FILE

INPUT: None

OUTPUT:
1. ACES-STUDY-MASTER-FILE
2. One record on this file, key: 000 00 0000 Z
   containing: 1) Number of A records
               2) Number of B records
               3) Number of T records
               4) Number of V records
               5) Date initialized (YMMDD)
               6) Date last modified (YMMDD)
3. STATUS-REPORT

PROCESSING: Create record 000 00 0000 Z
Print STATUS-REPORT
Close files.
PROCEDURE: TRADOC (TRADOC. CODE)

PURPOSES: 1. Incorporate TRADOC data on BSEP I into the data base (create/modify the B-record)
2. Create the A-record if necessary
3. Determine whether participant or non-participant in BSEP I - Literacy Phase and BSEP I - ESL Phase for each soldier.

INPUT: 1. TRADOC-DATA-TAPE
2. ACES-STUDY-MASTER-FILE

OUTPUT: 1. ACES-STUDY-MASTER-FILE
2. STATUS-REPORT
3. REJECTED-RECORDS-LIST

TABULATIONS FOR STATUS-REPORT:
A. Records counts
   1. Number of records on TRADOC-DATA-TAPE
   2. Number of A-records written (rewritten)
   3. Number of B-records written (rewritten)
B. Study counts
   1. Number of participants in BSEP I - Literacy Phase
   2. Number of non-participants in BSEP I - Literacy Phase
   3. Number of participants in BSEP I - ESL Phase
   4. Number of non-participants in BSEP I - ESL Phase
C. Error Count
   1. Number of records rejected from study.
PROCESSING: Initialization
For each record on the TRADOC-DATA-TAPE
1. Validate that the SSN/ASN is numeric
2. Retrieve/initialize the A-record
3. Retrieve/initialize the B-record
4. Determine BSEP I status
   If SELECT-ABLE-TEST-SCORE = "CR"
      reject record, not in BSEP study.
   If SELECT-ABLE-TEST-SCORE not = "ER"
      then BSEP - LIT participant if DAYS enrolled
      is positive. Else BSEP - LIT non-participant
   If SELECT-ABLE-TEST-SCORE = "ER"
      then BSEP - ESL participant if ESL = "E"
      Else non-participant
5. Move the appropriate data to the B-record via a
   MOVE CORRESPONDING command
6. Set appropriate flags and dates
7. If record accepted, rewrite/write the A- and B-records
Update record 000 00 0000 Z
Print STATUS-REPORT
Close files.
PROCEDURE: VOTECH (VOTECH. CODE)

PURPOSES: 1. Incorporate the VOTECH data obtained in the field into the data base (create/modify the T-record)
2. Create the A-record if necessary
3. Determine whether participant or non-participant in the VOTECH study

INPUT: 1. VOTECH-DATA-TAPE
2. ACES-STUDY-MASTER-FILE

OUTPUT: 1. ACES-STUDY-MASTER-FILE
2. STATUS-REPORT
3. ERROR-REPORT

TABULATIONS FOR STATUS-REPORT:

A. Record counts
   1. Number of records on VOTECH-DATA-TAPE
   2. Number of A-records written (rewritten)
   3. Number of T-records written (rewritten)

B. Study counts
   1. Number of participants in VOTECH
   2. Number of non-participants in VOTECH

C. Error counts
   1. Number of records with some type of error
Initialization
For each record on the VO-TECH-DATA-TAPE
1. Validate that the SSN/ASN is numeric
2. Retrieve/initialize the A-record
3. Retrieve/initialize the T-record
4. Move the appropriate data to the T-record via a MOVE CORRESPONDING command
5. Set the appropriate flags and dates
6. Rewrite/write the A- and T-records
7. Perform checks on the data. If any check fails, print the record and underline the invalid data.

Update record 000 00 0000 Z
Print STATUS-REPORT
Close files.
PROCEDURE: MILPERCEN (MILPERCEN, CODE)

PURPOSES: 1. Incorporate MILPERCEN data into the data base (modify the A-record)
2. Get a preliminary idea of the degree of discrepancy between this source and earlier sources

INPUT: 1. MILPERCEN-DATA-TAPE (Sequentially ordered by SSN)
2. ACES-STUDY-MASTER-FILE

OUTPUT: 1. ACES-STUDY-MASTER-FILE
2. STATUS-REPORT
3. DISCREPANCY-REPORT
4. MISSING-MILPERCEN-DATA-REPORT

TABULATIONS FOR STATUS REPORT:
A. Record counts
   1. Number of records on MILPERCEN-DATA-TAPE
   2. Number of A-records rewritten

B. Error counts
   1. Number of A-records with no MILPERCEN match
   2. Number of MILPERCEN records rejected because of no match

CONTENTS OF DISCREPANCY REPORT:
1. For selected variables, degree of difference between various sources: frequency of difference
PROCESSING: Initialization
Sequentially pass through the ACES-STUDY-MASTER-FILE and for each A-record,
1. Pass through the MILPERCEN-DATA-TAPE until its SSN is not less than the SSN on the A-record
2. If match,
   Move appropriate data to the A-record via MOVE CORRESPONDING
   Set its appropriate flags and dates
   Rewrite the A-record
   Calculate discrepancies
   Else
   Write MISSING-MILPERCEN-DATA-REPORT
Process any remaining records on MILPERCEN-DATA-TAPE
Update record 000 00 0000 Z
Print STATUS-REPORT
Close files.
PROCEDURE:  SSNLIST (SSN. COI.;)

PURPOSE:  Generate a list of SSN/ASN's from the data base

INPUT:  
1. ACES-STUDY-MASTER-FILE
2. Control-cards to control list generation

OUTPUT:  
1. SSN-LIST-TAPE
2. STATUS-REPORT

TABULATIONS FOR STATUS-REPORT:
A. Number of SSN's written

PROCESSING:  Initialization
Sequentially retrieve A-records and for each A-record,
Move data to output file via MOVE CORRESPONDING
Write the output record
Pring STATUS-REPORT
Close files.
PROCEDURE: DMDC (DMDC. CODE)

PURPOSES: 1. Incorporate DMDC data into the data base (create/modify the A, V-record)
2. Determine participant status in the VEAP program

INPUT: 1. DMDC-DATA-TAPE
2. ACES-STUDY-MASTER-FILE

OUTPUT: 1. ACES-STUDY-MASTER-FILE
2. STATUS-REPORT
3. ERROR-LIST

TABULATIONS FOR STATUS REPORT:
A. Record counts
   1. Number of records on DMDC-DATA-TAPE
   2. Number of A-records written (rewritten)
   3. Number of V-records written (rewritten)
B. Study counts for VEAP (if available)*
   1. Number of participants
   2. Number of non-participants

PROCESSING: Initialization
For each record on the DMDC-DATA-TAPE
1. Retrieve/initia1ize the A-record
2. Retrieve/initia1ize the V-record
3. Determine the VEAP-STATUS*
   If the ACCESSION-DATE is in June, 1977.
   Set the VEAP-STATUS flag
   Else
   The person is not part of the VEAP study and will require no V-record
4. Move the appropriate data to the A-record via a MOVE CORRESPONDING command
5. If V-record, move the appropriate data to the V-record via a MOVE CORRESPONDING command
6. Set appropriate dates and flags
7. Rewrite/write the A-record
8. If V-record, rewrite/write V-record

Update record 000 00 0000 Z
Print STATUS-REPORT
Close files.

*VEAP study was cancelled, consequently all references to VEAP updating were not implemented.
PROCEDURE: TSC (Not Implemented)

PURPOSE:
1. Incorporate the TSC data on test scores into the database (modify the A-record)

INPUT:
1. TSC-DATA-TAPE
2. ACES-STUDY-MASTER-FILE

OUTPUT:
1. ACES-STUDY-MASTER-FILE
2. STATUS-REPORT
3. MISSING-TSC-DATA-REPORT

TABULATIONS FOR STATUS REPORT:
A. Record count
   1. Number of records on TSC-DATA-TAPE
   2. Number of A-records updated
B. Error counts
   1. Number of A-records with no TSC match
   2. Number of TSC records rejected because of no match

PROCESSING:
Initialization
Sequentially pass through the ACES-STUDY-MASTER-FILE and for each A-record,
1. Pass through the TSC-DATA-TAPE until its SSN is not less than the SSN on the A-record
2. If match,
   Move appropriate data to the A-record via MOVE CORRESPONDING
   Set appropriate flags and dates
   Rewrite the A-record
Else,
   Write MISSING-TSC-DATA-REPORT
Process any remaining records on TSC-DATA-TAPE
Print STATUS-REPORT
Close files.
PROCEDURE: VEA: (Not Implemented)

PURPOSES:
1. Incorporate VEAP data into the data base (modify the V-record
2. Update the A-record

INPUT:
1. VEAP-DATA-TAPE
2. ACES-STUDY-MASTER-FILE

OUTPUT:
1. ACES-STUDY-MASTER-FILE
2. STATUS-REPORT

TABULATIONS FOR STATUS REPORT:
A. Record counts
   1. Number of records on VEAP-DATA-TAPE
   2. Number of V-records rewritten
   3. Number of A-records rewritten

PROCESSING: Initialization
For each record on the VEAP-DATA-TAPE
1. Validate that the SSN/ASN is numeric
2. Retrieve the A-record
3. Retrieve the V-record
4. Determine the VEAP status
5. Move the appropriate data to the V-record via a
   MOVE CORRESPONDING command
6. Set the appropriate flags and dates
7. If record accepted, rewrite the A- and V-records
   Update record 000 00 0000 Z
Print STATUS-REPORT
Close files.
PROCEDURE: SPSS ACCESS (ACES. CODE)

PURPOSES:
1. To create a file easily read by SPSS containing program specific data
2. To create a backup copy on tape of the ACES-STUDY-MASTER-FILE

INPUT:
1. ACES-STUDY-MASTER-FILE
2. Control cards

OUTPUT:
1. SPSS-DATA-TAPE
2. STATUS-REPORT

TABULATIONS FOR STATUS-REPORTS:
A. Count of records written
B. Breakdown by type

PROCESSING: Initialization
Accept the control card parameters
Necessary options: 1. All A-records
2. All records
3. ESL sample (A & B records)
4. LIT sample (A & B records)
5. VOTECH sample (A & T records)
Sequentially pass through the file and for each A-record
If the soldier satisfies the options,
write the A-record
write the other records (if any)
Print STATUS-REPORT
Close files.
APPENDIX C

SPSS PROGRAM VARIABLES DEVELOPED
<table>
<thead>
<tr>
<th>FIELD LOCATION</th>
<th>FIELD NAME</th>
<th>DATA FORM</th>
<th>SPSS NAME</th>
<th>SSN/M</th>
<th>NO. OF CHAR.</th>
<th>SOURCE OF DATA</th>
<th>COMMENT OR DATA DESCRIPTION</th>
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<td>N</td>
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<td>Record Type</td>
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<td>Value A 0 No BSEP Data 1 Participant 2 Non-Participant 2 Non-Participant 2 Non-Participant 2 Non-Participant 2 Non-Participant 2 Non-Participant 2 Non-Participant</td>
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<td>Codes: 0 No BSEP Data 1 Participant 2 Non-Participant 1 Participant 2 Non-Participant 2 Non-Participant 2 Non-Participant 2 Non-Participant 2 Non-Participant</td>
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