Research Product 87-22

Development of Core Data Set of the Officer Longitudinal Research Data Base

Leadership and Management Technical Area
Manpower and Personnel Research Laboratory

July 1987

U. S. Army Research Institute for the Behavioral and Social Sciences

REPORT DOCUMENTATION PAGE

READ INSTRUCTIONS BEFORE COMPLETING FORM

1. REPORT NUMBER: ARI Research Product 87-22
2. GOVT ACCESSION NO.:
3. RECIPIENT'S CATALOG NUMBER:

4. TITLE (and Subtitle): DEVELOPMENT OF CORE DATA SET OF THE OFFICER LONGITUDINAL RESEARCH DATA BASE

5. TYPE OF REPORT & PERIOD COVERED: Final Report, June 1986-May 1987

6. PERFORMING ORG. REPORT NUMBER: --

7. AUTHOR(s): Dianne D. Younkman

8. CONTRACT OR GRANT NUMBER(s): MDA 903-86-C-0474

9. PERFORMING ORGANIZATION NAME AND ADDRESS:
Fu Associates, Ltd.
Suite 201, 1515 N. Courthouse Road
Arlington, VA 22201

10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS:
2Q263743A794
4.5.2.C

11. CONTROLLING OFFICE NAME AND ADDRESS:
U.S. Army Research Institute for the Behavioral and Social Sciences
5001 Eisenhower Avenue, Alexandria, VA 22333-5600

12. REPORT DATE: July 1987

13. NUMBER OF PAGES: 184

14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office):
U.S. Army Research Institute for the Behavioral and Social Sciences
5001 Eisenhower Avenue, Alexandria, VA 22333-5600

15. SECURITY CLASS. (of this report): Unclassified

15a. DECLASSIFICATION/DOWNGRADING SCHEDULE: --

16. DISTRIBUTION STATEMENT (of this Report):
Approved for public release; distribution unlimited.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report):
--

18. SUPPLEMENTARY NOTES:
Fumiyo T. Hunter, Contracting Officer's Representaitive, provided technical guidance and review of this report.

19. KEY WORDS (Continue on reverse side if necessary and identify by block number):
Officer Data Base
Officer Master File
Master and Loss File
Longitudinal Data Base

20. ABSTRACT (Continue on reverse side if necessary and identify by block number):
The U.S. Army Research Institute has developed an Officer Longitudinal Research Data Base (OLRDB) to support a variety of research objectives. The Core Data Set was developed to provide an accurate list of former and current active-duty Army officers. Historical data were collected from the Officer Master Files for 1979 to 1986, the Separated Officer Master Files for 1979 to 1986, and the Defense Manpower Data Center Master and Loss File (loss records only) for 1970 to 1978. The usefulness of the resulting (Continued)

ARI Research Product 87-22

20. Abstract (Continued)

data set was demonstrated with an exploratory analysis of the retention of junior officers over an 8-year span.

Accession For	
NTIS GRA&I	X
DTIC TAB	☐
Unannounced	☐
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

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

A Field Operating Agency under the Jurisdiction of the Deputy Chief of Staff for Personnel

EDGAR M. JOHNSON
Technical Director

WM. DARRYL HENDERSON
COL, IN
Commanding

Research accomplished under contract
for the Department of the Army

Fu Associates, Ltd.

Technical review by

Cal Futernick, Center for Army Leadership, Fort Leavenworth, Kansas
Frances C. Grafton
Trueman R. Tremble

Research Product 87-22

Development of Core Data Set of the Officer Longitudinal Research Data Base

Dianne D. Younkman
Fu Associates, Ltd.

Leadership and Management Technical Area
Robert F. Holz, Chief

Manpower and Personnel Research Laboratory
Newell K. Eaton, Director

U.S. ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL SCIENCES
5001 Eisenhower Avenue, Alexandria, Virginia 22333-5600

Office, Deputy Chief of Staff for Personnel
Department of the Army

July 1987

Army Project Number
2Q263743A794

Education and Training

FOREWORD

The Leadership and Management Technical Area of the U.S. Army Research Institute (ARI) conducts programmatic research to improve leader effectiveness, with a focus on the sequential, progressive development of leaders. To support this and other research, ARI is developing an Officer Longitudinal Research Data Base (OLRDB) along with an on-line User's Manual and Data Dictionary. The data base will enable researchers to produce data-based information on officer training, professional development, and utilization.

This report describes the procedures used to develop the Core Data Set of the OLRDB. This data set contains historical data about former and current active-duty Army officers. Inclusion of these data provides the ability to associate officer history with various other data sets of the OLRDB. The utility of this data set is demonstrated by an analysis by source of commission and basic branch of the separation patterns of a group of junior officers over a span of 8 years.

The development of the OLRDB has been briefed to the research sponsor, the Center for Army Leadership (29 April 1987), which recognizes its role as a research tool to generate information necessary for systematically enhancing leader training and effectiveness.

EDGAR M. JOHNSON
Technical Director

DEVELOPMENT OF CORE DATA SET OF THE OFFICER LONGITUDINAL RESEARCH DATA BASE

CONTENTS

CONTENTS (Continued)

LIST OF TABLES

LIST OF FIGURES

CONTENTS (Continued)

DEVELOPMENT OF CORE DATA SET OF THE OFFICER LONGITUDINAL RESEARCH DATA BASE

BACKGROUND

A longitudinal data base on U.S. Army officers is a necessary tool for research on officer development and utilization performed by the Manpower and Personnel Research Laboratory (MPRL) at the Army Research Institute for the Behavioral and Social Sciences (ARI). Such a data base would play a critical role in the development of: assessment instruments for commissioning decisions, assignment, and development of officers; performance measures for validating predictor measures and evaluating training; models of officer retention and attrition; and models of career paths and experience.

No data base exists which contains personnel, civilian and military training, and job performance information necessary for these research purposes. Indeed few current Army data bases are historical, and past records are--for the most part--unavailable.

To overcome the difficulties noted above, development of the Officer Longitudinal Research Data Base (OLRDB) was planned and begun (Rachford, 1984). At its core was planned an accurate list of former and current active duty Army officers. The OLRDB--when complete--will have a wide range of data and as much historical data as is possible to recover. Existing sources of data were to be used, first to develop this core, and later to broaden its scope.

One existing source was the Officer Master File (OMF), a dynamic operational file of active duty officers' personnel records maintained by the U.S. Army Military Personnel Center. Historical copies, or yearly snapshots, of the OMF saved at ARI dated back to 1 October 1978. They had errors typical of an operational file with missing data on some critical variables (in particular, separation data for those no longer on Active Duty). The information regarding separation was obtained from the Separation Officer Master File (SOMF) which contains an officer's record at the time of separation and includes key separation data elements.

Another source of historical data was the Master and Loss File (MLF) created at the Defense Manpower Data Center (DMDC). The MLF contains both master and loss records, with a limited set of data elements. However, only loss records dating back to 1970 were obtained for the purpose of developing the Core Data Set. They contained separation data and also were useful in the effort to verify the accuracy of key variables for a historical file.

The OLRDB development plan called for OMF, SOMF, and MLF records to be compared and the core data set of the OLRDB created by using the data available in them and a set of procedures for resolving inconsistencies. Figure 1 depicts the master files used and the years they covered.

Objective

The objective of this work was to develop an operational core data set of the OLRDB. Using subsets of the OMF and MLF and existing documentation as to their contents (i.e., record formats and value codes) provided by ARI, the following tasks were to be accomplished:

1. Matches and discrepancies on critical variables within and between the OMF and MLF were to be examined.

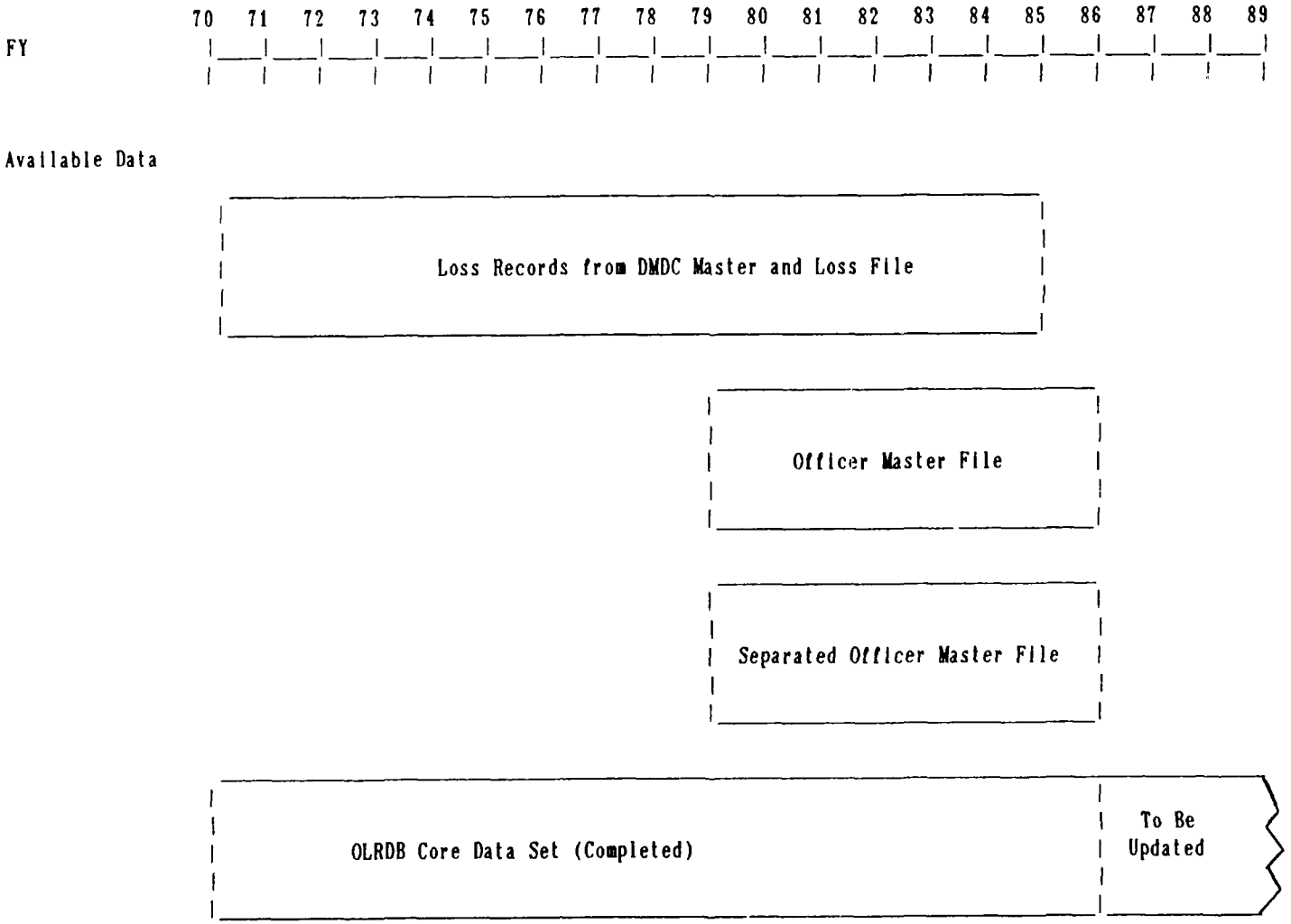
2. Variables were to be corrected where possible (within the bounds of available data, documentation, and logic).

3. Privacy of individual records was to be protected through the development and application of an encryption procedure to encode personal identifying information.

4. A core data set was to be created with two subsections: one of individuals with validated critical variables and the other of individuals and records with inconsistent critical variables. In accordance with the statement of work, both data sets were to contain the following data elements where they existed.

    A. Social security number
    B. Date of birth
    C. Name
    D. Sex
    E. Last or current rank
    F. Date of rank (last or current)
    G. Active duty base date
    H. Date of commission
    I. Source of commission
    J. Separation date
    K. Separation code
    L. Basic branch
    M. Initial specialty
    N. Alternate specialty
    O. Other specialties
    P. Race/ethnic category
    Q. Year group
    R. Promotion history (ranks & dates)
    S. Prior military service
    T. Civilian education level

Figure 1
Fiscal Years Included in OLRDB Core Data Set
and Available Master File Data



U. Military education level
V. Academic major
W. Marital status
X. Number of dependents
Y. Component
Z. Current service agreement
AA. Former service agreements
BB. Place of birth
CC. Type of original appointment
DD. Pay entry base date

5. All data elements were to be checked for accuracy (e.g., range of values and consistency across elements) and corrected where appropriate.

6. Incremental retention rates for each complete year group were to be calculated by gender, branch, and source of commission.

PROCEDURES

To accomplish these tasks, appropriate software was developed, and the following procedures were executed.

1. Design the OLRDB Core Data Set.
2. Identify core data elements to be extracted.
3. Identify core data elements to be derived.
4. Extract data from master files.
5. Verify data values and convert codes.
6. Merge all records into a single file.
7. Edit merged records and create the Longitudinal Data Set.
8. Encrypt the personal identification number.
9. Create the SAS Core Data Set.
10. Create data dictionary documentation.

Design the OLRDB Core Data Set

The usage of the core data set was discussed with ARI researchers. Two major objectives were defined: to identify an officer as an entity in the OLRDB and to analyze the longitudinal changes in information about officers.

For some research applications, the core data set would be used to verify presence or absence of certain records in regard to the OLRDB and provide access to key data elements describing the current, or most recent, status and characteristics of each officer. Researchers utilizing this version of the core data set may link the core data set officer status and characteristics to other OLRDB data sets or match to non-OLRDB data sets. They may validate an officer's presence or absence in a specific year of OMF history or identify the range of years of active duty.

Another use for the core data would be to provide a longitudinal view of officer history for analysis. The emphasis in this case would be how the data for an officer changed over time. Rather than replacing each data value with updated values each year, it would be necessary to save each year of core data in its entirety. With this data set, given variables may be examined across years or within specific years.

The design process resulted in two structures to organize the core data elements. The extraction and edit of core data elements was to be performed on a year by year basis. The natural product of this process was a fixed length character file containing one record for each officer, with a set of core data values for each fiscal year from 1979 to 1986. This file addressed one of the data needs identified by ARI, that of longitudinal history. The character file will be referred to as the Longitudinal Data Set. Figure 2 pictorially describes the segments or groupings of data on the Longitudinal Data Set records. Note: additional data fields to add core data values for 1987-1989 were also included in this data set.

The Longitudinal Data Set was designed to be a fixed length character file which could be used with any software package or programming language. The record for each officer would contain a segment for each year between 1979 and 1989, the years of OMF data to be stored on the core data set. If the officer was on active duty during a specific year, the core data elements from the OMF of that year were stored on the appropriate segment of the Longitudinal Data Set. If the values of any of the data elements were not consistent with 1986 coding, the most recent codes available, they were converted to match the 1986 standards. Some officers separate and reenter active duty more than once during their career; therefore, the Longitudinal Data Set was designed to store information on up to five separations. Each of the five separation segments contained the separation-related core data elements from the SOMF or MLF on which the separation was documented. Finally, a segment containing the most recent data for the officer was built as one part of the officer's record on the Longitudinal Data Set. This segment also contained some special data elements which indicated the years of active duty and years for which OMF data were available for each officer.

From the Longitudinal Data Set, another file was built to provide an efficient access to an accurate listing of active duty officers and their most recent information. In addition, it contained derived data elements which identified the years for which OMF data existed and the years of active duty as defined by the core data elements. This data set was designed as a Statistical Analysis System (SAS) file to facilitate the analysis and linking functions to be performed by ARI researchers. This SAS file will be referred to as the SAS Core Data Set. Figure 2 depicts the relationship between the two core data sets, the

Figure 2
Content and Relationship of the Longitudinal Data Set and
the SAS Core Data Set

Longitudinal Data Set Record

1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Most Recent Core Data	Separation History				
38 elem.	38 elem.	38 elem.	38 elem.	38 elem.	38 elem.	38 elem.	38 elem.	38 elem.	38 elem.	38 elem.	Matchcode + 38 Core Data Elem. + Flags	1	2	3	4	5

SAS Core Data Set Record

Matchcode	38 Most Recent Core Data Elements	OMF Flags 79-89	Duty Flags 70-89	Retention Flags 79/80 - 88/89

Longitudinal Data Set and the SAS Core Data Set. The fact that the SAS Core Data Set is created directly from the Longitudinal Data Set ensures data integrity between these two repositories of core data.

Identify Core Data Elements to be Extracted

The first step in the creation of the OLRDB core data sets was to identify the specific data elements from the OMF and MLF which would best represent the 30 core data elements specified in the statement of work (A through DD listed earlier). The documentations for both files were examined: Automated Data System Manual, OMF Update System, Officer Master File Users Information Manual (U.S. Army Military Personnel Center, 1983) for the OMF data and Master and Loss Files: Coding and Data Element Description (Defense Manpower Data Center, 1975) for the MLF data. The Separation Officer Master File (SOMF) provided separation history not included in the OMF. Each SOMF record is the OMF record at the time of an officer's separation with key separation data elements added. Thus, the documentation for the OMF applied to the SOMF as well.

Some of the OLRDB data elements were easily identified, such as date of birth and sex. Some could be described by more than one OMF data element. For instance, both temporary grade and permanent grade identify an officer's rank. Some OLRDB data elements, such as race/ethnic category could not be accurately described by any single OMF data element. A list of candidate data elements from the OMF, SOMF, and MLF was submitted to ARI for review and consideration.

The ARI researchers reviewed the selection of OMF/MLF data elements and made selection decisions for those core data elements having more than one applicable OMF/MLF data element. The process of identifying data elements and resolving ambiguous choices for each of the 30 OLRDB core elements is described below. OMF and MLF data elements are identified by the variable names and labels which appear in the documentation for each file.

A. Social Security Number
This data element was clearly identified on both the OMF and MLF.

OMF: SSN - Social Security Number
MLF: SSN - Social Security Number

B. Date of Birth
This data element was clearly identified on both the OMF and MLF.

OMF: DOB - Date of Birth
MLF: DOB - Date of Birth

C. Name
While clearly identified on both files, the length of the name field was not the same. The OMF data element contained 27 characters with the pattern of last name, space, first name, space, middle initial, space, and suffix. The MLF data element was 4 characters long and consisted of the first 4 letters of the last name.

Name would be used for data verification only and would not appear on the core data sets due to privacy considerations.

OMF: NAME - Name
MLF: NAME - Name

D. Sex
This data element was clearly identified on both the OMF and MLF.

OMF: SEX - Sex
MLF: SEX - Sex

E. Last or current rank
The OMF contained two applicable fields, Temporary Grade (TGRA) and Permanent Grade (PGRD). The MLF contained just one applicable data element which was Pay Grade.

The Temporary Grade always contained the current grade for an officer and was the data element to be extracted for the core data sets. The Permanent Grade does not always reflect the current grade. Pay Grade was comparable to the Temporary Grade on the OMF.

OMF: TGRA - Temporary Grade
MLF: PG - Pay Grade

F. Date of Rank
One OMF data element, Temporary Date of Rank (TDOR), is associated with the Temporary Grade (Core Data Element E) and was selected as the date of rank. The MLF contained no similar data element in relation to Pay Grade.

OMF: TDOR - Temporary Date of Rank
MLF: No data

G. Active Duty Base Date
ARI review of the date fields on each file identified only one applicable data element on each file which indicated the start of service for pay purposes.

OMF: BPED - Pay Entry Basic Date
MLF: PEBD - Pay Entry Base Date

H. Date of Commission

The OMF did not contain a data element which consistently and accurately identified the date of commission. Two data elements were pertinent to this field. Date of entry on active duty in current tour (EADC) was documented to contain date of commission for the years 1979 through 1984 for the OMF. After 1984, basic date of RA/USAR/NGUS appointment (DTRA) was supposed to be the "official" date of commission. However, upon examination of the OMF records, EADC was found to be more reliable in all years. DTRA sometimes contained blanks or dates which seemed unlikely to be correct.

For those core records based on MLF separation records, the date of entry into officer ranks (DOE) was used as the date of commission. DOE identified only the year and month of commission so the day portion of date of commission was filled with blanks.

EADC would be considered the date of commission in the OLRDB but DTRA would also be kept as a core data element in the event that the usage of these data elements would change in future years. DOE would be stored in EADC for those records extracted from the MLF (1970-1978).

OMF: EADC - Date of Entry on Active Duty in Current Tour
DTRA - Basic Date of RA/USAR/NGUS Appointment
MLF: DOE - Date of Entry into Officer Ranks

I. Source of Commission

This data element was clearly identified on both the OMF and MLF.

OMF: SOC - Source of Original Appointment
MLF: SOP - Source of Original Procurement

J. Separation Date

The OMF does not contain separation information. A separation was identified by the presence of a record on the MLF for the years 1970-1978 or a record on the SOMF for the years 1979-1986. The separation date was extracted from these separation records.

OMF: SEPDT - Separation Date
MLF: SEPDT - Separation Date

K. Separation Code
This data element was clearly identified on both the SOMF and MLF separation record.

OMF: SPD - Separation Program Designation
MLF: SPD - Separation Program Designator

L. Basic Branch
This data element was clearly identified on the OMF. It was not present on the MLF.

OMF: BABR - Basic Branch for Commissioned Officers
MLF: No data

M. Initial Specialty
This data element was clearly identified on the OMF as INSPEC and was not present on the MLF. However, in accordance with Officer Personnel Management System revisions, the name and coding of values for initial specialty were to change effective FY87.

The name to be stored for the core data element would be BRCD to match the renaming of initial specialty data in future OMF updates.

OMF: INSPEC - Initial Specialty
MLF: No data

N. Alternate Specialty
This data element was clearly identified on the OMF as ADSPEC and was not present on the MLF. The name and coding of values for alternate specialty were also to be changed in FY87.

The name to be stored for the core data element would be FACD to match the renaming of alternate specialty data in future OMF updates.

OMF: ADSPEC - Additional Specialty
MLF: No data

O. Other Specialties
Upon review of the data available, ARI researchers decided that this data element was not needed as a core data element. There are many OMF data elements related to specialties and another OLRDB data set contains a complete record of the specialties for each officer.

Other specialties was dropped from the list of data elements to be included in the core data sets.

P. Race/Ethnic Category
No single data element contained a complete description of racial and ethnic data. Two data elements from each file jointly described race/ethnic category.

Both the racial descent and ethnic group data would be kept as core data elements.

OMF: REDCAT - Racial/Ethnic Descent Category
ETHGP - Ethnic Group Designation
MLF: RETH - Race Ethnic
ETH - Ethnic Group

Q. Year Group
The data element was clearly identified on the OMF. It was not present on the MLF.

OMF: BYRGP - Basic Year Group
MLF: No data

R. Promotion History (Ranks and Dates)
This data element was clearly identified on the OMF. It was not present on the MLF.

OMF: PHDT - Promotion History - Temporary Grade for Commissioned Officers
MLF: No data

S. Prior Military Service
The initial goal was to indicate by a yes/no data element whether or not the officer had military service duty prior to the current tour. Since no OMF or MLF data element appeared to indicate this information, two data elements were examined, completed months of active Federal service (CMAFS) and active Federal commissioned service (AFCSM). It was found that these data were often missing or resulted in figures which were incompatible with other dates in the same record, such as date of entry on active duty in current tour (EADC) and pay entry basic date (BPED).

Because the data elements CMAFS and AFCSM were not reliable for inferring prior service and another OLRDB data set contains significant detail about previous tours, ARI decided to drop this data element from the core data sets.

T. Civilian Education Level
This data element was clearly identified on both the OMF and the MLF.

OMF: CELC - Civilian Education Level
MLF: HYEC - Highest Year of Education

U. Military Education Level
This data element was clearly identified on the OMF. It was not present on the MLF.

OMF: MEL - Military Education Level
MLF: No data

V. Academic Major
This data element was clearly identified on the OMF. It was not present on the MLF.

OMF: RCEAS1 - Academic Specialty Code-Level 1
RCEAS2 - Academic Specialty Code-Level 2
RCEAS3 - Academic Specialty Code-Level 3
MLF: No data

W. Marital Status
This data element was clearly identified on both the OMF and the MLF.

OMF: MARST - Marital Status
MLF: MS - Marital Status

X. Number of Dependents
This data element was clearly identified on the MLF. The OMF contained two data elements, the number of adult dependents and the number of dependent children. They were added together to create the total number of dependents for the core data sets.

OMF: NODA - Number of Adult Dependents
NOADC - Number of Dependent Children
MLF: DEPS - Number of Dependents

Y. Component
This data element was clearly identified on both the OMF and the MLF.

OMF: COMPT - Service Component
MLF: COMP - Service Component

Z. Current Service Agreement
This data element was clearly identified on the OMF. It was not present on the MLF.

OMF: CURSA - Current Service Agreement
MLF: No Data

AA. Former Service Agreement
ARI decided to drop former service agreement for the same reason prior military history (Core Data Element S) was dropped. Other OLRDB data sets contain all OMF information related to previous tours and service agreements.

BB. Place of Birth
This data element was clearly identified on the OMF. It was not present on the MLF.
OMF: COBO - Country or State of Birth, Officer
MLF: No data

CC. Type of Original Appointment
This data element was clearly identified on the OMF. It was not present on the MLF.

OMF: ORAPT - Type of Original Appointment
MLF: No data

DD. Pay Entry Base Date
This data element was found to be redundant after selecting the dates to be used for the active duty base date (Core Data Element G). As a result, it was dropped from the core data sets.

Identify Core Data Elements to be Derived

The following information derived from the OMF and MLF data elements were defined and added to the core data sets to enhance their usefulness for research.

OMF Flags. These flags indicate the presence (Y) or absence (N) of a record for an officer on the OMF for a particular year. The OMF flags for the years stored on the core data sets, 1979 through 1989, are identified as OMFLAG79 through OMFLAG89.

Duty Flags. These flags indicate the presence (Y) or absence (N) of an officer on active duty for a given year. They are derived from the core data elements EADC (Entry on Active Duty in Current Tour) and SEPDT (Separation Date) or current year, whichever is present. No verification is made of the presence of OMF records for the specified year. The primary purpose of the derived duty flag is to describe more completely the history of officers on active duty before 1979, the first year of OMF history available for the core data sets. The duty flags describe active duty between 1970 and 1989 as reflected by the data element names DUTYFL70 through DUTYFL89.

Retention Flags. These flags describe the retention of an officer from one year to another. If an officer is present on the OMF in year one, they indicate the presence (Y) or absence (N) of an officer in the second year of the 2-year span. If

the officer was not present on the OMF in year one, the retention flag is set to missing values in SAS. The retention flags cover the years for which OMF history is available, 1979 through 1989. The names describe the applicable year spans, RETN7980 through RETN8889.

The retention data elements were derived from the OMF flags. As such the retention flags portray the same information as the OMF flags but in a way that may facilitate retention analysis in SAS. Therefore, they are present only on the SAS Core Data Set.

Extract Data from Master Files

There were three sets of master files from which extractions were made: the Officer Master Files from fiscal year 1979 through 1986, the Separation Officer Master Files from fiscal year 1979 through 1986, and the Master and Loss files (loss records only) from fiscal year 1970 through 1985 (see Figure 1). Programs were designed to extract the specified core data elements from each master file for commissioned officers only (see Appendixes A-C). The record layouts provided by ARI were used to identify the location and length of each core data element for each year.

Additional data elements were extracted from each file for use in verification and problem resolution. They are described below.

OMF

1. MPC - Military Personnel Class
   This data element distinguishes commissioned officers from warrant officers. Only commissioned officers were selected for the OLRDB.
2. VSSSN - Verification Status of SSN
   This data element indicates whether or not the SSN on a record had been verified as correct by the Social Security Administration.
3. RSCD - Record Status Code
   This data element distinguishes current (active) data processing records from previous (inactive) records. Over the course of a fiscal year, it is sometimes necessary to make changes to a record on the OMF. To provide for historical tracking of those changes, both current and previous records are stored on the OMF. The active records provide the current or updated information about each officer. This data element has no relationship to an officer's active duty or reserve status. Only active data processing records were selected.

MLF

1. PG - Pay Grade
   This data element distinguishes commissioned officers from warrant officers. Only commissioned officers were selected for the OLRDB.

2. Gain/Loss Code
   This data element distinguishes gain records from loss or separation records on the MLF. (Only loss records were provided.)

Verify Data Values and Convert Codes

After the data were extracted, frequency counts were created for each data element. (See Appendix D.) The data values from the frequency report were checked with the documentation (Defense Manpower Data Center, 1975; U. S. Army Military Personnel Center, 1983) for the associated fiscal year and master file. All data values conformed to the specifications in the documentation.

The frequency counts did reveal one problem, however. There were several social security numbers for which multiple records existed on the same fiscal year master file. All records for the affected officers were printed and examined. (See Appendix E.) In almost all cases, one record was generally missing most of the data and the other record was complete. The data element VSSSN, verification status of SSN, was most helpful in the automation of selecting the proper record. When VSSSN had a value of 'V', meaning that the SSN had been verified, the record was complete. Duplicate records were deleted using this criterion.

Two aspects of data conversion were addressed. MLF data elements needed to be converted to OMF data values, and pre-1986 OMF data values needed to be converted to 1986 values. (See Appendix G.) For some data elements, such as date of birth, no conversion was necessary. For some MLF data values, no corresponding OMF value accurately reflected the meaning of the MLF data. In these cases, new data values were created for the OMF core data element. The OMF SAS format file was updated to include these new data values. Table 1 describes each conversion performed on the OMF and MLF data elements. The MFL values in the left column were converted to the matched OMF value in the right column. In some cases, several MLF values were recoded as one OMF value.

Table 1
MLF/OMF Conversion Chart for Core Data Elements

MLF Values	OMF Values
Sex	
SEX: Sex	SEX: Sex
1 Male	M Male
2 Female	F Female
0 Unknown	Z Unknown
Last or Current Rank	
PG: Pay Grade	TGRA: Temporary Grade
20 Commissioned Officer Unknown	UNK Unknown (new data value)
21 2nd Lieutenant	2LT 2nd Lieutenant
22 1st Lieutenant	1LT 1st Lieutenant
23 Captain	CPT Captain
24 Major	MAJ Major
25 Lieutenant Colonel	LTC Lieutenant Colonel
26 Colonel	COL Colonel
27 Brigadier General	B G Brigadier General
28 Major General	M G Major General
29 Lieutenant General	LTG Lieutenant General
30 General	GEN General
31 General of the Army	G A General of the Army
MLF records were dropped when PG was 00 - 14 which corresponded to enlisted or warrant pay grade.	
Date of Commission	
DOE: Date of Entry in Officer Ranks	EADC: Date of Entry on Active Duty in Current Tour
	DTRA: Basic Date of RA/USAR/NGUS Appointment
Since the MLF data element DOE contained only year and month (YYMM), blanks were put in the day field when "creating" EADC.	

MLF Values	OMF Values
Source of Commission	
SOP: Source of Original Procurement (For Officer Personnel):	SOC: Source of Original Appointment
0 Other than below or Unknown	K Other
1 Academy	A US Military Academy
2 ROTC Scholarship	2 ROTC Scholarship (New)
3 ROTC Non-Scholarship	3 ROTC Non-Scholar. (New)
4 OCS or OTS: Direct Procurement	4 OCS or OTS: Direct Procurement (New)
5 OCS or OTS: In-Service Procurement	5 OCS or OTS: In-Service Procurement (New)
6 OCS or OTS: Either 4 or 5 above (can't differentiate)	6 OCS or OTS: Either 4 or 5 above (can't differentiate) (New)
7 Direct Appointment: Physician or Dentist	G Direct Appointment
8 Direct Appointment: Other than Physician or Dentist	G Direct Appointment
9 Aviation Training Pgm. exclusive of OCS or OTS	9 Aviation Training Pgm. exclusive of OCS or OTS (New)
Race/Ethnic Category	
RETH: Race Ethnic	REDCAT: Racial/Ethnic Descent Category
0 Unknown	X Other/Unknown
1 Caucasian Non-Spanish	C White, Not Hispanic
2 Caucasian Spanish	H Hispanic
3 Negro	N Black, Not Hispanic
4 Malayan (Navy only)	
5 Other	X Other/Unknown
ETH: Ethnic Group	ETHGP: Ethnic Group Designation
0 Unknown	Z Unknown
1 Spanish Descent	1 Other Hispanic Descent
2 American Indian	2 US/Canadian Indian Tribe
3 Asian-American	3 Other Asian-American
4 Puerto Rican	4 Puerto Rican
5 Filipino	5 Filipino
6 Mexican-American	6 Mexican-American
7 Eskimo	7 Eskimo
8 Aleut	8 Aleutian

MLF Values	OMF Values
9 Cuban-American	9 Cuban American
10 Chinese	G Chinese
11 Japanese	J Japanese
12 Korean	K Korean
13 Other	X Other
14 None	Z Unknown

Civilian Education Level

HYEC: Highest Year of Education	CELC: Civilian Education Level
00 Unknown	0 Unknown
01 1-7 years of elementary school completed	F 1-7 years of elementary school completed (New)
02 8 years of elementary school completed	G 8 years of elementary school completed (New)
03 1 year high school completed	H 1 year high school completed (New)
04 2 years high school completed	I 2 years high school completed (New)
05 3 or 4 years high school completed with no diploma or no G.E.D.	J 3 or 4 years high school completed with no diploma or no G.E.D. (New)
06 High School graduate, diploma or G.E.D.	8 High School graduate or G.E.D.
07 1 year college completed	7 Less than 2 years college or G.E.D. Test for one year college
08 2 years college completed	6 2 or more years college non-graduate (includes Nurse). AA degree, AD degree, 2CX Test for 1948-53, or 2 years college equivalency
09 3 or 4 years college completed with no diploma	6 (same as above)
10 College graduate	5 College graduate, baccalaureate degree from accredited college
11 Master's degree received or other professional degrees beyond college other than a doctorate	K Master's degree received or other professional degrees beyond college other than a doctorate (New)
12 Doctorate degree received	1 Doctoral degree from accredited University

MLF Values	OMF Values
Marital Status	
MS: Marital Status	MARST: Marital Status
0 Unknown	0 Unknown
1 Single, divorced, interlocutory decree, legally separated, widowed or marriage annulled	1 Single, divorced, interlocutory decree, legally separated, widowed or marriage annulled (New)
2 Married	M Married
Number of Dependents	
DEPS: Number of Dependents	NODA: Number of Adult Dependents NOADC: Number of Dependent Children DEPS: Number of Dependents (Created for OMF data as described below.)
00 Unknown	Blank Unknown
01 No dependents	0 No dependents
02 1 dependent	1 1 dependent
03 2 dependents	2 2 dependents
04 3 dependents	3 3 dependents
05 4 dependents	4 4 dependents
06 5 dependents	5 5 dependents
07 6 dependents	6 6 dependents
08 7 dependents	7 7 dependents
	8 8 dependents
09 8-15 dependents	9 9 or more dependents
Component	
COMP: Service Component	COMPT: Service Component
0 Unknown	Z Unknown
1 Regular	R Regular Army (RA)
2 Temporary (AUS)	T Army of the U.S.
3 Reserve	V Army Reserve (USAR)
4 National Guard	G National Guard of the US

DEPS was created using the OMF data fields NODA and NOADC. These data fields were added together to yield DEPS with values of 0 through 9 (9 or more dependents).

Merge All Records into a Single File

To trace the history of each officer effectively and determine the completeness of the data, the three master file records from all years were merged together by social security number, data fiscal year, and file ID which identified the master file from which it was extracted (OMF=1, SOMF=2, and MLF=3). (See Appendix F.) The data fiscal year refers to the fiscal year (October 1 through September 30) in which the data were current. Each Officer Master File contained data from one fiscal year. The data fiscal year for SOMF and MLF records was determined by the separation date field (SEPDT). Separation records were assigned to the proper fiscal year by examining the separation date in relation to October 1. Figure 1 depicts the fiscal years covered by the OLRDB core data set and available master file data.

This merged file is saved for use in the next update cycle. The new OMF data will be merged with this file to create the new input file to the update program. This provides the opportunity to take advantage of new officer data which could correct previously inconsistent data (e.g., corrected Date of Entry on Active Duty in Current Tour - EADC). Having both old and new data together also facilitates recoding of all data values to new coding values. This file does contain name and SSN and is maintained in a secure manner under the control of the OLRDB Manager.

Edit Merged Records and Create the Longitudinal Data Set

To edit the merged records and create the Longitudinal Data Set, a computer program was written in PL/I (Hughes, 1979). After all records for a single SSN were collected together, they were examined to determine if OMF data records existed for that SSN for all the years of active duty (see Appendix G). The date of entry on active duty in current tour (EADC) and the separation date (SEPDT) fields were checked in all records from fiscal year 1979 through the last data year. Where an OMF record was missing for a year which could not be explained by a separation and/or reentry, no core record was created. Rather, the records for that SSN were written on an error file for later resolution.

If the yearly data records for an officer were consistent with EADC and SEPDT, one master file record was selected as the source of 'immutable' field values. The most recent record with a verified SSN was the first choice, followed, in order, by the most recent OMF/SOMF record, and the most recent MLF record.

For those officers who separated before 1979, no OMF information was available. Therefore, that portion of the Longitudinal Data Set designated for annual OMF information from

1979 to 1989 remained blank. That portion of the Longitudinal Data Set containing the most recent master file information available for that officer was loaded with the data from the MLF separation record.

For those officers who were on active duty in 1979 or after, core data elements from fiscal year 1979 OMF or after were edited and loaded into the appropriate block of annual data on the Longitudinal Data Set. OMF information from the most recent year was loaded into the "most recent data" segment of the data set. If the officer had separated between 1979 and 1986, the "most recent data" were taken from the SOMF record which documented the separation.

For each separation documented for an officer between 1970 and 1986, selected data elements from the separation record were loaded into the separation history portion of the Longitudinal Data Set. (See Appendix G.) Up to five separations for each officer were included in the separation history. For each separation the following data elements were taken from the SOMF or MLF record: Separation Date (SEPDT), Separation Program Designator (SPD), Date of Entry on Active Duty in Current Tour (EADC), and Pay Entry Basic Date (BPED). Where separations occurred, the SOMF was considered the preferred record. If both SOMF and MLF records were available for the same year, the MLF was used only for verification.

The data editing process was designed as a table look-up procedure so that future data value changes for core data elements could be incorporated without program changes. This means that the value for each data element is validated by looking at a table of acceptable values for the data element being edited. (See tables in Appendix L.) The table directs the program logic to accept the value as it is, recode it to another value to bring it up-to-date with current coding specifications, or replace it with blanks if it is unacceptable. A counter is incremented each time the data element value is replaced with blanks. A SAS frequency count report specifically identifies the unacceptable data. The SAS report and counts provide a means of monitoring the amount of unacceptable data being processed so that data problems can be identified at this step in the process. If valid data is being replaced by blanks, the table associated with that data element must be updated to include the new value.

In addition to the extracted and edited core data elements, the PL/I program (see Appendix G) also generated the OMF flags and duty flags derived from the OMF annual data and separation history. When the Longitudinal Data Set record for an individual was completed, the record was written to the verified data file.

Two other files, the unresolved data file and the cross-reference file, were also created by the program. All the records associated for a single SSN were written on the

unresolved data file when the data were found to be inconsistent with the presence or absence of OMF annual data. This file contains the data which need corrective action such as correcting SSN, adding a year of OMF data, and correcting entry or separation dates.

The cross-reference file contains an entry for each officer examined, regardless of whether the officer data were put on the Longitudinal Data Set or the unresolved data file. The cross-reference file provides processing codes and identification data which enhance efforts to resolve problems among unresolved records. The data elements maintained on the cross-reference file include SSN, first year of data (DY1), last year of data (DY2), error code (ECODE), date of birth, and name. The name and actual SSN of each officer are maintained rather than the encrypted SSN. This would be most useful when trying to match the records containing unresolved data to data from other sources containing verified SSN.

The program (see Appendix G) produced various counts maintained throughout the processing. The counts identified:

1. the last fiscal year of data processed
2. the total number of raw input records (e.g., an officer with OMF data from 1979 and 1980 would be counted as having two raw input records)
3. the number of officers separated before 1979
4. the number of extraneous MLF records discarded
5. the number of post-1978 MLF records discarded due to a lack of any corroborating OMF records
6. the number of commissioned officers with valid core data output
7. the total number of input records associated with commissioned officers
8. the number of commissioned officers on the input file
9. the total number of commissioned officers with unresolved data
10. the number of commissioned officers with unresolved data due to early data missing
11. the number of commissioned officers with unresolved data due to unexplained gaps in the data
12. the number of commissioned officers with unresolved data due to late data missing
13. the number of officers with more years of input data than the number of years to be stored
14. the number of commissioned officers with valid core data who have separation histories
15. the total of all commissioned officers tabulated (total of counts 6 and 9)
16. the number of input records associated with commissioned officers with unresolved data
17. the number of data elements which are filled with blanks due to unacceptable data

These counts will facilitate the processing decisions in updating the core data sets.

Encrypt the Personal Identification Number

Each officer was identified by social security number on the source master file. This number was used to match records from multiple years of master file data. It continued to have importance as part of the cross-reference file for proper error resolution using other Army documents. However, it was inappropriate to allow the SSN to reside on the core data sets since privacy regulations prohibit the use of social security numbers on research files. Therefore, a special procedure was developed and performed to transform the social security numbers into unique but meaningless identification numbers.

This encryption was performed on the Longitudinal Data Set. The social security numbers were replaced by the new identification number referred to as the matchcode. They were both 9-position, numeric fields.

Due to the sensitive nature of the data and procedures involving social security numbers, the documentation for the encryption routine was prepared and submitted to the Contracting Officer's Representative (COR). The OLRDB Manager will maintain the security of this information, the merged input file, and the cross-reference file, which contain both name and SSN, to prevent unauthorized use.

Create the SAS Core Data Set

The OLRDB SAS Core Data Set was created by a SAS program which extracted the core segment from the Longitudinal Data Set (character file) containing the encrypted social security numbers. The program consists of a straightforward read and write procedure with one additional block of logic which created the retention flags. (See Appendix H.)

Retention flags were derived from the OMF flags read as input. They described the retention of an officer from one year to the next. If an officer was present on the OMF in year one, the flags indicated the presence (Y) or absence (N) of an officer in the second year of the 2-year span. If the officer was not present on the OMF in year one, the retention flag from that year to the next was set to missing values in SAS.

Frequency counts were produced for all data elements with categorical data values. When the SAS data elements were created, the date fields were further distinguished by year and month to facilitate ease of use in analysis. For example, in addition to date of birth (DOB), the year of date of birth (DOBYY) and the month of date of birth (DOBMM) were defined as data elements.

Finally, the SAS procedure CONTENTS was performed to document the name, location, data type, and format of each of the data elements in the SAS data set. The output of the PROC CONTENTS is included in Appendix J. Figure 3 illustrates the flow of data in the creation of the SAS Core Data Set. The tasks performed are indicated in rectangles, while data sets are represented by circular tape file figures.

Of the 292,996 commissioned officers identified on the OMF, SOMF, and MLF from 1970 through 1986, records for 287,186 officers (98%) were placed on the OLRDB core data sets. The other 5,810 officers comprising 2% of the original population were found to have missing or inconsistent master file data. The extracted records for these officers were written on an error file for later resolution.

Of the 287,186 officers on the core data sets, 140,495 officers had separated before 1979. The information for these officers was extracted from MLF since no OMF data was available for those years. As a result, several core data elements were missing from these records since no corresponding MLF elements existed. These officers can be identified by using data element FLAGALL, a concatenation of all OMF flags for all the years between 1979 and 1989. If FLAGALL contains 11 N's, no OMF data existed, therefore, the officer's record was built from MLF data and is somewhat incomplete.

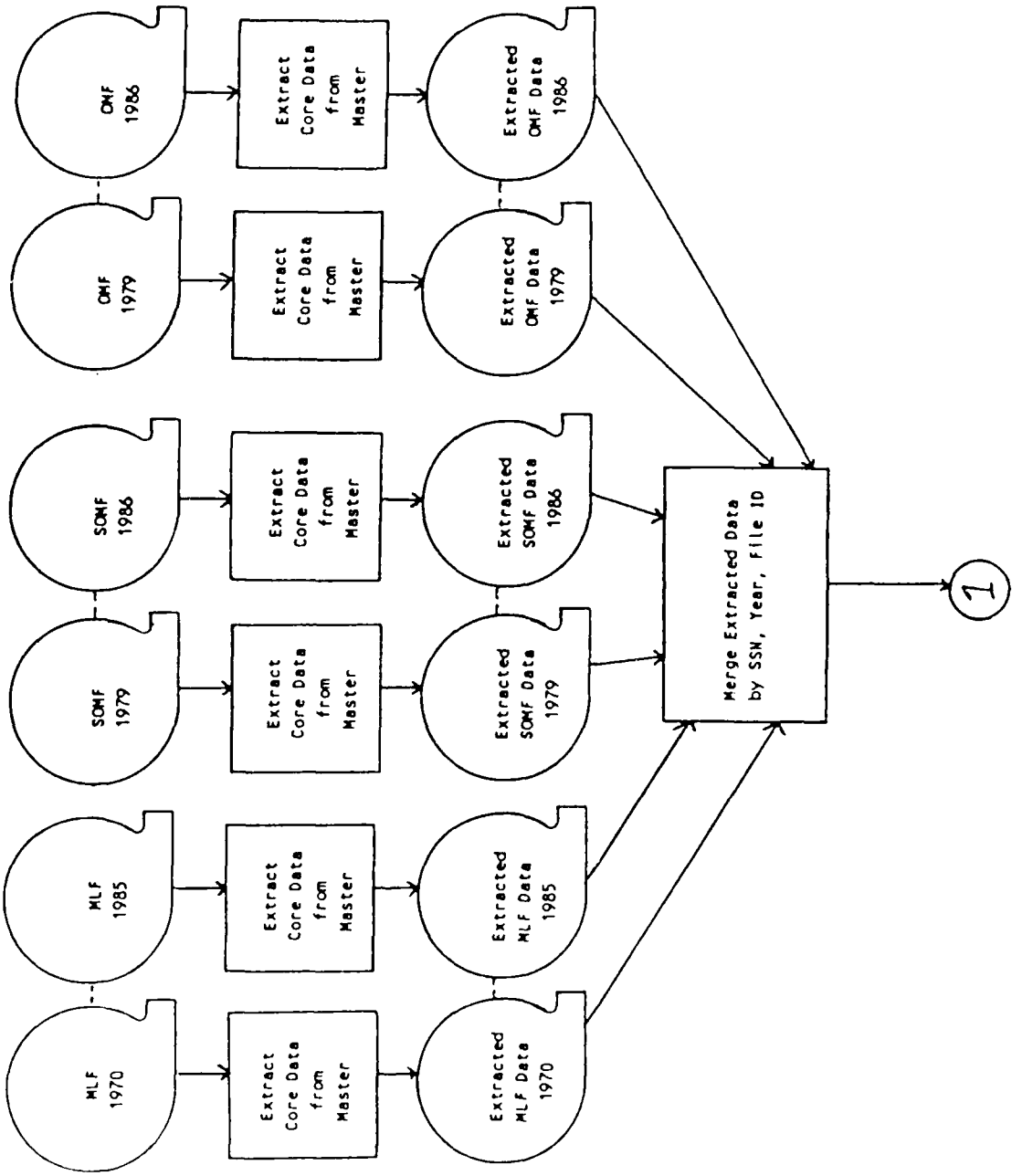
Create Data Dictionary Documentation

The Data Dictionary on the VAX computer system at ARI provides a central repository for descriptions of all data elements on all OLRDB data sets. After the Longitudinal Data Set and the SAS Core Data Set were created, data dictionary descriptions were developed to document the newly created data elements. The core data elements which were extracted from the OMF were previously documented in the data dictionary. However, additional descriptions of these OMF-based data elements unique to their usage on the core data sets were added.

DESCRIPTION OF CORE DATA ELEMENTS

Each data element on the Longitudinal Data Set and the SAS Core Data Set is described below by its label, title, length, and description. The 38 data elements which were extracted from the OMF carry the OMF description (U.S. Army Military Personnel Center, 1983). Comments which pertain to any special considerations for the use of these data elements as core data elements are included as an addendum. Where there is a group of data elements similarly defined, the definition is included only once. The values listed below were current at the time this document was written.

Figure 3
Flow of Data for Creation of Core Data Set



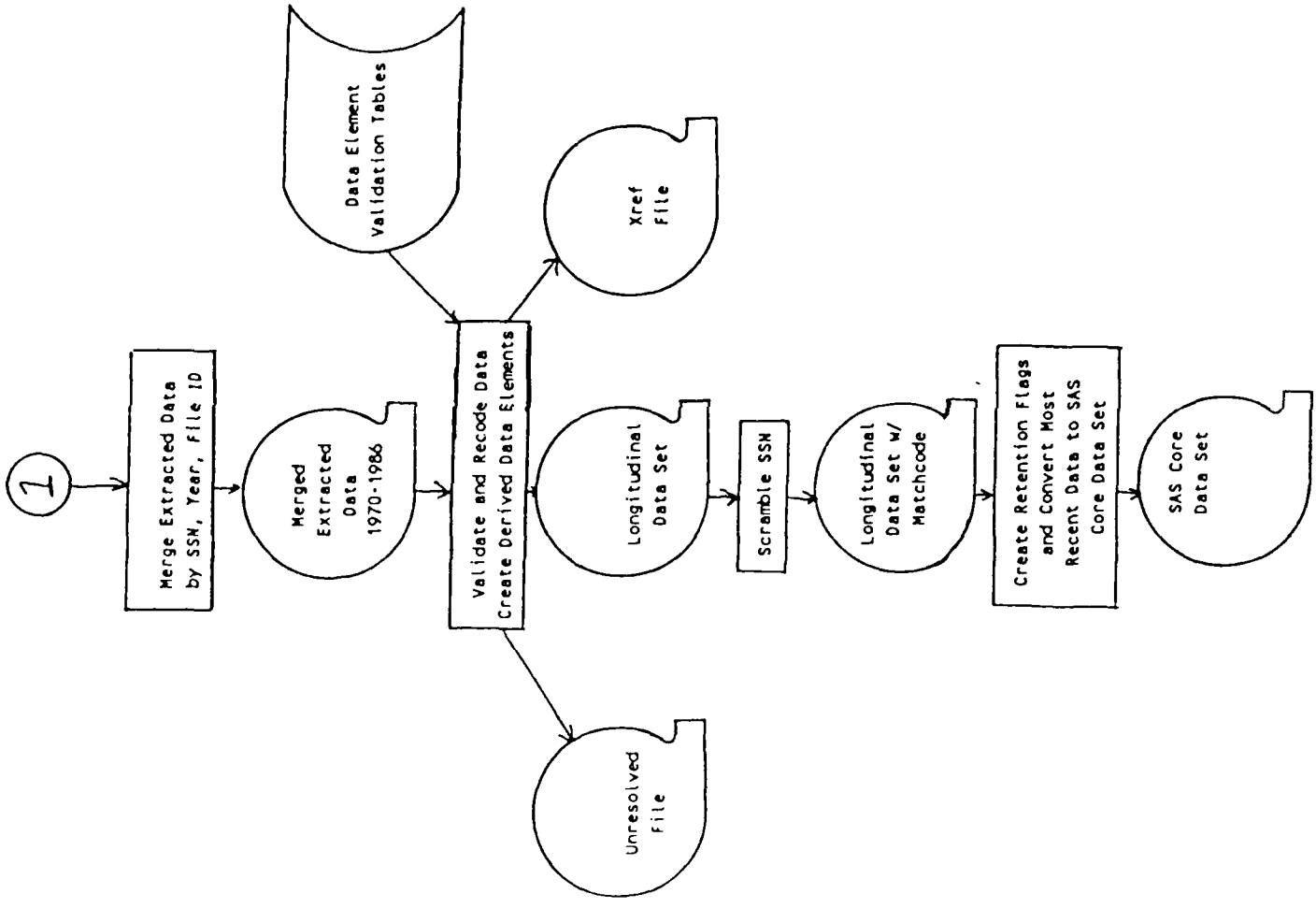


Figure 3 (continued)

38 Core Data Elements

BABR Basic Branch for Commissioned Officers
2 Characters
The branch of service in which an officer is commissioned or to which he is subsequently transferred or appointed.

Code Values:
AD Air Defense Artillery
AG Adjutant General's Corps
AN Army Nurse Corps
AR Armor
AV Aviation
CA Civil Affairs/Military Government
CH Chaplains
CM Chemical Corps
DE Dental Corps
EN Corps of Engineers
FA Field Artillery
FI Finance Corps
IN Infantry
JA Judge Advocate General's Corps
MC Medical Corps
MI Military Intelligence Branch
MP Military Police Corps
MS Medical Service Corps
OD Ordnance Corps
PR Professor, US Military Academy
QM Quartermaster Corps
SC Signal Corps
SP Army Medical Specialist Corps
SS Staff Specialist
TC Transportation Corps
VC Veterinary Corps
WC Rescinded

BPED Pay Entry Basic Date
6 Numeric
The date used in computing an officer's pay by grade and years of service and adjusted for noncontinuous service as necessary. The date is stored as year, month, day (YYMMDD).

BRCD Branch Code (was Initial Specialty - INSPEC)
2 Numeric
The initial designated specialty in which an officer will be managed and developed under the Officer Personnel Management System (OPMS). The additional specialty is described under the label FACD.
OLRDB Core Data Set Addendum:
This data element contains the data labelled "INSPEC" on the OMF from 1979 to 1986. It was renamed to BRCD

in anticipation of the renaming projected for the 1987 OMF update.

Code Values:
11 Infantry
12 Armor
13 Field Artillery
14 Air Defense Artillery
15 Aviation
18 Special Operations
21 Combat Engineer
25 Signal Corps
31 Military Police Corps
35 Military Intelligence
38 Civil Affairs (Reserve Components Only)
41 Personnel Management
42 Adjutant General Corps
44 Finance Corps
45 Comptroller
46 Public Affairs
47 USMA Permanent Professor
48 Foreign Area Officer
49 Operational Research/Systems Analysis
50 Force Development
51 Research and Development
52 Nuclear Weapons
53 Systems Automation Officer
54 Operations, Plans and Training
74 Chemical Corps
91 Ordnance Corps
92 Quartermaster Corps
95 Transportation Corps
97 Procurement
99 Combat Developments

BYRGP Basic Year Group
2 Numeric
This data element represents the fiscal year in which the officer entered the service as a 2nd Lieutenant (2LT). The officer's basic year group will not change because of an above or below the zone promotion. The Basic Year Group is represented by the two right-most digits of the year.

CELC Civilian Education Level
1 Character
This data element indicates the highest level of school attended or completed.

Code Values:

9 Non-high school graduate
8 High school graduate or General Education Development Test
7 Less than 2 years college, nongraduate (includes nurse)
6 2 or more years college, nongraduate (includes nurse), AA degree, AD degree, 2CX Test for 1948-53, or 2 years college equivalency
5 College graduate, baccalaureate degree from accredited college
4 Year or more of post-graduate, no degree
3 Professional, for example, (M.D., D.D.S., L.L.B., C.E., S.T.B., B.TH., D.V.M., B.L.S., and O.D.)
2 Master's degree from accredited university
1 Doctoral degree from accredited university
A Attending for Doctorate
B Attending for Master's
C Attending for Professional
D Attending for Baccalaureate
E Attending for Associate

OLRDB Core Data Set Addendum:

When the Master and Loss File officers were added to the OLRDB core data set, some of the values for this data element could not be accommodated by the Officer Master File (OMF) data values so new data values were defined.

F 1 to 7 years of elementary school completed
G 8 years of elementary school completed
H 1 year of high school completed
I 2 years of high school completed
J 3 or 4 years of high school completed with no diploma and no G.E.D.
K Master's degree received or other professional degrees beyond college other than a doctorate

COBO Country or State of Birth, Officer

2 Character

The state of the United States or the foreign country where the officer was born. Codes 01-56 are used to identify the state of birth. Geopolitical codes are used to identify the country of birth. These codes can be found in Appendix A of the OMF documentation (U.S. Army Military Personnel Center, 1983) and the OLRDB Data Dictionary.

COMPT Service Component

1 Character

A basic subdivision of the military services primarily indicating the type of obligation the individual is fulfilling.

Code Values:
R Regular Army (RA) - United States Army
V Army Reserve (USAR)
G National Guard of the United States (NGUS)
T Army of the United States (AUS)
Z Unknown

CURSA Current Service Agreement
1 Character
The conditions under which an officer, voluntarily or involuntarily, is retained on active duty. Not applicable to Regular Army (RA) officers.

Code Values:
4 Active duty voluntarily extended for a probationary period (1 year) prior to action taken on final voluntary indefinite status, for an officer formerly having a code "7"
5 Short-term extension (1-36 months) of initial tour of active duty for an officer formerly having a code "7"
6 Short-term extension (1-36 months) of initial tour of active duty, for an officer formerly having a Service Agreement code "8"
7 Obligated volunteer officer serving an initial tour of active duty
8 Involuntary Officer
9 Active duty voluntarily extended for an indefinite period, for an officer formerly having a code "4"
A Retained-critical shortage/outstanding performance/operational necessity
B Statutory Tour Officer
C US Property and Fiscal Officer
D Selective Service Officer
E Retired and Recalled Officer
F Retained as exception to age and service policy
G National Guard Officer, Extended Active Duty: Identifies National Guard members serving on active duty for a period of 20 to 30 months in active Army positions
H Officer voluntarily retained beyond scheduled release date (1-90 days) based on Hardship circumstance
J Not extended on active duty, for an officer formerly having a Service Agreement Code 1
L Retained beyond retirement eligibility of LTCs and COLs for 28 or 30 years of Active Federal Service respectively; if selected by boards against qualifications governing RA promotion
N Not extended on active duty, for an officer formerly having a Service Agreement Code 7
P Retained on the basis of selection for promotion to W3, W4, MAJ, LTC, or COL

U Retained beyond retirement eligibility date on the basis of being selected for retention for the first 3-year increment under LRADP (Managed tenure)
V Retained beyond retirement eligibility date on the basis of being selected for retention for the second 3-year increment under LRADP (Managed tenure)
W Retained beyond retirement eligibility date on the basis of being selected for retention for the 4-year and final increment under LRADP (Managed tenure)
X Retained for other reasons

DEPS Number of Dependents
2 Numeric
This data element is created for officer records extracted from the OMF by adding together NODA (Number of Adult Dependents) and NOADC (Number of Dependent Children). This data element already existed on records extracted from the MLF.

Code Values:
0 No dependents
1 1 dependent
2 2 dependents
3 3 dependents
4 4 dependents
5 5 dependents
6 6 dependents
7 7 dependents
8 8 dependents
9 9 or more dependents
Blank Unknown

DOB Date of Birth
6 Numeric
The year, month, and day (YYMMDD) an officer was born as verified by birth certificate or other acceptable document.

DTRA Basic Date of RA/USAR/NGUS Appointment
6 Numeric
This date reflects all creditable service for use in determining eligibility for promotion. The date is stored as year, month, and day (YYMMDD).
OLRDB Core Data Set Addendum:
This data element is supposed to be the "official" date of commission from 1984 on. However, upon examination of the OMF records used to build the core data sets, the date of entry on active duty in current tour (EADC) was found to be more reliable. As such, EADC is the primary date field to use for date of commission for all years.

EADC Date of Entry on Active Duty in Current Tour
6 Numeric
The year, month, and day (YYMMDD) an officer is commissioned and takes the oath, if component is Regular Army; or the year, month, and day the officer enters active duty based on computation of travel IAW the JTR, if component is other than Regular Army.
OLRDB Core Data Set Addendum:
This data element is used as the date of commission for officers on the core data sets of the OLRDB for the years 1970 through 1983. The basic date of RA/USAR/NGUS Appointment (DTRA) is supposed to be the "official" date of commission from 1984 on. However, upon examination of the OMF records used to build the core data sets EADC was found to be more reliable even after 1983. As such, EADC is the primary date field to use for date of commission for all years.

ETHGP Ethnic Group Designation
1 Character
This data element identifies segments of the population that possess common characteristics and a cultural heritage significantly different from that of the general population.

Code Values:
6 Mexican-American
4 Puerto Rican
9 Cuban-American
1 Other Hispanic Descent
G Chinese
J Japanese
K Korean
5 Filipino
3 Other Asian-American
2 US/Canadian Indian Tribes
8 Aleutian
7 Eskimo
X Other
Z Unknown
D Indian; persons from India and their descendants
E Melanesian
L Polynesian
V Vietnamese
W Micronesian
S Latin American; persons from Central and South America and their descendants
Q Other Pacific Island Descent; persons from the Pacific Islands, other than Melanesian, Micronesian, or Polynesian

FACD Functional Area Code (was Additional Specialty - ADSPEC)
2 Numeric
The additional designated specialty in which an officer will be managed and developed under the Officer Personnel Management System (OPMS). The initial specialty is described under the label BRCD. The code values listed under BRCD also apply to this data element.
OLRDB Core Data Set Addendum:
This data element contains the data labelled "ADSPEC" on the OMF from 1979 to 1986. It was renamed to FACD in anticipation of the renaming projected for the 1987 OMF update.

MARST Marital Status
1 Character
The legal status of an individual as it relates to marriage.

Code Values:
A Annulled
D Divorced
I Interlocutory
L Legally Separated
M Married
S Single
W Widowed
OLRDB Core Data Set Addendum:
To incorporate data values found on MLF-based records for which no exact match could be found on the OMF, the following data values were added to this element:
0 Unknown
1 Any unmarried category

MEL Military Education Level
1 Character
This data element appears in every officer's record and indicates the highest Military Schooling Credit (attended, nonresident or constructive) attained during the officer's current status only (i.e., as a commissioned officer). Also included are commissioned officers selected to attend Senior Service Schools.

Code Values:
1 Senior Service College Graduate (includes Foreign SSC, Army War College Corresponding Studies, SSC Selectee for the next class and Constructive Credit Awards)
2 Senior Service College Resident Selectee - but Deferred (Foreign and US)
3 Army War College Corresponding Studies - Selectee

4 Staff College Level Graduate (includes Selectee for the next class, Resident, Nonresident, Constructive Credit, and Foreign Schools)
5 Staff College Level Selectee - but Deferred
L Combined Arms and Service Staff School (CAS3) Phase I-Enrollee
M Combined Arms and Service Staff School (CAS3) Phase I-Completed
N Combined Arms and Service Staff School (CAS3) Graduate
6 Branch Advanced Course Graduate (Resident or Non-Resident)
7 Branch Basic Course Graduate (Resident or Non-Resident)
8 Specialist Course Graduate (Resident or Non-Resident)
9 Negative

NOADC Number of Dependent Children
2 Numeric
The number of persons, under 21 years of age, who are authorized dependents of the sponsor.

ORAPT Type of Original Appointment
1 Character
The Service Component in which a commissioned officer received his original appointment.

Code Values:
R Regular Army
V US Army Reserve
G National Guard of the US
T Army of the US

PHDT1 Date of Temporary Grade - 2nd Lieutenant
6 Numeric
The year, month, and day (YYMMDD) of rank for the temporary grade of 2nd Lieutenant.

PHDT2 Date of Temporary Grade - 1st Lieutenant
6 Numeric
The year, month, and day (YYMMDD) of rank for the temporary grade of 1st Lieutenant.

PHDT3 Date of Temporary Grade - Captain
6 Numeric
The year, month, and day (YYMMDD) of rank for the temporary grade of Captain.

PHDT4 Date of Temporary Grade - Major
6 Numeric
The year, month, and day (YYMMDD) of rank for the temporary grade of Major.

PHDT5 Date of Temporary Grade - Lieutenant Colonel
6 Numeric
The year, month, and day (YYMMDD) of rank for the temporary grade of Lieutenant Colonel.

PHDT6 Date of Temporary Grade - Colonel
6 Numeric
The year, month, and day (YYMMDD) of rank for the temporary grade of Colonel.

PHDT7 Date of Temporary Grade - Brigadier General
6 Numeric
The year, month, and day (YYMMDD) of rank for the temporary grade of Brigadier General.

PHDT8 Date of Temporary Grade - Major General
6 Numeric
The year, month, and day (YYMMDD) of rank for the temporary grade of Major General.

PHDT9 Date of Temporary Grade - Lieutenant General
6 Numeric
The year, month, and day (YYMMDD) of rank for the temporary grade of Lieutenant General.

PHDT10 Date of Temporary Grade - General
6 Numeric
The year, month, and day (YYMMDD) of rank for the temporary grade of General.

RCEAS1 Academic Specialty Code - Level 1
3 Characters
The code describing the academic specialty associated with the highest degree received by an officer. The code values can be found in Appendix A of the OMF Users Manual (U.S. Army Military Personnel Center, 1983) or the OLRDB Data Dictionary.

RCEAS2 Academic Specialty Code - Level 2
3 Characters
The code describing the academic specialty associated with the second highest degree received by an officer, if two were received. The code values can be found in Appendix A of the OMF Users Manual.

RCEAS3 Academic Specialty Code - Level 3
3 Characters
The code describing the academic specialty associated with the third highest degree received by an officer, if three were received. The code values can be found in Appendix A of the OMF Users Manual.

REDCAT Racial/Ethnic Descent Category
1 Character
This data element describes the standard classifications based on the combination of race and ethnic codes.

Code Values:
T American Indian or Alaskan Native
A Asian or Pacific Islander
C White, Not Hispanic
H Hispanic
N Black, Not Hispanic
X Other/Unknown

SEPDT Separation Date
6 Numeric
The year, month, and day (YYMMDD) on which an officer was separated from active duty.
OLRDB Core Data Set Addendum:
This data element is blank unless the officer has separated. In cases where an officer has multiple separations in the span of years stored on the OLRDB core data sets, this data element contains the date of the last separation in the SAS Core Data Set. However, up to five separations are recorded on the Longitudinal Data Set.

SEX Sex
1 Character
The sex of an officer.

Code Values:
M Male
F Female
Z Unknown

SOC Source of Original Appointment
1 Character
The organization from which a commissioned officer received his original appointment.

Code Values:
A US Military Academy
B ROTC-Distinguished Military Graduate
C Reserve Officer Training Corps
D OCS-Distinguished Military Graduate
E Officer Candidate School
F National Guard of the United States
G Direct Appointment
H US Air Force Academy
I US Naval Academy
J US Merchant Marine Academy
K Other
OLRDB Core Data Set Addendum:

When the Master and Loss File officers were added to the OLRDB core data, some of the values for this data element could not be accommodated by the Officer Master File (OMF) data values so new data values were defined.

2 ROTC Nonscholarship
3 OCS or OTS: Direct Procurement
4 OCS or OTS: Direct Procurement
5 OCS or OTS: In-Service Procurement
6 OCS or OTS: Either Direct or In-Service Procurement (cannot differentiate)
9 Aviation Training Program exclusive of OCS or OTS

SPD Separation Program Designation
3 Characters
The reason an officer separated from active duty. The code values for this data element were obtained from Army Regulation 635-5-1, Separation Program Designators (Department of the Army Headquarters, 1973).
OLRDB Core Data Set Addendum:
This data element is blank unless the officer has separated. In cases where an officer has multiple separations in the span of years stored on the OLRDB core data sets, this data element contains the separation program designation for the last separation in the SAS Core Data Set. Up to five separations are recorded on the Longitudinal Data Set.

TDOR Date of Rank, Temporary Grade
6 Numeric
The year, month, and day (YYMMDD) that an officer was promoted to his current temporary grade. Establishes the relative seniority of individuals within the same grade, primarily for use in promotion actions.
OLRDB Core Data Set Addendum:
This data element is the date on which the rank for the officer (TGRA) was achieved. It is not reflected in the promotion history data element.

TGRA Temporary Grade
6 Numeric
A field containing the standard grade abbreviation of the temporary grade held by an officer. This data element is the last or current rank for the officer. The date on which this rank was achieved is stored in the data element TDOR. It is not reflected in the promotion history data elements.

Code Values:
G A General of the Army
GEN General
LTG Lieutenant General
M G Major General

B G Brigadier General
COL Colonel
LTC Lieutenant Colonel
MAJ Major
CPT Captain
1LT First Lieutenant
2LT Second Lieutenant
OLRDB Core Data Set Addendum:
When the Master and Loss File officers were added to the OLRDB core data sets, some of the values for this data element could not be accommodated by the Officer Master File (OMF) data values so new data values were defined.
UNK Unknown

Derived Data Elements

The following data elements were created for the SAS Core Data Set. All of these elements are derived from or have some basis in the Officer Master File or the Master and Loss File. This relationship is made clear in the data description.

MATCHCOD Match Code
9 Numeric
This code uniquely identifies each officer on the OLRDB core data sets. It is the encrypted social security number.

DOBMM Month of Date of Birth
2 Characters
The number of the month (1-12) of the date of birth (DOB).

DOBYY Year of Date of Birth
2 Characters
The last two digits of the year of the date of birth (DOB).

TDORMM Month of Temporary Date of Rank
2 Characters
The number of the month (1-12) of the temporary date of rank (TDOR).

TDORYY Year of Temporary Date of Rank
2 Characters
The last two digits of the year of the temporary date of rank (TDOR).

BPEDMM Month of Pay Entry Basic Date
2 Characters
The number of the month (1-12) of the pay entry basic date (BPED).

BPEDYY Year of Pay Entry Basic Date
2 Characters
The last two digits of the year of the pay entry basic date (BPED).

EADCMM Month of Entry on Active Duty in Current Tour
2 Characters
The number of the month (1-12) of the date of entry on active duty in current tour (EADC).

EADCYY Year of Entry on Active Duty in Current Tour
2 Characters
The last two digits of the year of the date of entry on active duty in current tour (EADC).

DTRAMM Month of Basic Date of RA/USAR/NGUS Appointment
2 Characters
The number of the month (1-12) of the basic date of appointment (DTRA).

DTRAYY Year of Basic Date of RA/USAR/NGUS Appointment
2 Characters
The last two digits of the year of the basic date of appointment (DTRA).

SEPDTMM Month of Separation Date
2 Characters
The number of the month (1-12) of the separation date (SEPDT).

SEPDTYY Year of Separation Date
2 Characters
The last two digits of the year of the separation date (SEPDT).

PHDT1MM Month of Date Promoted to 2nd Lieutenant
2 Characters
The number of the month (1-12) of the date promoted to 2nd Lieutenant (PHDT1).

PHDT1YY Year of Date Promoted to 2nd Lieutenant
2 Characters
The last two digits of the year of the date promoted to 2nd Lieutenant (PHDT1).

PHDT2MM Month of Date Promoted to 1st Lieutenant
2 Characters
The number of the month (1-12) of the date promoted to 1st Lieutenant (PHDT2).

PHDT2YY Year of Date Promoted to 1st Lieutenant
2 Characters
The last two digits of the year of the date promoted to 1st Lieutenant (PHDT2).

PHDT3MM Month of Date Promoted to Captain
2 Characters
The number of the month (1-12) of the date promoted to Captain (PHDT3).

PHDT3YY Year of Date Promoted to Captain
2 Characters
The last two digits of the year of the date promoted to Captain (PHDT3).

PHDT4MM Month of Date Promoted to Major
2 Characters
The number of the month (1-12) of the date promoted to Major (PHDT4).

PHDT4YY Year of Date Promoted to Major
2 Characters
The last two digits of the year of the date promoted to Major (PHDT4).

PHDT5MM Month of Date Promoted to Lieutenant Colonel
2 Characters
The number of the month (1-12) of the date promoted to Lieutenant Colonel (PHDT5).

PHDT5YY Year of Date Promoted to Lieutenant Colonel
2 Characters
The last two digits of the year of the date promoted to Lieutenant Colonel (PHDT5).

PHDT6MM Month of Date Promoted to Colonel
2 Characters
The number of the month (1-12) of the date promoted to Colonel (PHDT6).

PHDT6YY Year of Date Promoted to Colonel
2 Characters
The last two digits of the year of the date promoted to Colonel (PHDT6).

PHDT7MM Month of Date Promoted to Brigadier General
2 Characters
The number of the month (1-12) of the date promoted to Brigadier General (PHDT7).

PHDT7YY Year of Date Promoted to Brigadier General
2 Characters
The last two digits of the year of the date promoted to Brigadier General (PHDT7).

PHDT8MM Month of Date Promoted to Major General
2 Characters
The number of the month (1-12) of the date promoted to Major General (PHDT8).

PHDT8YY Year of Date Promoted to Major General
2 Characters
The last two digits of the year of the date promoted to Major General (PHDT8).

PHDT9MM Month of Date Promoted to Lieutenant General
2 Characters
The number of the month (1-12) of the date promoted to Lieutenant General (PHDT9).

PHDT9YY Year of Date Promoted to Lieutenant General
2 Characters
The last two digits of the year of the date promoted to Lieutenant General (PHDT9).

PHDT10MM Month of Date Promoted to General
2 Characters
The number of the month (1-12) of the date promoted to General (PHDT10).

PHDT10YY Year of Date Promoted to General
2 Characters
The last two digits of the year of the date promoted to General (PHDT10).

OMFLAG79 Record Present on 1979 OMF
1 character
This data element indicates the presence (Y) or absence (N) of a record on the 1979 Officer Master File for this officer. It is created by the program which updates the core data sets of the OLRDB.

OMFLAG80-OMFLAG89 The definition of OMFLAG79 applies to these data elements for the years 1980-1989.

FLAGALL Flags for All Years of OMF Data
11 Characters
This data element is a single field which is a combination of the 11 OMF flags (OMFLAG79 through OMFLAG89). It is created by the program which updates the core data sets of the OLRDB. It is useful for defining an official population which has a specific span of OMF history (e.g., 1979 through 1982).

DUTYFL70 Active Duty Derived for 1970
1 Character
This data element indicates the presence (Y) or absence (N) of an officer on active duty in 1970 as specified by the Entry on Active Duty in Current Tour (EADC) data elements and Separation Date (SEPDT) or current year, whichever is present. It is created by the program which updates the core data sets of the OLRDB. No verification is made of the presence of an OMF record for this year. The purpose of this data element is to compensate for the lack of OMF files before 1979 for validations.

DUTYFL71-DUTYFL89 The definition of DUTYFL70 applies to these data elements for the years 1971-1989.

RETN7980 Retention for 1979-80
1 Character
Retention for 1979-80 is determined by the presence or absence of an OMF record for this officer in these 2 years. This element is 'Y' if the officer is present in both 1979-80 (retained), 'N' if the officer is present in 1979 but not in 1980 (separated), set to missing values (.) if the officer is not present in 1979. This element is created by the program which updates the core data sets of the OLRDB.

RETN8081-RETN8889 The definition of RETN7980 applies to these data elements for the years 1980/81 through 1988/89.

RETENTION ANALYSIS

A retention analysis was performed to demonstrate a research application of the SAS Core Data Set. A proper analysis of retention would take into account numerous factors which affect retention, such as the number of years an officer is obligated to serve in exchange for education and scholarship benefits. When the obligation is over, the officer may then choose to remain in the Army or to separate. Although information about these factors was not available on the SAS Core Data Set, the following approach was selected to illustrate the potential uses of a longitudinal data base.

A small subgroup of the total officer population was selected and examined over several years. The subgroup consisted of those active duty officers who were commissioned as second lieutenants in fiscal year 1979. The history of these officers from 1979 to 1986 was examined to determine if there were differences in retention pattern depending on the source of commission or basic branch of duty. The analyses addressed retention rates of junior officers beyond the periods of obligated service and how the rates may vary by source of original appointment and basic branch. This subgroup provided the maximum number of years of OMF data on the SAS Core Data Set to which this analysis could be applied.

The methodology for this analysis consisted of a Statistical Analysis System (SAS) program which used the SAS Core Data Set to identify the subgroup and track its progress over the years. To provide the most efficient selection, the first criterion was a presence of an OMF record for the officer in 1979. Therefore, the OMF flag data element for 1979 (OMFLAG79) had to be 'Y' for an officer to be selected. The second criterion focused on rank and date of promotion. The date the officer was promoted to second lieutenant (PHDT1) had to be between October 1, 1978 and September 30, 1979. The final criterion selected officers whose source of original appointment was West Point, Reserve Officers' Training Corps (ROTC), or Officer Candidate School (OCS). Since there are numerous OMF codes that refer to ROTC and OCS, the pertinent values of the source of original appointment (SOC) were regrouped to yield these three categories as shown in Table 2.

Table 2
Source of Original Appointment (SOC) Regrouping

West Point	ROTC	OCS
A	B	D
	C	E
	2	4
	3	5
		6

Using these three sampling criteria, a total of 5,528 officers were selected from the SAS Core Data Set as the subgroup to be studied. Table 3 describes the number of officers from each source. Table 4 describes how they were distributed among the branches.

Table 3
Officers Promoted in 1979 to 2nd Lieutenant by Source of Appt.

Source	Number	Percent of Total
West Point	879	15.9
ROTC	3,969	71.8
OCS	680	12.3
Total	5,528	100.0

Table 4
Distribution of the Total Sample by Basic Branch (BABR)

Basic Branch	Number	Percent of Total
Air Defense Arti	342	6.6
Adjutant General	288	5.6
Army Nurse Corps	19	0.4
Armor	414	8.0
Chemical Corps	81	1.6
Corps of Enginrs	463	9.0
Field Artillery	701	13.6
Finance Corps	86	1.7
Infantry	855	16.6
Judge Advocate G	16	0.3
Military Intelli	313	6.1
Military Police	187	3.6
Medical Service	262	5.1
Ordnance Corps	285	5.5
Quartermaster Co	247	4.8
Signal Corps	481	9.3
Army Medical Spe	2	0.0
Transportation C	112	2.2
Total*	5,154	100.0

*Note: 374 of the total 5,528 officers were missing a value for basic branch.

Promotion patterns were examined for the total sample. Of the 5,528 officers, 509 (9.2%) were promoted to first lieutenant by 1980, and 4,191 (76%) were promoted in 1981. By 1986, 3,626 (65.6%) had been promoted to captain. Essentially all of the officers from the original group who were still on active duty in 1986 had achieved the rank of captain.

By 1986, 2,110 officers, or 38% of the original group, had separated for various reasons. Table 5 describes the number of officers who separated in each year by source of commission. Of the original number of officers in each category, OCS had the highest retention rate with only 30% of the 680 new second lieutenants in 1979 separating by 1986. Thirty-four percent of the 879 West Point graduates had separated. ROTC had the lowest retention of the three categories studied with 40% of the original 3,969 officers separating by 1986.

Table 5
Separation by Year and Source of Original Appointment

Year Separated	West Point Number Offcrs	West Point Column %	ROTC Number Offcrs	ROTC Column %	OCS Number Offcrs	OCS Column %	TOTAL Number Offcrs	TOTAL Column %
1981	3	1.0	65	4.0	15	7.4	83	3.9
1982	9	3.0	456	28.4	88	43.6	553	26.2
1983	11	3.6	606	37.7	44	21.8	661	31.3
1984	169	56.2	209	13.0	18	8.9	396	18.9
1985	73	24.2	177	11.0	21	10.4	271	12.8
1986	36	12.0	94	5.9	16	7.9	146	6.9
Total	301	100.0	1,607	100.0	202	100.0	2,110	100.0

The years in which most separations occurred for each source category appears to correspond to the years in which many of the officers in the subgroup completed their obligation for active duty, thereby having the choice of staying on or separating. The reasons for separation, as indicated by the separation program designator (SPD), were examined. Table 6 describes the percentage of total separations by the reason associated with the actual separation program designator stored on the data set. For each SPD, it also indicates the percentage of the original group who separated for the reason given. Half of the separations were classified as miscellaneous: unqualified resignation or voluntary release or transfer either by request or in lieu of serving in a lower grade. The second largest group of separations was expiration of term of service including both voluntary and involuntary categories. A variety of reasons account for the remainder of the officer separations. These are reported in Table 6.

Table 6
Percentage of Total Separations by Separation Program Designator

Percent of Original Group	Percent of Total Separations	Number of Officers	Reason for Separation
19%	51%	1,080	Miscellaneous
14%	36%	768	Expiration of Term of Service
1%	3%	66	Disapproval of Request for Extension of Service
1%	2%	44	Physical Disability
.5%	2%	38	Failure of Selection
.5%	2%	33	Failure to Meet Minimum Standards of Retention
.5%	1%	27	Courtmartial
.5%	1%	24	Pregnancy
.5%	1%	16	Misconduct
.5%	1%	11	Substandard Performance
38%	100%	2,107*	

*Note: The records for 3 officers had no SPD available.

After identifying the SPD values indicating expiration of term of service, frequency tables were created to describe all who separated for this reason by source of appointment and basic branch. Table 7 shows the results of this analysis. The figures in the "Nbr Off" columns indicate the number of officers in each source/branch category who separated at expiration of term. Those under "Col %" indicate the percentage of those officers relative to all officers from each source of commission who separated at the expiration of their term. The figures under "Branch %" indicate the percentage that separated at the expiration of their term relative to all ROTC or OCS officers in the original group in each branch.

Table 7
Expiration of Term of Service by Source of Appointment and Branch

Basic Branch	ROTC Nbr Off	ROTC Col %	ROTC Branch %	OCS Nbr Off	OCS Col %	OCS Branch %	TOTAL Nbr Off	TOTAL Col %	TOTAL Brnch %
Air Defense Arti	49	7	21	5	6	11	54	7	16
Adjutant General	34	5	14	4	5	9	38	5	13
Army Nurse Corps	3	1	17	0	0	0	3	1	16
Armor	54	8	20	6	7	11	60	8	15
Chemical Corps	9	1	15	2	2	14	11	1	14
Corps of Enginrs	74	11	24	7	8	28	81	11	18
Field Artillery	101	15	22	19	21	24	120	16	17
Finance Corps	9	1	13	3	3	19	12	2	14
Infantry	82	12	15	7	8	7	89	12	10
Military Intelli	30	5	13	3	3	8	33	4	11
Military Police	19	3	13	6	7	21	25	3	13
Medical Service	53	8	22	3	3	15	56	7	21
Ordnance Corps	33	5	16	6	7	14	39	5	14
Quartermaster Co	23	3	12	7	8	20	30	4	12
Signal Corps	87	13	24	9	10	14	96	12	20
Transportation C	14	2	16	2	2	13	16	2	14
Total*	674	100	NA	89	100	NA	763	100	NA

*Note: Only one West Point officer separated due to expiration of term of service, so only ROTC and OCS are included in the table.

The statistics in Table 7, Total column, revealed that the branch experiencing the greatest loss of junior officers as their terms expired was the Medical Service (21%), followed, in order, by Signal Corps (20%), Corps of Engineers (18%), and Field Artillery (17%). This information suggests that the high technology branches may experience higher loss of junior officers at the end of their term.

This table also points to differences within branches by the officer population coming from ROTC and OCS. In some branches, such as Air Defense Artillery, a noticeably higher percentage of the ROTC graduates (21%) had separated by 1986 than OCS graduates (11%). The reverse case can be found in the Quartermaster Corps and Military Police branches.

The kinds of information resulting from these SAS analyses demonstrate the potential of longitudinal analyses to answer typical questions asked of ARI researchers. The design and content of the SAS Core Data Set provide a very useful

information source for research problems which were difficult to address previously. Additional years of OMF data will enhance the powerful research capability already provided by the SAS Core Data Set.

The outputs from the SAS analyses reported above are included in Appendix K.

THE OLRDB CORE DATA SET UPDATE PROCESS

The OLRDB core data sets were designed to be updated with new OMF annual data. At fiscal year end, September 30, the annual Officer Master File (OMF) and the Separation Officer Master File (SOMF) are created. The OMF and associated SOMF are the source files for updates to the OLRDB Core Data Set. When new yearly data are available they are incorporated into the OLRDB SAS Core Data Set so that research efforts can utilize the most up-to-date information.

The update process consists of the following procedures which are described fully in the sections below:

1. Locate the core data elements on the new OMF, identify changes, and update program and recoding tables.
2. Extract the core data elements from the new OMF and SOMF.
3. Merge the newly extracted data and the old file containing records from all previous years.
4. Execute the update program.
5. Scramble the social security numbers on the Longitudinal Data Set.
6. Create the SAS Core Data Set.
7. Sort the SAS Core Data Set by the scrambled matchcode.
8. Re-link other OLRDB data sets to the new Core Data Set.

Step 1. Locate the core data elements on the new OMF, identify changes, and update program and recoding tables.

Modifications of some kind are usually incorporated in the new OMF to accommodate changes in information and reporting requirements which occur over time. The core data elements have, in the past, been fairly stable. However, some data elements have occupied different locations on the OMF over the years and the data values for some data elements have changed along the way. These kinds of changes must be identified when new OMF information is being added to the core data sets.

Locate each of the core data elements in the OMF update documentation (U.S. Army Military Personnel Center, 1983). Compare the location on the OMF update file record with that coded in the extraction program (and listed in Table 8). If there are any changes, modify the input statement in the extraction program (see Appendix A) to extract the data element from the new location. Also determine if the data values have been changed from those in the previous year. This comparison can be performed by utilizing a listing of the SAS format for each of the nondate core data elements. The name of the SAS format for each data element is also listed in Table 8.

Table 8
Location of Core Data Elements on the OMF

Core Data Element	Location on OMF	Table No.	SAS Format
MPC (used for extract)	1		$MPC
SSN	2-10		
NAME	11-37		
TGRA	39-41	17	$TGRA
TDOR	43-48		
VSSSN (used for edit)	72		$VSSSN
BABR	73-74	1	$BABR
COMPT	77	5	$COMPT
DTRA	84-89		
BPED	90-95		
EADC	96-101		
CURSA	106	6	$CURSA
ORAPT	113	11	$ORAPT
SOC	114	15	$SOC
NODA	150-151		
NOADC	152-153		
BYRGP	154-155		
ETHGP	213	7	$ETHGP
REDCAT	301	13	$REDCAT
MEL	397	10	$MEL
DOB	491-496		
COBO	497-498	4	$GEOLC
SEX	501	14	$SEX
MARST	516	9	$MARST
CELC	570	3	$CELC
RCEAS1	594-596	12	$RCEAS
RCEAS2	609-611	12	$RCEAS
RCEAS3	624-626	12	$RCEAS
PHDT	715-774		$PHDT
RSCD (used for extract)	2646		$RSCD
SPD	2656-2658	16	
SEPDT	2659-2664		
FACD (ADSPEC)	2682-2683	8	$SPEC
BRCD (INSPEC)	2684-2685	2	$SPEC

The table number after the core data element location in Table 8 above denotes that a recode table exists for that data element. All nondate fields have such a table with the exception of the three data elements which are used for extract and edit only and are not contained on the core data sets. (See Appendix L.)

The recode tables reside as members of a partitioned data set maintained by the OLRDB data manager. They are referred to by numbers 1-17. They are all designed to change the 'old' code to a recoded or 'new' value, if one is needed.

As shown in Appendix L, the format of each table is to have the old value left-justified in positions 1-3 and the new value in positions 5-7. Many of the data elements require no recoding so the new values contain blanks. The update program looks for a nonblank new value in the first entry of the table to determine if a recode is desired. If there are any blank new values, no recode is performed. Therefore, when recoding is necessary, every value listed must contain a 'new' value (even if it is the repetition of the 'old' value) because the program will expect one.

The update program uses a binary search technique to ensure the greatest efficiency for the table look-up process. This technique starts at the mid-point of a table and compares the value of the newly extracted data element to the value in positions 1-3. Depending on whether the extracted value is greater or less than the mid-point value, the program adds or subtracts an appropriate 'delta' value to the mid-point location and compares the extracted value to the next entry. Using this technique, fewer table entries are examined before a match is found for the extracted value than if the table had been searched sequentially from first entry to last. The one requirement of the binary search technique is that the table must have an odd number of entries, so in some cases the last entry is repeated to achieve this end.

If the new OMF documentation identifies the need to recode a core data element, the appropriate table must be changed to reflect the new values. All the values which currently exist in positions 1-3 must be kept since the previously extracted data are reprocessed with each update of the core data sets. New values which can be extracted from the new OMF must be added to the list of values in positions 1-3. These data values are examined to ensure that all codes extracted are valid. All data values in positions 1-3 of the table must be in ascending order or the program will stop processing. New values must be inserted in alphabetical or numerical order.

If no recode is required, the table update is completed. If previously extracted data values must be changed to new data values, positions 5-7 for each entry must be assigned the appropriate value. For example, say that basic branch (BABR) changes from alphabetic codes to numeric codes. Both the alphabetic and numeric codes must be listed in positions 1-3. Each alpha code must be assigned a numeric code in positions 5-7. For the numeric codes in positions 1-3, the numeric code must be repeated in positions 5-7. The proper recode will then be performed by the update program.

These tables can be modified by accessing the table in WYLBUR on the NIH computer system, making the modification, and resaving the table.

Note that there are some kinds of changes which will require program modifications. If a data element should be expanded in length, it will no longer 'fit' in the space reserved for it in the programs and on the files. If the length of the record on the OMF should change, the extract program would need to be changed to reflect the proper length.

Step 2. Extract the core data elements from the new OMF and SOMF.

A PL/I program extracts the core data elements from the annual OMF (see Appendix A). It creates a record which can be merged with master file input data from previous years. Since the OMF and SOMF have the same format, the same program can be used for both files. Job Control Language (JCL) describes the appropriate input and output files for each master file.

Each extract program selects commissioned officer records, extracts core data elements from the selected records, and creates an error file of duplicate records. Records with a military personnel code (MPC) equal to 'W' are bypassed since they belong to warrant officers. All other records belong to commissioned officers. The core data elements are written to file 'OUTFILE'. The social security number (SSN) is compared to that of the last record read. If a duplicate is identified, both records are written on error file 'ERR'.

Note that the duplicate records have already been written on the file containing the newly extracted core data elements. The update program selects the record having a verified SSN so the duplicate is ignored. However, the error file can be examined and specific duplicate records could be dropped if so desired. There were no duplicate records within the 1986 file. It appears that any duplicates that did exist were on the older files.

In addition to the core data elements, the extract program puts the last two digits of the fiscal year and a source file indicator on each record. Records from the OMF contain a '1'; SOMF records contain a '2'. They are fixed in the output record format as data elements 'TYR' and 'TID'.

The counts that are generated from the program describe (1) the total number of input records, (2) the number of error records, and (3) the number of warrant officer records bypassed.

Listings for each of the extract programs appear in Appendixes A and B. When a new yearly OMF is being processed, the following statements should be changed for the extract program:

Line 3: Enter the tape numbers associated with the new OMF input file as well as the tape number for the output file.

Line 14-85: Rearrange the OMF data elements as necessary to comply with any new data element locations. Make sure the total length of the input record remains 3800 bytes.

Line 88: Change the '86' to the year being processed.

Line 174-175: Enter the dataset name and tape numbers for the new OMF input file.

Line 176,179: Change the '86' portion of the output dataset name to reflect the year being added.

Line 177: Enter the tape number of the output file containing the extracted core data.

The same changes should be made relative to the SOMF. The listing in Appendix B shows that MSS rather than tape was utilized for the output file due to the smaller number of records on the SOMF.

Frequency counts should be run on the data values for the extracted data to ensure that it matches the OMF Documentation (see Appendix D).

Step 3: Merge the newly extracted data and the old file containing records from all previous years.

The merge program sorts together the newly extracted OMF and SOMF data with the old input file containing the OMF, SOMF, and MLF extracted data from previous years (see Appendix F). It also reads in corrected records which were unresolved in an earlier run. The key field for the merge is the social security number. Since these files contain core data elements as they were found on the master file, social security number has not yet been encrypted to the matchcode.

The merge program is a utility program supported by the National Institutes of Health (NIH) Computer Center. The input files are sequentially labelled SORTIN01, SORTIN02, and SORTIN03. They identify the input file from the previous years, the newly extracted OMF data, and the newly extracted SOMF data respectively. SORTOUT identifies the output file of merged data.

The merge statement itself describes the positions in the input records which are used to sequence (i.e., sort) the resulting file. Social security number is in positions 1-9, fiscal year is in 10-11, and source file is in 12. This means that the merged file is sorted by source file within fiscal year within social security number.

The only statements which need to be changed are JCL statements which identify the tapes and datasets being used.

Step 4: Execute the update program.

The update program performs validity edits, consistency checks, data value conversions, and derived data generation. It creates the OLRDB Longitudinal Data Set, a cross-reference file, and an error file (see Appendix G).

The data input to the update program includes both previously processed records and newly extracted records resulting from the merge process in Step 3. In this manner, the new data can be utilized to resolve some inconsistencies which may have been detected in the previous execution of the program. It also provides the means to bring all the data, both old and new, up-to-date with the most current coding schemes. This is accomplished via the table input described in Step #1.

The update program is written in PL/I. It has already been compiled and is stored as a load module in a load library. This means that the program is ready to process the data; no compile time is necessary. The only changes required are in JCL to identify the tapes to be used as input, the year of the OMF update, and the names of the input and output files.

Line 1: The job is run in class C and needs 250 seconds of CPU time.

Line 2-3: The job requires MSS for the error file and TAPE for the other files.

Line 8: Identify the tape numbers to be used.

Line 9: Execute the procedure 'DSSCR' which scratches the named dataset from the storage medium described. In this case, the old version of the error file is scratched.

Line 10: Execute the program E1008 which is the update program. The '86' should be changed to reflect the fiscal year of OMF data being added to the file.

Line 11: This identifies the load library from which the program is executed.

Line 12-13: Update these statements to reflect the name and tape number of the input file.

Line 17-19: Update these statements to reflect the name and tape numbers of the output longitudinal file.

Line 20-21: Update these statements to reflect the name and tape number of the cross-reference file.

The update program generates various counts to describe the program results. They have been described in the earlier discussion of the program to create the Longitudinal Data Set. The last count should be carefully evaluated and compared to earlier runs. This count identifies the number of data elements which were filled with blanks because the original data value did not match the acceptable values in the table associated with that data element. An unusually high count could mean that the table was missing a valid data value. The resulting SAS frequency count report will aid in the evaluation of unacceptable data.

There is one condition which could cause the program to stop before completion. The program expects the values in positions 1-3 of each recode table to be in ascending sequence. It checks for this. If they are not in ascending sequence, the program stops processing. It prints a message on the program output which identifies the table name and the position in the table which caused the sequence error.

Step 5: Scramble the social security numbers on the Longitudinal Data Set.

Due to the need to maintain privacy in regard to SSN's, this step is described in a separate document available only to the OLRDB Data Manager.

Step 6: Create the SAS Core Data Set.

A SAS program is used to extract the most recent data segment from the Longitudinal Data Set record (see Appendix H). This is a simple data extraction of the last or current year segment of the Longitudinal Data Set. In addition, this program computes the retention rates for each officer for each 2-year span between 1979 and 1989.

The only lines which need to be changed are those JCL statements which contain tape numbers or dataset names.

Step 7: Sort the SAS Core Data Set by the scrambled matchcode.

A SAS sort procedure is used to sort the OLRDB SAS Core Data Set by the scrambled matchcode. As with previous jobs, the tape number and dataset names must be updated to reflect the input and

output files. This sort is necessary if other files are going to be merged with the SAS Core Data Set by the matchcode. The merging process requires both files to be sorted on the match field, in this case, the encrypted SSN found in MATCHCOD.

Step 8: Run new match programs on other OLRDB data sets, such as ROTC or training data sets, which are affected by new data on the core data sets.

This step must be executed by the OLRDB Data Manager to maintain other data sets of the OLRDB. They contain variables indicating whether or not the individuals in those data sets are also found on the OLRDB SAS Core Data Set. The ROTC Advanced Camp and Commissioned Data Sets are examples of such files. They should be rematched to the new SAS Core Data Set to update the matched cases with another year of OMF data.

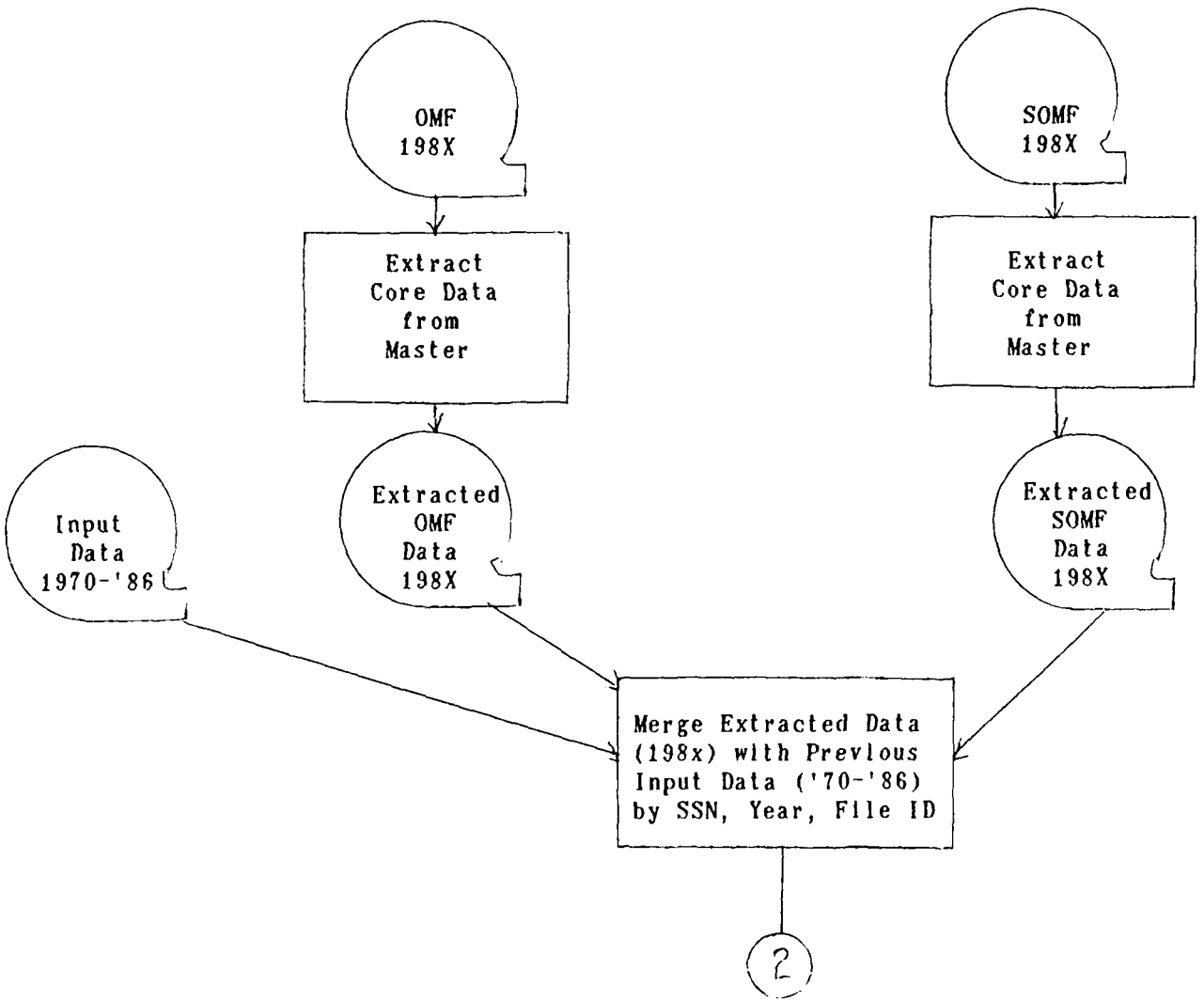
Data Correction Procedure

The error file contains the extracted records for those officers whose data were inconsistent with the dates found on the OMF. A listing of this file can be examined to determine what data are available for each officer. In most cases, the problem is in the social security number. There are officers who are missing all but 1 year of OMF data based on the date of entry on active duty in current tour. There are other officers who have a gap in the years of OMF data available, unexplained by separation or re-entry. Most likely, some of the stray records have miscoded SSN's which, if corrected, would fill in some of the gaps in other officer records.

Sorting by name and/or date of birth could help identify probable matches. Much of the resolution will require manual evaluation and validation with other Army documents to ensure proper correction.

The data records can be corrected with WYLBUR on the NIH computer system. The corrected records could then be merged together with the original input data and used as input to the next update of the OLRDB core data sets.

Figure 4
Flow of Data for Update of Core Data Set



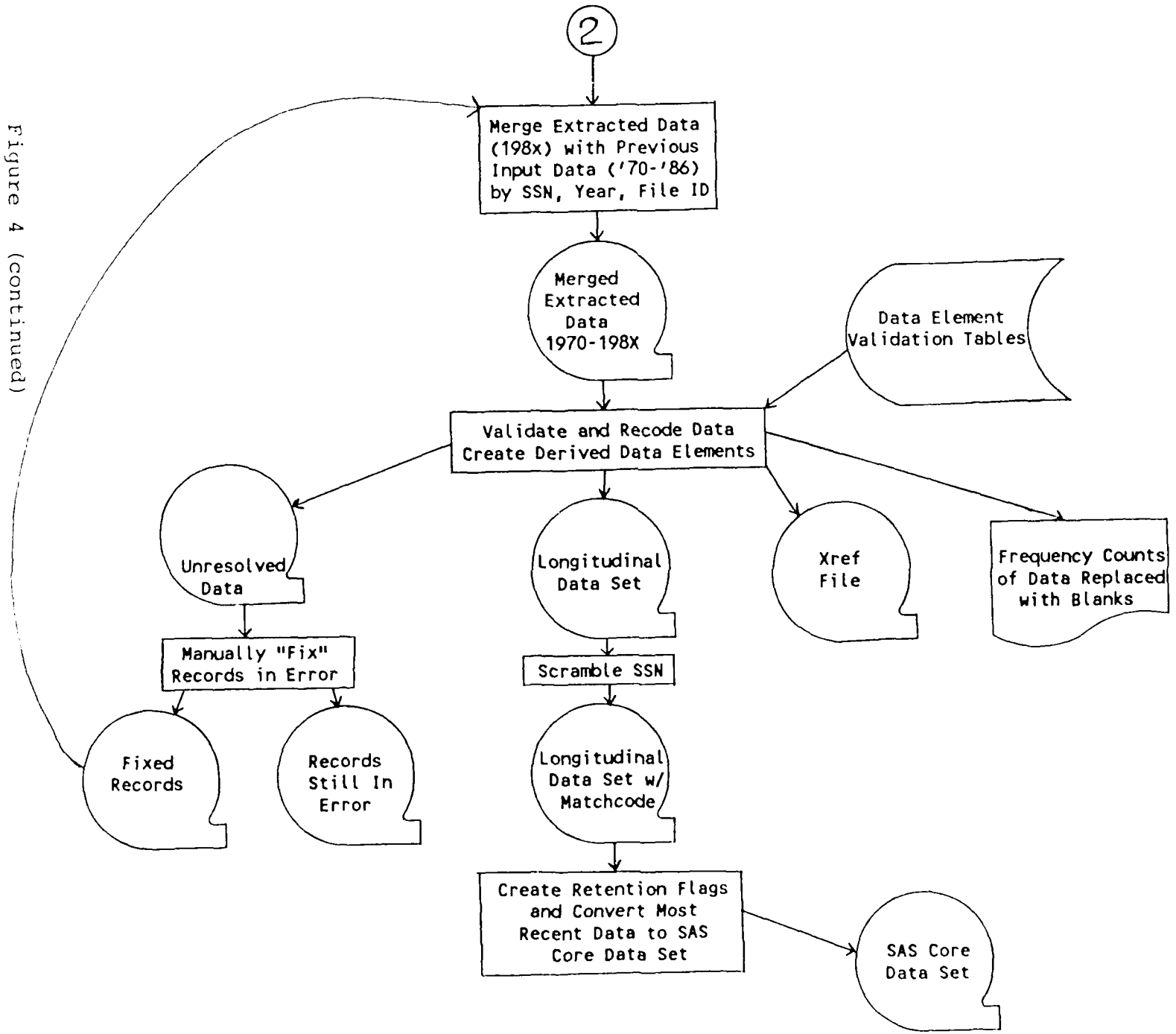


Figure 4 (continued)

SUMMARY AND CONCLUSIONS

Two key data sets of the Officer Longitudinal Research Data Base (OLRDB) were created from master files for the years 1970 through 1986. The data used to build the SAS Core Data Set and the Longitudinal Data Set were extracted from the Officer Master File, Separated Officer Master File, and loss records from the DMDC Master and Loss File for the years available.

Specific data elements were selected from each file which would provide data about the characteristics and active duty history of each officer. Procedures were developed to ensure the validity and consistency of the selected data. The social security number for each officer was encrypted to comply with privacy regulations.

The SAS Core Data Set was created to serve as the heart of the OLRDB. It functions as a control data set to link other OLRDB data sets together. It also functions as an important source of historical data about former and current active duty Army officers. The SAS Core Data Set is a Statistical Analysis System (SAS) data set which provides the informational and functional capabilities to support a wide range of research applications. The histories of 287,186 officers are contained on the SAS Core Data Set.

The Longitudinal Data Set functions as the source of annual core data for officers on active duty during the years 1979 through 1989. The officers contained on this data set are exactly the same officers contained on the SAS Core Data Set. The OMF-based core data elements from each year of active duty after 1978 are stored on the Longitudinal Data Set for reference and analysis. Core data from the final year of officers who separated between 1970 and 1978 are also stored on this data set. The separation history contained on the Longitudinal Data Set includes the separation date and reason for up to five separations for each officer.

The process used to create these two data sets generated two other files which support the update function. The unresolved data file contains the records for those officers whose records were found to have missing or inconsistent master file data. Only 5,810 officers, or 2% of all officers extracted from the master files, contained unresolved data. The cross-reference file contains key identifying information for all officers, whether they were on the core data sets or the unresolved data file. The function of the cross-reference file is to aid in the correction of the records on the unresolved data file by enabling searches and comparisons with all officers.

A procedure was developed to enable the OLRDB Data Manager to easily update the Longitudinal and SAS Core Data Sets with new data from the updated Officer Master File. The core data update procedure utilizes tables of valid values for each core data element to perform data validation. These tables can be easily updated to reflect new coded values for the core data elements in the future. The update process incorporates corrected records from the previously unresolved data file as well as records from OMF updates.

Finally, the usefulness of the SAS Core Data Set for research applications was demonstrated with a simple analysis of the retention of those officers on active duty who achieved the rank of 2nd Lieutenant in fiscal year 1979. Various frequency tables were used to display these officers by source of original appointment and basic branch. The separations from active duty of any of the officers in the sample group were analyzed by year, by separation program designator, by source of original appointment, and by basic branch. An analysis of the separations which occurred due to the expiration of term of service generated interesting results as to which branches and sources were more likely than others to retain their officers. Although the analysis was not complete enough to draw final conclusions, it clearly demonstrated that the SAS Core Data Set will provide a new and powerful capability for research on officer development and utilization.

REFERENCES

Defense Manpower Data Center. (1975). Master and Loss Files: Coding and Data Element Description. Unpublished manuscript.

Department of the Army Headquarters. (1973). Separation Program Designators (Army Regulation 635-5-1).

Hughes, Joan Kirby. (1979). PL/I Structured Programming. John Wiley & Sons, Inc., New York.

Rachford, D.L. (1984). Building the Officer Longitudinal Data Base (OLRDB). Army Research Institute, Leadership and Management Technical Area Working Paper 84-07.

U.S. Army Military Personnel Center. (1983). Automated Data System Manual, OMF Update System, Officer Master File Users Information Manual. (Available from U.S. Army Military Personnel Center, DAPC-PSD-S, 200 Stovall St., Alexandria, VA 22332)

```
1.      //EPXOMF86 JOB (WTFF,748,C,1000),FU,REGION=2000K
2.      /*ROUTE XEQ TAPE
3.      /*MESSAGE 036244;035186;036063;007277,W
4.      /*UNNUMBERED
5.      //*     PLIEXT.OMF86.D022687 ON FILE45
6.      //H1 EXEC PLIXCOMP
7.      //COMP.SYSIN DD *
8.       DUMP:
9.           PROC OPTIONS(MAIN);
10.          DCL IN_RECCHAR CHAR(3800);
11.          DCL OLDREC CHAR(3800);
12.          DCL OLDSSN PIC'(9)9';
13.          DCL P POINTER;
14.          DCL 1 IN_REC BASED(P),
15.               2 MPC CHAR(1),
16.               2 SSN PIC'(9)9',
17.               2 NAME CHAR(27),
18.               2 X2 CHAR(1),
19.               2 TGRA CHAR(3),
20.               2 X3 CHAR(1),
21.               2 TDOR CHAR(6),
22.               2 X4 CHAR(23),
23.               2 VSSN CHAR(1),
24.               2 BABR CHAR(2),
25.               2 X5 CHAR(2),
26.               2 COMPT CHAR(1),
27.               2 X6 CHAR(6),
28.               2 DTRA CHAR(6),
29.               2 BPED CHAR(6),
30.               2 EADC CHAR(6),
31.               2 X7 CHAR(4),
32.               2 CURSA CHAR(1),
33.               2 X8 CHAR(6),
34.               2 ORAPT CHAR(1),
35.               2 SOC CHAR(1),
36.               2 X9 CHAR(4),
37.               2 CMAFS CHAR(3),
38.               2 AFCSM CHAR(3),
39.               2 X10 CHAR(25),
40.               2 NODA CHAR(2),
41.               2 NOADC CHAR(2),
42.               2 BYRGP CHAR(2),
43.               2 SYRGP CHAR(2),
44.               2 X11 CHAR(55),
45.               2 ETHGP CHAR(1),
46.               2 X12 CHAR(87),
47.               2 REDCAT CHAR(1),
48.               2 X13 CHAR(95),
49.               2 MEL CHAR(1),
50.               2 X14 CHAR(40),
51.               2 XCELC CHAR(1),
52.               2 X15 CHAR(6),
53.               2 XRCEAS1 CHAR(3),
54.               2 X16 CHAR(12),
55.               2 XRCEAS2 CHAR(3),
56.               2 X17 CHAR(12),
57.               2 XRCEAS3 CHAR(3),
58.               2 X18 CHAR(13),
59.               2 DOB CHAR(6),
60.               2 COBO CHAR(2),
```

```
                2 X19 CHAR(2),
                2 SEX CHAR(1),
                2 X20 CHAR(14),
                2 MARST CHAR(1),
                2 X21 CHAR(4),
                2 XNODA CHAR(1),
                2 X22 CHAR(48),
                2 CELC CHAR(1),
                2 X23 CHAR(23),
                2 RCEAS1 CHAR(3),
                2 X24 CHAR(12),
                2 RCEAS2 CHAR(3),
                2 X25 CHAR(12),
                2 RCEAS3 CHAR(3),
                2 X26 CHAR(88),
                2 PHDT CHAR(60),
                2 X271 CHAR(1871),
                2 RSCD CHAR(1),
                2 X272 CHAR(9),
                2 SPD CHAR(3),
                2 SEPDT CHAR(6),
                2 X28 CHAR(17),
                2 ADSPEC CHAR(2),
                2 INSPEC CHAR(2),
                2 X29 CHAR(1115);
           DCL 1 OUT_REC,
                2 SSN PIC'(9)9',
                2 TYR PIC'99' INIT(86),
                2 TID CHAR(1) INIT('1'),
                2 DOB CHAR(6),
                2 NAME CHAR(27),
                2 SEX CHAR(1),
                2 TGRA CHAR(3),
                2 TDOR CHAR(6),
                2 BPED CHAR(6),
                2 EADC CHAR(6),
                2 DTRA CHAR(6),
                2 SOC CHAR(1),
                2 SEPDT CHAR(6),
                2 SPD CHAR(3),
                2 BABR CHAR(2),
                2 INSPEC CHAR(2),
                2 ADSPEC CHAR(2),
                2 REDCAT CHAR(1),
                2 FILL1 CHAR(1) INIT(' '),
                2 ETHGP CHAR(1),
                2 BYRGP CHAR(2),
                2 PHDT CHAR(60),
                2 CMAFS CHAR(3),
                2 AFCSM CHAR(3),
                2 FILL2 CHAR(1) INIT(' '),
                2 CELC CHAR(1),
                2 MEL CHAR(1),
                2 RCEAS1 CHAR(3),
                2 RCEAS2 CHAR(3),
                2 RCEAS3 CHAR(3),
                2 MARST CHAR(1),
                2 NODA CHAR(2),
                2 NOADC CHAR(2),
                2 COMPT CHAR(1),
```

```
121.              2 CURSA CHAR(1),
122.              2 COBO CHAR(2),
123.              2 ORAPT CHAR(1),
124.              2 RSCD CHAR(1),
125.              2 MPC CHAR(1),
126.              2 VSSN CHAR(1);
127.          DCL NN(13) FIXED BIN(31) INIT((13) 0B);
128.          DCL 1 COUNT,
129.              2 CC CHAR(3) INIT(' '),
130.              2 N(13) PIC'(9)Z9' INIT((13) 0);
131.          DCL INFILE FILE RECORD INPUT SEQL ENV(CONSECUTIVE);
132.          DCL OUT FILE RECORD OUTPUT SEQL ENV(CONSECUTIVE);
133.          DCL ERR FILE RECORD OUTPUT SEQL ENV(CONSECUTIVE);
134.          DCL OUTFILE FILE RECORD OUTPUT SEQL ENV(CONSECUTIVE);
135.          ON ENDFILE(INFILE) GOTO EOF;
136.          OPEN FILE(INFILE),FILE(OUTFILE);
137.          P=ADDR(IN_RECCHAR);
138.          READ FILE(INFILE) INTO(IN_REC);
139.          NN(1)=NN(1)+1B;
140.          IF IN_REC.MPC = 'W' THEN DO;
141.             NN(3)=NN(3)+1B;
142.             GOTO READ;
143.          END;
144.          OUT_REC=IN_REC,BY NAME;
145.          WRITE FILE(OUT) FROM(OUT_REC);
146.          OLDSSN=IN_REC.SSN;
147.          OLDREC=IN_RECCHAR;
148.       READ:
149.          READ FILE(INFILE) INTO(IN_REC);
150.          NN(1)=NN(1)+1B;
151.          IF IN_REC.MPC = 'W' THEN DO;
152.             NN(3)=NN(3)+1B;
153.             GOTO READ;
154.          END;
155.          OUT_REC=IN_REC,BY NAME;
156.          WRITE FILE(OUT) FROM(OUT_REC);
157.          IF OLDSSN=IN_REC.SSN THEN DO;
158.             WRITE FILE(ERR) FROM(OLDREC);
159.             WRITE FILE(ERR) FROM(IN_REC);
160.             NN(2)=NN(2)+1B;
161.          END;
162.          OLDSSN=IN_REC.SSN;
163.          OLDREC=IN_RECCHAR;
164.          GOTO READ;
165.       EOF:
166.          DO I=1 TO 13;
167.             N(I)=NN(I);
168.          END;
169.          WRITE FILE(OUTFILE) FROM (COUNT);
170.          CLOSE FILE(INFILE),FILE(OUTFILE);
171.       END DUMP;
172.      //H2 EXEC PLIXLDGO
173.      //GO.OUTFILE DD SYSOUT=A,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=26600)
174.      //GO.INFILE DD DSN=WTFFEPX.OMF86,UNIT=TAPE,DISP=OLD,
175.      //   VOL=SER=(036244,035186,036063)
176.      //GO.OUT DD DSN=WTFFEPX.OMF86X,UNIT=TAPE,DISP=(,KEEP),
177.      //   VOL=SER=007277,
178.      //   DCB=(RECFM=FB,LRECL=185,BLKSIZE=12950)
179.      //GO.ERR DD DSN=WTFFEPX.ERROR86,UNIT=FILE,VOL=SER=FILE55,
180.      //   DISP=(,KEEP),DCB=(RECFM=FB,LRECL=3800,BLKSIZE=11400),
```

```
181.      //  SPACE=(TRK,(5,5),RLSE)
```

```
1.      //EPXSOM86 JOB (WTFF,748),FU
2.      /*ROUTE XEQ MSS
3.      /*ROUTE XEQ TAPE
4.      /*MESSAGE 068197
5.      /*UNNUMBERED
6.      //*      PLIEXT.SOMF86.D022687 ON FILE45
7.      //H1 EXEC PLIXCOMP
8.      //COMP.SYSIN DD *
9.       DUMP:
10.          PROC OPTIONS(MAIN);
11.          DCL IN_RECCHAR CHAR(3800);
12.          DCL OLDREC CHAR(3800);
13.          DCL OLDSSN PIC'(9)9';
14.          DCL P POINTER;
15.          DCL 1 IN_REC BASED(P),
16.               2 MPC CHAR(1),
17.               2 SSN PIC'(9)9',
18.               2 NAME CHAR(27),
19.               2 X2 CHAR(1),
20.               2 TGRA CHAR(3),
21.               2 X3 CHAR(1),
22.               2 TDOR CHAR(6),
23.               2 X4 CHAR(23),
24.               2 VSSN CHAR(1),
25.               2 BABR CHAR(2),
26.               2 X5 CHAR(2),
27.               2 COMPT CHAR(1),
28.               2 X6 CHAR(6),
29.               2 DTRA CHAR(6),
30.               2 BPED CHAR(6),
31.               2 EADC CHAR(6),
32.               2 X7 CHAR(4),
33.               2 CURSA CHAR(1),
34.               2 X8 CHAR(6),
35.               2 ORAPT CHAR(1),
36.               2 SOC CHAR(1),
37.               2 X9 CHAR(4),
38.               2 CMAFS CHAR(3),
39.               2 AFCSM CHAR(3),
40.               2 X10 CHAR(25),
41.               2 XNODA CHAR(2),
42.               2 XNOADC CHAR(2),
43.               2 BYRGP CHAR(2),
44.               2 SYRGP CHAR(2),
45.               2 X11 CHAR(55),
46.               2 ETHGP CHAR(1),
47.               2 X12 CHAR(87),
48.               2 REDCAT CHAR(1),
49.               2 X13 CHAR(95),
50.               2 MEL CHAR(1),
51.               2 X14 CHAR(40),
52.               2 CELC CHAR(1),
53.               2 X15 CHAR(6),
54.               2 RCEAS1 CHAR(3),
55.               2 X16 CHAR(12),
56.               2 RCEAS2 CHAR(3),
57.               2 X17 CHAR(12),
58.               2 RCEAS3 CHAR(3),
59.               2 X18 CHAR(13),
60.               2 DOB CHAR(6),
```

```
                2 COBO CHAR(2),
                2 X19 CHAR(2),
                2 SEX CHAR(1),
                2 X20 CHAR(14),
                2 MARST CHAR(1),
                2 X21 CHAR(4),
                2 NODA CHAR(1),
                2 X22 CHAR(48),
                2 NOADC CHAR(1),
                2 X23 CHAR(23),
                2 XRCEAS1 CHAR(3),
                2 X24 CHAR(12),
                2 XRCEAS2 CHAR(3),
                2 X25 CHAR(12),
                2 XRCEAS3 CHAR(3),
                2 X26 CHAR(88),
                2 PHDT CHAR(60),
                2 X271 CHAR(1871),
                2 RSCD CHAR(1),
                2 X272 CHAR(9),
                2 SPD CHAR(3),
                2 SEPDT CHAR(6),
                2 X28 CHAR(17),
                2 ADSPEC CHAR(2),
                2 INSPEC CHAR(2),
                2 X29 CHAR(1115);
          DCL 1 OUT_REC,
                2 SSN PIC'(9)9',
                2 TYR PIC'99' INIT(86),
                2 TID CHAR(1) INIT('2'),
                2 DOB CHAR(6),
                2 NAME CHAR(27),
                2 SEX CHAR(1),
                2 TGRA CHAR(3),
                2 TDOR CHAR(6),
                2 BPED CHAR(6),
                2 EADC CHAR(6),
                2 DTRA CHAR(6),
                2 SOC CHAR(1),
                2 SEPDT CHAR(6),
                2 SPD CHAR(3),
                2 BABR CHAR(2),
                2 INSPEC CHAR(2),
                2 ADSPEC CHAR(2),
                2 REDCAT CHAR(1),
                2 FILL1 CHAR(1) INIT(' '),
                2 ETHGP CHAR(1),
                2 BYRGP CHAR(2),
                2 PHDT CHAR(60),
                2 CMAFS CHAR(3),
                2 AFCSM CHAR(3),
                2 FILL2 CHAR(1) INIT(' '),
                2 CELC CHAR(1),
                2 MEL CHAR(1),
                2 RCEAS1 CHAR(3),
                2 RCEAS2 CHAR(3),
                2 RCEAS3 CHAR(3),
                2 MARST CHAR(1),
                2 FILL3 CHAR(1) INIT(' '),
                2 NODA CHAR(1),
```

```
121.              2 FILL4 CHAR(1) INIT(' '),
122.              2 NOADC CHAR(1),
123.              2 COMPT CHAR(1),
124.              2 CURSA CHAR(1),
125.              2 COBO CHAR(2),
126.              2 ORAPT CHAR(1),
127.              2 RSCD CHAR(1),
128.              2 MPC CHAR(1),
129.              2 VSSN CHAR(1);
130.         DCL NN(13) FIXED BIN(31) INIT((13) 0B);
131.         DCL 1 COUNT,
132.              2 CC CHAR(3) INIT(' '),
133.              2 N(13) PIC'(9)Z9' INIT((13) 0);
134.         DCL INFILE FILE RECORD INPUT SEQL ENV(CONSECUTIVE);
135.         DCL OUT FILE RECORD OUTPUT SEQL ENV(CONSECUTIVE);
136.         DCL ERR FILE RECORD OUTPUT SEQL ENV(CONSECUTIVE);
137.         DCL OUTFILE FILE RECORD OUTPUT SEQL ENV(CONSECUTIVE);
138.         ON ENDFILE(INFILE) GOTO EOF;
139.         OPEN FILE(INFILE),FILE(OUTFILE);
140.         P=ADDR(IN_RECCHAR);
141.         READ FILE(INFILE) INTO(IN_REC);
142.         NN(1)=NN(1)+1B;
143.         IF IN_REC.MPC = 'W' THEN DO;
144.            NN(3)=NN(3)+1B;
145.            GOTO READ;
146.         END;
147.         OUT_REC=IN_REC,BY NAME;
148.         WRITE FILE(OUT) FROM(OUT_REC);
149.         OLDSSN=IN_REC.SSN;
150.         OLDREC=IN_RECCHAR;
151.    READ:
152.         READ FILE(INFILE) INTO(IN_REC);
153.         NN(1)=NN(1)+1B;
154.         IF IN_REC.MPC = 'W' THEN DO;
155.            NN(3)=NN(3)+1B;
156.            GOTO READ;
157.         END;
158.         OUT_REC=IN_REC,BY NAME;
159.         WRITE FILE(OUT) FROM(OUT_REC);
160.         IF OLDSSN=IN_REC.SSN THEN DO;
161.            WRITE FILE(ERR) FROM(OLDREC);
162.            WRITE FILE(ERR) FROM(IN_REC);
163.            NN(2)=NN(2)+1B;
164.         END;
165.         OLDSSN=IN_REC.SSN;
166.         OLDREC=IN_RECCHAR;
167.         GOTO READ;
168.    EOF:
169.         DO I=1 TO 13;
170.            N(I)=NN(I);
171.         END;
172.         WRITE FILE(OUTFILE) FROM (COUNT);
173.         CLOSE FILE(INFILE),FILE(OUTFILE);
174.    END DUMP;
175.  //H2 EXEC PLIXLDGO
176.  //GO.OUTFILE DD SYSOUT=A,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=26600)
177.  //GO.INFILE DD DSN=WTFFEPX.SOMF86,UNIT=TAPE,DISP=OLD,
178.  //   VOL=SER=068197
179.  //GO.OUT DD DSN=WTFFEPX.SOMF86X,UNIT=MSS,DISP=(OLD,CATLG),
180.  //   SPACE=(CYL,(100,50),RLSE),
```

```
//   DCB=(RECFM=FB,LRECL=185,BLKSIZE=12950)
//GO.ERR DD DSN=WTFFEPX.ERRORS86,UNIT=FILE,VOL=SER=FILE55,
//   DISP=(,KEEP),DCB=(RECFM=FB,LRECL=3800,BLKSIZE=11400),
//   SPACE=(TRK,(5,5),RLSE)
```

```
0.1       PLI.REFORM.MLF
1.      //EPXRFMLF JOB (WTFF,748,C),FU
2.      /*MESSAGE 025448
3.      /*ROUTE XEQ TAPE
4.      //*     PLIREFORM.MLF ON FILE45
5.      //H1 EXEC PLIXCOMP
6.      //COMP.SYSIN DD *
7.       MSTRIP: PROCEDURE OPTIONS (MAIN);
8.       DCL (OFYL,IFYL) FILE SEQL ENV(CONSECUTIVE),
9.          EOF BIT(1) INIT('0'B),
10.         (NIN,NOUT) FIXED DEC(6) INIT(0);
11.                                 /*                          */
12.      DCL 1 RECM,
13.          2 SSN FIXED BIN(31),      /* 1-4 */
14.          2 TOTASRVX FIXED BIN(15) /* 5-6 */
15.          2 PROG FIXED BIN(15)      /* 7-8 */
16.          2 DOG FIXED BIN(15)       /* 9-10 */
17.          2 CELCX CHAR(1),          /* 11, HYEC */
18.          2 FIL2 CHAR(1),           /* 12 */
19.          2 TGRAX CHAR(1),          /* 13, PG */
20.          2 FIL3 CHAR (1),          /* 14 */
21.          2 YDOBX CHAR(1),          /* 15 */
22.          2 MDOBX CHAR(1),          /* 16 */
23.          2 DDOBX CHAR(1),          /* 17 */
24.          2 SERVICEX FIXED BIN(15) /* 18 */
25.          2 RACEX FIXED BIN(15)     /* 19 */
26.          2 SOCX CHAR(1),           /* 20 */
27.          2 FIL5 CHAR(1),           /* 21 */
28.          2 MARSTX CHAR(1),         /* 22, MS */
29.          2 NODX CHAR(1),           /* 23, DEPS */
30.          2 NUMCEPX CHAR(1),           /* 24 */
31.          2 ETHGPX CHAR(1),         /* 25, ETHGP */
32.          2 REDCATX CHAR(1),        /* 26, RETH */
33.          2 SEXX CHAR(1),           /* 27 */
34.          2 EDMENTX CHAR(13),          /* 28-40 */
35.          2 SPD CHAR(3),            /* 41-43 */
36.          2 FIL8 CHAR(1),           /* 44 */
37.          2 YSEPDTX CHAR(1),        /* 45 */
38.          2 MSEPDTX CHAR(1),        /* 46 */
39.          2 DSEPDTX CHAR(1),        /* 47 */
40.          2 FIL9 CHAR(5),           /* 48-52 */
41.          2 YTDORX CHAR(1),         /* 53, DCPG */
42.          2 MTDORX CHAR(1),         /* 54 */
43.          2 YEADCX CHAR(1),         /* 55, DOE */
44.          2 MEADCX CHAR(1),         /* 56 */
45.          2 COMPTX CHAR(1),         /* 57, COMP */
46.          2 FIL10 CHAR(7),          /* 58-64 */
47.          2 YBPEDX CHAR(1),         /* 65, PEBD */
48.          2 MBPEDX CHAR(1),         /* 66 */
49.          2 DBPEDX CHAR(1),         /* 67 */
50.          2 FIL11 CHAR(28),         /* 68-95 */
51.          2 NAME4 CHAR(4),          /* 96-99 */
52.          2 LOSSX CHAR(1);           /* 100 */
53.                                 /*                          */
54.      DCL 1 RAWM,
55.          2 SSN PIC'(9)9',          /* 1-9 */
56.          2 DOB(3) PIC '99',        /* 10-15 */
57.          2 NAME4 CHAR(4),          /* 16-19 */
58.          2 BLANK1 CHAR(23) INIT(' '), /* 20-42 */
59.          2 SEX PIC '9',            /* 43 */
```

```
60.          2 TGRA PIC 'Z99',          /* 44-46 */
61.          2 TDOR(3) PIC '99',        /* 47-52 */
62.          2 BPED(3) PIC '99',        /* 53-58 */
63.          2 EADC(3) PIC '99',        /* 59-64 */
64.          2 BLANK3 CHAR(6) INIT(' '),  /* 65-70 */
65.          2 SOC PIC '9',             /* 71 */
66.          2 SEPDT(3) PIC '99',       /* 72-77 */
67.          2 SPD CHAR(3),             /* 78-80 */
68.          2 BLANK4 CHAR(6) INIT(' '),  /* 81-86 */
69.          2 REDCAT PIC '9',          /* 87 */
70.          2 ETHGP PIC '99',           /* 88-89 */
71.          2 BLANK5 CHAR(1) INIT(' '), /* 90 */
72.          2 BLANK6 CHAR(60) INIT(' '), /* 91-150 */
73.          2 BLANK7 CHAR(5) INIT(' '),  /* 151-155 */
74.          2 CELC PIC'99',              /* 156-157 */
75.          2 BLANK8 CHAR(10) INIT(' '), /* 158-167 */
76.          2 MARST PIC '9',           /* 168 */
77.          2 BLANK9 CHAR(2) INIT(' '), /* 169-170 */
78.          2 NOD PIC '99',            /* 171-172 */
79.          2 COMPT PIC '9',           /* 173 */
80.          2 BLANK10 CHAR(7) INIT(' '); /* 173-180 */
81.          /*                         */
82.       DCL BIN(25) FIXED BIN(15),
83.          PBIN POINTER,
84.          ADDR BUILTIN;
85.       DCL 1 BINX BASED (PBIN),
86.          2 ZAP1 CHAR(1), 2 CELCX CHAR(1),
87.          2 ZAP2 CHAR(1), 2 TGRAX CHAR(1),
88.          2 ZAP3 CHAR(1), 2 SOCX CHAR(1),
89.          2 ZAP4 CHAR(1), 2 MARSTX CHAR(1),
90.          2 ZAP5 CHAR(1), 2 NODX CHAR(1),
91.          2 ZAP6 CHAR(1), 2 ETHGPX CHAR(1),
92.          2 ZAP7 CHAR(1), 2 REDCATX CHAR(1),
93.          2 ZAP8 CHAR(1), 2 SEXX CHAR(1),
94.          2 ZAP9 CHAR(1), 2 COMPTX CHAR(1),
95.          2 ZAP10 CHAR(1), 2 LOSSX CHAR(1),
96.          2 ZAP11 CHAR(1), 2 YDOBX CHAR(1),
97.          2 ZAP12 CHAR(1), 2 MDOBX CHAR(1),
98.          2 ZAP13 CHAR(1), 2 DDOBX CHAR(1),
99.          2 ZAP14 CHAR(1), 2 YSEPDTX CHAR(1),
100.         2 ZAP15 CHAR(1), 2 MSEPDTX CHAR(1),
101.         2 ZAP16 CHAR(1), 2 DSEPDTX CHAR(1),
102.         2 ZAP17 CHAR(1), 2 YTDORX CHAR(1),
103.         2 ZAP18 CHAR(1), 2 MTDORX CHAR(1),
104.         2 ZAP19 CHAR(2),
105.         2 ZAP20 CHAR(1), 2 YEADCX CHAR(1),
106.         2 ZAP21 CHAR(1), 2 MEADCX CHAR(1),
107.         2 ZAP22 CHAR(2),
108.         2 ZAP23 CHAR(1), 2 YBPEDX CHAR(1),
109.         2 ZAP24 CHAR(1), 2 MBPEDX CHAR(1),
110.         2 ZAP25 CHAR(1), 2 DBPEDX CHAR(1);
111.      /*                            */
112.      DCL 1 XBIN BASED (PBIN),
113.         2 CELC FIXED BIN(15),
114.         2 TGRA FIXED BIN(15),
115.         2 SOC FIXED BIN(15),
116.         2 MARST FIXED BIN(15),
117.         2 NOD FIXED BIN(15),
118.         2 ETHGP FIXED BIN(15),
119.         2 REDCAT FIXED BIN(15),
```

```
120.          2 SEX FIXED BIN(15),
121.          2 COMPT FIXED BIN(15),
122.          2 LOSS FIXED BIN(15),
123.          2 DOB(3) FIXED BIN(15),
124.          2 SEPDT(3) FIXED BIN(15),
125.          2 TDOR (3) FIXED BIN(15),
126.          2 EADC (3) FIXED BIN(15),
127.          2 BPED(3) FIXED BIN(15);
128.                                    /*
129.                                    */
130.       OPEN FILE (IFYL) INPUT, FILE (OFYL) OUTPUT;
131.       ON ENDFILE (IFYL) EOF='1'B;
132.       READ FILE (IFYL) INTO (RECM);
133.       BIN(*)=0B; PBIN=ADDR(BIN),
134.       DO WHILE (¬EOF);
135.          NIN=NIN+1;
136.          BINX=RECM, BY NAME;
137.          DO;
138.              NOUT=NOUT+1;
139.              RAWM=XBIN, BY NAME;
140.              RAWM=RECM, BY NAME;
141.              WRITE FILE (OFYL) FROM (RAWM); END;
142.              READ FILE (IFYL) INTO (RECM); END;
143.       PUT SKIP DATA(NIN,NOUT);
144.       RETURN;
145.       END MSTRIP;
146.      //H2 EXEC PLIXLDGO
147.      //GO.OUTFILE DD SYSOUT=A,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=26600)
148.      //GO.IFYL DD DSN=WTFFEPX.LOSDD.P8412S,UNIT=TAPE,DISP=OLD,
149.      //  VOL=SER=025448
150.      //GO.OFYL DD DSN=WTFFEPX.MLFRF180,UNIT=TAPE,DISP=(,KEEP),
151.      //  DCB=(RECFM=FB,LRECL=180,BLKSIZE=12960)
```

C-3

```
1.    //EPXOMF JOB (WTFF,748,C,2000,2000),YOUNKMAN,REGION=6000K
2.    /*MESSAGE 007277
3.    /*ROUTE XEQ TAPE
4.    /*JOBOUT COPIES=2
5.    //*  SASFREQ.OMF ON FILE11
6.    /*UNNUMBERED
7.    //PROCLIB DD DSN=ZABCRUN.PROCLIB,DISP=SHR
8.    //STEP1 EXEC SAS516
9.    //IN DD DSN=WTFFEPX.OMF86X,VOL=SER=007277,UNIT=TAPE,DISP=OLD
10.   //SASLIB DD DSN=WRZ1KFD.OMF85.FORMATS,DISP=SHR
11.   //SYSIN DD *
12.   *
13.        THIS PROGRAM LISTS FREQUENCIES FROM THE OMF.
14.   ;
15.   DATA OMFFREQ;
16.   INFILE IN;
17.   INPUT SSN IB4. TYR $CHAR2. TID $CHAR1. DOBYY $CHAR2.
18.         DOBMM $CHAR2. DOBDD $CHAR2. NAME $CHAR27. SEX $CHAR1.
19.         TGRA $CHAR3. TDORYY $CHAR2. TDORMM $CHAR2. TDORDD $CHAR2.
20.         BPEDYY $CHAR2. BPEDMM $CHAR2. BPEDDD $CHAR2. EADCYY $CHAR2.
21.         EADCMM $CHAR2. EADCDD $CHAR2. DTRAYY $CHAR2. DTRAMM $CHAR2.
22.         DTRADD $CHAR2. SOC $CHAR1. SEPDTYY $CHAR2. SEPDTMM $CHAR2.
23.         SEPDTDD $CHAR2. SPD $CHAR3. BABR $CHAR2. BRCD $CHAR2.
24.         FACD $CHAR2. REDCAT $CHAR1. FILL1 $CHAR1. ETHGP $CHAR1.
25.         BYRGP $CHAR2. PHDT1YY $CHAR2. PHDT1MM $CHAR2. PHDT1DD $CHAR2.
26.         PHDT2YY $CHAR2. PHDT2MM $CHAR2. PHDT2DD $CHAR2. PHDT3YY $CHAR2.
27.         PHDT3MM $CHAR2. PHDT3DD $CHAR2. PHDT4YY $CHAR2. PHDT4MM $CHAR2.
28.         PHDT4DD $CHAR2. PHDT5YY $CHAR2. PHDT5MM $CHAR2. PHDT5DD $CHAR2.
29.         PHDT6YY $CHAR2. PHDT6MM $CHAR2. PHDT6DD $CHAR2. PHDT7YY $CHAR2.
30.         PHDT7MM $CHAR2. PHDT7DD $CHAR2. PHDT8YY $CHAR2. PHDT8MM $CHAR2.
31.         PHDT8DD $CHAR2. PHDT9YY $CHAR2. PHDT9MM $CHAR2. PHDT9DD $CHAR2.
32.         PHDT10YY $CHAR2. PHDT10MM $CHAR2. PHDT10DD $CHAR2. CMAFS $CHAR3.
33.         AFCSM $CHAR3. FILL2 $CHAR1. CELC $CHAR1. MEL $CHAR1.
34.         RCEAS1 $CHAR3. RCEAS2 $CHAR3. RCEAS3 $CHAR3. MARST $CHAR1.
35.         NODA $CHAR2. NOADC $CHAR2. COMPT $CHAR1. CURSA $CHAR1.
36.         COBU $CHAR2. ORAPT $CHAR1. RSCD $CHAR1. MPC $CHAR1.
37.         VSSN $CHAR1.;
38.   DROP SSN;
39.   PROC FREQ;
```

```
1.      //EPXSOMF JOB (WTFF,748,C,2000,2000),YOUNKMAN,REGION=6000K
2.      /*ROUTE XEQ MSS
3.      /*JOBOUT COPIES=2
4.      //*  SASFREQ.SOMF ON FILE11
5.      /*UNNUMBERED
6.      //PROCLIB DD DSN=ZABCRUN.PROCLIB,DISP=SHR
7.      //STEP1 EXEC SAS516
8.      //IN DD DSN=WTFFEPX.SOMF86X,DISP=SHR
9.      //SASLIB DD DSN=WRZ1KFD.OMF85.FORMATS,DISP=SHR
10.     //SYSIN DD *
11.     *
12.          THIS PROGRAM LISTS FREQUENCIES FROM THE SOMF.
13.     ;
14.     DATA SOMFFREQ;
15.     INFILE IN;
16.     INPUT SSN IB4. TYR $CHAR2. TID $CHAR1. DOBYY $CHAR2.
17.           DOBMM $CHAR2. DOBDD $CHAR2. NAME $CHAR27. SEX $CHAR1.
18.           TGRA $CHAR3. TDORYY $CHAR2. TDORMM $CHAR2. TDORDD $CHAR2.
19.           BPEDYY $CHAR2. BPEDMM $CHAR2. BPEDDD $CHAR2. EADCYY $CHAR2.
20.           EADCMM $CHAR2. EADCDD $CHAR2. DTRAYY $CHAR2. DTRAMM $CHAR2.
21.           DTRADD $CHAR2. SOC $CHAR1. SEPDTYY $CHAR2. SEPDTMM $CHAR2.
22.           SEPDTDD $CHAR2. SPD $CHAR3. BABR $CHAR2. BRCD $CHAR2.
23.           FACD $CHAR2. REDCAT $CHAR1. FILL1 $CHAR1. ETHGP $CHAR1.
24.           BYRGP $CHAR2. PHDT1YY $CHAR2. PHDT1MM $CHAR2. PHDT1DD $CHAR2.
25.           PHDT2YY $CHAR2. PHDT2MM $CHAR2. PHDT2DD $CHAR2. PHDT3YY $CHAR2.
26.           PHDT3MM $CHAR2. PHDT3DD $CHAR2. PHDT4YY $CHAR2. PHDT4MM $CHAR2.
27.           PHDT4DD $CHAR2. PHDT5YY $CHAR2. PHDT5MM $CHAR2. PHDT5DD $CHAR2.
28.           PHDT6YY $CHAR2. PHDT6MM $CHAR2. PHDT6DD $CHAR2. PHDT7YY $CHAR2.
29.           PHDT7MM $CHAR2. PHDT7DD $CHAR2. PHDT8YY $CHAR2. PHDT8MM $CHAR2.
30.           PHDT8DD $CHAR2. PHDT9YY $CHAR2. PHDT9MM $CHAR2. PHDT9DD $CHAR2.
31.           PHDT10YY $CHAR2. PHDT10MM $CHAR2. PHDT10DD $CHAR2. CMAFS $CHAR3.
32.           AFCSM $CHAR3. FILL2 $CHAR1. CELC $CHAR1. MEL $CHAR1.
33.           RCEAS1 $CHAR3. RCEAS2 $CHAR3. RCEAS3 $CHAR3. MARST $CHAR1.
34.           NODA $CHAR2. NOADC $CHAR2. COMPT $CHAR1. CURSA $CHAR1.
35.           COBO $CHAR2. ORAPT $CHAR1. RSCD $CHAR1. MPC $CHAR1.
36.           VSSN $CHAR1.;
37.     DROP SSN;
38.     PROC FREQ;
```

APPENDIX E

IDENTIFY AND STRIP DUPLICATE RECORDS


```
PLISTRIP.MLFREF
EPXSIMLF JOB (WTFF,748,C),FU
*ROUTE XEQ TAPE
*MESSAGE 063319
*         PLISTRIP.MLFREF ON FILE45
H! EXEC PLIXCOMP
COMP SYSIN DD *
ARI
    PROC OPTIONS(MAIN);
    /*                                                            */
    /*  THE PURPOSE OF THIS PROGRAM IS TO STRIP OFF THE           */
    /*  RECORDS THAT HAVE DUPLICATE SSN'S ON THE OFFICER'S        */
    /*  MASTER FILE. THE SEPERATED OFFICER'S MASTER FILE OR       */
    /*  THE MASTER LOSS FILE.                                     */
    /*                                                            */
    DCL 1 IN_REC,
        2 SSN PIC'(9)9',
        2 A CHAR(171);
    DCL SSNDUP PIC'(9)9';
    DCL BL CHAR(1) INIT(' ');
    DCL N(16) FIXED BIN(31) INIT((16) 0B);
    DCL 1 COUNT,
        2 CC CHAR(5) INIT(' '),
        2 NN(16) PIC'(7)Z9' INIT((16) 0);
    DCL OUTFILE FILE RECORD OUTPUT SEQL ENV(CONSECUTIVE);
    DCL INFILE FILE RECORD INPUT SEQL ENV(CONSECUTIVE);
    DCL INDUP FILE RECORD INPUT SEQL ENV(CONSECUTIVE);
    DCL OUTOK FILE RECORD OUTPUT SEQL ENV(CONSECUTIVE);
    DCL OUTDUP FILE RECORD OUTPUT SEQL ENV(CONSECUTIVE);
    ON ENDFILE(INFILE) BEGIN;
        IF SSNDUP=999999999 THEN GOTO EOF;
        SSN=999999999;
        GOTO TEST;
    END;
    ON ENDFILE(INDUP) BEGIN;
        IF SSN=999999999 THEN GOTO EOF;
        SSNDUP=999999999;
        GOTO TEST;
    END;
    OPEN FILE(INFILE),FILE(INDUP),FILE(OUTOK),FILE(OUTDUP),
         FILE(OUTFILE);
    READ FILE(INFILE) INTO(IN_REC);
    READ FILE(INDUP) INTO(SSNDUP);
    N(1)=N(1)+1B;
    N(2)=N(2)+1B;
TEST:
    /*                                                            */
    /*  THE FILES ARE SORTED IN ASCENDING ORDER AND THIS SECTION  */
    /*  OF CODE IS LOOKING FOR MATCHES.                           */
    /*                                                            */
    IF SSN<SSNDUP THEN DO;
        WRITE FILE(OUTOK)  FROM(IN_REC);
        N(3)=N(3)+1B;
        READ FILE(INFILE) INTO(IN_REC);
        N(1)=N(1)+1B;
        GOTO TEST;
    END;
    ELSE IF SSN=SSNDUP THEN DO;
        WRITE FILE(OUTDUP) FROM(IN_REC);
        N(4)=N(4)+1B;
```

```
60.                READ FILE(INFILE) INTO(IN_REC);
61.                N(1)=N(1)+1B;
62.                GOTO TEST;
63.            END;
64.            ELSE DO:
65.                READ FILE(INDUP) INTO(SSNDUP);
66.                N(2)=N(2)+1B;
67.                GOTO TEST;
68.            END;
69.        EOF:
70.            /*                                                    */
71.            /*  COUNTERS ARE KEPT TO HELP DETERMINE THE SUCCESS OF THE    */
72.            /*  RUN.                                              */
73.            /*  N(1) RECORDS READ IN FROM THE MASTER FILE.        */
74.            /*  N(2) RECORDS READ IN FROM THE DUPLICATE SSN FILE. */
75.            /*  N(3) RECORDS WRITTEN OUT WITH NO DUPLICATE PROBLEMS.  */
76.            /*  N(4) RECORDS WRITTEN OUT WITH DUPLICATE PROBLEMS.     */
77.            /*                                                    */
78.            DO I=1 TO 16;
79.                NN(I)=N(I);
80.            END;
81.            WRITE FILE(OUTFILE) FROM(COUNT);
82.            OPEN FILE(INFILE),FILE(INDUP),FILE(OUTOK),FILE(OUTDUP),
83.                 FILE(OUTFILE);
84.        END ARI;
85.      //H2 EXEC PLIXLDGO
86.      //GO.OUTFILE DD SYSOUT=A,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=3990)
87.      //GO.INFILE DD DSN=WTFFEPX.MLFRF180,UNIT=TAPE,VOL=SER=063319,DISP=OLD
88.      //GO.INDUP DD DSN=WTFFEPX.DUPSSN,UNIT=FILE,VOL=SER=FILE55,DISP=SHR
89.      //GO.OUTOK DD DSN=WTFFEPX.MLFREFND,UNIT=TAPE,DISP=(,KEEP),
90.      //   DCB=(RECFM=FB,LRECL=180,BLKSIZE=12960)
91.      //GO.OUTDUP DD DSN=WTFFEPX.MLFREFD,UNIT=FILE,DISP=(,KEEP),
92.      //   VOL=SER=FILE55,SPACE=(TRK,(20,20),RLSE),
93.      //   DCB=(RECFM=FB,LRECL=180,BLKSIZE=9000)
```

APPENDIX F

MERGE RAW DATA FROM ALL FILES


```
1.  //CKKMRG86 JOB (WTFF,748,C,500),FU,REGION=2000K
2.  /*ACCESS WTFFEPX
3.  /*MESSAGE 014794;007277;013107,W
4.  /*ROUTE XEQ TAPE
5.  /*ROUTE XEQ MSS
6.  //*      MERGE.OLRDB86.D022687 ON FILE45
7.  //H1 EXEC MERGE
8.  //MERGE.SORTIN01 DD VOL=SER=014794,UNIT=TAPE,DISP=OLD,
9.  //    DSN=WTFFEPX.OFF1030
10. //MERGE.SORTIN02 DD DSN=WTFFEPX.OMF86X,UNIT=TAPE,DISP=OLD,
11. //   VOL=SER=007277
12. //MERGE.SORTIN03 DD DSN=WTFFEPX.SOMF86X,DISP=SHR
13. //MERGE.SORTOUT DD DSN=WTFFEPX.OF022587,UNIT=TAPE,DISP=(,KEEP),
14. //   VOL=SER=013107,
15. //    DCB=(RECFM=FB,LRECL=185,BLKSIZE=12950)
16. //MERGE.SYSIN DD *
17.     MERGE FIELDS=(1,9,CH,A,10,3,CH,A),FILSZ=E1000000
18.     END
```

```
1.      //CKKERUN JOB (WTFF,748,C,250),FU
2.      /*ROUTE XEQ MSS
3.      /*ROUTE XEQ TAPE
4.      /*UNNUMBERED
5.      //*
6.      //*  MAKECORE.D063087 ON FILE30
7.      //*  THIS PROGRAM CREATES THE OLRDB LONGITUDINAL CORE DATA SET
8.      //*
9.      /*MESSAGE 013107;009303,W;009373,W;033347,W;009307,W
10.     //PROCLIB DD DSN=ZABCRUN.PROCLIB,DISP=SHR
11.     //HA EXEC DSSCR,NAME='WTFFCKK.BADRAW'
12.     //H1 EXEC PGM=E1008,REGION=500K,PARM=' /86,000000'
13.     //STEPLIB DD DSN='WTFFCKK.CORLOAD',DISP=SHR
14.     //IFYL DD DSN=WTFFEPX.OF022587,DISP=OLD,
15.     //   UNIT=TAPE,VOL=SER=013107
16.     //KFYL DD DSN=WTFFCKK.BADRAW,DISP=(NEW,CATLG),
17.     //   UNIT=MSS,SPACE=(CYL,(8,8)),
18.     //   DCB=(RECFM=FB,LRECL=185,BLKSIZE=6475)
19.     //OFYL DD DSN=WTFFCKK.CORE86,DISP=(NEW,KEEP),
20.     //   UNIT=TAPE,VOL=SER=(009303,009373,033347),
21.     //   DCB=(RECFM=FB,LRECL=1765,BLKSIZE=12355)
22.     //XFYL DD DSN=WTFFCKK.XREF86,DISP=(NEW,KEEP),
23.     //   UNIT=TAPE,VOL=SER=009307,
24.     //   DCB=(RECFM=FB,LRECL=58,BLKSIZE=5800)
25.     //TF1 DD DSN=WTFFCKK.BABR2,DISP=SHR,DCB=BUFNO=1,
26.     //   UNIT=FILE,VOL=SER=FILE30
27.     //TF2 DD DSN=WTFFCKK.BRCD2,DISP=SHR,DCB=BUFNO=1,
28.     //   UNIT=FILE,VOL=SER=FILE30
29.     //TF3 DD DSN=WTFFCKK.CELC2,DISP=SHR,DCB=BUFNO=1,
30.     //   UNIT=FILE,VOL=SER=FILE30
31.     //TF4 DD DSN=WTFFCKK.COBO2,DISP=SHR,DCB=BUFNO=1,
32.     //   UNIT=FILE,VOL=SER=FILE30
33.     //TF5 DD DSN=WTFFCKK.COMPT2,DISP=SHR,DCB=BUFNO=1,
34.     //   UNIT=FILE,VOL=SER=FILE30
35.     //TF6 DD DSN=WTFFCKK.CURSA2,DISP=SHR,DCB=BUFNO=1,
36.     //   UNIT=FILE,VOL=SER=FILE30
37.     //TF7 DD DSN=WTFFCKK.ETHGP2,DISP=SHR,DCB=BUFNO=1,
38.     //   UNIT=FILE,VOL=SER=FILE30
39.     //TF8 DD DSN=WTFFCKK.FACD2,DISP=SHR,DCB=BUFNO=1,
40.     //   UNIT=FILE,VOL=SER=FILE30
41.     //TF9 DD DSN=WTFFCKK.MARST2,DISP=SHR,DCB=BUFNO=1,
42.     //   UNIT=FILE,VOL=SER=FILE30
43.     //TF10 DD DSN=WTFFCKK.MEL2,DISP=SHR,DCB=BUFNO=1,
44.     //   UNIT=FILE,VOL=SER=FILE30
45.     //TF11 DD DSN=WTFFCKK.ORAPT2,DISP=SHR,DCB=BUFNO=1,
46.     //   UNIT=FILE,VOL=SER=FILE30
47.     //TF12 DD DSN=WTFFCKK.RCEAS2,DISP=SHR,DCB=BUFNO=1,
48.     //   UNIT=FILE,VOL=SER=FILE30
49.     //TF13 DD DSN=WTFFCKK.REDCAT2,DISP=SHR,DCB=BUFNO=1,
50.     //   UNIT=FILE,VOL=SER=FILE30
51.     //TF14 DD DSN=WTFFCKK.SEX2,DISP=SHR,DCB=BUFNO=1,
52.     //   UNIT=FILE,VOL=SER=FILE30
53.     //TF15 DD DSN=WTFFCKK.SOC2,DISP=SHR,DCB=BUFNO=1,
54.     //   UNIT=FILE,VOL=SER=FILE30
55.     //TF16 DD DSN=WTFFCKK.SPD2,DISP=SHR,DCB=BUFNO=1,
56.     //   UNIT=FILE,VOL=SER=FILE30
57.     //TF17 DD DSN=WTFFCKK.TGRA2,DISP=SHR,DCB=BUFNO=1,
58.     //   UNIT=FILE,VOL=SER=FILE30
59.     //SYSPRINT DD SYSOUT=A,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=1330)
60.     //OUTERR DD DSN=WTFFCKK.BLANKED,UNIT=FILE,VOL=SER=TMP005,DISP=(,KEEP),
```

```
//  SPACE=(TRK,(30,30),RLSE),DCB=(RECFM=FB,LRECL=14,BLKSIZE=2800)
//STEP1 EXEC SAS516
//IN DD DSN=WTFFCKK.BLANKED,UNIT=FILE,VOL=SER=TMP005,DISP=SHR
//SYSIN DD *
DATA ERROR;
INFILE IN;
INPUT VALUE $CHAR10. TABLE 11-14;
*
     THIS PROGRAM TABLULATES CODES NOT FOUND IN LOOKUP TABLES.
;
PROC SORT;
   BY TABLE;
PROC FREQ;
   TABLES VALUE;
   BY TABLE;
```

```
1.      //CKKE JOB (WTFF,748,A),MONTAGUE
2.      //*    CORE0629 ON FILE45
3.      //H1 EXEC PLIXCOMP
4.      //COMP.SYSIN DD *
5.       E1008: PROCEDURE (PARM) OPTIONS (MAIN);
6.       /*
7.           THIS PROGRAM CREATES THE LONGITUDINAL HISTORY RECORD OF EACH
8.           OFFICER IN THE OFFICER LONGITUDINAL RESEARCH DATA BASE (OLRDB)
9.           CORE DATA SET.  THE INPUT IS A MERGED FILE WHICH CONTAINS
10.          RECORDS EXTRACTED FROM THE OFFICER MASTER FILES (OMF) OF
11.          1979 THROUGH 1986, THE SEPARATION OFFICER MASTER FILES (SOMF) FROM
12.          1979 THROUGH 1986, AND THE MASTER AND LOSS FILES (MLF) OF 1970
13.          THROUGH 1985.
14.
15.          WARRANT OFFICER RECORDS WERE DELETED BEFORE THE INPUT
16.          RECORDS WERE MERGED.  ALL OTHER OFFICER RECORDS WERE
17.          EXTRACTED AND SPECIFIC DATA ELEMENTS WERE SELECTED FROM EACH.
18.          THESE RECORDS ARE CHECKED FOR PROPER CONTINUITY AND DATA VALUES
19.          ARE UPDATED TO MATCH CURRENT USAGE WHERE NECESSARY.
20.
21.          EACH OFFICER'S RECORDS ARE EXAMINED. THE PROGRAM IDENTIFIES THE
22.          OFFICER HISTORY AS 'GOOD' (CLEAN OF IDENTIFIABLE ERRORS) OR
23.          AS 'BAD' (SOME INCONSISTENCY EXISTS IN THE DATA).  COUNT
24.          FIELDS ARE USED TO TRACK THE OCCURRENCE OF EACH ERROR.  THE 'BAD'
25.          OFFICER HISTORY RECORDS ARE WRITTEN TO THE 'KEEP' FILE FOR
26.          REVIEW AND CLEAN-UP.  THE 'GOOD' RECORDS ARE ORGANIZED AND
27.          WRITTEN TO THE LONGITUDINAL OFFICER HISTORY FILE.  AN ENTRY
28.          IN THE CROSS-REFERENCE FILE IS MADE FOR EACH OFFICER, REGARD-
29.          LESS OF WHETHER THE HISTORY ASSOCIATED WITH THAT OFFICER IS
30.          CONSIDERED 'GOOD' OR 'BAD'.  THIS FACILITATES THE CLEAN-UP OF
31.          THE 'BAD' RECORDS AT A LATER TIME.
32.
33.          INPUT FILE
34.          THE INPUT FILE RECORDS ARE ORDERED ON RECORD SOURCE (TID)
35.          WITHIN DATA FISCAL YEAR (TYR) WITHIN SOCIAL SECURITY NUMBER
36.          (SSN).
37.
38.          TID = '1' IDENTIFIES RECORDS FROM OMF FILES.
39.          TID = '2' IDENTIFIES RECORDS FROM SOMF FILES.
40.          TID = '3' IDENTIFIES RECORDS FROM MLF FILES.
41.
42.          IN SOMF AND MLF RECORDS THE DATA FISCAL YEAR IS DETERMINED
43.          BY THE ENTIRE SEPARATION DATE FIELD 'SEPDTE'. FOR EXAMPLE,
44.          IF 'SEPDTE' > '790930' THEN 'TYR' = '80' SINCE FISCAL YEAR
45.          BEGINS ON OCTOBER 1 OF EACH YEAR.
46.
47.          WARRANT OFFICER RECORDS HAVE BEEN DELETED FROM THE INPUT:
48.          MILITARY PERSONNEL CLASS (MPC) = 'W' FOR WARRANT OFFICERS.
49.          'MPC' FOR OFFICERS = 'O'.  THIS APPLIES TO BOTH OMF AND SOMF.
50.          A TEMPORARY GRADE (TGRA) LESS THAN '20' IDENTIFIES WARRANT
51.          OFFICERS IN THE MLF.
52.       */
53.       DCL 1 IREC,
54.           2 SSN PIC'(9)9',      /*   1-9    */
55.           2 R,                  /*  10-185  */
56.             3 TYR PIC '99',     /*  10-11   */
57.             3 TID PIC '9',      /*   12     */
58.             3 DAT CHAR(173);    /*  13-185  */
59.       /*
60.           KEEP RECORD, 185 BYTES  BAD RECORDS
```

```
61.           ARE PUT HERE FOR STORAGE ON THE 'KEEP'
62.           FILE FOR LATER REVIEW AND CLEAN-UP
63.       */
64.       DCL 1 KREC,                  /*   1-185 */
65.           2 SSN PIC'(9)9',         /*   1-9   */
66.           2 KR CHAR(176);          /*  10-185 */
67.       /*
68.             BIG RECORD,  11 OCCURRENCES OF 176 BYTES
69.             OF DATA.  BIG HOLDS UP TO 11 YEARS OF
70.             OMF DATA FOR A GIVEN OFFICER.  POSITIONS FOR THE
71.             FIRST YEAR WILL BE CALCULATED.  FOR SUBSEQUENT YEARS
72.             176 MUST BE ADDED TO CALCULATE THE CORRECT RECORD POSITION.
73.       */
74.       DCL 1 BIG,
75.           2 BR (11),                   /*   1-176 */ /*  REPEATS 11 TIMES  */
76.             3 TYR PIC '99',            /*   1-2   */
77.             3 TID PIC '9',             /*     3   */
78.             3 DOB PIC '(6)X',          /*   4-9   */
79.             3 NAME PIC '(27)X',        /*  10-36  */
80.             3 SEX PIC 'X',             /*    37   */
81.             3 TGRA PIC '(3)X',         /*  38-40  */
82.             3 TDOR PIC '(6)X',         /*  41-46  */
83.             3 BPED PIC '(6)X',         /*  47-52  */
84.             3 EADC PIC '(6)X',         /*  53-58  */
85.             3 DTRA PIC '(6)X',         /*  59-64  */
86.             3 SOC PIC 'X',             /*    65   */
87.             3 SEPDTE CHAR(6),          /*  66-71  */
88.             3 SPD PIC '(3)X',          /*  72-74  */
89.             3 BABR PIC 'XX',           /*  75-76  */
90.             3 BRCD PIC 'XX',           /*  77-78  */
91.             3 FACD PIC 'XX',           /*  79-80  */
92.             3 REDCAT PIC 'X',          /*    81   */
93.             3 ETHGP PIC 'XX',          /*  82-83  */
94.             3 BYRGP PIC 'XX',          /*  84-85  */
95.             3 PHDT (10) PIC '(6)X',    /*  86-145 */
96.             3 CMAFS PIC '(3)X',        /* 146-148 */
97.             3 AFCSM PIC '(3)X',        /* 149-151 */
98.             3 CELC PIC 'XX',           /* 152-153 */
99.             3 MEL PIC 'X',             /*   154   */
100.            3 RCEAS (3) PIC '(3)X',    /* 155-163 */
101.            3 MARST PIC 'X',           /*   164   */
102.            3 NODA PIC '99',           /* 165-166 */
103.            3 NOADC PIC '99',          /* 167-168 */
104.            3 COMPT PIC 'X',           /*   169   */
105.            3 CURSA PIC 'X',           /*   170   */
106.            3 COBO PIC 'XX',           /* 171-172 */
107.            3 ORAPT PIC 'X',           /*   173   */
108.            3 RSCD PIC 'X',            /*   174   */
109.            3 MPC PIC 'X',             /*   175   */
110.            3 VSSSN PIC 'X';           /*   176   */
111.
112.      DCL IG(11) CHAR(176) BASED (PIG);
113.      DCL PIG POINTER;
114.      DCL ADDR BUILTIN;
115.      /*
116.            THE INITIAL PRIMARY PURPOSE OF THIS FILE WAS TO PRESERVE
117.            A LINK BETWEEN THE CORE RECORDS IDENTIFIED BY SEQNO AND
118.            OTHER EXTERNAL FILES IDENTIFIED BY SSN.  IN CORE RECORDS
119.            THE SEQNO IS NOW REPLACED BY A SCRAMBLED SSN WHICH CAN
120.            BE UNSCRAMBLED FOR MATCHING WITH THIS FILE AS WELL AS
```

```
121.            OTHERS.  A SECONDARY PURPOSE REMAINS, EFFORTS TO RESOLVE
122.            PROBLEMS AMONG DEFECTIVE RECORDS WILL BE FACILITATED
123.            BY THE PROCESSING CODES AND IDENTIFICATION DATA
124.            PROVIDED HERE.
125.        */
126.        DCL 1 XREC,                    /*   1-58  */
127.            2 SSN PIC'(9)9',           /*   1-9   */
128.            2 SEQNO PIC'(9)9',         /*  10-18  */
129.            2 DY1 FIXED BIN(15),       /*  19-20  */
130.            2 DY2 FIXED BIN(15),       /*  21-22  */
131.            2 ECODE FIXED BIN(15),     /*  23-24  */
132.            2 DOB CHAR(6),             /*  25-30  */
133.            2 NAME CHAR(28);           /*  31-58  */
134.
135.        DCL 1 CREC,                    /*   1-280 */  /* CORE RECORD */
136.            2 SSN PIC '(9)9',          /*   1-9   */
137.            2 YPART CHAR(135),         /*  10-144 */
138.            2 DYR(79:89) CHAR(1),      /* 145-155 */
139.            2 DDF(70:89) CHAR(1),      /* 156-175 */  /*DERIVED DUTY FLAGS */
140.            2 SEPH (5),                /* 176-280 */  /* REPEATS 5 TIMES   */
141.              3 EADC CHAR(6),          /* 176-181 */
142.              3 SEPDTE CHAR(6),        /* 182-187 */
143.              3 BPED CHAR(6),          /* 188-193 */
144.              3 SPD CHAR(3);           /* 194-196 */
145.
146.        DCL 1 YREC,                    /*   1-135 */  /*  YEAR FROM OMF  */
147.            2 DOB PIC '(6)X',          /*   1-6   */
148.            2 SEX PIC 'X',             /*    7    */
149.            2 TGRA PIC 'XXX',          /*   8-10  */
150.            2 TDOR PIC '(6)X',         /*  11-16  */
151.            2 BPED PIC '(6)X',         /*  17-22  */
152.            2 EADC PIC '(6)X',         /*  23-28  */
153.            2 DTRA PIC '(6)X',         /*  29-34  */
154.            2 SOC PIC 'X',             /*   35    */
155.            2 SEPDTE PIC '(6)X',       /*  36-41  */
156.            2 SPD PIC 'XXX',           /*  42-44  */
157.            2 BABR PIC 'XX',           /*  45-46  */
158.            2 BRCD PIC 'XX',           /*  47-48  */
159.            2 FACD PIC 'XX',           /*  49-50  */
160.            2 REDCAT PIC 'X',          /*   51    */
161.            2 ETHGP PIC 'X',           /*   52    */
162.            2 BYRGP PIC 'XX',          /*  53-54  */
163.            2 PHDT(10) PIC '(6)X',     /*  55-114 */
164.            2 CELC PIC 'X',            /*   115   */
165.            2 MEL PIC 'X',             /*   116   */
166.            2 RCEAS(3) PIC 'XXX',      /* 117-125 */
167.            2 MARST PIC 'X',           /*   126   */
168.            2 DEPS PIC 'ZZ',           /* 127-128 */
169.            2 NODA PIC 'ZZ',           /* 129-130 */
170.            2 COMPT PIC 'X',           /*   131   */
171.            2 CURSA PIC 'X',           /*   132   */
172.            2 COBO PIC 'XX',           /* 133-134 */
173.            2 ORAPT PIC 'X';           /*   135   */
174.
175.        DCL 1 OREC,                     /*    1-1765 */  /*  MASTER RECORD */
176.            2 YEAR(79:89) CHAR(135), /*    1-1485 */  /*  YEARS 79-89   */
177.            2 CORE CHAR(280);        /* 1486-1765 */  /*  OLRDB         */
178.
179.        DCL IFYL FILE SEQL ENV(CONSECUTIVE) INPUT;
180         DCL (XFYL,KFYL,OFYL,OUTERR) FILE SEQL ENV(CONSECUTIVE) OUTPUT;
```

```
181.      DCL PARM CHAR(20) VARYING;
182.      DCL SUBSTR BUILTIN;
183.      DCL LAST PIC 'XX';
184.      DCL SEQZ PIC '(6)X';
185.      DCL FYTAB(70:90) CHAR(6) INIT(
186.          '691000','701000','711000','721000','731000',
187.          '741000','751000','761000','771000',
188.          '781000','791000','801000','811000','821000',
189.          '831000','841000','851000','861000','871000',
190.          '881000','891000');
191.      DCL FYFUDJ(79:89) CHAR(6) INIT(
192.          '780900','790900','800900','810900','820900',
193.          '830900','840900','850900','860900','870900',
194.          '880900');
195.      DCL DATE1 CHAR(6);
196.      DCL ADATE1 POINTER;
197.      DCL 1 DATE2 BASED (ADATE1),
198.          2 YY CHAR(2),    /*  1-2  */
199.          2 MMDD CHAR(4);  /*  3-6  */
200.      DCL FLAG(17) BIT(1) BASED (ADECODE);
201.      DCL ADECODE POINTER;
202.      DCL NN(20) FIXED DEC(6);
203.      DCL DY(2,79:88) FIXED BIN(15);
204.      DCL GX(2,5) FIXED BIN(15);
205.      DCL (I,J,K,L,M,N,THRU,XG,LADY,MAXG) FIXED BIN(15) INIT(0B);
206.      DCL (EOF,HIT,YES,NO,WO) BIT(1) INIT('0'B);
207.      DCL B10 FIXED BIN(15) INIT(1010B);
208.      DCL B11 FIXED BIN(15) INIT(1011B);
209.      DCL HOLD CHAR(6);
210.      DCL B70 FIXED BIN(15);
211.      DCL B2 FIXED BIN(15) INIT(10B);
212.      DCL RANKX(20) FIXED BIN(15);
213.      DCL B40G FIXED BIN(31);
214.      DCL B79 FIXED BIN(15) INIT(1001111B);
215.      DCL B85 FIXED BIN(15) INIT(1010101B);
216.      DCL (MOD,STRING) BUILTIN;
217.      DCL NLABL (20) CHAR(40) INIT(
218.          'RAW INPUT RECORDS',
219.          'GONE BY ''79',
220.          'EXTRANEOUS MLF RECORDS SCRAPPED',
221.          'STRAY POST ''78 MLF RECORDS SCRAPPED',
222.          'GOOD GUYS',
223.          'COMMISSIONED OFFICER RECORDS ',
224.          'COMMISSIONED OFFICER SSNS',
225.          'BAD GUYS',
226.          'WITH EARLY DATA MISSING',
227.          'WITH UNEXPLAINED GAPS IN DATA',
228.          'WITH LATE DATA MISSING',
229.          'OVERFLOWING SSNS',
230.          'GOOD GUYS WITH SEPARATION HISTORIES',
231.          'TOTAL GOOD AND BAD PEOPLE',
232.          'BAD GUY RECORDS',
233.          'UNACCEPTABLE DATA REPLACED WITH BLANKS',' ',' ',' ',' ');
234.      DCL TAB(2,3000) CHAR(3);              /* LOOKUP CODES */
235.      DCL DIF(300) FIXED BIN(15);           /* INDEX DELTAS */
236.      DCL TTAB(2,17) FIXED BIN(15);        /* TYPE AND TAB INDEX */
237.      DCL TNAME(17) CHAR(6) INIT(
238.          'BABR','BRCD','CELC','COBO','COMPT','CURSA',
239.          'ETHGP','FACD','MARST','MEL','ORAPT',
240.          'RCEAS','REDCAT','SEX','SOC','SPD','TGRA');
```

```
241.      DCL LOOK4 CHAR(3);
242.      DCL LASTY PIC '99';
243.      DCL YR(10) FIXED BIN (15);
244.      DCL (VX,SEPX,B5,B78,B9) FIXED BIN(15);
245.      LASTY=SUBSTR(PARM,3,2);
246.      SEQZ=SUBSTR(PARM,6,6);
247.      PUT SKIP LIST('CHECKING PARAMETERS');
248.      PUT DATA (LASTY,SEQZ);
249.      LADY=LASTY;
250.      XREC.SEQNO=SEQZ;
251.      PUT SKIP LIST('GOOD ENOUGH',LADY);
252.      ADECODE=ADDR(XREC.ECODE);
253.      PIG=ADDR(BIG);
254.      ADATE1=ADDR(DATE1);
255.      B40G=40000;
256.      RANKX(*)=0B;
257.      B5=101B;
258.      B9=1001B;
259.      B78=1001110B;
260.      B70=1000110B;
261.      YES='1'B;
262.      NN(*)=0;
263.      CALL SETUP_LOOKUP;
264.      OPEN FILE (IFYL), FILE (OFYL), FILE(XFYL), FILE (KFYL);
265.      ON ENDFILE (IFYL) EOF=YES;
266.
267.      READ FILE (IFYL) INTO (IREC);
268.      DO WHILE (¬EOF);
269.         THRU=0B;
270.         IF ¬FLAG(2) THEN DO;
271.                                    /* NOT OVERFLOW CONTINUATION */
272.            XREC.SEQNO=XREC.SEQNO+1B;
273.            XREC.DY1=0B;
274.            XREC.DY2=0B;
275.            VX=0B;
276.            XREC.DOB=' ';
277.            XREC.NAME=' ';
278.            XREC.SSN=IREC.SSN;
279.            ECODE=0B;
280.         END;
281.         DO WHILE (IREC.SSN=XREC.SSN & THRU<B11 & ¬EOF);
282.                                    /* COLLECT THIS SSN */
283.            THRU=THRU+1B;
284.            IG(THRU)=STRING(IREC.R);
285.                                    /* SCRAP EXTRANEOUS MLF RECORDS */
286.            IF BR(THRU).TID='3' & THRU>1B & BR(THRU-1).TID='2'
287.               & BR(THRU-1).TYR=BR(THRU).TYR THEN DO;
288.               THRU=THRU-1B;
289.               NN(3)=NN(3)+1;
290.            END;
291.            IF BR(THRU).VSSSN='V' THEN VX=THRU;
292.            NN(1)=NN(1)+1;          /* RAW RECORDS INPUT */
293.            READ FILE (IFYL) INTO (IREC);
294.         END;
295.      /*
296.                  FLAG(1) NOTHING TO KEEP
297.                  FLAG(2) HOLD XREC. MORE COMING
298.                  FLAG(3) DUMP LOAD TO KEEP FILE (BAD GUYS)
299.                  FLAG(4) NO POST'78 DATA
300                   FLAG(5) EARLY DATA MISSING
```

```
                    FLAG(6) MID DATA MISSING
                    FLAG(7) LATE DATA MISSING
                    FLAG(8) SEPARATION HISTORY OVERFLOW
                    FLAG(9) WITH A SEPARATION HISTORY
                    FLAG(16) SSN UNVERIFIED
      */
                                        /* CHECK OVERFLOW */
         IF FLAG(2) | (THRU=B11 & IREC.SSN=XREC.SSN) THEN DO;
            FLAG(3)=YES;
            IF ¬FLAG(2) THEN PUT SKIP LIST
               (' OVER 11 DATA RECORDS FOR SSN ', XREC.SSN);
            IF IREC.SSN=XREC.SSN THEN FLAG(2)=YES; /* MORE COMING */
            ELSE DO;
               FLAG(2)=NO;
               NN(12)=NN(12)+1;
            END;
            DO I=1 TO THRU;
               PUT SKIP LIST (BR(I).TYR,BR(I).TID,BR(I).NAME);
            END;
         END;
                                        /* SCRAP STRAY POST '78 MLF */
         IF THRU=1B & BR(1).TYR>B78 & BR(1).TID='3' THEN DO;
            NN(4)=NN(4)+1;
            THRU=0B;
         END;
         IF THRU>1B THEN FLAG(1)=YES;
         IF VX=0B THEN DO;              /* FLAG(16)=UNVERIFIED SSN */
            FLAG(16)=YES;
            VX=THRU;
            IF BR(THRU).TID='3' & THRU>1B THEN VX=THRU-1B;
         END;
         XREC.DOB=BR(VX).DOB;
         XREC.NAME=BR(VX).NAME;
         XREC.DY1=BR(1).TYR;
         XREC.DY2=BR(THRU).TYR;

         IF ¬FLAG(1) & ¬FLAG(2) & ¬FLAG(3) THEN DO;
            NN(6)=NN(6)+THRU;
            NN(7)=NN(7)+1;
      /*
                                     CHECK FOR GAPS AND
                                     MISSING ENDS
      */
            DO I=1 TO THRU;
               YR(I)=BR(I).TYR;
            END;
            IF YR(THRU)<B79 THEN DO;     /* PRE '79 DATA ONLY */
               FLAG(4)=YES;
               NN(2)=NN(2)+1;
            END;
            ELSE DO;

               IF YR(THRU)<LADY & BR(THRU).TID <'2' THEN FLAG(7)=YES;
               IF YR(1)>B79 &BR(1).EADC<FYTAB(YR(1)) THEN FLAG(5)=YES;
               IF THRU>1B THEN DO;
                  J=YR(1)+1B;
                  DO I=2 TO THRU;
                     IF YR(I)=J                 /* EXPECTED */
                        | YR(I) <=B79           /* PRE '79 STUFF */
                        | (YR(I) <J & BR(I).TID>'1')  /* DUPD SEPARATION */
```

```
361.                        | (YR(I)>J & BR(I-1).TID ^= '1'
362.                        & BR(I).EADC >=FYTAB(YR(I)))   /* REENTRY */
363.                        THEN J=YR(I)+1B.
364.                     ELSE DO;
365.                        FLAG(6)=YES;
366.                        NN(10)=NN(10)+1.
367.                        I=THRU;
368.                     END;
369.                  END.
370.               END;
371.            END;
372.         END;
373.
374.         IF FLAG(5) | FLAG(6) | FLAG(7) THEN FLAG(3)=YES.
375.         IF FLAG(5) THEN NN(9)=NN(9)+1.
376.         IF FLAG(7) THEN NN(11)=NN(11)+1.
377.         IF ^FLAG(1) & ^FLAG(2) & FLAG(3) THEN DO;
378.      /*
379.         CORE OUTPUT
380.      */
381.            STRING(OREC)=' ';
382.            STRING(CREC)=' ';
383.            CREC.SSN=XREC.SSN;
384.            CREC.DYR(*)='N';
385.            SEPX=0B;
386.            CREC.DDF(*)='N';
387.                                       /* SEPARATIONS */
388.            DO I=1 TO THRU;
389.               IF BR(I).TID>'1' THEN DO; /* CLEANUP */
390.                  IF I>1B & YR(I)=YR(I-1) & BR(I-1).TID='1' THEN DO;
391.                     BR(I-1).SEPDTE=BR(I).SEPDTE;
392.                     BR(I-1).SPD=BR(I).SPD;
393.                     BR(I-1).TID='4';
394.                     YR(I)=0B.
395.                  END;
396.               END;
397.               ELSE BR(I).SEPDTE=' ';
398.            END;
399.                     /* DERIVED DUTY FLAGS */
400.            I=1B;
401.            J=B70;
402.            K=YR(I);
403.            HOLD=BR(1).EADC;
404.            DO J=J TO K;
405.               IF HOLD <= FYTAB(J) THEN CREC.DDF(J)='Y';
406.            END;
407.            DO WHILE (I<THRU);
408.               I=I+1B;
409.               IF YR(I)> 0B THEN DO;
410.                  J=YR(I);
411.                  IF BR(I).EADC <= FYTAB(J) THEN CREC.DDF(J)='Y';
412.               END;
413.            END;
414.                                       /* SEPARATION HISTORIES */
415.            DO I=1 TO THRU;
416.               IF YR(I)>0B & BR(I).TID>'1' THEN DO;
417.                  SEPX=SEPX+1B;
418.                  IF SEPX>B5 THEN DO;
419.                     FLAG(8)=YES;
420.                     NN(16)=NN(16)+1;
```

```
421.                  END;
422.                  ELSE DO;
423.                     FLAG(9)=YES;
424.                     SEPH(SEPX).EADC=BR(I).EADC;
425.                     SEPH(SEPX).SEPDTE=BR(I).SEPDTE;
426.                     SEPH(SEPX).BPED=BR(I).BPED;
427.                     LOOK4=BR(I).SPD;
428.                     CALL LOOKUP(16);
429.                     BR(I).SPD=LOOK4;
430.                     SEPH(SEPX).SPD=LOOK4;
431.                  END;
432.               END;
433.            END;
434.            IF FLAG(9) THEN NN(13)=NN(13)+1;
435.                                       /* IMMUTABLE FIELDS */
436.            LOOK4=BR(VX).SEX;
437.            CALL LOOKUP(14);
438.            BR(VX).SEX=LOOK4;
439.            LOOK4=BR(VX).REDCAT;
440.            CALL LOOKUP(13);
441.            BR(VX).REDCAT=LOOK4;
442.            LOOK4=BR(VX).ETHGP;
443.            CALL LOOKUP(7);
444.            BR(VX).ETHGP=LOOK4;
445.            LOOK4=BR(VX).COBO;
446.            CALL LOOKUP(4);
447.            BR(VX).COBO=LOOK4;
448.
449.            DO I=1 TO THRU;
450.               IF YR(I) <B79 THEN YR(I)=0B; /* NO SLOT FOR IT */
451.               IF YR(I)>0B | I=THRU THEN DO;
452.                  STRING(YREC)=' ';
453.                  YREC.DOB=BR(VX).DOB;
454.                  YREC.SEX=BR(VX).SEX;
455.                  LOOK4=BR(I).TGRA;
456.                  CALL LOOKUP(17);
457.                  YREC.TGRA=LOOK4;
458.                  IF BR(I).TDOR>'000000' THEN YREC.TDOR=BR(I).TDOR;
459.                  YREC.BPED=BR(I).BPED;
460.                  YREC.EADC=BR(I).EADC;
461.                  LOOK4=BR(I).SOC;
462.                  CALL LOOKUP(15);
463.                  YREC.SOC=LOOK4;
464.                  YREC.SEPDTE=BR(I).SEPDTE;
465.                  YREC.SPD=BR(I).SPD;
466.                  YREC.REDCAT=BR(VX).REDCAT;
467.                  YREC.ETHGP=BR(VX).ETHGP;
468.                  LOOK4=BR(I).CELC;
469.                  CALL LOOKUP(3);
470.                  YREC.CELC=LOOK4;
471.                  LOOK4=BR(I).MARST;
472.                  CALL LOOKUP(9);
473.                  YREC.MARST=LOOK4;
474.                  LOOK4=BR(I).COMPT;
475.                  CALL LOOKUP(5);
476.                  YREC.COMPT=LOOK4;
477.                  YREC.COBO=BR(VX).COBO;
478.                  J=BR(I).NODA;
479.                  K=BR(I).NOADC;
480.                  IF BR(I).TID='3' THEN DO;
```

```
                  IF K>0B THEN K=K-1B;
                  IF K>B9 THEN K=B9;
                  YREC.DEPS=K;
               END;
               ELSE DO;
                  IF K>B9 THEN K=B9;
                  J=J+K;
                  IF J>B9 THEN J=B9;
                  YREC.DEPS=J;
                  YREC.NODA=K;
                  YREC.DTRA=BR(I).DTRA;
                  LOOK4=BR(I).BABR;
                  CALL LOOKUP(1);
                  YREC.BABR=LOOK4;
                  LOOK4=BR(I).BRCD;
                  CALL LOOKUP(2);
                  YREC.BRCD=LOOK4;
                  LOOK4=BR(I).FACD;
                  CALL LOOKUP(8);
                  YREC.FACD=LOOK4;
                  YREC.BYRGP=BR(I).BYRGP;
                  YREC.PHDT(*)=BR(I,*).PHDT;
                  LOOK4=BR(I).MEL;
                  CALL LOOKUP(10);
                  YREC.MEL=LOOK4;
                  DO J=1 TO 3;
                     LOOK4=BR(I,J).RCEAS;
                     CALL LOOKUP(12);
                     YREC.RCEAS(J)=LOOK4;
                  END;
                  LOOK4=BR(I).CURSA; CALL LOOKUP(6); YREC.CURSA=LOOK4;
                  LOOK4=BR(I).ORAPT;
                  CALL LOOKUP(11);
                  YREC.ORAPT=LOOK4;
               END;

               IF YR(I)>0B THEN DO;
                  OREC.YEAR(YR(I))=STRING(YREC);
                  DYR(YR(I))='Y';
               END;
               IF I=THRU THEN DO;
                  CREC.YPART=STRING(YREC);
               END;
            END;
         END;
      END;

      IF ¬FLAG(1) & ¬FLAG(2) THEN DO;
         NN(14)=NN(14)+1;
         WRITE FILE (XFYL) FROM (XREC);
         IF FLAG(3) THEN DO;
            NN(8)=NN(8)+1;
            KREC.SSN=XREC.SSN;
            DO I=1 TO THRU;
               KR=IG(I);
               NN(15)=NN(15)+1;
               WRITE FILE (KFYL) FROM (KREC);
            END;
         END;
         ELSE DO;
```

```
541.                NN(5)=NN(5)+1;
542.                OREC.CORE=STRING(CREC);
543.                WRITE FILE (OFYL) FROM (OREC);
544.             END;
545.          END;
546.       END;
547.       DO I=1 TO 16;
548.          PUT SKIP LIST (NN(I),NLABL(I));
549.       END;
550.       PUT SKIP DATA (XREC.SEQNO);
551.       RETURN;
552.
553.      1LOOKUP: PROCEDURE (TX);
554.       DCL (TX,M) FIXED BIN(15), RECODE BIT(1);
555.       DCL 1 ERRREC,
556.           2 OLOOK4 CHAR(10),
557.           2 OTABLE PIC'ZZZ9';
558.       IF LOOK4='    ' THEN RETURN;
559.           IF SUBSTR(LOOK4,1,1) ¬= ' ' THEN GOTO OK;
560.           IF SUBSTR(LOOK4,2,1) ¬= ' ' THEN LOOK4 = SUBSTR(LOOK4,2,2);
561.              ELSE LOOK4 = SUBSTR(LOOK4,3,1);
562.       OK:
563.       HIT=NO;
564.       IF TTAB(1,TX)=1B THEN RECODE=YES;
565.          ELSE RECODE=NO;
566.       M=TTAB(2,TX);
567.       K=DIF(M);
568.       DO WHILE (¬HIT & DIF(M)>0B);
569.          IF LOOK4=TAB(1,K) THEN HIT=YES;
570.          ELSE DO;
571.             M=M+1B;
572.             IF LOOK4 < TAB(1,K) THEN K=K-DIF(M);
573.             ELSE K=K+DIF(M);
574.          END;
575.       END;
576.       IF HIT & RECODE THEN LOOK4=TAB(2,K);
577.          ELSE IF ¬HIT THEN DO;
578.             OLOOK4 = LOOK4;
579.             OTABLE = TX;
580.             WRITE FILE(OUTERR) FROM(ERRREC);
581.             LOOK4='    ';
582.             NN(16) = NN(16) + 1;
583.          END;
584.       RETURN;
585.       END LOOKUP;
586.      1SETUP_LOOKUP: PROCEDURE;
587.       DCL (TF1,TF2,TF3,TF4,TF5,TF6,TF7,TF8,TF9,TF10,
588.            TF11,TF12,TF13,TF14,TF15,TF16,TF17)
589.            FILE SEQL ENV(CONSECUTIVE) INPUT;
590.       DCL (TFYL,VTF(17)) FILE VARIABLE;
591.       DCL EOFT BIT(1);
592.       DCL (I,J,K,L,M,N) FIXED BIN(15) INIT(0B);
593.       DCL 1 TCARD,
594.           2 FT1 CHAR(3),   /*  1-3  */
595.           2 FIL1 CHAR(1),  /*   4   */
596.           2 FT2 CHAR(3),   /*  5-7  */
597.           2 FIL2 CHAR(1),  /*   8   */
598.           2 FT3 PIC '999', /*  9-11 */
599.           2 FIL3 CHAR(1);  /*  12   */
600.       DCL RECODE BIT(1);
```

```
601.       DCL B17 FIXED BIN(15) INIT(10001B);
602.       DCL (B3G,B300) FIXED BIN(15);
603.
604.       OPEN FILE (TF1), FILE (TF2), FILE (TF3), FILE (TF4),
605.            FILE (TF5), FILE (TF6), FILE (TF7), FILE (TF8),
606.            FILE (TF9), FILE (TF10), FILE (TF11), FILE (TF12),
607.            FILE (TF13), FILE (TF14), FILE (TF15), FILE (TF16),
608.            FILE (TF17);
609.       VTF(1)=TF1;
610.       VTF(2)=TF2;
611.       VTF(3)=TF3;
612.       VTF(4)=TF4;
613.       VTF(5)=TF5;
614.       VTF(6)=TF6;
615.       VTF(7)=TF7;
616.       VTF(8)=TF8;
617.       VTF(9)=TF9;
618.       VTF(10)=TF10;
619.       VTF(11)=TF11;
620.       VTF(12)=TF12;
621.       VTF(13)=TF13;
622.       VTF(14)=TF14;
623.       VTF(15)=TF15;
624.       VTF(16)=TF16;
625.       VTF(17)=TF17;
626.       B3G=3000;
627.       B300=300;
628.       TAB(*,*)='   ';
629.       TTAB(*,*)=0B;
630.       DIF(*)=0B;
631.
632.       DO I=1 TO 17;
633.          TFYL=VTF(I);
634.          EOFT=NO;
635.          ON ENDFILE (TFYL) EOFT=YES;
636.          READ FILE (TFYL) INTO (TCARD);
637.          IF FT2 ¬= '   ' THEN DO;
638.             TTAB(1,I)=1B;
639.             RECODE=YES;
640.          END;
641.          ELSE RECODE=NO;
642.          N=N+1B;
643.          L=N;
644.          DO WHILE(¬EOFT & N<B3G);
645.             IF FT1 < TAB(1,N) THEN DO; /*OUT OF ORDER */
646.                K=N-L+1B;
647.                PUT SKIP LIST
648.                   (TNAME(I),' OUT OF ORDER AT',K);
649.                STOP;
650.             END;
651.             N=N+1B;
652.             TAB(1,N)=FT1;
653.             TAB(2,N)=FT2;
654.             READ FILE (TFYL) INTO (TCARD);
655.          END;
656.          K=N-L;
657.          J=MOD(K,B2);
658.          IF J=0B THEN DO; /* MAKE ODD */
659.             N=N+1B;
660.             TAB(1,N)=TAB(1,N-1);
```

```
661.              TAB(2,N)=TAB(2,N-1);
662.              K=N-L;
663.           END;
664.           M=M+B2;
665.           TTAB(2,I)=M;
666.           K=K/B2+MOD(K,B2);
667.           DIF(M)=K+L;
668.           DO WHILE (K>1B & M<B300);
669.              K=K/B2+MOD(K,B2);
670.              M=M+1B;
671.              DIF(M)=K;
672.           END;
673.        END;
674.        CLOSE FILE (TF1), FILE (TF2), FILE (TF3), FILE (TF4),
675.              FILE (TF5), FILE (TF6), FILE (TF7), FILE (TF8),
676.              FILE (TF9), FILE (TF10), FILE (TF11), FILE (TF12),
677.              FILE (TF13), FILE (TF14), FILE (TF15), FILE (TF16),
678.              FILE (TF17);
679.        RETURN;
680.        END SETUP_LOOKUP;
681.
682.        END E1008;
683.       //H2 EXEC PLIXLKMM,PROGRAM='E1008',
684.       //  NAME='WTFFCKK.CORLOAD'
```

```
//EPXSASPR JOB (WTFF,748,C,2000,2000),YOUNKMAN,REGION=6000K
/*MESSAGE 062834;068301;067883;042331,W
/*ROUTE XEQ TAPE
/*ROUTE XEQ MSS
/*ACCESS WRZ1KFD
/*JOBOUT COPIES=2
//*  SAS.CREATE.COREFORM ON FILE11
/*UNNUMBERED
//PROCLIB DD DSN=ZABCRUN.PROCLIB,DISP=SHR
//STEP1 EXEC SAS516
//INCORE DD DSN=WTFFEPX.OLRDB.ENCRYPT,UNIT=TAPE,DISP=OLD,
//  VOL=SER=(062834,068301,067883)
//OUT DD DSN=WTFFEPX.SASOLRDB,UNIT=TAPE,DISP=(,KEEP),VOL=SER=042331
//SASLIB DD DSN=WRZ1KFD.OMF85.FORMATS,DISP=OLD
//SYSIN DD *
*
     THIS PROGRAM CONVERTS THE LONGITUDINAL MATCH TO A SAS DATA
     SET.
;
DATA OUT.CORE;
LENGTH DEFAULT=4;
INFILE INCORE;
INPUT
MATCHCOD $ 1486-1494
DOB      $ 1495-1500
SEX      $ 1501
TGRA     $ 1502-1504
TDOR     $ 1505-1510
BPED     $ 1511-1516
EADC     $ 1517-1522
DTRA     $ 1523-1528
SOC      $ 1529
SEPDT    $ 1530-1535
SPD      $ 1536-1538
BABR     $ 1539-1540
BRCD     $ 1541-1542
FACD     $ 1543-1544
REDCAT   $ 1545
ETHGP    $ 1546
BYRGP    $ 1547-1548
PHDT1    $ 1549-1554
PHDT2    $ 1555-1560
PHDT3    $ 1561-1566
PHDT4    $ 1567-1572
PHDT5    $ 1573-1578
PHDT6    $ 1579-1584
PHDT7    $ 1585-1590
PHDT8    $ 1591-1596
PHDT9    $ 1597-1602
PHDT10   $ 1603-1608
CELC     $ 1609
MEL      $ 1610
RCEAS1   $ 1611-1613
RCEAS2   $ 1614-1616
RCEAS3   $ 1617-1619
MARST    $ 1620
DEPS       1621-1622
NODA       1623-1624
COMPT    $ 1625
CURSA    $ 1626
```

```
61.      COBO      $ 1627-1628
62.      ORAPT     $ 1629
63.      OMFLAG79  $ 1630
64.      OMFLAG80  $ 1631
65.      OMFLAG81  $ 1632
66.      OMFLAG82  $ 1633
67.      OMFLAG83  $ 1634
68.      OMFLAG84  $ 1635
69.      OMFLAG85  $ 1636
70.      OMFLAG86  $ 1637
71.      OMFLAG87  $ 1638
72.      OMFLAG88  $ 1639
73.      OMFLAG89  $ 1640
74.      DUTYFL70  $ 1641
75.      DUTYFL71  $ 1642
76.      DUTYFL72  $ 1643
77.      DUTYFL73  $ 1644
78.      DUTYFL74  $ 1645
79.      DUTYFL75  $ 1646
80.      DUTYFL76  $ 1647
81.      DUTYFL77  $ 1648
82.      DUTYFL78  $ 1649
83.      DUTYFL79  $ 1650
84.      DUTYFL80  $ 1651
85.      DUTYFL81  $ 1652
86.      DUTYFL82  $ 1653
87.      DUTYFL83  $ 1654
88.      DUTYFL84  $ 1655
89.      DUTYFL85  $ 1656
90.      DUTYFL86  $ 1657
91.      DUTYFL87  $ 1658
92.      DUTYFL88  $ 1659
93.      DUTYFL89  $ 1660
94.      FLAGALL   $ 1630-1640
95.      DOBYY     $ 1495-1496    DOBMM     $ 1497-1498
96.      TDORYY    $ 1505-1506    TDORMM    $ 1507-1508
97.      BPEDYY    $ 1511-1512    BPEDMM    $ 1513-1514
98.      EADCYY    $ 1517-1518    EADCMM    $ 1519-1520
99.      DTRAYY    $ 1523-1524    DTRAMM    $ 1525-1526
100.     SEPDTYY   $ 1530-1531    SEPDTMM   $ 1532-1533
101.     PHDT1YY   $ 1549-1550    PHDT1MM   $ 1551-1552
102.     PHDT2YY   $ 1555-1556    PHDT2MM   $ 1557-1558
103.     PHDT3YY   $ 1561-1562    PHDT3MM   $ 1563-1564
104.     PHDT4YY   $ 1567-1568    PHDT4MM   $ 1569-1570
105.     PHDT5YY   $ 1573-1574    PHDT5MM   $ 1575-1576
106.     PHDT6YY   $ 1579-1580    PHDT6MM   $ 1581-1582
107.     PHDT7YY   $ 1585-1586    PHDT7MM   $ 1587-1588
108.     PHDT8YY   $ 1591-1592    PHDT8MM   $ 1593-1594
109.     PHDT9YY   $ 1597-1598    PHDT9MM   $ 1599-1600
110.     PHDT10YY  $ 1603-1604    PHDT10MM  $ 1605-1606 ;
111.     IF OMFLAG79 = 'Y' AND OMFLAG80 = 'Y' THEN RETN7980 = 1;
112.        ELSE IF OMFLAG79 = 'Y' THEN RETN7980 = 0;
113.     IF OMFLAG80 = 'Y' AND OMFLAG81 = 'Y' THEN RETN8081 = 1;
114.        ELSE IF OMFLAG80 = 'Y' THEN RETN8081 = 0;
115.     IF OMFLAG81 = 'Y' AND OMFLAG82 = 'Y' THEN RETN8182 = 1;
116.        ELSE IF OMFLAG81 = 'Y' THEN RETN8182 = 0;
117.     IF OMFLAG82 = 'Y' AND OMFLAG83 = 'Y' THEN RETN8283 = 1;
118.        ELSE IF OMFLAG82 = 'Y' THEN RETN8283 = 0;
119.     IF OMFLAG83 = 'Y' AND OMFLAG84 = 'Y' THEN RETN8384 = 1;
120.        ELSE IF OMFLAG83 = 'Y' THEN RETN8384 = 0;
```

```
121.      IF OMFLAG84 = 'Y' AND OMFLAG85 = 'Y' THEN RETN8485 = 1;
122.         ELSE IF OMFLAG84 = 'Y' THEN RETN8485 = 0;
123.      IF OMFLAG85 = 'Y' AND OMFLAG86 = 'Y' THEN RETN8586 = 1;
124.         ELSE IF OMFLAG85 = 'Y' THEN RETN8586 = 0;
125.      IF OMFLAG86 = 'Y' AND OMFLAG87 = 'Y' THEN RETN8687 = 1;
126.         ELSE IF OMFLAG86 = 'Y' THEN RETN8687 = 0;
127.      IF OMFLAG87 = 'Y' AND OMFLAG88 = 'Y' THEN RETN8788 = 1;
128.         ELSE IF OMFLAG87 = 'Y' THEN RETN8788 = 0;
129.      IF OMFLAG88 = 'Y' AND OMFLAG89 = 'Y' THEN RETN8889 = 1;
130.         ELSE IF OMFLAG88 = 'Y' THEN RETN8889 = 0;
131.      FORMAT SEX $SEX.
132.             TGRA $TGRA.
133.             SOC $SOC.
134.             BABR $BABR.
135.             BRCD $SPEC.
136.             FACD $SPEC.
137.             REDCAT $REDCAT.
138.             ETHGP $ETHGP.
139.             CELC $CELC.
140.             MEL $MEL.
141.             RCEAS1 $CEAS.
142.             RCEAS2 $CEAS.
143.             RCEAS3 $CEAS.
144.             MARST $MARST.
145.             COMPT $COMPT.
146.             CURSA $CURSA.
147.             COBO $GEOLC.
148.             ORAPT $ORAPT.
149.             OMFLAG79 $FLAG.
150.             OMFLAG80 $FLAG.
151.             OMFLAG81 $FLAG.
152.             OMFLAG82 $FLAG.
153.             OMFLAG83 $FLAG.
154.             OMFLAG84 $FLAG.
155.             OMFLAG85 $FLAG.
156.             OMFLAG86 $FLAG.
157.             OMFLAG87 $FLAG.
158.             OMFLAG88 $FLAG.
159.             OMFLAG89 $FLAG.
160.             DUTYFL70 $FLAG.
161.             DUTYFL71 $FLAG.
162.             DUTYFL72 $FLAG.
163.             DUTYFL73 $FLAG.
164.             DU YFL74 $FLAG.
165.             DUTYFL75 $FLAG.
166.             DUTYFL76 $FLAG.
167.             DUTYFL77 $FLAG.
168.             DUTYFL78 $FLAG.
169.             DUTYFL79 $FLAG.
170.             DUTYFL80 $FLAG.
171.             DUTYFL81 $FLAG.
172.             DUTYFL82 $FLAG.
173.             DUTYFL83 $FLAG.
174.             DUTYFL84 $FLAG.
175.             DUTYFL85 $FLAG.
176.             DUTYFL86 $FLAG.
177.             DUTYFL87 $FLAG.
178.             DUTYFL88 $FLAG.
179.             DUTYFL89 $FLAG.
180.             RETN7980 FLAGRET.
```

```
            RETN8081 FLAGRET.
            RETN8182 FLAGRET.
            RETN8283 FLAGRET.
            RETN8384 FLAGRET.
            RETN8485 FLAGRET.
            RETN8586 FLAGRET.
            RETN8687 FLAGRET.
            RETN8788 FLAGRET.
            RETN8889 FLAGRET.;
      LABEL MATCHCOD  ='MATCH CODE'
            DOB       ='DATE OF BIRTH'
            SEX       ='SEX'
            TGRA      ='TEMPORARY GRADE'
            TDOR      ='TEMPORARY DATE OF RANK'
            BPED      ='PAY ENTRY BASIC DATE'
            EADC      ='ENTRY ON ACTIVE DUTY IN CURRENT TOUR'
            DTRA      ='BASIC DATE OF RA/USAR/NGUS APPOINTMENT'
            SOC       ='SOURCE OF COMMISSION'
            SEPDT     ='SEPARATION DATE'
            SPD       ='SEPARATION PROGRAM DESIGNATION'
            BABR      ='BASIC BRANCH FOR COMMISSIONED OFFICERS'
            BRCD      ='BRANCH CODE (INITIAL SPECIALTY-INSPEC)'
            FACD      ='FUNCTIONAL AREA CODE (SPECIALTY-ADSPEC)'
            REDCAT    ='RACIAL/ETHNIC DESCENT CATEGORY'
            ETHGP     ='ETHNIC GROUP DESIGNATION'
            BYRGP     ='BASIC YEAR GROUP'
            PHDT1     ='DATE PROMOTED TO 2LT'
            PHDT2     ='DATE PROMOTED TO 1LT'
            PHDT3     ='DATE PROMOTED TO CPT'
            PHDT4     ='DATE PROMOTED TO MAJ'
            PHDT5     ='DATE PROMOTED TO LTC'
            PHDT6     ='DATE PROMOTED TO COL'
            PHDT7     ='DATE PROMOTED TO B G'
            PHDT8     ='DATE PROMOTED TO M G'
            PHDT9     ='DATE PROMOTED TO LTG'
            PHDT10    ='DATE PROMOTED TO GEN'
            CELC      ='CIVILIAN EDUCATION LEVEL'
            MEL       ='MILITARY EDUCATION LEVEL'
            RCEAS1    ='ACADEMIC SPECIALTY CODE - LEVEL 1'
            RCEAS2    ='ACADEMIC SPECIALTY CODE - LEVEL 2'
            RCEAS3    ='ACADEMIC SPECIALTY CODE - LEVEL 3'
            MARST     ='MARITAL STATUS'
            DEPS      ='NUMBER OF DEPENDENTS'
            NODA      ='NUMBER OF ADULT DEPENDENTS'
            COMPT     ='SERVICE COMPONENT'
            CURSA     ='CURRENT SERVICE AGREEMENT'
            COBO      ='COUNTRY OR STATE OF BIRTH'
            ORAPT     ='TYPE OF ORIGINIAL APPOINTMENT'
            OMFLAG79  ='OMF FLAG 1979'
            OMFLAG80  ='OMF FLAG 1980'
            OMFLAG81  ='OMF FLAG 1981'
            OMFLAG82  ='OMF FLAG 1982'
            OMFLAG83  ='OMF FLAG 1983'
            OMFLAG84  ='OMF FLAG 1984'
            OMFLAG85  ='OMF FLAG 1985'
            OMFLAG86  ='OMF FLAG 1986'
            OMFLAG87  ='OMF FLAG 1987'
            OMFLAG88  ='OMF FLAG 1988'
            OMFLAG89  ='OMF FLAG 1989'
            DUTYFL70  ='ACTIVE DUTY FLAG 1970'
```

```
241.            DUTYFL71   ='ACTIVE DUTY FLAG 1971'
242.            DUTYFL72   ='ACTIVE DUTY FLAG 1972'
243.            DUTYFL73   ='ACTIVE DUTY FLAG 1973'
244.            DUTYFL74   ='ACTIVE DUTY FLAG 1974'
245.            DUTYFL75   ='ACTIVE DUTY FLAG 1975'
246.            DUTYFL76   ='ACTIVE DUTY FLAG 1976'
247.            DUTYFL77   ='ACTIVE DUTY FLAG 1977'
248.            DUTYFL78   ='ACTIVE DUTY FLAG 1978'
249.            DUTYFL79   ='ACTIVE DUTY FLAG 1979'
250.            DUTYFL80   ='ACTIVE DUTY FLAG 1980'
251.            DUTYFL81   ='ACTIVE DUTY FLAG 1981'
252.            DUTYFL82   ='ACTIVE DUTY FLAG 1982'
253.            DUTYFL83   ='ACTIVE DUTY FLAG 1983'
254.            DUTYFL84   ='ACTIVE DUTY FLAG 1984'
255.            DUTYFL85   ='ACTIVE DUTY FLAG 1985'
256.            DUTYFL86   ='ACTIVE DUTY FLAG 1986'
257.            DUTYFL87   ='ACTIVE DUTY FLAG 1987'
258.            DUTYFL88   ='ACTIVE DUTY FLAG 1988'
259.            DUTYFL89   ='ACTIVE DUTY FLAG 1989'
260.            FLAGALL    ='FLAGS FOR ALL YEARS OF OMF DATA'
261.            DOBYY      ='YEAR OF DATE OF BIRTH'
262.            TDORYY     ='YEAR OF TEMPORARY DATE OF RANK'
263.            BPEDYY     ='YEAR OF PAY ENTRY BASIC DATE'
264.            EADCYY     ='YEAR OF ACTIVE DUTY IN CURRENT TOUR'
265.            DTRAYY     ='YEAR OF BASIC DATE RA/USAR/NGUS APPT'
266.            SEPDTYY    ='YEAR OF SEPARATION DATE'
267.            PHDT1YY    ='YEAR OF DATE PROMOTED TO 2LT'
268.            PHDT2YY    ='YEAR OF DATE PROMOTED TO 1LT'
269.            PHDT3YY    ='YEAR OF DATE PROMOTED TO CAP'
270.            PHDT4YY    ='YEAR OF DATE PROMOTED TO MAJ'
271.            PHDT5YY    ='YEAR OF DATE PROMOTED TO LTC'
272.            PHDT6YY    ='YEAR OF DATE PROMOTED TO COL'
273.            PHDT7YY    ='YEAR OF DATE PROMOTED TO B G'
274.            PHDT8YY    ='YEAR OF DATE PROMOTED TO M G'
275.            PHDT9YY    ='YEAR OF DATE PROMOTED TO LTG'
276.            PHDT10YY   ='YEAR OF DATE PROMOTED TO GEN'
277.            DOBMM      ='MONTH OF DATE OF BIRTH'
278.            TDORMM     ='MONTH OF TEMPORARY DATE OF RANK'
279.            BPEDMM     ='MONTH OF PAY ENTRY BASIC DATE'
280.            EADCMM     ='MONTH OF ACTIVE DUTY IN CURRENT TOUR'
281.            DTRAMM     ='MONTH OF BASIC DATE RA/USAR/NGUS APPT'
282.            SEPDTMM    ='MONTH OF SEPARATION DATE'
283.            PHDT1MM    ='MONTH OF DATE PROMOTED TO 2LT'
284.            PHDT2MM    ='MONTH OF DATE PROMOTED TO 1LT'
285.            PHDT3MM    ='MONTH OF DATE PROMOTED TO CAP'
286.            PHDT4MM    ='MONTH OF DATE PROMOTED TO MAJ'
287.            PHDT5MM    ='MONTH OF DATE PROMOTED TO LTC'
288.            PHDT6MM    ='MONTH OF DATE PROMOTED TO COL'
289.            PHDT7MM    ='MONTH OF DATE PROMOTED TO B G'
290.            PHDT8MM    ='MONTH OF DATE PROMOTED TO M G'
291.            PHDT9MM    ='MONTH OF DATE PROMOTED TO LTG'
292.            PHDT10MM   ='MONTH OF DATE PROMOTED TO GEN'
293.            RETN7980   ='RETENTION FOR 1979-1980'
294.            RETN8081   ='RETENTION FOR 1980-1981'
295.            RETN8182   ='RETENTION FOR 1981-1982'
296.            RETN8283   ='RETENTION FOR 1982-1983'
297.            RETN8384   ='RETENTION FOR 1983-1984'
298.            RETN8485   ='RETENTION FOR 1984-1985'
299.            RETN8586   ='RETENTION FOR 1985-1986'
300.            RETN8687   ='RETENTION FOR 1986-1987'
```

```
301.            RETN8788  ='RETENTION FOR 1987-1988'
302.            RETN8889  ='RETENTION FOR 1988-1989';
303.      PROC FREQ;
304.      TABLES
305.      SEX TGRA SOC SPD
306.      BABR BRCD FACD REDCAT
307.      ETHGP BYRGP CELC MEL
308.      RCEAS1 RCEAS2 RCEAS3 MARST
309.      DEPS NODA COMPT CURSA
310.      COBO ORAPT OMFLAG79 OMFLAG80
311.      OMFLAG81 OMFLAG82 OMFLAG83 OMFLAG84
312.      OMFLAG85 OMFLAG86 OMFLAG87 OMFLAG88
313.      OMFLAG89 DUTYFL70 DUTYFL71 DUTYFL72
314.      DUTYFL73 DUTYFL74 DUTYFL75 DUTYFL76
315.      DUTYFL77 DUTYFL78 DUTYFL79 DUTYFL80
316.      DUTYFL81 DUTYFL82 DUTYFL83 DUTYFL84
317.      DUTYFL85 DUTYFL86 DUTYFL87 DUTYFL88
318.      DUTYFL89 FLAGALL DOBYY TDORYY
319.      BPEDYY EADCYY DTRAYY SEPDTYY
320.      PHDT1YY PHDT2YY PHDT3YY PHDT4YY
321.      PHDT5YY PHDT6YY PHDT7YY PHDT8YY
322.      PHDT9YY PHDT10YY ;
```

APPENDIX I

SORT SAS CORE DATA SET BY MATCHCODE

```
1.      //EPXSTOLR JOB (WTFF,748,C,300),FU,REGION=2000K
2.      /*ROUTE XEQ TAPE
3.      /*MESSAGE 042331;028610,W
4.      //*      SASSORT.OLRDB ON FILE45
5.      /*UNNUMBERED
6.      //PROCLIB DD DSN=ZABCRUN.PROCLIB,DISP=SHR
7.      //STEP1 EXEC SAS
8.      //IN DD DSN=WTFFEPX.SASOLRDB,UNIT=TAPE,VOL=SER=042331,DISP=OLD
9.      //OUT DD DSN=WTFFEPX.SASOLRDS,UNIT=TAPE,DISP=(,KEEP),VOL=SER=028610
10.     //SASLIB DD DSN=WRZ1KFD.OMF85.FORMATS,DISP=SHR
11.     //SYSIN DD *
12.     *
13.          THIS PROGRAM SORTS THE OLRDB BY THE SCRAMBLED MATCH CODE.
14.     ;
15.     PROC SORT DATA=IN.CORE OUT=OUT.CORE;
16.        BY MATCHCOD;
```

APPENDIX J

CREATE A LIST OF SAS CORE DATA SET CONTENTS


```
0.1   SASCONT.OLRDB
1.    //EPXSTOLR JOB (WTFF,748),FU,REGION=2000K
2.    /*ROUTE XEQ TAPE
3.    /*MESSAGE 028610
4.    //*     SASCONT.OLRDB ON FILE45
5.    /*UNNUMBERED
6.    //PROCLIB DD DSN=ZABCRUN.PROCLIB,DISP=SHR
7.    //STEP1 EXEC SAS
8.    //IN DD DSN=WTFFEPX.SASOLRDS,UNIT=TAPE,DISP=OLD,VOL=SER=028610
9.    //SYSIN DD *
10.   *
11.       THIS PROGRAM PRODUCES A LIST OF ALL THE VARIABLES ON THE
12.       DATA SET.
13.   ;
14.   PROC CONTENTS DATA=IN.CORE;
```

CONTENTS OF SAS DATA SET IN.CORE

TAPE FORMAT DATA SET CREATED BY OS JOB EPXSASPR ON CPUID 20-3090-170733 AT 22:49 TUESDAY, MAY 5, 1987

BY SAS RELEASE 85.16 DSNAME=WTFFEPX.SASOLRDB INFILE(DSN=WTFFEPX.OLRDB.ENCRYPT VOL=SER=062834) BLKSIZE=20268 LRECL=298

GENERATED BY DATA

ALPHABETIC LIST OF VARIABLES

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
12	BABR	CHAR	2	57	BABR33.		BASIC BRANCH FOR COMMISSIONED OFFICERS
6	BPED	CHAR	6	29			PAY ENTRY BASIC DATE
77	BPEDMM	CHAR	2	204			MONTH OF PAY ENTRY BASIC DATE
76	BPEDYY	CHAR	2	202			YEAR OF PAY ENTRY BASIC DATE
13	BRCD	CHAR	2	59	SPEC19.		BRANCH CODE (INITIAL SPECIALTY-INSPEC)
17	BYRGP	CHAR	2	65			BASIC YEAR GROUP
28	CELC	CHAR	1	127	CELC26.		CIVILIAN EDUCATION LEVEL
38	COBO	CHAR	2	149	GEOLC20.		COUNTRY OR STATE OF BIRTH
36	COMPT	CHAR	1	147	COMPT14.		SERVICE COMPONENT
37	CURSA	CHAR	1	148	CURSA18.		CURRENT SERVICE AGREEMENT
34	DEPS	NUM	4	139			NUMBER OF DEPENDENTS
2	DOB	CHAR	6	13			DATE OF BIRTH
73	DOBMM	CHAR	2	196			MONTH OF DATE OF BIRTH
72	DOBYY	CHAR	2	194			YEAR OF DATE OF BIRTH
8	DTRA	CHAR	6	41			BASIC DATE OF RA/USAR/NGUS APPOINTMENT
81	DTRAMM	CHAR	2	212			MONTH OF BASIC DATE RA/USAR/NGUS APPT
80	DTRAYY	CHAR	2	210			YEAR OF BASIC DATE RA/USAR/NGUS APPT
51	DUTYFL70	CHAR	1	163	FLAG3.		ACTIVE DUTY FLAG 1970
52	DUTYFL71	CHAR	1	164	FLAG3.		ACTIVE DUTY FLAG 1971
53	DUTYFL72	CHAR	1	165	FLAG3.		ACTIVE DUTY FLAG 1972
54	DUTYFL73	CHAR	1	166	FLAG3.		ACTIVE DUTY FLAG 1973
55	DUTYFL74	CHAR	1	167	FLAG3.		ACTIVE DUTY FLAG 1974
56	DUTYFL75	CHAR	1	168	FLAG3.		ACTIVE DUTY FLAG 1975
57	DUTYFL76	CHAR	1	169	FLAG3.		ACTIVE DUTY FLAG 1976
58	DUTYFL77	CHAR	1	170	FLAG3.		ACTIVE DUTY FLAG 1977
59	DUTYFL78	CHAR	1	171	FLAG3.		ACTIVE DUTY FLAG 1978
60	DUTYFL79	CHAR	1	172	FLAG3.		ACTIVE DUTY FLAG 1979
61	DUTYFL80	CHAR	1	173	FLAG3.		ACTIVE DUTY FLAG 1980
62	DUTYFL81	CHAR	1	174	FLAG3.		ACTIVE DUTY FLAG 1981
63	DUTYFL82	CHAR	1	175	FLAG3.		ACTIVE DUTY FLAG 1982
64	DUTYFL83	CHAR	1	176	FLAG3.		ACTIVE DUTY FLAG 1983
65	DUTYFL84	CHAR	1	177	FLAG3.		ACTIVE DUTY FLAG 1984
66	DUTYFL85	CHAR	1	178	FLAG3.		ACTIVE DUTY FLAG 1985
67	DUTYFL86	CHAR	1	179	FLAG3.		ACTIVE DUTY FLAG 1986
68	DUTYFL87	CHAR	1	180	FLAG3.		ACTIVE DUTY FLAG 1987
69	DUTYFL88	CHAR	1	181	FLAG3.		ACTIVE DUTY FLAG 1988
70	DUTYFL89	CHAR	1	182	FLAG3.		ACTIVE DUTY FLAG 1989
7	EADC	CHAR	6	35			ENTRY ON ACTIVE DUTY IN CURRENT TOUR
79	EADCMM	CHAR	2	208			MONTH OF ACTIVE DUTY IN CURRENT TOUR
78	EADCYY	CHAR	2	206			YEAR OF ACTIVE DUTY IN CURRENT TOUR
16	ETHGP	CHAR	1	64	ETHGP17.		ETHNIC GROUP DESIGNATION
14	FACD	CHAR	2	61	SPEC19.		FUNCTIONAL AREA CODE (SPECIALTY-ADSPEC)
71	FLAGALL	CHAR	11	183			FLAGS FOR ALL YEARS OF OMF DATA
33	MARST	CHAR	1	138	MARST17.		MARITAL STATUS
1	MATCHCOD	CHAR	9	4			MATCH CODE
29	MEL	CHAR	1	128	MEL24.		MILITARY EDUCATION LEVEL

35	NODA	NUM	4	143		NUMBER OF ADULT DEPENDENTS
40	OMFLAG79	CHAR	1	152	FLAG3.	OMF FLAG 1979
41	OMFLAG80	CHAR	1	153	FLAG3.	OMF FLAG 1980
42	OMFLAG81	CHAR	1	154	FLAG3.	OMF FLAG 1981
43	OMFLAG82	CHAR	1	155	FLAG3.	OMF FLAG 1982
44	OMFLAG83	CHAR	1	156	FLAG3.	OMF FLAG 1983
45	OMFLAG84	CHAR	1	157	FLAG3.	OMF FLAG 1984
46	OMFLAG85	CHAR	1	158	FLAG3.	OMF FLAG 1985
47	OMFLAG86	CHAR	1	159	FLAG3.	OMF FLAG 1986
48	OMFLAG87	CHAR	1	160	FLAG3.	OMF FLAG 1987
49	OMFLAG88	CHAR	1	161	FLAG3.	OMF FLAG 1988
50	OMFLAG89	CHAR	1	162	FLAG3.	OMF FLAG 1989
39	ORAPT	CHAR	1	151	ORAPT14.	TYPE OF ORIGINIAL APPOINTMENT
18	PHDT1	CHAR	6	67		DATE PROMOTED TO 2LT
19	PHDT2	CHAR	6	73		DATE PROMOTED TO 1LT
20	PHDT3	CHAR	6	79		DATE PROMOTED TO CPT
21	PHDT4	CHAR	6	85		DATE PROMOTED TO MAJ
22	PHDT5	CHAR	6	91		DATE PROMOTED TO LTC
23	PHDT6	CHAR	6	97		DATE PROMOTED TO COL
24	PHDT7	CHAR	6	103		DATE PROMOTED TO B G
25	PHDT8	CHAR	6	109		DATE PROMOTED TO M G
26	PHDT9	CHAR	6	115		DATE PROMOTED TO LTG
27	PHDT10	CHAR	6	121		DATE PROMOTED TO GEN
85	PHDT1MM	CHAR	2	220		MONTH OF DATE PROMOTED TO 2LT
84	PHDT1YY	CHAR	2	218		YEAR OF DATE PROMOTED TO 2LT
103	PHDT10MM	CHAR	2	256		MONTH OF DATE PROMOTED TO GEN
102	PHDT10YY	CHAR	2	254		YEAR OF DATE PROMOTED TO GEN
87	PHDT2MM	CHAR	2	224		MONTH OF DATE PROMOTED TO 1LT
86	PHDT2YY	CHAR	2	222		YEAR OF DATE PROMOTED TO 1LT
89	PHDT3MM	CHAR	2	228		MONTH OF DATE PROMOTED TO CAP
88	PHDT3YY	CHAR	2	226		YEAR OF DATE PROMOTED TO CAP
91	PHDT4MM	CHAR	2	232		MONTH OF DATE PROMOTED TO MAJ
90	PHDT4YY	CHAR	2	230		YEAR OF DATE PROMOTED TO MAJ
93	PHDT5MM	CHAR	2	236		MONTH OF DATE PROMOTED TO LTC
92	PHDT5YY	CHAR	2	234		YEAR OF DATE PROMOTED TO LTC
95	PHDT6MM	CHAR	2	240		MONTH OF DATE PROMOTED TO COL
94	PHDT6YY	CHAR	2	238		YEAR OF DATE PROMOTED TO COL
97	PHDT7MM	CHAR	2	244		MONTH OF DATE PROMOTED TO B G
96	PHDT7YY	CHAR	2	242		YEAR OF DATE PROMOTED TO B G
99	PHDT8MM	CHAR	2	248		MONTH OF DATE PROMOTED TO M G
98	PHDT8YY	CHAR	2	246		YEAR OF DATE PROMOTED TO M G
101	PHDT9MM	CHAR	2	252		MONTH OF DATE PROMOTED TO LTG
100	PHDT9YY	CHAR	2	250		YEAR OF DATE PROMOTED TO LTG
30	RCEAS1	CHAR	3	129	CEAS29.	ACADEMIC SPECIALTY CODE - LEVEL 1
31	RCEAS2	CHAR	3	132	CEAS29.	ACADEMIC SPECIALTY CODE - LEVEL 2
32	RCEAS3	CHAR	3	135	CEAS29.	ACADEMIC SPECIALTY CODE - LEVEL 3
15	REDCAT	CHAR	1	63	REDCAT16.	RACIAL/ETHNIC DESCENT CATEGORY
104	RETN7980	NUM	4	258	FLAGRET9.	RETENTION FOR 1979-1980
105	RETN8081	NUM	4	262	FLAGRET9.	RETENTION FOR 1980-1981
106	RETN8182	NUM	4	266	FLAGRET9.	RETENTION FOR 1981-1982
107	RETN8283	NUM	4	270	FLAGRET9.	RETENTION FOR 1982-1983
108	RETN8384	NUM	4	274	FLAGRET9.	RETENTION FOR 1983-1984
109	RETN8485	NUM	4	278	FLAGRET9.	RETENTION FOR 1984-1985
110	RETN8586	NUM	4	282	FLAGRET9.	RETENTION FOR 1985-1986
111	RETN8687	NUM	4	286	FLAGRET9.	RETENTION FOR 1986-1987
112	RETN8788	NUM	4	290	FLAGRET9.	RETENTION FOR 1987-1988

113	RETN8889	NUM	4	294	FLAGRET9.	RETENTION FOR 1988-1989
10	SEPDT	CHAR	6	48		SEPARATION DATE
83	SEPDTMM	CHAR	2	216		MONTH OF SEPARATION DATE
82	SEPDTYY	CHAR	2	214		YEAR OF SEPARATION DATE
3	SEX	CHAR	1	19	SEX7.	SEX
9	SOC	CHAR	1	47	SOC18.	SOURCE OF COMMISSION
11	SPD	CHAR	3	54		SEPARATION PROGRAM DESIGNATION
5	TDOR	CHAR	6	23		TEMPORARY DATE OF RANK
75	TDORMM	CHAR	2	200		MONTH OF TEMPORARY DATE OF RANK
74	TDORYY	CHAR	2	198		YEAR OF TEMPORARY DATE OF RANK
4	TGRA	CHAR	3	20	TGRA15.	TEMPORARY GRADE

SOURCE STATEMENTS

```
DATA OUT.CORE;
LENGTH DEFAULT=4;
INFILE INCORE;
INPUT
MATCHCOD $ 1486-1494
DOB      $ 1495-1500
SEX      $ 1501
TGRA     $ 1502-1504
TDOR     $ 1505-1510
BPED     $ 1511-1516
EADC     $ 1517-1522
DTRA     $ 1523-1528
SOC      $ 1529
SEPDT    $ 1530-1535
SPD      $ 1536-1538
BABR     $ 1539-1540
BRCD     $ 1541-1542
FACD     $ 1543-1544
REDCAT   $ 1545
ETHGP    $ 1546
BYRGP    $ 1547-1548
PHDT1    $ 1549-1554
PHDT2    $ 1555-1560
PHDT3    $ 1561-1566
PHDT4    $ 1567-1572
PHDT5    $ 1573-1578
PHDT6    $ 1579-1584
PHDT7    $ 1585-1590
PHDT8    $ 1591-1596
PHDT9    $ 1597-1602
PHDT10   $ 1603-1608
CELC     $ 1609
MEL      $ 1610
RCEAS1   $ 1611-1613
RCEAS2   $ 1614-1616
RCEAS3   $ 1617-1619
MARST    $ 1620
DEPS       1621-1622
NODA       1623-1624
COMPT    $ 1625
CURSA    $ 1626
COBO     $ 1627-1628
```

```
1          SAS(R) LOG   OS SAS 5.16          MVS/XA JOB EPXSASPR STEP STEP1    PROC SAS516          21:33 WEDNESDAY, MAY 20, 198

NOTE: COPYRIGHT (C) 1984,1986 SAS INSTITUTE INC., CARY, N.C.  27511, U.S.A.
NOTE: THE JOB EPXSASPR HAS BEEN RUN UNDER RELEASE 5.16 OF SAS AT THE NATIONAL INSTITUTES OF HEALTH (08995001).

NOTE: CPUID   VERSION = 20  SERIAL = 170733  MODEL = 3090 .
      CPUID   VERSION = 20  SERIAL = 270733  MODEL = 3090 .

NOTE: NO OPTIONS SPECIFIED.

This release of SAS (5.16) is in a test stage at the present time.
SAS 5.16 corrects numerous problems in previous releases.  If you
executed SAS508, you should change the EXEC statement to:

  //  EXEC  SAS516


To execute the production version of SAS (82.4) use the following
EXEC statement:

  //  EXEC  SAS


The SAS system option MACRO has been turned off in SAS 5.16.
Therefore, if you are using the SAS MACRO Facility, use the
following EXEC statement:

  //  EXEC  SAS516,OPTIONS='MACRO'



1          *
2               THIS PROGRAM CALCULATES RETENTION RATES TO SHOW HOW MANY
3               OFFICERS HAVE STAYED IN THE ARMY SINCE 1979.
4          ;
5          PROC FORMAT;
6             VALUE SOCRCT  1 = 'WEST POINT'
7                           2 = 'ROTC'
NOTE: FORMAT SOCRCT HAS BEEN OUTPUT.
8                           3 = 'OCS';
NOTE: THE PROCEDURE FORMAT USED 0.06 SECONDS AND 704K.

9          DATA RETEN3;
10         SET IN.CORE;
11         IF SOC='A' THEN SOCRC=1;
12            ELSE IF SOC='2' OR SOC='3' OR SOC='B' OR SOC='C' THEN SOCRC=2;
13            ELSE IF SOC='4' OR SOC='5' OR SOC='6' OR SOC='D' OR SOC='E' THEN
14               SOCRC=3;
15         IF SPD='JBK' OR SPD='LBK' OR SPD='MBK' OR SPD='VBK' THEN SPDRC=1;
16            ELSE SPDRC=0;
17         IF OMFLAG79 = 'Y' AND PHDT1 > '781000' AND PHDT1 < '791000' AND
18            SOCRC¬=.;
19         FORMAT SOCRC SOCRCT.;

NOTE: DATA SET WORK.RETEN3 HAS 5528 OBSERVATIONS AND 115 VARIABLES. 148 OBS/TRK.
NOTE: THE DATA STATEMENT USED 11.43 SECONDS AND 700K.

20         PROC FREQ;
21            TABLES SOCRC BABR;
```

```
22          TITLE 'TABLE 1';
WARNING: THE FORMATTED VALUES OF ONE OR MORE VARIABLES ARE TRUNCATED TO 16 CHARACTERS.
NOTE: THE PROCEDURE FREQ USED 0.28 SECONDS AND 952K AND PRINTED PAGE 1.

23          PROC FREQ;
24             TABLES PHDT1YY PHDT2YY PHDT3YY PHDT4YY PHDT5YY/MISSING;
25          TITLE 'TABLE 2';
NOTE: FOR TABLE LOCATION IN PRINT FILE, SEE
      PAGE 2 FOR PHDT1YY
      PAGE 2 FOR PHDT2YY
      PAGE 2 FOR PHDT3YY
      PAGE 2 FOR PHDT4YY
      PAGE 2 FOR PHDT5YY
NOTE: THE PROCEDURE FREQ USED 0.35 SECONDS AND 952K AND PRINTED PAGE 2.

26          DATA RETEN86;
27          SET RETEN3;
28          IF OMFLAG86 = 'Y';

NOTE: DATA SET WORK.RETEN86 HAS 3633 OBSERVATIONS AND 115 VARIABLES. 148 OBS/TRK.
NOTE: THE DATA STATEMENT USED 0.40 SECONDS AND 700K.

29          PROC FREQ;
30             TABLES TGRA;
31          TITLE 'TGRA FOR OFFICERS REMAINING IN 1986';
NOTE: THE PROCEDURE FREQ USED 0.17 SECONDS AND 952K AND PRINTED PAGE 3.

32          PROC FREQ DATA=RETEN3;
33             TABLES SEPDTYY * SOCRC SEPDTYY;
34          TITLE 'SEPARATION DATE BY SOURCE OF COMMISSION';
NOTE: THE PROCEDURE FREQ USED 0.30 SECONDS AND 952K AND PRINTED PAGES 4 TO 5.

35          PROC FREQ DATA=RETEN3;
36             TABLES SPD * SEPDTYY;
37          FORMAT SPD $SPPRG.;
38          TITLE 'SPD BY SEPARATION DATE';
WARNING: THE FORMATTED VALUES OF ONE OR MORE VARIABLES ARE TRUNCATED TO 16 CHARACTERS.
NOTE: THE PROCEDURE FREQ USED 0.34 SECONDS AND 968K AND PRINTED PAGES 6 TO 10.

39          PROC FREQ DATA=RETEN3;
40             TABLES (SOCRC BABR) * SPDRC SOCRC * BABR * SPDRC;
41          TITLE 'SERARATION DUE TO EXPIRATION OF TERM';
WARNING: THE FORMATTED VALUES OF ONE OR MORE VARIABLES ARE TRUNCATED TO 16 CHARACTERS.
NOTE: THE PROCEDURE FREQ USED 0.40 SECONDS AND 952K AND PRINTED PAGES 11 TO 23.
NOTE: SAS USED 968K MEMORY.

NOTE: SAS INSTITUTE INC.
      SAS CIRCLE
      PO BOX 8000
      CARY, N.C. 27511-8000
```

SOCRC	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
WEST POINT	879	15.9	879	15.9
ROTC	3969	71.8	4848	87.7
OCS	680	12.3	5528	100.0

BASIC BRANCH FOR COMMISSIONED OFFICERS

BABR	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
	374	.	.	.
AIR DEFENSE ARTI	342	6.6	342	6.6
ADJUTANT GENERAL	288	5.6	630	12.2
ARMY NURSE CORPS	19	0.4	649	12.6
ARMOR	414	8.0	1063	20.6
CHEMICAL CORPS	81	1.6	1144	22.2
CORPS OF ENGINEE	463	9.0	1607	31.2
FIELD ARTILLERY	701	13.6	2308	44.8
FINANCE CORPS	86	1.7	2394	46.4
INFANTRY	855	16.6	3249	63.0
JUDGE ADVOCATE G	16	0.3	3265	63.3
MILITARY INTELLI	313	6.1	3578	69.4
MILITARY POLICE	187	3.6	3765	73.1
MEDICAL SERVICE	262	5.1	4027	78.1
ORDNANCE CORPS	285	5.5	4312	83.7
QUARTERMASTER CO	247	4.8	4559	88.5
SIGNAL CORPS	481	9.3	5040	97.8
ARMY MEDICAL SPE	2	0.0	5042	97.8
TRANSPORTATION C	112	2.2	5154	100.0

YEAR OF DATE PROMOTED TO 2LT

PHDT1YY	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
78	483	8.7	483	8.7
79	5045	91.3	5528	100.0

YEAR OF DATE PROMOTED TO 1LT

PHDT2YY	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
	822	14.9	822	14.9
73	1	0.0	823	14.9
78	8	0.1	831	15.0
79	16	0.3	847	15.3
80	485	8.8	1332	24.1
81	4191	75.8	5523	99.9
82	5	0.1	5528	100.0

YEAR OF DATE PROMOTED TO CAP

PHDT3YY	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
	5527	100.0	5527	100.0
76	1	0.0	5528	100.0

YEAR OF DATE PROMOTED TO MAJ

PHDT4YY	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
	5528	100.0	5528	100.0

YEAR OF DATE PROMOTED TO LTC

PHDT5YY	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
	5528	100.0	5528	100.0

TGRA FOR OFFICERS REMAINING IN 1986 21:33 WEDNESDAY, MAY 20, 1987

TEMPORARY GRADE

TGRA	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
	1	.	.	.
CAPTAIN	3626	99.8	3626	99.8
1ST LT	5	0.1	3631	100.0
2ND LT	1	0.0	3632	100.0

TABLE OF SEPDTYY BY SOCRC

SEPDTYY(YEAR OF SEPARATION DATE)
SOCRC

FREQUENCY PERCENT ROW PCT COL PCT	WEST POINT	ROTC	OCS	TOTAL
81	3 0.14 3.61 1.00	65 3.08 78.31 4.04	15 0.71 18.07 7.43	83 3.93
82	9 0.43 1.63 2.99	456 21.61 82.46 28.38	88 4.17 15.91 43.56	553 26.21
83	11 0.52 1.66 3.65	606 28.72 91.68 37.71	44 2.09 6.66 21.78	661 31.33
84	169 8.01 42.68 56.15	209 9.91 52.78 13.01	18 0.85 4.55 8.91	396 18.77
85	73 3.46 26.94 24.25	177 8.39 65.31 11.01	21 1.00 7.75 10.40	271 12.84
86	36 1.71 24.66 11.96	94 4.45 64.38 5.85	16 0.76 10.96 7.92	146 6.92
TOTAL	301 14.27	1607 76.16	202 9.57	2110 100.00

FREQUENCY MISSING = 3418

YEAR OF SEPARATION DATE

SEPDTYY	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
	3418	.	.	.
81	83	3.9	83	3.9
82	553	26.2	636	30.1
83	661	31.3	1297	61.5
84	396	18.8	1693	80.2
85	271	12.8	1964	93.1
86	146	6.9	2110	100.0

TABLE OF SPD BY SEPDTYY

SPD(SEPARATION PROGRAM DESIGNATION) SEPDTYY(YEAR OF SEPARATION DATE)

FREQUENCY PERCENT ROW PCT COL PCT	81	82	83	84	85	86	TOTAL
-RSG CT-MRTL CND	8 0.38 29.63 9.64	6 0.28 22.22 1.08	3 0.14 11.11 0.45	2 0.09 7.41 0.51	6 0.28 22.22 2.21	2 0.09 7.41 1.39	27 1.28
-RSG SBSTD PERF	1 0.05 12.50 1.20	1 0.05 12.50 0.18	3 0.14 37.50 0.45	1 0.05 12.50 0.25	2 0.09 25.00 0.74	0 0.00 0.00 0.00	8 0.38
-RSG UNACCP CNDC	2 0.09 15.38 2.41	2 0.09 15.38 0.36	2 0.09 15.38 0.30	4 0.19 30.77 1.01	2 0.09 15.38 0.74	1 0.05 7.69 0.69	13 0.62
RESG PREGNANCY	2 0.09 25.00 2.41	4 0.19 50.00 0.72	0 0.00 0.00 0.00	2 0.09 25.00 0.51	0 0.00 0.00 0.00	0 0.00 0.00 0.00	8 0.38
RESG RENLSTMT	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.05 100.00 0.25	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.05
RESG MISC INDIV	3 0.14 0.43 3.61	62 2.94 8.96 11.21	169 8.02 24.42 25.61	230 10.92 33.24 58.08	148 7.02 21.39 54.61	80 3.80 11.56 55.56	692 32.84
PHYS DISAB PAY	2 0.09 28.57 2.41	0 0.00 0.00 0.00	1 0.05 14.29 0.15	1 0.05 14.29 0.25	0 0.00 0.00 0.00	3 0.14 42.86 2.08	7 0.33
TOTAL	83 3.94	553 26.25	660 31.32	396 18.79	271 12.86	144 6.83	2107 100.00

(CONTINUED)

TABLE OF SPD BY SEPDTYY

SPD(SEPARATION PROGRAM DESIGNATION) SEPDTYY(YEAR OF SEPARATION DATE)

FREQUENCY PERCENT ROW PCT COL PCT	81	82	83	84	85	86	TOTAL
PHYS DISAB W/O P	1 0.05 50.00 1.20	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.05 50.00 0.37	0 0.00 0.00 0.00	2 0.09
FAIL PERM PROMOT	0 0.00 0.00 0.00	1 0.05 4.35 0.18	1 0.05 4.35 0.15	21 1.00 91.30 5.30	0 0.00 0.00 0.00	0 0.00 0.00 0.00	23 1.09
SUBSTAND PERF	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	2 0.09 100.00 0.51	0 0.00 0.00 0.00	0 0.00 0.00 0.00	2 0.09
UNACCPT CNDCT OT	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.05 50.00 0.15	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.05 50.00 0.69	2 0.09
VOL PHYS DISAB	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.05 100.00 0.37	0 0.00 0.00 0.00	1 0.05
VOL SUBSTND PRF	0 0.00 0.00 0.00	1 0.05 100.00 0.18	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.05
VOL UNACCPT CNDC	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.05 100.00 0.15	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.05
TOTAL	83 3.94	553 26.25	660 31.32	396 18.79	271 12.86	144 6.83	2107 100.00

(CONTINUED)

TABLE OF SPD BY SEPDTYY

SPD(SEPARATION PROGRAM DESIGNATION) SEPDTYY(YEAR OF SEPARATION DATE)

FREQUENCY PERCENT ROW PCT COL PCT	81	82	83	84	85	86	TOTAL
RELS COMPL SERV	2 0.09 1.26 2.41	19 0.90 11.95 3.44	119 5.65 74.84 18.03	16 0.76 10.06 4.04	3 0.14 1.89 1.11	0 0.00 0.00 0.00	159 7.55
RELS FAIL PROMOT	0 0.00 0.00 0.00	1 0.05 12.50 0.18	4 0.19 50.00 0.61	3 0.14 37.50 0.76	0 0.00 0.00 0.00	0 0.00 0.00 0.00	8 0.38
RELS FAIL TMP PR	5 0.24 71.43 6.02	1 0.05 14.29 0.18	1 0.05 14.29 0.15	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	7 0.33
RELS FAIL MIN ST	1 0.05 3.03 1.20	4 0.19 12.12 0.72	3 0.14 9.09 0.45	2 0.09 6.06 0.51	16 0.76 48.48 5.90	7 0.33 21.21 4.86	33 1.57
RELS DNY EXTENS	2 0.09 3.03 2.41	16 0.76 24.24 2.89	34 1.61 51.52 5.15	11 0.52 16.67 2.78	3 0.14 4.55 1.11	0 0.00 0.00 0.00	66 3.13
VOL COMPL SERV	40 1.90 6.57 48.19	352 16.71 57.80 63.65	203 9.63 33.33 30.76	9 0.43 1.48 2.27	3 0.14 0.49 1.11	2 0.09 0.33 1.39	609 28.90
VOL LAW ENF AGEN	0 0.00 0.00 0.00	1 0.05 33.33 0.18	1 0.05 33.33 0.15	0 0.00 0.00 0.00	1 0.05 33.33 0.37	0 0.00 0.00 0.00	3 0.14
TOTAL	83 3.94	553 26.25	660 31.32	396 18.79	271 12.86	144 6.83	2107 100.00

(CONTINUED)

TABLE OF SPD BY SEPDTYY

SPD(SEPARATION PROGRAM DESIGNATION) SEPDTYY(YEAR OF SEPARATION DATE)

FREQUENCY PERCENT ROW PCT COL PCT	81	82	83	84	85	86	TOTAL
VOL HARDSHIP	0 0.00 0.00 0.00	1 0.05 33.33 0.18	0 0.00 0.00 0.00	2 0.09 66.67 0.51	0 0.00 0.00 0.00	0 0.00 0.00 0.00	3 0.14
VOL PREGNANCY	3 0.14 18.75 3.61	4 0.19 25.00 0.72	3 0.14 18.75 0.45	3 0.14 18.75 0.76	2 0.09 12.50 0.74	1 0.05 6.25 0.69	16 0.76
VOL COMMIS IN AR	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.05 50.00 0.15	0 0.00 0.00 0.00	1 0.05 50.00 0.37	0 0.00 0.00 0.00	2 0.09
RELS INTDEPT TRA	0 0.00 0.00 0.00	1 0.05 16.67 0.18	3 0.14 50.00 0.45	0 0.00 0.00 0.00	1 0.05 16.67 0.37	1 0.05 16.67 0.69	6 0.28
VOL REVERT WO	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.05 100.00 0.69	1 0.05
VOL REENLSTMT	0 0.00 0.00 0.00	2 0.09 50.00 0.36	0 0.00 0.00 0.00	2 0.09 50.00 0.51	0 0.00 0.00 0.00	0 0.00 0.00 0.00	4 0.19
VOL MISC REASONS	3 0.14 0.87 3.61	64 3.04 18.60 11.57	88 4.18 25.58 13.33	79 3.75 22.97 19.95	71 3.37 20.64 26.20	39 1.85 11.34 27.08	344 16.33
TOTAL	83 3.94	553 26.25	660 31.32	396 18.79	271 12.86	144 6.83	2107 100.00

(CONTINUED)

TABLE OF SPD BY SEPDTYY

SPD(SEPARATION PROGRAM DESIGNATION) SEPDTYY(YEAR OF SEPARATION DATE)

FREQUENCY PERCENT ROW PCT COL PCT	81	82	83	84	85	86	TOTAL
VOL RTR REQD SER	0 0.00 0.00 0.00	1 0.05 33.33 0.18	2 0.09 66.67 0.30	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	3 0.14
MND RTR PRM DISA	0 0.00 0.00 0.00	1 0.05 9.09 0.18	1 0.05 9.09 0.15	2 0.09 18.18 0.51	3 0.14 27.27 1.11	4 0.19 36.36 2.78	11 0.52
MND RTR PHYS DIS	0 0.00 0.00 0.00	5 0.24 21.74 0.90	10 0.47 43.48 1.52	2 0.09 8.70 0.51	4 0.19 17.39 1.48	2 0.09 8.70 1.39	23 1.09
942	0 0.00 0.00 0.00	1 0.05 100.00 0.18	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.05
944	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.05 100.00 0.15	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.05
945	0 0.00 0.00 0.00	0 0.00 0.00 0.00	2 0.09 100.00 0.30	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	2 0.09
946	8 0.38 47.06 9.64	2 0.09 11.76 0.36	3 0.14 17.65 0.45	1 0.05 5.88 0.25	3 0.14 17.65 1.11	0 0.00 0.00 0.00	17 0.81
TOTAL	83 3.94	553 26.25	660 31.32	396 18.79	271 12.86	144 6.83	2107 100.00

FREQUENCY MISSING = 3421

TABLE OF SOCRC BY SPDRC

SOCRC	SPDRC		
FREQUENCY PERCENT ROW PCT COL PCT	0	1	TOTAL
WEST POINT	878 15.88 99.89 18.45	1 0.02 0.11 0.13	879 15.90
ROTC	3292 59.55 82.94 69.16	677 12.25 17.06 88.15	3969 71.80
OCS	590 10.67 86.76 12.39	90 1.63 13.24 11.72	680 12.30
TOTAL	4760 86.11	768 13.89	5528 100.00

TABLE OF BABR BY SPDRC

BABR(BASIC BRANCH FOR COMMISSIONED OFFICERS)
SPDRC

FREQUENCY PERCENT ROW PCT COL PCT	0	1	TOTAL
AIR DEFENSE ARTI	288 5.59 84.21 6.56	54 1.05 15.79 7.07	342 6.64
ADJUTANT GENERAL	250 4.85 86.81 5.69	38 0.74 13.19 4.97	288 5.59
ARMY NURSE CORPS	16 0.31 84.21 0.36	3 0.06 15.79 0.39	19 0.37
ARMOR	353 6.85 85.27 8.04	61 1.18 14.73 7.98	414 8.03
CHEMICAL CORPS	70 1.36 86.42 1.59	11 0.21 13.58 1.44	81 1.57
CORPS OF ENGINEE	382 7.41 82.51 8.70	81 1.57 17.49 10.60	463 8.98
TOTAL	4390 85.18	764 14.82	5154 100.00

(CONTINUED)

TABLE OF BABR BY SPDRC

BABR(BASIC BRANCH FOR COMMISSIONED OFFICERS)
SPDRC

FREQUENCY PERCENT ROW PCT COL PCT	0	1	TOTAL
FIELD ARTILLERY	581 11.27 82.88 13.23	120 2.33 17.12 15.71	701 13.60
FINANCE CORPS	74 1.44 86.05 1.69	12 0.23 13.95 1.57	86 1.67
INFANTRY	766 14.86 89.59 17.45	89 1.73 10.41 11.65	855 16.59
JUDGE ADVOCATE G	16 0.31 100.00 0.36	0 0.00 0.00 0.00	16 0.31
MILITARY INTELLI	280 5.43 89.46 6.38	33 0.64 10.54 4.32	313 6.07
MILITARY POLICE	162 3.14 86.63 3.69	25 0.49 13.37 3.27	187 3.63
TOTAL	4390 85.18	764 14.82	5154 100.00

(CONTINUED)

TABLE OF BABR BY SPDRC

BABR(BASIC BRANCH FOR COMMISSIONED OFFICERS)
SPDRC

FREQUENCY PERCENT ROW PCT COL PCT	0	1	TOTAL
MEDICAL SERVICE	206 4.00 78.63 4.69	56 1.09 21.37 7.33	262 5.08
ORDNANCE CORPS	246 4.77 86.32 5.60	39 0.76 13.68 5.10	285 5.53
QUARTERMASTER CO	217 4.21 87.85 4.94	30 0.58 12.15 3.93	247 4.79
SIGNAL CORPS	385 7.47 80.04 8.77	96 1.86 19.96 12.57	481 9.33
ARMY MEDICAL SPE	2 0.04 100.00 0.05	0 0.00 0.00 0.00	2 0.04
TRANSPORTATION C	96 1.86 85.71 2.19	16 0.31 14.29 2.09	112 2.17
TOTAL	4390 85.18	764 14.82	5154 100.00

FREQUENCY MISSING = 374

TABLE 1 OF BABR BY SPDRC
CONTROLLING FOR SOCRC=WEST POINT

BABR(BASIC BRANCH FOR COMMISSIONED OFFICERS)
SPDRC

FREQUENCY PERCENT ROW PCT COL PCT	0	1	TOTAL
AIR DEFENSE ARTI	60 7.46 100.00 7.47	0 0.00 0.00 0.00	60 7.46
ADJUTANT GENERAL	2 0.25 100.00 0.25	0 0.00 0.00 0.00	2 0.25
ARMY NURSE CORPS	0 0.00 . 0.00	0 0.00 . 0.00	0 0.00
ARMOR	90 11.19 98.90 11.21	1 0.12 1.10 100.00	91 11.32
CHEMICAL CORPS	6 0.75 100.00 0.75	0 0.00 0.00 0.00	6 0.75
CORPS OF ENGINEE	127 15.80 100.00 15.82	0 0.00 0.00 0.00	127 15.80
TOTAL	803 99.88	1 0.12	804 100.00

(CONTINUED)

TABLE 1 OF BABR BY SPDRC
CONTROLLING FOR SOCRC=WEST POINT

BABR(BASIC BRANCH FOR COMMISSIONED OFFICERS)
SPDRC

FREQUENCY PERCENT ROW PCT COL PCT	0	1	TOTAL
FIELD ARTILLERY	153 19.03 100.00 19.05	0 0.00 0.00 0.00	153 19.03
FINANCE CORPS	3 0.37 100.00 0.37	0 0.00 0.00 0.00	3 0.37
INFANTRY	191 23.76 100.00 23.79	0 0.00 0.00 0.00	191 23.76
JUDGE ADVOCATE G	6 0.75 100.00 0.75	0 0.00 0.00 0.00	6 0.75
MILITARY INTELLI	34 4.23 100.00 4.23	0 0.00 0.00 0.00	34 4.23
MILITARY POLICE	13 1.62 100.00 1.62	0 0.00 0.00 0.00	13 1.62
TOTAL	803 99.88	1 0.12	804 100.00

(CONTINUED)

TABLE 1 OF BABR BY SPDRC
CONTROLLING FOR SOCRC=WEST POINT

BABR(BASIC BRANCH FOR COMMISSIONED OFFICERS)
SPDRC

FREQUENCY PERCENT ROW PCT COL PCT	0	1	TOTAL
MEDICAL SERVICE	1 0.12 100.00 0.12	0 0.00 0.00 0.00	1 0.12
ORDNANCE CORPS	33 4.10 100.00 4.11	0 0.00 0.00 0.00	33 4.10
QUARTERMASTER CO	26 3.23 100.00 3.24	0 0.00 0.00 0.00	26 3.23
SIGNAL CORPS	48 5.97 100.00 5.98	0 0.00 0.00 0.00	48 5.97
ARMY MEDICAL SPE	0 0.00 . 0.00	0 0.00 . 0.00	0 0.00
TRANSPORTATION C	10 1.24 100.00 1.25	0 0.00 0.00 0.00	10 1.24
TOTAL	803 99.88	1 0.12	804 100.00

FREQUENCY MISSING = 75

TABLE 2 OF BABR BY SPDRC
CONTROLLING FOR SOCRC=ROTC

BABR(BASIC BRANCH FOR COMMISSIONED OFFICERS)
SPDRC

FREQUENCY PERCENT ROW PCT COL PCT	0	1	TOTAL
AIR DEFENSE ARTI	186 5.00 79.15 6.11	49 1.32 20.85 7.27	235 6.32
ADJUTANT GENERAL	206 5.54 85.83 6.76	34 0.91 14.17 5.04	240 6.45
ARMY NURSE CORPS	15 0.40 83.33 0.49	3 0.08 16.67 0.45	18 0.48
ARMOR	216 5.81 80.00 7.09	54 1.45 20.00 8.01	270 7.26
CHEMICAL CORPS	52 1.40 85.25 1.71	9 0.24 14.75 1.34	61 1.64
CORPS OF ENGINEE	237 6.37 76.21 7.78	74 1.99 23.79 10.98	311 8.36
TOTAL	3046 81.88	674 18.12	3720 100.00

(CONTINUED)

TABLE 2 OF BABR BY SPDRC
CONTROLLING FOR SOCRC=ROTC

BABR(BASIC BRANCH FOR COMMISSIONED OFFICERS)
SPDRC

FREQUENCY PERCENT ROW PCT COL PCT	0	1	TOTAL
FIELD ARTILLERY	366 9.84 78.37 12.02	101 2.72 21.63 14.99	467 12.55
FINANCE CORPS	58 1.56 86.57 1.90	9 0.24 13.43 1.34	67 1.80
INFANTRY	481 12.93 85.44 15.79	82 2.20 14.56 12.17	563 15.13
JUDGE ADVOCATE G	10 0.27 100.00 0.33	0 0.00 0.00 0.00	10 0.27
MILITARY INTELLI	210 5.65 87.50 6.89	30 0.81 12.50 4.45	240 6.45
MILITARY POLICE	126 3.39 86.90 4.14	19 0.51 13.10 2.82	145 3.90
TOTAL	3046 81.88	674 18.12	3720 100.00

(CONTINUED)

TABLE 2 OF BABR BY SPDRC
CONTROLLING FOR SOCRC=ROTC

BABR(BASIC BRANCH FOR COMMISSIONED OFFICERS)
SPDRC

FREQUENCY PERCENT ROW PCT COL PCT	0	1	TOTAL
MEDICAL SERVICE	188 5.05 78.01 6.17	53 1.42 21.99 7.86	241 6.48
ORDNANCE CORPS	177 4.76 84.29 5.81	33 0.89 15.71 4.90	210 5.65
QUARTERMASTER CO	163 4.38 87.63 5.35	23 0.62 12.37 3.41	186 5.00
SIGNAL CORPS	281 7.55 76.36 9.23	87 2.34 23.64 12.91	368 9.89
ARMY MEDICAL SPE	2 0.05 100.00 0.07	0 0.00 0.00 0.00	2 0.05
TRANSPORTATION C	72 1.94 83.72 2.36	14 0.38 16.28 2.08	86 2.31
TOTAL	3046 81.88	674 18.12	3720 100.00

FREQUENCY MISSING = 249

TABLE 3 OF BABR BY SPDRC
CONTROLLING FOR SOCRC=OCS

BABR(BASIC BRANCH FOR COMMISSIONED OFFICERS)
SPDRC

FREQUENCY PERCENT ROW PCT COL PCT	0	1	TOTAL
AIR DEFENSE ARTI	42 6.67 89.36 7.76	5 0.79 10.64 5.62	47 7.46
ADJUTANT GENERAL	42 6.67 91.30 7.76	4 0.63 8.70 4.49	46 7.30
ARMY NURSE CORPS	1 0.16 100.00 0.18	0 0.00 0.00 0.00	1 0.16
ARMOR	47 7.46 88.68 8.69	6 0.95 11.32 6.74	53 8.41
CHEMICAL CORPS	12 1.90 85.71 2.22	2 0.32 14.29 2.25	14 2.22
CORPS OF ENGINEE	18 2.86 72.00 3.33	7 1.11 28.00 7.87	25 3.97
TOTAL	541 85.87	89 14.13	630 100.00

(CONTINUED)

TABLE 3 OF BABR BY SPDRC
CONTROLLING FOR SOCRC=OCS

BABR(BASIC BRANCH FOR COMMISSIONED OFFICERS)
SPDRC

FREQUENCY PERCENT ROW PCT COL PCT	0	1	TOTAL
FIELD ARTILLERY	62 9.84 76.54 11.46	19 3.02 23.46 21.35	81 12.86
FINANCE CORPS	13 2.06 81.25 2.40	3 0.48 18.75 3.37	16 2.54
INFANTRY	94 14.92 93.07 17.38	7 1.11 6.93 7.87	101 16.03
JUDGE ADVOCATE G	0 0.00 . 0.00	0 0.00 . 0.00	0 0.00
MILITARY INTELLI	36 5.71 92.31 6.65	3 0.48 7.69 3.37	39 6.19
MILITARY POLICE	23 3.65 79.31 4.25	6 0.95 20.69 6.74	29 4.60
TOTAL	541 85.87	89 14.13	630 100.00

(CONTINUED)

TABLE 3 OF BABR BY SPDRC
CONTROLLING FOR SOCRC=OCS

BABR(BASIC BRANCH FOR COMMISSIONED OFFICERS)
SPDRC

FREQUENCY PERCENT ROW PCT COL PCT	0	1	TOTAL
MEDICAL SERVICE	17 2.70 85.00 3.14	3 0.48 15.00 3.37	20 3.17
ORDNANCE CORPS	36 5.71 85.71 6.65	6 0.95 14.29 6.74	42 6.67
QUARTERMASTER CO	28 4.44 80.00 5.18	7 1.11 20.00 7.87	35 5.56
SIGNAL CORPS	56 8.89 86.15 10.35	9 1.43 13.85 10.11	65 10.32
ARMY MEDICAL SPE	0 0.00 . 0.00	0 0.00 . 0.00	0 0.00
TRANSPORTATION C	14 2.22 87.50 2.59	2 0.32 12.50 2.25	16 2.54
TOTAL	541 85.87	89 14.13	630 100.00

FREQUENCY MISSING = 50

APPENDIX L

TABLES FOR DATA ELEMENT EDITS

EDIT TABLE FOR BASIC BRANCH (BABR)

	OLD	NEW
1.	AD	
2.	AG	
3.	AN	
4.	AR	
5.	AV	
6.	CA	
7.	CH	
8.	CM	
9.	DE	
10.	EN	
11.	FA	
12.	FI	
13.	IN	
14.	JA	
15.	MC	
16.	MI	
17.	MP	
18.	MS	
19.	OD	
20.	PR	
21.	QM	
22.	SC	
23.	SP	
24.	SS	
25.	TC	
26.	VC	
27.	WC	

EDIT TABLE FOR BRANCH CODE

	OLD	NEW
1.	00	
2.	11	
3.	12	
4.	13	
5.	14	
6.	15	
7.	18	
8.	21	
9.	22	
10.	23	
11.	25	
12.	26	
13.	27	
14.	28	
15.	31	
16.	35	
17.	36	
18.	37	
19.	40	
20.	41	
21.	42	
22.	43	
23.	44	
24.	45	
25.	46	
26.	47	
27.	48	
28.	49	
29.	51	
30.	52	
31.	53	
32.	54	
33.	55	
34.	56	
35.	60	
36.	61	
37.	62	
38.	63	
39.	64	
40.	65	
41.	66	
42.	67	
43.	68	
44.	70	
45.	71	
46.	72	
47.	73	
48.	74	
49.	75	
50.	76	
51.	77	

	OLD	NEW
52.	81	
53.	82	
54.	83	
55.	86	
56.	87	
57.	88	
58.	91	
59.	92	
60.	93	
61.	95	
62.	97	

EDIT TABLE FOR CIVILIAN EDUCATION LEVEL (CELC)

	OLD	NEW
1.	A	A
2.	B	B
3.	C	C
4.	D	D
5.	E	E
6.	F	F
7.	G	G
8.	H	H
9.	I	I
10.	J	J
11.	K	K
12.	M	0
13.	N	0
14.	X	X
15.	Y	Y
16.	0	0
17.	00	0
18.	01	F
19.	02	G
20.	03	H
21.	04	I
22.	05	J
23.	06	8
24.	07	7
25.	08	6
26.	09	6
27.	1	1
28.	10	5
29.	11	K
30.	12	1
31.	2	2
32.	3	3
33.	4	4
34.	5	5
35.	6	6
36.	7	7
37.	8	8
38.	9	9

EDIT TABLE FOR COUNTRY OR STATE OF BIRTH (COBO)

	OLD	NEW
1.	AC	
2.	AF	
3.	AG	
4.	AK	
5.	AL	
6.	AN	
7.	AO	
8.	AQ	
9.	AR	
10.	AS	
11.	AU	
12.	AV	
13.	AY	
14.	BA	
15.	BB	
16.	BC	
17.	BD	
18.	BE	
19.	BF	
20.	BG	
21.	BH	
22.	BL	
23.	BM	
24.	BP	
25.	BQ	
26.	BR	
27.	BT	
28.	BU	
29.	BV	
30.	BX	
31.	BY	
32.	BZ	
33.	CA	
34.	CB	
35.	CD	
36.	CE	
37.	CF	
38.	CG	
39.	CH	
40.	CI	
41.	CJ	
42.	CK	
43.	CM	
44.	CN	
45.	CO	
46.	CS	
47.	CT	
48.	CU	
49.	CV	
50.	CW	
51.	CY	

	OLD	NEW
52.	CZ	
53.	DA	
54.	DM	
55.	DO	
56.	DR	
57.	EC	
58.	EG	
59.	EI	
60.	EK	
61.	EQ	
62.	ES	
63.	ET	
64.	EU	
65.	FA	
66.	FG	
67.	FI	
68.	FJ	
69.	FO	
70.	FP	
71.	FR	
72.	FS	
73.	FT	
74.	GA	
75.	GB	
76.	GC	
77.	GE	
78.	GH	
79.	GI	
80.	GJ	
81.	GL	
82.	GP	
83.	GQ	
84.	GR	
85.	GS	
86.	GT	
87.	GV	
88.	GY	
89.	GZ	
90.	HA	
91.	HI	
92.	HK	
93.	HM	
94.	HO	
95.	HU	
96.	IC	
97.	ID	
98.	IN	
99.	IO	
100.	IQ	
101.	IR	
102.	IS	
103.	IT	
104.	IU	

	OLD	NEW
105.	IV	
106.	IW	
107.	IY	
108.	IZ	
109.	JA	
110.	JM	
111.	JO	
112.	JQ	
113.	JS	
114.	KE	
115.	KN	
116.	KS	
117.	KT	
118.	KU	
119.	LA	
120.	LE	
121.	LI	
122.	LI	
123.	LS	
124.	LT	
125.	LU	
126.	LY	
127.	MA	
128.	MB	
129.	MC	
130.	MG	
131.	MH	
132.	MI	
133.	ML	
134.	MN	
135.	MO	
136.	MP	
137.	MQ	
138.	MR	
139.	MT	
140.	MU	
141.	MV	
142.	MX	
143.	MY	
144.	MZ	
145.	NA	
146.	NC	
147.	NE	
148.	NF	
149.	NG	
150.	NH	
151.	NI	
152.	NL	
153.	NO	
154.	NP	
155.	NR	
156.	NS	
157.	NU	

	OLD	NEW
158.	NZ	
159.	OTHER	
160.	PA	
161.	PC	
162.	PE	
163.	PF	
164.	PG	
165.	PK	
166.	PL	
167.	PM	
168.	PO	
169.	PP	
170.	PQ	
171.	PU	
172.	QA	
173.	RE	
174.	RO	
175.	RO	
176.	RP	
177.	RQ	
178.	RW	
179.	SA	
180.	SB	
181.	SC	
182.	SE	
183.	SF	
184.	SG	
185.	SH	
186.	SL	
187.	SM	
188.	SN	
189.	SO	
190.	SP	
191.	ST	
192.	SU	
193.	SW	
194.	SY	
195.	SZ	
196.	TC	
197.	TD	
198.	TH	
199.	TK	
200.	TL	
201.	TN	
202.	TO	
203.	TP	
204.	TQ	
205.	TS	
206.	TU	
207.	TV	
208.	TW	
209.	TZ	
210.	UG	

	OLD	NEW
211.	UK	
212.	UR	
213.	US	
214.	UU	
215.	UV	
216.	UY	
217.	U4	
218.	U8	
219.	U9	
220.	VC	
221.	VE	
222.	VI	
223.	VM	
224.	VQ	
225.	VT	
226.	WA	
227.	WF	
228.	WH	
229.	WQ	
230.	WS	
231.	WZ	
232.	XX	
233.	YE	
234.	YO	
235.	YS	
236.	YY	
237.	ZA	
238.	ZI	
239.	ZZ	
240.	01	
241.	02	
242.	03	
243.	04	
244.	05	
245.	06	
246.	07	
247.	08	
248.	09	
249.	10	
250.	11	
251.	12	
252.	13	
253.	14	
254.	15	
255.	16	
256.	17	
257.	18	
258.	19	
259.	20	
260.	21	
261.	22	
262.	23	
263.	24	

	OLD	NEW
264.	25	
265.	26	
266.	27	
267.	28	
268.	29	
269.	30	
270.	31	
271.	32	
272.	33	
273.	34	
274.	35	
275.	36	
276.	37	
277.	38	
278.	39	
279.	40	
280.	41	
281.	42	
282.	43	
283.	44	
284.	45	
285.	46	
286.	47	
287.	48	
288.	49	
289.	50	
290.	51	
291.	52	
292.	53	
293.	54	
294.	55	
295.	56	
296.	72	
297.	73	
298.	79	
292.	56	

EDIT TABLE FOR SERVICE COMPONENT (COMPT)

	OLD	NEW
1.	G	G
2.	R	R
3.	T	T
4.	V	V
5.	Z	Z
6.	0	Z
7.	1	R
8.	2	T
9.	3	V
10.	4	G

EDIT TABLE FOR CURRENT SERVICE AGREEMENT (CURSA)

	OLD	NEW
1.	A	
2.	B	
3.	C	
4.	D	
5.	E	
6.	F	
7.	G	
8.	H	
9.	I	
10.	J	
11.	K	
12.	L	
13.	M	
14.	N	
15.	O	
16.	P	
17.	Q	
18.	R	
19.	S	
20.	T	
21.	U	
22.	V	
23.	W	
24.	X	
25.	Y	
26.	Z	
27.	1	
28.	2	
29.	4	
30.	5	
31.	6	
32.	7	
33.	8	
34.	9	

EDIT TABLE FOR ETHNIC GROUP DESIGNATION (ETHGP)

	OLD	NEW
1.	D	D
2.	E	E
3.	G	G
4.	J	J
5.	K	K
6.	L	L
7.	Q	Q
8.	S	S
9.	V	V
10.	W	W
11.	X	X
12.	Z	Z
13.	00	Z
14.	01	1
15.	02	2
16.	03	3
17.	04	4
18.	05	5
19.	06	6
20.	07	7
21.	08	8
22.	09	9
23.	1	1
24.	10	G
25.	11	J
26.	12	K
27.	13	X
28.	14	Z
29.	15	Z
30.	18	Z
31.	19	Z
32.	2	2
33.	20	Z
34.	3	3
35.	4	4
36.	5	5
37.	6	6
38.	7	7
39.	8	8
40.	9	9

EDIT TABLE FOR FUNCTIONAL AREA CODE (FACD)

	OLD	NEW
1.	00	
2.	11	
3.	12	
4.	13	
5.	14	
6.	15	
7.	18	
8.	21	
9.	22	
10.	23	
11.	25	
12.	26	
13.	27	
14.	28	
15.	31	
16.	35	
17.	36	
18.	37	
19.	40	
20.	41	
21.	42	
22.	43	
23.	44	
24.	45	
25.	46	
26.	47	
27.	48	
28.	49	
29.	50	
30.	51	
31.	52	
32.	53	
33.	54	
34.	55	
35.	56	
36.	60	
37.	61	
38.	62	
39.	63	
40.	64	
41.	65	
42.	66	
43.	67	
44.	68	
45.	70	
46.	71	
47.	72	
48.	73	
49.	74	
50.	75	
51.	76	

	OLD	NEW
52.	77	
53.	81	
54.	82	
55.	83	
56.	86	
57.	87	
58.	88	
59.	91	
60.	92	
61.	93	
62.	95	
63.	97	
64.	99	

EDIT TABLE FOR MARITAL STATUS (MARST)

	OLD	NEW
1.	A	A
2.	D	D
3.	I	I
4.	J	J
5.	L	L
6.	M	M
7.	S	S
8.	W	W
9.	0	0
10.	1	1
11.	2	M

EDIT TABLE FOR MILITARY EDUCATION LEVEL (MEL)

	OLD	NEW
1.	A	
2.	B	
3.	C	
4.	D	
5.	E	
6.	F	
7.	G	
8.	H	
9.	L	
10.	M	
11.	N	
12.	S	
13.	T	
14.	1	
15.	2	
16.	3	
17.	4	
18.	5	
19.	6	
20.	7	
21.	8	
22.	9	

EDIT TABLE FOR TYPE OF ORIGINAL APPOINTMENT (ORAPT)

	OLD	NEW
1.	G	
2.	R	
3.	T	
4.	V	

EDIT TABLE FOR ACADEMIC SPECIALTY CODE (RCEAS)

	OLD	NEW
1.	A	
2.	AAA	
3.	AAX	
4.	ABX	
5.	ACA	
6.	ACB	
7.	ACC	
8.	ADX	
9.	AEX	
10.	AFA	
11.	AFB	
12.	AFC	
13.	AGA	
14.	AGB	
15.	AGC	
16.	AGE	
17.	AHX	
18.	AKX	
19.	ALX	
20.	ANX	
21.	AXX	
22.	B	
23.	BAA	
24.	BAC	
25.	BAD	
26.	BAE	
27.	BAF	
28.	BAK	
29.	BAL	
30.	BAM	
31.	BAN	
32.	BAO	
33.	BAP	
34.	BAR	
35.	BAS	
36.	BAX	
37.	BBA	
38.	BBB	
39.	BBC	
40.	BBD	
41.	BBE	
42.	BBF	
43.	BBG	
44.	BBH	
45.	BBK	
46.	BBL	
47.	BBM	
48.	BBN	
49.	BBP	
50.	BBR	
51.	BBS	

	OLD	NEW
52.	BBT	
53.	BBX	
54.	BCA	
55.	BCC	
56.	BCX	
57.	BHA	
58.	BMS	
59.	BXX	
60.	CAA	
61.	CAB	
62.	CAC	
63.	CAX	
64.	CBX	
65.	CCE	
66.	CCF	
67.	CCG	
68.	CCH	
69.	CCK	
70.	CCL	
71.	CCM	
72.	CCN	
73.	CCO	
74.	CCP	
75.	CCQ	
76.	CCX	
77.	CDX	
78.	CEX	
79.	CFA	
80.	CFB	
81.	CFW	
82.	CFX	
83.	CFY	
84.	CGA	
85.	CGX	
86.	CHA	
87.	CHB	
88.	CHD	
89.	CHE	
90.	CHF	
91.	CHJ	
92.	CHX	
93.	CKB	
94.	CKC	
95.	CKD	
96.	CKE	
97.	CKF	
98.	CKH	
99.	CKK	
100.	CKL	
101.	CKM	
102.	CKN	
103.	CKP	
104.	CKQ	

	OLD	NEW
105.	CKX	
106.	CLA	
107.	CLB	
108.	CLD	
109.	CLE	
110.	CLX	
111.	CMX	
112.	CNX	
113.	CPX	
114.	CQX	
115.	CRA	
116.	CRM	
117.	CRX	
118.	CSX	
119.	CTX	
120.	CUA	
121.	CUB	
122.	CUC	
123.	CUX	
124.	CWX	
125.	CXX	
126.	CYX	
127.	CYY	
128.	D	
129.	DAA	
130.	DAB	
131.	DAD	
132.	DAE	
133.	DAF	
134.	DAG	
135.	DAH	
136.	DAI	
137.	DAK	
138.	DAL	
139.	DAM	
140.	DAN	
141.	DAP	
142.	DAR	
143.	DAX	
144.	DBA	
145.	DBB	
146.	DBC	
147.	DBX	
148.	DCA	
149.	DCB	
150.	DCC	
151.	DCD	
152.	DCE	
153.	DCF	
154.	DCG	
155.	DCH	
156.	DCK	
157.	DCL	

	OLD	NEW
158.	DCX	
159.	DDA	
160.	DDB	
161.	DDC	
162.	DDD	
163.	DDE	
164.	DDF	
165.	DDG	
166.	DDH	
167.	DDK	
168.	DDL	
169.	DDM	
170.	DDN	
171.	DDO	
172.	DDP	
173.	DDX	
174.	DEA	
175.	DED	
176.	DEX	
177.	DFA	
178.	DFX	
179.	DGA	
180.	DGB	
181.	DGC	
182.	DGD	
183.	DGE	
184.	DGF	
185.	DGG	
186.	DGH	
187.	DGK	
188.	DGL	
189.	DGN	
190.	DGP	
191.	DGX	
192.	DHA	
193.	DHB	
194.	DHC	
195.	DHX	
196.	DKA	
197.	DKB	
198.	DKC	
199.	DKD	
200.	DKF	
201.	DLA	
202.	DLB	
203.	DLC	
204.	DLD	
205.	DLE	
206.	DLF	
207.	DLG	
208.	DLH	
209.	DLK	
210.	DLM	

	OLD	NEW
211.	DLN	
212.	DLP	
213.	DLX	
214.	DLY	
215.	DXX	
216.	EAA	
217.	EAB	
218.	EAC	
219.	EAX	
220.	EBX	
221.	ECA	
222.	ECB	
223.	ECF	
224.	ECX	
225.	EDX	
226.	EEB	
227.	EEC	
228.	EED	
229.	EEE	
230.	EEX	
231.	EFA	
232.	EFC	
233.	EGX	
234.	EHX	
235.	EKB	
236.	EKC	
237.	EKD	
238.	ELX	
239.	EMX	
240.	ENA	
241.	ENB	
242.	ENC	
243.	END	
244.	ENE	
245.	ENF	
246.	ENG	
247.	ENX	
248.	EPA	
249.	EPB	
250.	EPC	
251.	EPD	
252.	EPE	
253.	EPF	
254.	EPH	
255.	EPK	
256.	EPL	
257.	EPM	
258.	EPX	
259.	ERA	
260.	ERX	
261.	ESX	
262.	ETX	
263.	EXX	

	OLD	NEW
264.	F	
265.	FAX	
266.	FBX	
267.	FCX	
268.	FDA	
269.	FDX	
270.	FEA	
271.	FEX	
272.	FGA	
273.	FGC	
274.	FHA	
275.	FHX	
276.	FIA	
277.	FIB	
278.	FJA	
279.	FKA	
280.	FKX	
281.	FLA	
282.	FXX	
283.	GAX	
284.	GBX	
285.	GCA	
286.	GCB	
287.	GCC	
288.	GCD	
289.	GCF	
290.	GCH	
291.	GCI	
292.	GCL	
293.	GCN	
294.	GCX	
295.	GDX	
296.	GEX	
297.	GFX	
298.	GGX	
299.	GHA	
300.	GIX	
301.	GJX	
302.	GKA	
303.	GKB	
304.	GKE	
305.	GKF	
306.	GKK	
307.	GLA	
308.	GLC	
309.	GMA	
310.	GMC	
311.	GMF	
312.	GNA	
313.	GNB	
314.	GNC	
315.	GND	
316.	GNE	

	OLD	NEW
317.	GNF	
318.	GNG	
319.	GNH	
320.	GNX	
321.	GOX	
322.	GPX	
323.	HAX	
324.	HBX	
325.	HCA	
326.	HCB	
327.	HCE	
328.	HCX	
329.	HEX	
330.	HXX	
331.	IAA	
332.	IBX	
333.	ICX	
334.	IDA	
335.	IEA	
336.	IEX	
337.	IFX	
338.	IGX	
339.	IHX	
340.	IIX	
341.	IJX	
342.	JAX	
343.	JBX	
344.	JCC	
345.	JCX	
346.	JDA	
347.	JDD	
348.	JDX	
349.	JEC	
350.	JEX	
351.	JFX	
352.	JGX	
353.	JHB	
354.	JXX	
355.	KKK	
356.	KXX	
357.	L	
358.	LAX	
359.	LXX	
360.	M	
361.	MXX	
362.	N	
363.	NXX	
364.	OXX	
365.	PAX	
366.	PBA	
367.	PBD	
368.	PBF	
369.	PBG	

	OLD	NEW
370.	PBH	
371.	PBI	
372.	PBK	
373.	PBX	
374.	PCX	
375.	PDX	
376.	PEX	
377.	PXX	
378.	RAX	
379.	RBX	
380.	RCX	
381.	RDX	
382.	REX	
383.	RFX	
384.	RGX	
385.	Y	

EDIT TABLE FOR RACIAL/ETHNIC DESCENT CATEGORY (REDCAT)

	OLD	NEW
1.	A	A
2.	C	C
3.	H	H
4.	N	N
5.	T	T
6.	X	X
7.	0	X
8.	1	C
9.	2	H
10.	3	N
11.	4	X
12.	5	X

EDIT TABLE FOR SEX (SEX)

	OLD	NEW
1.	F	F
2.	M	M
3.	Z	Z
4.	0	Z
5.	1	M
6.	2	F

EDIT TABLE FOR SOURCE OF ORIGINAL APPOINTMENT (SOC)

	OLD	NEW
1.	A	A
2.	B	B
3.	C	C
4.	D	D
5.	E	E
6.	F	F
7.	G	G
8.	H	H
9.	I	I
10.	J	J
11.	K	K
12.	0	K
13.	1	A
14.	2	2
15.	3	3
16.	4	4
17.	5	5
18.	6	6
19.	7	G
20.	8	G
21.	9	9

EDIT TABLE FOR SEPARATION PROGRAM DESIGNATION (SPD)

	OLD	NEW
1.	BDK	
2.	BFS	
3.	BHK	
4.	BKC	
5.	BNC	
6.	BRB	
7.	DFS	
8.	FDF	
9.	FDL	
10.	FFT	
11.	FGM	
12.	FHC	
13.	FHG	
14.	FND	
15.	JBM	
16.	JCC	
17.	JCL	
18.	JCM	
19.	JCP	
20.	JDF	
21.	JDG	
22.	JDK	
23.	JDN	
24.	JET	
25.	JFB	
26.	JFC	
27.	JFF	
28.	JFG	
29.	JFL	
30.	JFP	
31.	JFR	
32.	JFS	
33.	JFT	
34.	JGB	
35.	JGH	
36.	JHF	
37.	JHK	
38.	JJC	
39.	JJD	
40.	JKA	
41.	JKB	
42.	JKB	
43.	JKC	
44.	JKD	
45.	JKE	
46.	JKF	
47.	JKG	
48.	JKH	
49.	JKJ	
50.	JKK	
51.	JKL	

	OLD	NEW
52.	JMB	
53.	JMD	
54.	JMJ	
55.	JML	
56.	JNC	
57.	JND	
58.	JPB	
59.	JRA	
60.	KBM	
61.	KCL	
62.	KCM	
63.	KCQ	
64.	KCR	
65.	KDB	
66.	KDC	
67.	KDF	
68.	KDG	
69.	KDH	
70.	KDS	
71.	KFF	
72.	KFN	
73.	KFT	
74.	KGF	
75.	KGL	
76.	KGN	
77.	KGX	
78.	KHC	
79.	KHK	
80.	KNC	
81.	LBB	
82.	LBC	
83.	LBK	
84.	LBM	
85.	LCC	
86.	LDG	
87.	LDL	
88.	LET	
89.	LFC	
90.	LFF	
91.	LFR	
92.	LFT	
93.	LGB	
94.	LGC	
95.	LGH	
96.	LGJ	
97.	LHH	
98.	LMJ	
99.	LND	
100.	MBK	
101.	MBM	
102.	MCD	
103.	MCF	
104.	MCG	

	OLD	NEW
105.	MCQ	
106.	MDB	
107.	MDF	
108.	MDG	
109.	MDH	
110.	MDJ	
111.	MDM	
112.	MDN	
113.	MDS	
114.	MFF	
115.	MFT	
116.	MGM	
117.	MGP	
118.	MGP	
119.	MGR	
120.	MGU	
121.	MHC	
122.	MND	
123.	PJB	
124.	PJD	
125.	PKB	
126.	PKF	
127.	RBB	
128.	RBC	
129.	RBD	
130.	RHK	
131.	RNC	
132.	RRB	
133.	SBB	
134.	SBC	
135.	SCC	
136.	SFJ	
137.	SFK	
138.	SGB	
139.	SHK	
140.	SSB	
141.	TCC	
142.	VBK	
143.	VNF	
144.	WFJ	
145.	WFK	
146.	WFQ	
147.	YDN	
148.	YFC	
149.	YKG	
150.	500	
151.	501	
152.	502	
153.	503	
154.	504	
155.	508	
156.	509	
157.	510	

	OLD	NEW
158.	511	
159.	518	
160.	522	
161.	524	
162.	528	
163.	529	
164.	530	
165.	536	
166.	537	
167.	545	
168.	550	
169.	551	
170.	552	
171.	554	
172.	555	
173.	558	
174.	586	
175.	588	
176.	589	
177.	595	
178.	596	
179.	597	
180.	599	
181.	600	
182.	601	
183.	602	
184.	603	
185.	604	
186.	606	
187.	609	
188.	610	
189.	611	
190.	612	
191.	616	
192.	618	
193.	619	
194.	620	
195.	621	
196.	623	
197.	624	
198.	627	
199.	632	
200.	633	
201.	640	
202.	644	
203.	645	
204.	647	
205.	648	
206.	649	
207.	650	
208.	652	
209.	655	
210.	660	

	OLD	NEW
211.	661	
212.	662	
213.	668	
214.	672	
215.	681	
216.	685	
217.	690	
218.	692	
219.	70A	
220.	70E	
221.	70F	
222.	70G	
223.	70J	
224.	741	
225.	744	
226.	747	
227.	77E	
228.	77J	
229.	77M	
230.	77N	
231.	77P	
232.	77S	
233.	77U	
234.	771	
235.	78A	
236.	78B	
237.	938	
238.	941	
239.	942	
240.	943	
241.	944	
242.	945	
243.	946	
244.	971	
245.	979	
246.	982	
247.	985	
248.	988	

EDIT TABLE FOR TEMPORARY GRADE (TGRA)

	OLD	NEW
1.	20	UNK
2.	21	2LT
3.	22	1LT
4.	23	CPT
5.	24	MAJ
6.	25	LTC
7.	26	COL
8.	27	B G
9.	28	M G
10.	29	LTG
11.	30	GEN
12.	31	G A
13.	B G	B G
14.	COL	COL
15.	CPT	CPT
16.	G A	G A
17.	GEN	GEN
18.	LTC	LTC
19.	LTG	LTG
20.	M G	M G
21.	MAJ	MAJ
22.	UNK	UNK
23.	1LT	1LT
24.	2LT	2LT

APPENDIX M

FILE LAYOUT OF LONGITUDINAL DATA SET

OFFICER'S MASTER FILE FOR 1979

DOB (YYMMDD)	1- 6
SEX	7
TGRA	8- 10
TDOR (YYMMDD)	11- 16
BPED (YYMMDD)	17- 22
EADC (YYMMDD)	23- 28
DTRA (YYMMDD)	29- 34
SOC	35
SEPDT (YYMMDD)	36- 41
SPD	42- 44
BABR	45- 46
BRCD	47- 48
FACD	49- 50
REDCAT	51
ETHGP	52
BYRGP	53- 54

PHDT

PHDT (2LT) (YYMMDD)	55- 60
PHDT (1LT) (YYMMDD)	61- 66
PHDT (CPT) (YYMMDD)	67- 72
PHDT (MAJ) (YYMMDD)	73- 78
PHDT (LTC) (YYMMDD)	79- 84
PHDT (COL) (YYMMDD)	85- 90
PHDT (B G) (YYMMDD)	91- 96
PHDT (M G) (YYMMDD)	97- 102
PHDT (LTG) (YYMMDD)	103- 108
PHDT (GEN) (YYMMDD)	109- 114

CELC	115
MEL	116
RCEAS1	117- 119
RCEAS2	120- 122
RCEAS3	123- 125
MARST	126
DEPS	127- 128
NODA	129- 130
COMPT	131
CURSA	132
COBO	133- 134
ORAPT	135

OFFICER'S MASTER FILE FOR 1980

DOB (YYMMDD)	136- 141
SEX	142
TGRA	143- 145
TDOR (YYMMDD)	146- 151
BPED (YYMMDD)	152- 157

EADC (YYMMDD)	158- 163
DTRA (YYMMDD)	164- 169
SOC	170
SEPDT (YYMMDD)	171- 176
SPD	177- 179
BABR	180- 181
BRCD	182- 183
FACD	184- 185
REDCAT	186
ETHGP	187
BYRGP	188- 189

PHDT

PHDT (2LT) (YYMMDD)	190- 195
PHDT (1LT) (YYMMDD)	196- 201
PHDT (CPT) (YYMMDD)	202- 207
PHDT (MAJ) (YYMMDD)	208- 213
PHDT (LTC) (YYMMDD)	214- 219
PHDT (COL) (YYMMDD)	220- 225
PHDT (B G) (YYMMDD)	226- 231
PHDT (M G) (YYMMDD)	232- 237
PHDT (LTG) (YYMMDD)	238- 243
PHDT (GEN) (YYMMDD)	244- 249

CELC	250
MEL	251
RCEAS1	252- 254
RCEAS2	255- 257
RCEAS3	258- 260
MARST	261
DEPS	262- 263
NODA	264- 265
COMPT	266
CURSA	267
COBO	268- 269
ORAPT	270

OFFICER'S MASTER FILE FOR 1981

DOB (YYMMDD)	271- 276
SEX	277
TGRA	278- 280
TDOR (YYMMDD)	281- 286
BPED (YYMMDD)	287- 292
EADC (YYMMDD)	293- 298
DTRA (YYMMDD)	299- 304
SOC	305
SEPDT (YYMMDD)	306- 311
SPD	312- 314
BABR	315- 316
BRCD	317- 318
FACD	319- 320
REDCAT	321
ETHGP	322

BYRGP	323- 324
PHDT	
PHDT (2LT) (YYMMDD)	325- 330
PHDT (1LT) (YYMMDD)	331- 336
PHDT (CPT) (YYMMDD)	337- 342
PHDT (MAJ) (YYMMDD)	343- 348
PHDT (LTC) (YYMMDD)	349- 354
PHDT (COL) (YYMMDD)	355- 360
PHDT (B G) (YYMMDD)	361- 366
PHDT (M G) (YYMMDD)	367- 372
PHDT (LTG) (YYMMDD)	373- 378
PHDT (GEN) (YYMMDD)	379- 384
CELC	385
MEL	386
RCEAS1	387- 389
RCEAS2	390- 392
RCEAS3	393- 395
MARST	396
DEPS	397- 398
NODA	399- 400
COMPT	401
CURSA	402
COBO	403- 404
ORAPT	405

OFFICER'S MASTER FILE FOR 1982

DOB (YYMMDD)	406- 411
SEX	412
TGRA	413- 415
TDOR (YYMMDD)	416- 421
BPED (YYMMDD)	422- 427
EADC (YYMMDD)	428- 433
DTRA (YYMMDD)	434- 439
SOC	440
SEPDT (YYMMDD)	441- 446
SPD	447- 449
BABR	450- 451
BRCD	452- 453
FACD	454- 455
REDCAT	456
ETHGP	457
BYRGP	458- 459
PHDT	
PHDT (2LT) (YYMMDD)	460- 465
PHDT (1LT) (YYMMDD)	466- 471
PHDT (CPT) (YYMMDD)	472- 477
PHDT (MAJ) (YYMMDD)	478- 483
PHDT (LTC) (YYMMDD)	484- 489
PHDT (COL) (YYMMDD)	490- 495

PHDT (B G) (YYMMDD)	496- 501
PHDT (M G) (YYMMDD)	502- 507
PHDT (LTG) (YYMMDD)	508- 513
PHDT (GEN) (YYMMDD)	514- 519
CELC	520
MEL	521
RCEAS1	522- 524
RCEAS2	525- 527
RCEAS3	528- 530
MARST	531
DEPS	532- 533
NODA	534- 535
COMPT	536
CURSA	537
COBO	538- 539
ORAPT	540

OFFICER'S MASTER FILE FOR 1983

DOB (YYMMDD)	541- 546
SEX	547
TGRA	548- 550
TDOR (YYMMDD)	551- 556
BPED (YYMMDD)	557- 562
EADC (YYMMDD)	563- 568
DTRA (YYMMDD)	569- 574
SOC	575
SEPDT (YYMMDD)	576- 581
SPD	582- 584
BABR	585- 586
BRCD	587- 588
FACD	589- 590
REDCAT	591
ETHGP	592
BYRGP	593- 594

PHDT

PHDT (2LT) (YYMMDD)	595- 600
PHDT (1LT) (YYMMDD)	601- 606
PHDT (CPT) (YYMMDD)	607- 612
PHDT (MAJ) (YYMMDD)	613- 618
PHDT (LTC) (YYMMDD)	619- 624
PHDT (COL) (YYMMDD)	625- 630
PHDT (B G) (YYMMDD)	631- 636
PHDT (M G) (YYMMDD)	637- 642
PHDT (LTG) (YYMMDD)	643- 648
PHDT (GEN) (YYMMDD)	649- 654
CELC	655
MEL	656
RCEAS1	657- 659
RCEAS2	660- 662
RCEAS3	663- 665

MARST	666
DEPS	667- 668
NODA	669- 670
COMPT	671
CURSA	672
COBO	673- 674
ORAPT	675

OFFICER'S MASTER FILE FOR 1984

DOB (YYMMDD)	676- 681
SEX	682
TGRA	683- 685
TDOR (YYMMDD)	686- 691
BPED (YYMMDD)	692- 697
EADC (YYMMDD)	698- 703
DTRA (YYMMDD)	704- 709
SOC	710
SEPDT (YYMMDD)	711- 716
SPD	717- 719
BABR	720- 721
BRCD	722- 723
FACD	724- 725
REDCAT	726
ETHGP	727
BYRGP	728- 729

PHDT

PHDT (2LT) (YYMMDD)	730- 735
PHDT (1LT) (YYMMDD)	736- 741
PHDT (CPT) (YYMMDD)	742- 747
PHDT (MAJ) (YYMMDD)	748- 753
PHDT (LTC) (YYMMDD)	754- 759
PHDT (COL) (YYMMDD)	760- 765
PHDT (B G) (YYMMDD)	766- 771
PHDT (M G) (YYMMDD)	772- 777
PHDT (LTG) (YYMMDD)	778- 783
PHDT (GEN) (YYMMDD)	784- 789

CELC	790
MEL	791
RCEAS1	792- 794
RCEAS2	795- 797
RCEAS3	798- 800
MARST	801
DEPS	802- 803
NODA	804- 805
COMPT	806
CURSA	807
COBO	808- 809
ORAPT	810

OFFICER'S MASTER FILE FOR 1985

DOB (YYMMDD)	811- 816
SEX	817
TGRA	818- 820
TDOR (YYMMDD)	821- 826
BPED (YYMMDD)	827- 832
EADC (YYMMDD)	833- 838
DTRA (YYMMDD)	839- 844
SOC	845
SEPDT (YYMMDD)	846- 851
SPD	852- 854
BABR	855- 856
BRCD	857- 858
FACD	859- 860
REDCAT	861
ETHGP	862
BYRGP	863- 864

PHDT

PHDT (2LT) (YYMMDD)	865- 870
PHDT (1LT) (YYMMDD)	871- 876
PHDT (CPT) (YYMMDD)	877- 882
PHDT (MAJ) (YYMMDD)	883- 888
PHDT (LTC) (YYMMDD)	889- 894
PHDT (COL) (YYMMDD)	895- 900
PHDT (B G) (YYMMDD)	901- 906
PHDT (M G) (YYMMDD)	907- 912
PHDT (LTG) (YYMMDD)	913- 918
PHDT (GEN) (YYMMDD)	919- 924

CELC	925
MEL	926
RCEAS1	927- 929
RCEAS2	930- 932
RCEAS3	933- 935
MARST	936
DEPS	937- 938
NODA	939- 940
COMPT	941
CURSA	942
COBO	943- 944
ORAPT	945

OFFICER'S MASTER FILE FOR 1986

DOB (YYMMDD)	946- 951
SEX	952
TGRA	953- 955
TDOR (YYMMDD)	956- 961
BPED (YYMMDD)	962- 967
EADC (YYMMDD)	968- 973
DTRA (YYMMDD)	974- 979
SOC	980
SEPDT (YYMMDD)	981- 986
SPD	987- 989

BABR	990- 991
BRCD	992- 993
FACD	994- 995
REDCAT	996
ETHGP	997
BYRGP	998- 999

PHDT

PHDT (2LT) (YYMMDD)	1000-1005
PHDT (1LT) (YYMMDD)	1006-1011
PHDT (CPT) (YYMMDD)	1012-1017
PHDT (MAJ) (YYMMDD)	1018-1023
PHDT (LTC) (YYMMDD)	1024-1029
PHDT (COL) (YYMMDD)	1030-1035
PHDT (B G) (YYMMDD)	1036-1041
PHDT (M G) (YYMMDD)	1042-1047
PHDT (LTG) (YYMMDD)	1048-1053
PHDT (GEN) (YYMMDD)	1054-1059

CELC	1060
MEL	1061
RCEAS1	1062-1064
RCEAS2	1065-1067
RCEAS3	1068-1070
MARST	1071
DEPS	1072-1073
NODA	1074-1075
COMPT	1076
CURSA	1077
COBO	1078-1079
ORAPT	1080

OFFICER'S MASTER FILE FOR 1987

DOB (YYMMDD)	1081-1086
SEX	1087
TGRA	1088-1090
TDOR (YYMMDD)	1091-1096
BPED (YYMMDD)	1097-1102
EADC (YYMMDD)	1103-1108
DTRA (YYMMDD)	1109-1114
SOC	1115
SEPDT (YYMMDD)	1116-1121
SPD	1122-1124
BABR	1125-1126
BRCD	1127-1128
FACD	1129-1130
REDCAT	1131
ETHGP	1132
BYRGP	1133-1134

PHDT

PHDT (2LT) (YYMMDD)	1135-1140

PHDT (1LT)	(YYMMDD)	1141-1146
PHDT (CPT)	(YYMMDD)	1147-1152
PHDT (MAJ)	(YYMMDD)	1153-1158
PHDT (LTC)	(YYMMDD)	1159-1164
PHDT (COL)	(YYMMDD)	1165-1170
PHDT (B G)	(YYMMDD)	1171-1176
PHDT (M G)	(YYMMDD)	1177-1182
PHDT (LTG)	(YYMMDD)	1183-1188
PHDT (GEN)	(YYMMDD)	1189-1194
CELC		1195
MEL		1196
RCEAS1		1197-1199
RCEAS2		1200-1202
RCEAS3		1203-1205
MARST		1206
DEPS		1207-1208
NODA		1209-1210
COMPT		1211
CURSA		1212
COBO		1213-1214
ORAPT		1215

OFFICER'S MASTER FILE FOR 1988

DOB (YYMMDD)	1216-1221
SEX	1222
TGRA	1223-1225
TDOR (YYMMDD)	1226-1231
BPED (YYMMDD)	1232-1237
EADC (YYMMDD)	1238-1243
DTRA (YYMMDD)	1244-1249
SOC	1250
SEPDT (YYMMDD)	1251-1256
SPD	1257-1259
BABR	1260-1261
BRCD	1262-1263
FACD	1264-1265
REDCAT	1266
ETHGP	1267
BYRGP	1268-1269

PHDT

PHDT (2LT)	(YYMMDD)	1270-1275
PHDT (1LT)	(YYMMDD)	1276-1281
PHDT (CPT)	(YYMMDD)	1282-1287
PHDT (MAJ)	(YYMMDD)	1288-1293
PHDT (LTC)	(YYMMDD)	1294-1299
PHDT (COL)	(YYMMDD)	1300-1305
PHDT (B G)	(YYMMDD)	1306-1311
PHDT (M G)	(YYMMDD)	1312-1317
PHDT (LTG)	(YYMMDD)	1318-1323
PHDT (GEN)	(YYMMDD)	1324-1329

CELC	1330
MEL	1331
RCEAS1	1332-1334
RCEAS2	1335-1337
RCEAS3	1338-1340
MARST	1341
DEPS	1342-1343
NODA	1344-1345
COMPT	1346
CURSA	1347
COBO	1348-1349
ORAPT	1350

OFFICER'S MASTER FILE FOR 1989

DOB (YYMMDD)	1351-1356
SEX	1357
TGRA	1358-1360
TDOR (YYMMDD)	1361-1366
BPED (YYMMDD)	1367-1372
EADC (YYMMDD)	1373-1378
DTRA (YYMMDD)	1379-1384
SOC	1385
SEPDT (YYMMDD)	1386-1391
SPD	1392-1394
BABR	1395-1396
BRCD	1397-1398
FACD	1399-1400
REDCAT	1401
ETHGP	1402
BYRGP	1403-1404

PHDT

PHDT (2LT)	(YYMMDD)	1405-1410
PHDT (1LT)	(YYMMDD)	1411-1416
PHDT (CPT)	(YYMMDD)	1417-1422
PHDT (MAJ)	(YYMMDD)	1423-1428
PHDT (LTC)	(YYMMDD)	1429-1434
PHDT (COL)	(YYMMDD)	1435-1440
PHDT (B G)	(YYMMDD)	1441-1446
PHDT (M G)	(YYMMDD)	1447-1452
PHDT (LTG)	(YYMMDD)	1453-1458
PHDT (GEN)	(YYMMDD)	1459-1464

CELC	1465
MEL	1466
RCEAS1	1467-1469
RCEAS2	1470-1472
RCEAS3	1473-1475
MARST	1476
DEPS	1477-1478
NODA	1479-1480
COMPT	1481
CURSA	1482

COBO	1483-1484
ORAPT	1485

OLRDB CORE DATA SET

MATCHCOD	1486-1494
DOB (YYMMDD)	1495-1500
SEX	1501
TGRA	1502-1504
TDOR (YYMMDD)	1505-1510
BPED (YYMMDD)	1511-1516
EADC (YYMMDD)	1517-1522
DTRA (YYMMDD)	1523-1528
SOC	1529
STPDT (YYMMDD)	1530-1535
SPD	1536-1538
BABR	1539-1540
BRCD	1541-1542
FACD	1543-1544
REDCAT	1545
ETHGP	1546
BYRGP	1547-1548

PHDT

PHDT (2LT) (YYMMDD)	1549-1554
PHDT (1LT) (YYMMDD)	1555-1560
PHDT (CPT) (YYMMDD)	1561-1566
PHDT (MAJ) (YYMMDD)	1567-1572
PHDT (LTC) (YYMMDD)	1573-1578
PHDT (COL) (YYMMDD)	1579-1584
PHDT (B G) (YYMMDD)	1585-1590
PHDT (M G) (YYMMDD)	1591-1596
PHDT (LTG) (YYMMDD)	1597-1602
PHDT (GEN) (YYMMDD)	1603-1608

CELC	1609
MEL	1610

RCEAS

RCEAS1	1611-1613
RCEAS2	1614-1616
RCEAS3	1617-1619

MARST	1620
DFLG	1621-1622
NODA	1623-1624
COMPT	1625
CURSA	1626
COBO	1627-1628
ORAPT	1629

OMF FLAG 1979	1630
OMF FLAG 1980	1631

OMF FLAG 1981	1632
OMF FLAG 1982	1633
OMF FLAG 1983	1634
OMF FLAG 1984	1635
OMF FLAG 1985	1636
OMF FLAG 1986	1637
OMF FLAG 1987	1638
OMF FLAG 1988	1639
OMF FLAG 1989	1640
DUTY FLAG 1970	1641
DUTY FLAG 1971	1642
DUTY FLAG 1972	1643
DUTY FLAG 1973	1644
DUTY FLAG 1974	1645
DUTY FLAG 1975	1646
DUTY FLAG 1976	1647
DUTY FLAG 1977	1648
DUTY FLAG 1978	1649
DUTY FLAG 1979	1650
DUTY FLAG 1980	1651
DUTY FLAG 1981	1652
DUTY FLAG 1982	1653
DUTY FLAG 1983	1654
DUTY FLAG 1984	1655
DUTY FLAG 1985	1656
DUTY FLAG 1986	1657
DUTY FLAG 1987	1658
DUTY FLAG 1988	1659
DUTY FLAG 1989	1660

SEPARATION HISTORY

SEPARATION 1

EADC (YYMMDD)	1661-1666
SEPDT (YYMMDD)	1667-1672
BPED (YYMMDD)	1673-1678
SPD	1679-1681

SEPARATION 2

EADC (YYMMDD)	1682-1687
SEPDT (YYMMDD)	1688-1693
BPED (YYMMDD)	1694-1699
SPD	1700-1702

SEPARATION 3

EADC (YYMMDD)	1703-1708
SEPDT (YYMMDD)	1709-1714
BPED (YYMMDD)	1715-1720
SPD	1721-1723

SEPARATION 4

EADC (YYMMDD)	1724-1729
SEPDT (YYMMDD)	1730-1735
BPED (YYMMDD)	1736-1741
SPD	1742-1744

SEPARATION 5

EADC (YYMMDD)	1745-1750
SEPDT (YYMMDD)	1751-1756
BPED (YYMMDD)	1757-1762
SPD	1763-1765