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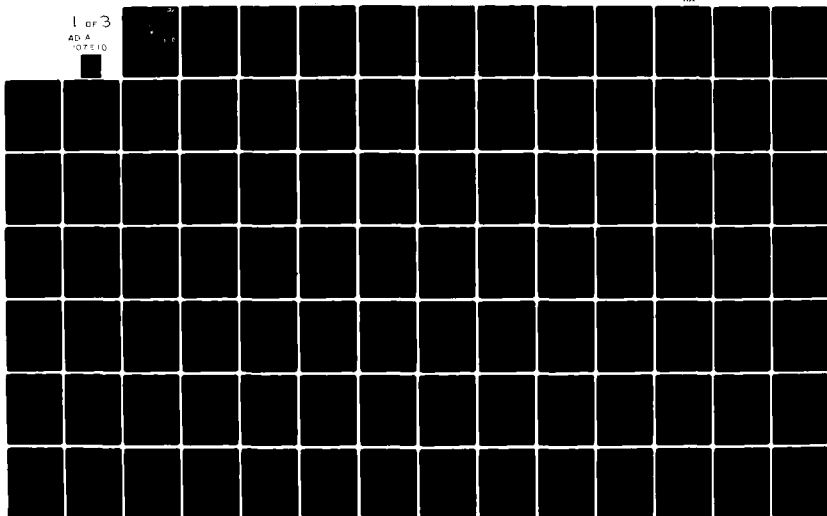
A DESCRIPTIVE ANALYSIS OF FIRST TERM ATTRITION FROM U.S. NAVAL --ETC(U)

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A DESCRIPTIVE ANALYSIS OF FIRST TERM
ATTRITION FROM U.S. NAVAL SHIPS

by

Carl Glynn Carlson
September 1981

Thesis Advisor:

R. S. Elster

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This thesis was conducted to analyze certain factors effecting first-term attrition from U.S. Naval ships. The Survival Tracking File (STF) was used as the primary data source, and from it files were constructed that permitted three areas of study. First, the overall cohort of a year's worth of first term enlistees was examined. The survival curve for the cohort was generated and individual monthly cohorts were examined for		

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A Descriptive Analysis of First Term
Attrition from U.S. Naval Ships

by

Carl Glynn Carlson
Lieutenant, United States Navy
B.S., U.S. Naval Academy, 1975

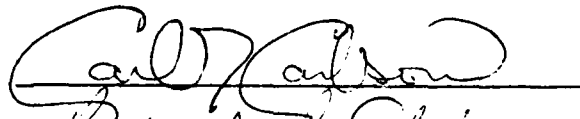
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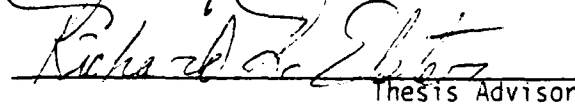
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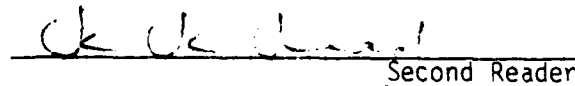
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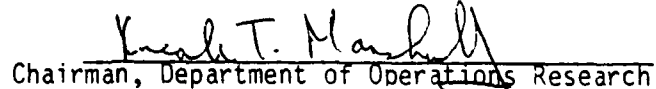
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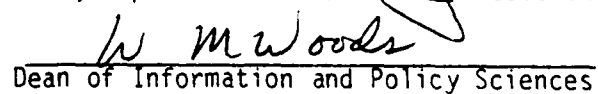


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ABSTRACT

↘ This thesis was conducted to analyze certain factors effecting first-term attrition from U.S. Naval ships. The Survival Tracking File (STF) was used as the primary data source, and from it files were constructed that permitted three areas of study. First, the overall cohort of a year's worth of first term enlistees was examined. The survival curve for the cohort was generated and individual monthly cohorts were examined for attrition patterns. Secondly, overall attrition percentages were calculated for individual ships and for classes of ships and these attrition percentages were then examined for differences using statistical techniques. An ANOVA model using transformed data proved accurate in explaining attrition variance. Lastly, a comparison between attrition per month and underway hours per month was made for classes of ships and for individual ships of three specific classes. A rough relationship was observed, for certain classes of ships, between peaks of high underway hours and peaks of attrition. In looking at individual aircraft carriers, the attrition percentage seemed to be inversely proportional to underway hours per month. Several of these findings warrant further investigation so that the Navy may more fully understand its attrition problem and thereby take steps to alleviate it. ↗

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I. INTRODUCTION

A. PROBLEM

One problem in the Navy is that approximately 33 percent of Non-Prior Service (NPS) males recruited into the Naval Service in 1973 did not make it through their first enlistment [Ref. 1]. This was part of a spiraling trend in which Navy attrition rates for first-term non-prior service male recruits increased from 30 percent in 1971 to over 40 percent in 1977 [Ref. 2]. When one stops to consider that the cost of recruiting just one of the 36,000 men recruited in 1977 was between \$1,700.00 and \$2,220.00 [Ref. 3], the loss of 33 percent of these men resulted in the waste of over 55 million dollars in recruiting costs alone. When the costs of training, pay and allowances, transportation, dependent benefits, medical services, etc., are added to the cost of recruiting, the monetary cost to the Navy, when a man fails to complete his enlistment term, is astronomical. A high attrition rate is damaging to the Navy in other ways also.

The Navy is critically short of manpower, especially for certain seagoing billets. It cannot hope to alleviate this shortage when it loses a third of the people it recruits. This shortage of manpower is not a problem that shows promise of an early solution. Despite a downward trend in planned manning levels, recruiters have been pressed to meet accession goals [Ref. 4, 5]. In addition, the pool of recruitable personnel is projected to decrease from 15 to 20 percent during the 1980's. In contrast, an increase in Naval strength and missions is assured with

the new administration's commitment to improving the United States' defense posture. The very real possibility of a 600-ship navy brings with it a staggering manpower requirement. Where the Navy will be able to get this manpower remains to be answered, but lessening the problem of attrition is one avenue. Reducing attrition increases the supply of manpower that is already trained and initiated into the Navy.

Recent attrition studies indicate that the first term attrition rate may be stabilizing at somewhere between 26 and 30 percent [Ref. 4]. The Navy, however, is going to have difficulty competing for eligible recruits to begin with [Ref. 6], and can hardly afford to lose over one quarter of those it does manage to recruit.

B. BACKGROUND

The problem of attrition has been recognized in the upper levels of management in the Navy and Defense. Many varied and innovative methods have been developed to attempt to alleviate this problem.

Screening of new recruits has been occurring for as long as the Navy has been operating and entails attempting to predict and screen out those individuals who have an unacceptably high probability of attrition during a first enlistment. Some of the screening methods that have been used are described in the following paragraphs.

In 1973, the Odds for Effectiveness - 1 (OFE-1) tables were placed in use in an attempt to use four predictor variables as indicators of attrition potential. The four predictor variables were: (1) an aptitude test score, the Armed Forces Qualification Test (AFQT), (2) years of education completed, (3) number of expulsions or suspensions from school, and (4) number of arrests [Ref. 7]. Recruiters found OFE-1 difficult to

use because of the increasing problem of obtaining arrest information due to the privacy act. The Naval Personnel Research and Development Center formulated a revised OFE table, OFE-2, which did not include the number of arrests as a predictor variable. OFE-2 was formally implemented in October 1975 [Ref. 8]. A new screening table involving different predictor variables was developed by Robert F. Lockman of the Center for Naval Analysis (CNA) in 1976. The following predictor variables were used in Lockman's model: (1) race--majority and minority, (2) mental group determined using the AFQT, (3) age at entry, (4) dependent status, and (5) years of education [Ref. 9]. Other preservice predictor variables were examined by Lockman and found not to be statistically significant in predicting attrition and hence were left out of his SCREEN (Success Chances for Recruits Entering the Navy) table.

Other studies have begun to investigate early-service variables and to evaluate their effect on attrition. J. S. Thomason of CNA looked at the effects of recruit training camp and first duty station assignment as well as the preservice characteristics investigated by Lockman [Ref. 1]. In addition, Smith and Kendall (1980) looked at A-School¹ training and early service characteristics in their study of a voluntary out program.² These studies showed that early-service or post-recruitment variables such as "boot" camp location and first duty station assignment had a significant effect on first term attrition. Both Smith and Kendall

¹A-schools are Navy schools designed to give rudimentary training to new personnel in specific technical and skill-oriented Navy ratings.

²The Voluntary Out Program II (Vol. Out II) was an experiment to determine the effects on performance and attrition of allowing recruits to leave the Naval Service upon request, subject to certain requirements.

and Butcher (1980) noted lower first term attrition for those recruits assigned to sea duty versus those assigned to shore duty.

Other initiatives have also been taken to attempt to reduce first term attrition. Among them are raised discharge standards to make administrative discharges more difficult [Ref. 5], and programs like the Behavioral Skills Training Program (BEST) [Ref. 10]. At the Navy's Recruit Training Centers (RTCs), Special Training Divisions (STDs) have been in place for some time. In addition to units that are designed to offer remedial training to recruits deficient in academic, military, or physical training, or to hold recruits with medical problems or awaiting reassignment, the STD has another purpose. Through the Positive Motivation Unit (PMU), using individual counseling, training, evaluation, and processing, the Navy attempts to motivate recruits toward a successful enlistment term. It can be concluded that the Navy is endeavoring to reduce attrition in basic training [Ref. 11].

C. PURPOSE

A great deal of effort is and has been expended on determining the causes of attrition and in developing methods for reducing it. The majority of this research has concentrated on traditional individual and demographic data and on service versus civilian pay opportunities. Only recently has effort been expended in the areas of post recruitment organizational factors [Ref. 4, 1, 12], and on dynamic factors such as working conditions, organizational experiences and supervisory practices [Ref. 13]. To understand and ultimately reduce attrition, one must first discover what factors affect it and where it occurs. It is the purpose of this thesis to look at some of factors which might affect attrition

and to determine if, in fact, there is room for further study using these factors.

Considerable informal debate occurred concerning the effect on attrition and retention of the following factors: sea duty, ship class, individual (intra class) ship differences, ship deployment schedules, sea/shore rotation, commanding officers, command climate (leadership), and individual ship retention efforts. Most people agree that these factors affect attrition, but no effort has apparently been made to determine how or if they really do impact attrition, and if they do impact attrition, to what extent.

This thesis will examine a few of these factors in an effort to determine if these factors have any effect on attrition. First, it will examine the Survival Tracking File (STF) cohort which is used as the primary data input for this study. The STS cohort is described in the next chapter. This examination will yield an overall view of how the cohort behaves. The thesis will examine next the overall, first term attrition figures for various ships of the same class for a specific period, and will also examine attrition rates for different classes of ships over the same period in an attempt to determine if class of ship, or hull number within a class, have an impact on attrition. Finally, an attempt will be made to compare attrition histories per month for selected ships and ship classes over time, to underway hours for the same ships and classes over the same period. This will be a very rough attempt to look at the factor of percent of underway time and its relationship to attrition.

II. DATA

A. SHIP DATA BANK

A Ship Data Bank was prepared by LCDR D. Gardner at the Naval Post-graduate School in 1980. He started with a Unit Identification Code (UIC) tape supplied by NMPC-47 (Navy Military Personnel Command, Code 47). The UIC tape contained the UIC, hull number, name, homeport, and type activity code (TAC) for every activity in the Navy, both ships and shore stations. LCDR Gardner then produced punch cards containing the data from the tape for each ship in the fleet and added additional data pertaining to the ship type, class, sub-class, size (based on personnel), age (based on commissioning date), engineering plant, nuclear capable status, homeport location, and active or reserve status [Ref. 4]. A description of the data found in the SHIP DATA BANK FILE is found in Appendix B.

B. ENLISTED SURVIVAL TRACKING FILE

The Enlisted Survival Tracking file (STF) produced by the Naval Personnel Research and Development Center (NPRDC) was used as the basic data cohort for this research. The portion of the STF accessed for this study was received from NMPC-164 (Mr. Kenneth Gay). This cohort was defined by the following characteristics:

1. First term Navy enlistees.
2. Term of enlistment from three to six years.

3. Active duty start date from the beginning of the fourth quarter of fiscal year 1977 (1 July 1977) through the end of the third quarter of fiscal year 1978 (30 June 1978).
4. STF was updated through the end of the first quarter of fiscal year 1981 (30 December 1980).

Development of the STF was initiated by the Bureau of Naval Personnel in 1975. In 1977, NPRDC and Pers 35-b (now NMPC-164), collaborated to complete development of the data base. The STF consists of two separate collections of records. Only the first, the longitudinal STF (STF-L), was utilized for this research effort. It consists of a 120-character field length record which represents the status of each individual at quarterly intervals. The data utilized in the construction of the file are derived from the end-of-quarter Enlisted Master Record (EMR) files and the quarterly audit trail file, both of which are routinely prepared by NMPC-165. The STF-L file contains records commencing with the fourth quarter of fiscal year 1977, and contains a complete longitudinal description for those personnel who enlisted in that calendar quarter or later. For individuals enlisting prior to that time, data are available only from that date (quarter four, FY 77) forward. A completely new record is generated for a person who has a status change during any quarter on one or more variables. An individual could conceivably have a record for each calendar quarter of service. If no change occurs in a quarter, the quarter count variable is incremented indicating the number of calendar quarters the record has remained unchanged. A complete listing of the STF-L data elements is located in Appendix A [Ref. 14].

C. FLEET STEAMING HOURS REPORT DATA

Each month, all U.S. Navy fleet units are required to submit a Fleet Steaming Hours message report to the Navy Maintenance Support Office. This report contains, among other thing, the number of hours the ship has spent steaming underway. This information was used to develop an underway profile for each ship of interest for the period under study. A complete listing of the information available on this tape is contained in Appendix C. The period covered on this tape is four years from January 1977 through December 1980 and contains the information described in Appendic C for all U.S. Naval ships, both active and reserve, which were commissioned during this time. This data tape was obtained from the Commanding Officer, Naval Material Support Office, P.O. Box 2010, Attn: Mr. Larry Giese (Code 022), Mechanicsburg, PA 17055. Updates of this tape can be obtained by contacting Mr. Giese.

III. METHODOLOGY AND DATA MANIPULATION

A. SHIP CLASS UNIT IDENTIFICATION CODE FILE

For this paper, a Ship Class Unit Identification Code File was developed from the Ship Data Bank File prepared by LCDR Gardner for his thesis at the Naval Postgraduate School. Beginning with the Ship Data Bank File (see Appendix B), the file was edited to group all ships by class. The ships were then sorted by class, subclass, hull number, and Unit Identification Code (UIC) and all reserve ships were included. This resulted in a total of 554 U.S. Naval ships broken down into 39 classes as per Appendix D. This file includes both blue and gold ballistic missile (nuclear) submarine (SSBN) crews as separate ship UIC's and some ships that have since been decommissioned. It includes both active and reserve commissioned ships. The ships were then sequentially numbered from 100 to 654 to aid in Statistical Analysis System (SAS) use later. A complete listing of the Ship Class Unit Identification Code File can be found in Appendix E.

B. SURVIVAL TRACKING FILE MODIFICATION

The Survival Tracking File (STF) described in the Data section of this thesis was modified in several ways to facilitate its use. FORTRAN computer language programs were written to read desired fields, to aggregate them, to operate on them, and to write them to files suitable for further use.

1. Merge Program for Study of Overall Attrition Percentage for
Ships and Classes of Ships

The FORTRAN program CARLMRG4 was written to read the basic Survival Tracking File (STF) and write a file from which overall attrition percentages for individual ships and classes of ships could be calculated. Appendix A describes the basic STF file variables from which were chosen certain variables pertinent to this study. Table 1 shows the variables of interest that were identified from the STF for use on this research project and prepared for merging with the Ship Class Unit Identification Code File described in Section A above.

The FORTRAN program CARLMRG4 operated in the following manner: all the ships records were read in from the Ship Class Unit Identification Code File (SCUIC). Then all the records of interest for the first person by Social Security Number (SSN) were read in from the STF. The UIC's of the first record were then checked to see if they contained any of the ship UIC's listed on the Ship Class UIC file. When a match was found, only the last record of an individual with a SHIP UIC was saved. This eliminated information from previous quarters which was not needed. This process continued until all of the UIC's that the first person served on were checked to see if they matched any of the UIC's of ships in the SCUIC. Then the saved records were written into a file along with the ship data information for the particular UIC from the Ship Class Unit Identification Code File. Now, a new record was read in by SSN and its UIC's were checked for ships of the SCUIC. This process continued until all of the records in the STF had been processed. The merged file now contained a one line record of every man in the STF that served on any

TABLE 1
STF VARIABLES IDENTIFIED FOR MERGING

Variable	Position	Field Width
Social Security Number	1	9
Race	10	1
Ethnic Group	11	1
Date of Birth (Year)	12	2
Date of Birth (Month)	14	2
AFQT	16	2
Education years	18	2
Education Certification	20	1
Primary Dependents	22	1
Term of Enlistment	23	1
CAAD -- Current Active Duty Date (Year)	24	2
CAAD -- Current Active Duty Date (Month)	26	2
EAOS -- Expiration of Active Obligated Service (Year)	28	2
EAOS -- Expiration of Active Obligated Service (Month)	30	2
Onboard Actual UIC (Unit Identification Code)	32	5
Sea/Shore Code	37	1
Loss Date of Occurance (Year)	38	2
Loss Date of Occurance (Month)	40	2
Loss Code Navy	42	3

of the ships listed in the Ships Class Unit Identification Code File. This one line record contained information about the individual (see Table 1), and information about the ships he served on (see Appendix B). Appendix F is a complete listing of the FORTRAN program used to merge the files as described in the preceding sentences. It should be noted that a record was written for every ship on which the individual served. This was the only way to ascertain how many of our STF cohort served on a particular ship so that this number could be compared to how many of our STF cohort attrited while serving on this ship. The construction of the STF and the data contained on it precluded other possibly more useful ways of calculating an attrition percentage. These other ways of calculation and ways to achieve them will be discussed later.

2. Merge Program for Study of Attrition Over Time

A different set of information was needed from the STF in order to study attrition over time. A data set was desired that would contain the information necessary to allow a study of attrition over time for the entire cohort, and attrition over time for smaller cohorts based on the individuals' entering month, and attrition over time for ships and classes of ships. Appendix G and Appendix H contain listings of FORTRAN programs CARLMRG7 and CARLUIC. These programs created the needed data set in the following manner. The program CARLMRG7 read in from the STF by Social Security Number (SSN) all the records for an individual. Then a subroutine scanned these records, reading the Current Enlistment Date (CED) (See Appendix A) and Loss Date of Occurrence fields. The CED was transformed into a variable called COHORT, corresponding to the month from one to 43 in which this individual began his enlistment. A cohort

value of one meant the individual began his enlistment in June of 1977; a cohort value of two corresponded to July 1977, and so on. The first time a field was found under Loss Date of Occurrence, three things happened. First, the ATTRIT 0,1 variable (1 = attrite) indicating attrition was set to indicate attrition. Secondly, the Loss of Date of Occurrence was read and translated into the corresponding month from one to 43 (i.e., June 1977 to December 1980). This value was placed into the variable LMON indicating loss month. Third, the Unit Identification Code (UIC) that the man was onboard when the loss occurred was written into the variable UIC. In every case, whether an attrition occurred or not, the number of months of service tracked was calculated and placed in the variable NMON. For ATTRIT values equal to one, NMON would indicate the number of months the individual had spent in the Navy prior to attriting. For ATTRIT values equal to 0, NMON would indicate the number of months the individual had been in the Navy as of the most recent STF update. As in the other merge file, this program forced the investigator to make some assumptions and uncomfortable decisions in order to get a useable file created.

The STF does not have a field exclusively dedicated to attrition in the traditional sense (i.e., attrition meaning prematurely leaving the Navy). One of the purposes of this research was to identify the ship that the man first attrited from or that might have influenced an individual's decision to become an unauthorized absentee (UA), etc. Some of the STF records had several different loss dates along with several last onboard UIC's and loss codes, meaning a scenario such as the following had occurred: the individual had gone UA for several months, been caught

and sent back to a ship; he had gone UA again, been caught, and sent to a shore station where he was eventually processed out of the Navy and added to the attrition statistics. However, this man had been effectively lost to the ship for months--even years--prior to actually being processed out of the Navy, in addition to the fact that the shore station was being "credited" with an attrition whose roots may have been connected with the ship the man was serving on when this sequence of events began. For these reasons, and to avoid counting the man as an attrition every time he had a Loss Date, or in being unable to determine where the man was at attrition initiation, only the first Loss Date of Occurrence was used and the UIC he was onboard at that time was credited with the attrition. This is, of course, a large assumption that probably introduces errors into the file, but the decision was made to proceed in this manner. Because of the shortcomings of the STF in handling this type of situation, this was deemed the best route. However, there is certainly room for other approaches to this problem. Another shortcoming of the STF that could not be circumvented at all was the inability to track accurately an individual from UIC to UIC. There is a field in the STF called "Onboard Transfer Date," but it was sparsely completed, usually only being filled in when the man attrited. Even then, the date was the same as the Loss Date of Occurrence and only filled in for the UIC from which the man was attriting. The STF probably suffers, as do most historical tracking files, from large time intervals and low priority in getting the information to the file. Hence, the best way to accurately track a man from station to station would be to use some file such as the Enlisted Master Record (EMR), which is updated more often than once

a quarter, and which would be able to give more timely and accurate information as to where an individual was at a given time than the STF can do by itself. The STF is fairly accurate in reporting that the man did go to a school and the UICs on which he served prior to attriting from a certain UIC on a given date, but as to when the man arrived and departed from the various intermediate UIC's, the STF is of no help. This STF shortcoming resulted in a deficiency in the analysis of attrition over time. Whereas it was possible to determine for each ship when, in the 43 month period, an attrition occurred, it was not possible to determine how many of his cohort peers had been stationed on this ship during this particular month. Hence, a monthly attrition percentage could not be calculated. It was known how many of the overall cohort had served on the ship some time in the three and one half years covered by the STF, but not when during this period they had served on it; hence, an overall attrition percentage was possible (see Section B, 1.) but not one broken down month by month. As mentioned earlier, a more time-oriented file, such as the EMR, will have to be used in conjunction with the STF to address these questions.

After CARLMRG7 had created the five variable files described above from the master STF, it was desired to identify the attritions that had occurred from ships. The FORTRAN program CARLUIC did this and also added all the Ship Data Bank File (see Appendix B) information to the attrition information created by CARLMRG7. This final file created by CARLMRG7 and CARLUIC (see Appendix G and Appendix H) was called MSS. S2987, STF COHRT6. A listing of the variables on the final file and their locations can be found in Appendix I.

C. FLEET STEAMING HOURS FILE MODIFICATION

Appendix C contains a description of the fields contained in the Fleet Steaming Hours Report. All of these data were not needed, however, so two FORTRAN programs were written to create a file that would allow the underway operating hours per month per ship to be compared to attrition figures per month obtained from the file created in Chapter III, Section B, 2. above. FORTRAN Program CARLFUEL read the ship name, period, UIC, and hours steaming underway from the master tape FUELHR. It then wrote these into a file. The FORTRAN program CARLFUEL1 took this file and added the Ship Data Bank File (see Appendix B) information for the UIC's of ships being studied (see Appendix E). This merged file was written into a file called MSS.S2987.FUEL4. Appendix L contains a description of the variables contained in this file and their location on the file. Appendix J contains a listing of FORTRAN program CARLFUEL, and Appendix K contains a listing of FORTRAN program CARLFUEL1.

IV. OBSERVATIONS AND FINDINGS

A. OVERALL VIEW COHORT ATTRITION

Before looking at attrition as related to ships and classes of ships, the overall cohort's attrition characteristics were examined. The cohort's survival function for the 3.5 years in question was calculated and displayed. Then the cohort's attrition history month by month was graphed and, finally, 12 small cohorts, based on enlistment commencement month, were tracked for the 43 month period. It was hoped that any large data based or cohort based anomalies could be detected at this stage. What follows is an explanation of how these cohort characteristics were examined and what was found. Possible explanations will be postulated for what is seen, but the primary purpose of this thesis is to describe and display what was found. Explanations as to why situations existed, or attempts at predicting trends or outcomes, contain enough subject material for many future theses.

1. Overall Cohort Survival Function

The Statistical Analysis System (SAS) was used as the primary analysis tool for this thesis. To calculate a cohort survival function, SAS was used to sum up the values for the variable ATTRIT over the entire COHRT6 file by LMON (loss month). These sums were then aggregated over the 43 months and subtracted from the cohort's beginning total of 94,174 individuals on a monthly basis. Appendix M lists the SAS program which generated the Survival Function graph from the numbers calculated as described above. Figure 1 shows this cohort survival function.

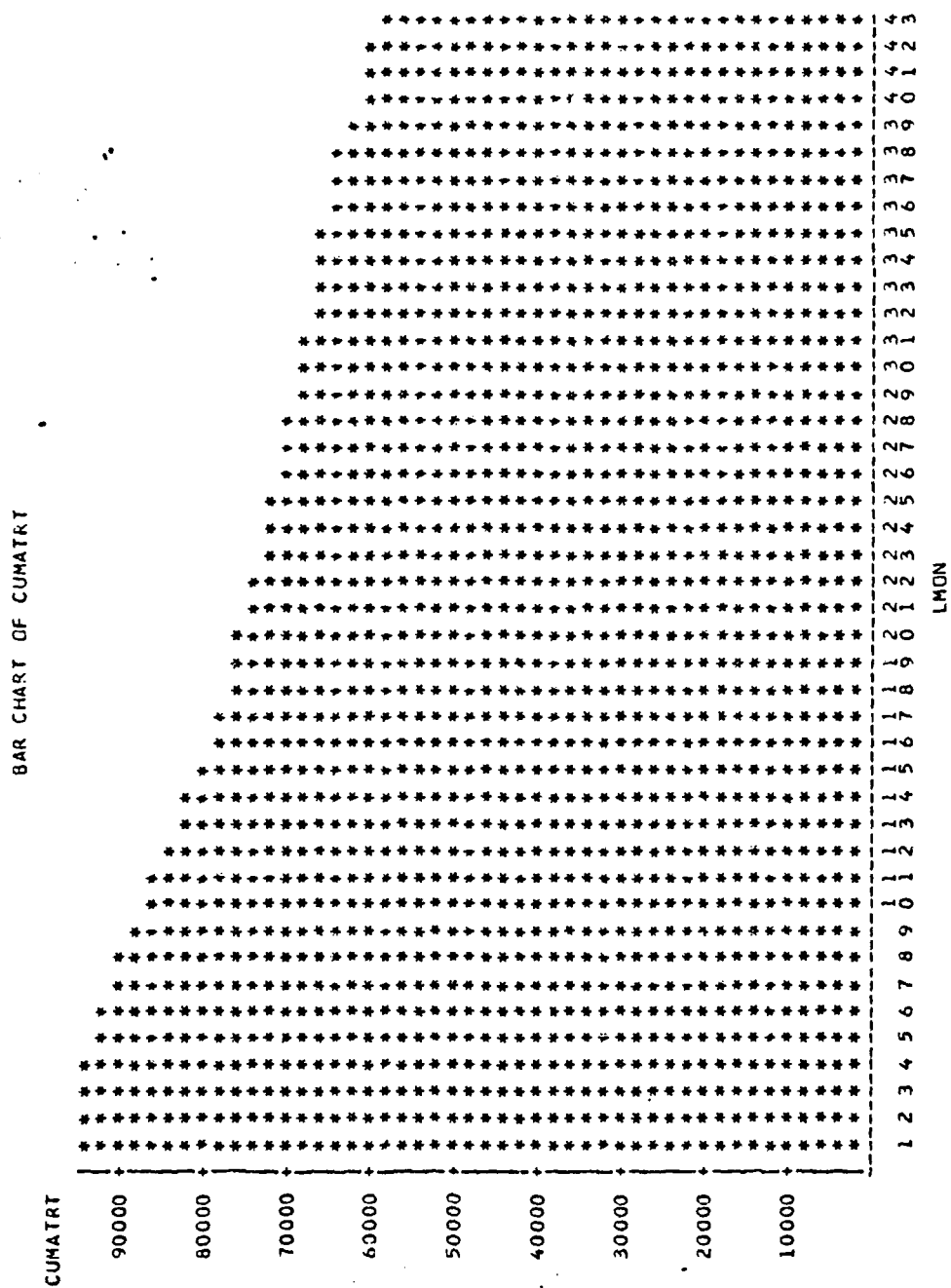


Fig. 1. Overall Cohort Survival Curve

Figure 2 shows the same function with an expanded, but truncated, vertical scale. Both figures show a fairly smooth attrition curve over time. Figure 2 indicates that for this cohort attrition is fairly linear over time with a steeper attrition slope at the beginning of the period of the enlistment and again at the beginning of the fourth year.

2. Overall Cohort Attrition History

SAS program CARLCHT2, contained in Appendix N, summed up the number of attritions by LMON (loss month) and created a bar graph to display them (see Figure 3). Figure 3 shows again the cohort attrition trend in Figure 2--high attrition in the early portion of the period followed by relatively constant lower attrition figures, capped by an increase in attrition numbers as the cohort begins its fourth year.

3. Individual Monthly Cohort Attrition History

Appendix O contains SAS program CARLCHT4 which was used to create a graph of the attrition histories of 12 small cohorts. The program created 12 cohorts based on the month the individual began his enlistment. These 12 different cohorts were then tracked month by month for the remainder of the 43 month period. By sliding the time scale forward a month for each successive cohort chart, it is possible to compare attrition rates one month after commencement, two months after commencement, etc., across all twelve cohorts. Any monthly group displaying vastly different attrition profiles will stand out. Recurring trends will also be evident. Appendix P contains a sample output of CARLCHT4. Several interesting trends are evident in that output. First of all, cohort 1 (enlistment commencement in June 1977) had less overall attrition than

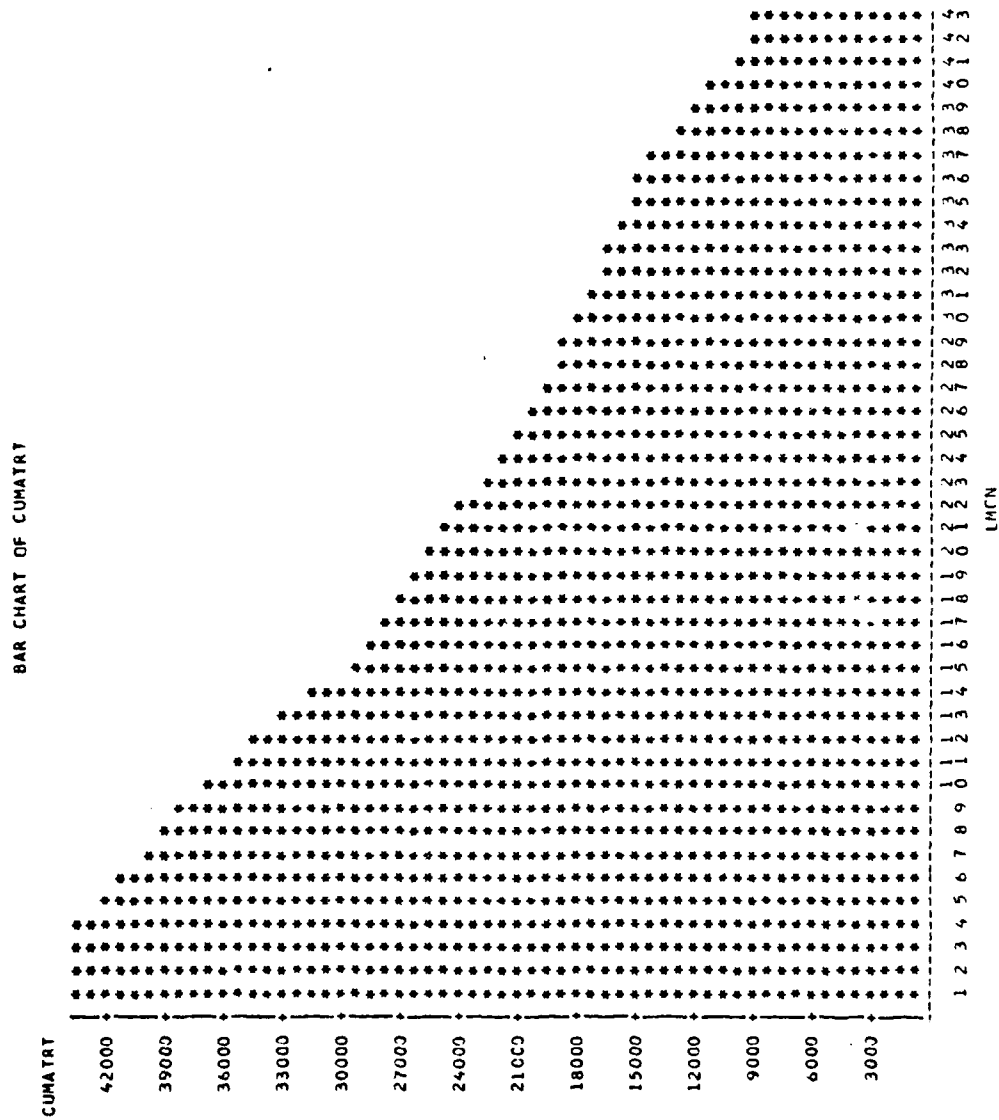


Fig. 2. Expanded Scale Survival Curve

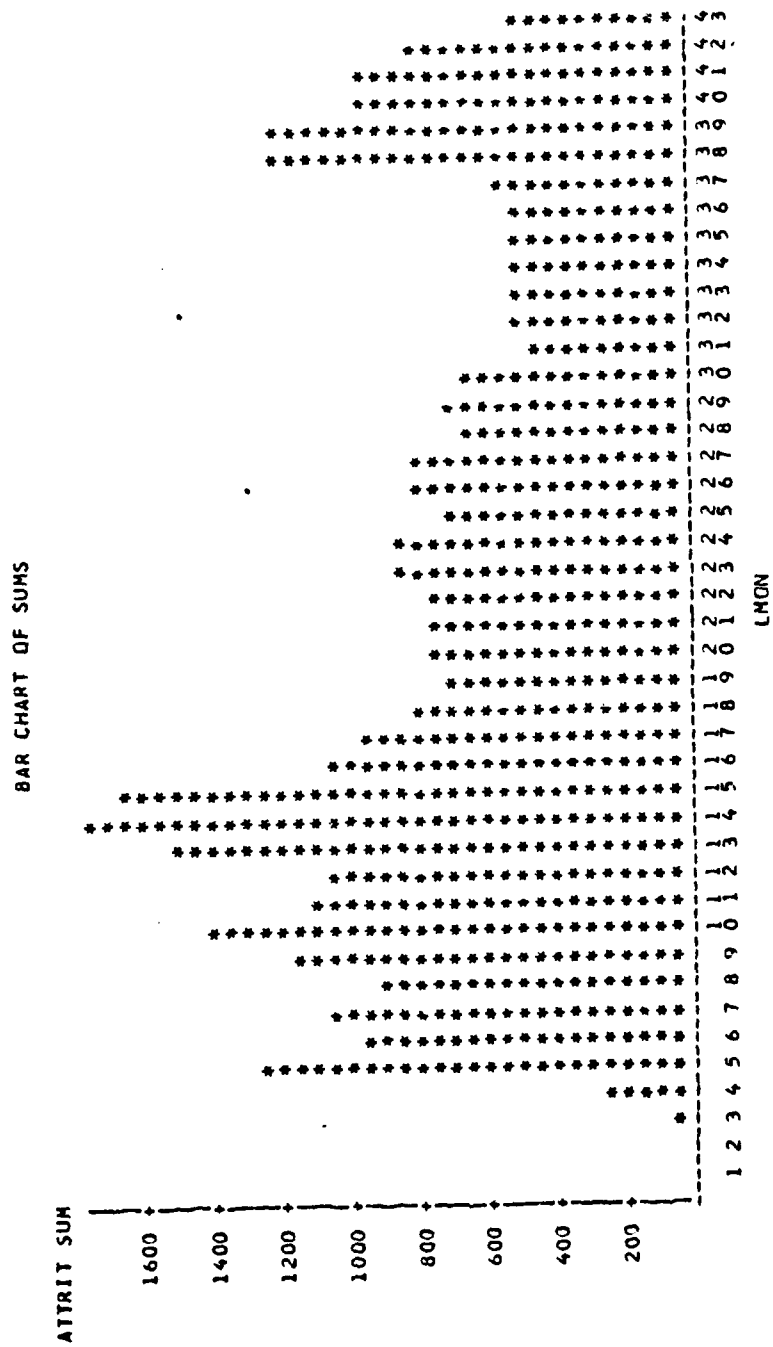


Fig. 3. Overall Cohort Attrition History

did succeeding cohorts. This is probably data induced as the STF was just being implemented at this time and reporting and updating procedures were probably not fully adequate. Beginning with cohort 3, two distinct attrition peaks manifest themselves and are evident in all of the remaining cohorts. These peaks occur in the one to three month period after enlistment and again at the 34 to 38 month period after enlistment. Recruit basic training attrition would seem to explain the first peak at one to three months after enlistment commencement, as this coincides with "Boot Camp" training, but the reason for the second peak is not clear. The second peak is the cause of the steeper attrition slope evident in the end of the survival function curve, and indicates an increase in attrition numbers as the cohort began the last quarter of their enlistment. Why did these men attrite in greater numbers when they only had about one year to go on their enlistment?

B. OVERALL ATTRITION PERCENTAGES

This portion of the thesis utilizes the STFUIC4 file created by the FORTRAN program CARLMRG4 (see Appendix F and Chapter III, Section B, 1) to examine overall attrition percentages for individual ships and for classes of different ships. This section also contains an analysis of variance (ANOVA) and a Duncan Multiple Range Test of intra-class attrition percentage differences.

1. Attrition Percentages for Individual Ships Grouped by Class

It was desired to display attrition figures for each ship grouped by class for the entire 43 month period so comparisons could be made among ships of the same class. It was also desired to calculate

the attrition percentage of each ship and its contribution to the overall attrition percentage and display it in tabular form by ship grouped by class. SAS programs CARLCHRT and CARLFREQ do this. CARLCHRT calculates the number of attritions per ship and displays them graphically for each ship grouped by class. CARLFREQ calculates the overall attrition percentage for each ship and it also displays for each ship the number of STF cohort members who served on each ship, the number of members who attrited from each ship, and the ship's contribution in numbers and percentage to the fleet-wide attrition percentage. These individual ship tables are grouped by class for easy comparison. CARLFREQ accomplished the above by searching for a Loss Date of Occurrence Code in each record of the merged file. The existence of a loss code in the merge file mean that this individual had attrited from the Navy while serving on this particular ship. The loss code (LCODE) was coded 0 if no loss code was present (i.e., the man was still in the Navy while he was on this ship) and coded 1 if a loss code was present (i.e., the man attrited from the Navy while serving on this ship). The merge file UIC4 was then sorted by class and then by ship within that class using the sequence code earlier added to the Ship Class Unit Identification Code File. Now the number of men from the STF cohort on each ship was counted (N). The number of men from the STF cohort who attrited from each ship was counted (SUM) and the percentage of attrition was calculated by dividing SUM by N. Appendix Q contains a complete listing of the SAS program CARLFREQ used to accomplish the above.

Appendix R contains a listing of SAS Program CARLCHRT described above and a display of overall ship attrition grouped by ship class. A

sample of this output is contained in Appendix S. The table of ship attrition percentages grouped by class created by the SAS program CARLFREQ is contained in Appendix T and shows measurable differences in attrition percentages among ships of different classes and also between ships of the same class. More will be said in the next two sections about the statistical significance of these class differences in attrition percentages.

2. Attrition Percentages for Different Classes of Ships

The master STF file used in this thesis was a very large STF file so that sample size was not a problem as it was in LCDR Dan Gardner's thesis [Ref. 4], or in later work done on his STF sample [Ref. 5]. The STF used for this research had 94,174 members initially for the full induction year beginning 1 July 1977. The newest member of the cohort had two and one half years of service as of 30 December 1980, while the oldest member had three and one half years of service. The original STF had 609,000 records which resulted in 61,018 records being written on the merge file. This 61,018 included the cohort members who had served on more than one ship. Since one purpose of this research was to analyze attrition by ship, it was important to know how many members of the cohort had served on a given ship at any time versus those who had served on a given ship and attrited while attached to that ship.

Table 2 summarizes the SAS findings by ship class. It shows there are differences in attrition rates among the different ship classes. Appendix U contains the following information: the number of cohort members who served on a given class of ship and did not attrite while on that class of ship; the number of cohort members who attrited while

TABLE 2
CLASS ATTRITION PERCENTAGE SUMMARY

Class	No. of Ships In Class	Minimum Attrition Rate (Percent)	Maximum Attrition Rate (Percent)	Average Attrition Rate (Percent)	Average Number of Cohort Assigned Per Ship
1. SSNB	82	0.00	7.69	1.11	39.54
2. AGSS	1	0.00	0.00	0.00	3.00
3. SSN	74	0.00	30.95	1.85	32.16
4. SS	9	0.00	12.00	4.37	20.34
5. CVN	3	6.40	11.35	9.80	922.00
6. CV	11	1.19	15.47	11.45	938.54
7. CGN	8	5.56	11.56	8.49	163.50
8. CG	20	0.60	13.51	6.58	154.30
9. DDG	37	1.39	12.39	8.15	119.75
10. DD	58	0.00	15.79	8.42	82.96
11. FFG	7	4.62	10.96	7.55	71.86
12. FF	59	0.00	17.28	7.88	83.90
13. PHM	1	0.00	0.00	0.00	3.00
14. PG	2	0.00	0.00	0.00	4.50
15. LCC	2	3.42	10.20	6.69	254.00
16. LHA	3	5.88	13.54	8.37	274.67
17. LPH	7	8.08	18.06	11.02	215.29
18. LPD	14	6.35	16.80	11.19	138.50
19. LSD	13	4.76	21.05	12.65	113.69
20. LST	20	2.90	18.84	11.42	74.45
21. LKA	6	4.93	16.49	11.26	114.00
22. LPA	2	3.17	5.06	4.23	71.00
23. MSO	25	0.00	30.00	5.54	13.00
24. AD	9	6.10	15.21	12.40	289.45
25. AE	13	6.94	16.90	11.56	130.46
26. AFS	7	0.00	15.38	8.84	143.86
27. AG	1	9.09	9.09	9.09	88.00
28. AGDS	1	1.39	1.39	1.39	72.00
29. AGF	1	0.00	0.00	0.00	264.00
30. AOE	4	7.14	9.27	8.64	317.00
31. AOR	7	7.00	15.79	10.96	152.57
32. AO	7	2.96	16.53	9.12	130.00
33. AR	4	10.07	13.75	11.95	276.25
34. ARS	9	0.00	17.85	7.02	31.66
35. AS	11	0.51	15.34	6.67	331.09
36. ASR	6	2.17	10.34	6.45	36.16
37. ATF	6	0.00	21.43	6.38	15.67
38. ATS	3	0.00	2.94	0.96	34.67
39. AVM	1	12.50	12.50	12.50	96.00

serving on a ship of that class; a class attrition rate; and the percentage that this class contributed to the overall attrition. Appendix V presents a bar graph depicting attrition rates for each ship class on a 0 to 1 scale (percent divided by 100). Appendix T contains a ship by ship breakdown of cohort members assigned to a particular ship, cohort members who attrited while assigned to that ship, an attrition rate for that ship, and a percentage of overall attrition contributed by that ship. Recall that Appendix S contains a sample of the output of CARLCHRT which is a bar graph which depicts attrition rate on a 0 to 1 scale (percent divided by 100) for each ship. As these appendices are sorted by class, it is easy to compare attrition both in total numbers and relative percentages from ship to ship in the same class. It is evident that some disparities among ships of the same class do exist, but the attrition rates are close to the class average. Table 2 also includes information about the range of attrition within each ship class.

3. Analysis of Variance and Duncan Range Test on Class Attrition Percentages

SAS was again employed to study the differences in attrition percentages among the various classes of ships. Two programs, CARLDAT1 and CARLDAT2, were used to perform an analysis variance (ANOVA) and a Duncan Multiple Range Test on the class attrition percentages. The programs are identical, except that CARLDAT2 uses the following transform on each class attrition percentage prior to comparing them:

$$\text{PERCENT} = \text{ATTRIT}/\text{ASSIGN}$$

$$\text{TPERCENT} = (\text{SQRT}(\text{ASSIGN})) * (\text{ARCSIN}((2 * \text{PERCENT}) - 1))$$

This transform is a "variance flattening" transform and its effect is

to enhance the differences of the class attrition means allowing a more revealing comparison of class attrition percentages. Table 3 and Table 4 contain the output of the ANOVA for untransformed and transformed class attrition percentages. The untransformed model was not bad, but the transformed model shown in Table 4 of TPERCENT = TYPE (i.e., class) is better in all measures. The F value is much higher for the transformed model indicating that the model as a whole accounts well for the dependent variable's behavior. The significance probability $PR > F$ indicates that the F value is significant and the R-square in Table 4 indicates that almost 75 percent of the dependent variable's variance can be accounted for by the model. Table 5 and Table 6 show the results of the Duncan Multiple Range Test for the untransformed and the transformed data. Table 6 again shows how much better the transformed data shows up the differences in the class attrition percentages. It should be noted that the transformed class attrition percentage has some shifting of order based on means when compared to the untransformed means. This is caused by the large disparity in the number of ships from class to class.

Appendix W contains a listing of SAS program CARLDAT2. Appendix X contains a table displaying by type (class), the number of ships (N), mean, minimum, maximum, and sum for each of the variables, ATTRIT (number of personnel who attrited), ASSIGN (number of personnel assigned), and PERCENT(ATTRIT/ASSIGN). This table is especially useful as it shows by class the range of attrition and the values, comparative magnitude, counts, etc., that influenced the attrition percentage calculation that has been examined.

TABLE 3
ANALYSIS OF VARIANCE OF CLASS ATTRITION
PERCENTAGES FOR THE DEPENDENT VARIABLE: PERCENT

Source	DF	Sum of Squares	Mean Square	<u>F</u>
Ship Class	23	0.73254584	0.03184982	23.77
Error	461	0.61775564	0.00134003	
Corrected Total	484	1.35030149		

Model F Value = 23.77

Model PR > F = 0.0001

Model R-Square = 0.542505

Model Coefficient of Variation = 54.7893

Standard Deviation = 0.03660647

Percent Mean = 0.6681442

TABLE 4
 TRANSFORMED ANALYSIS OF VARIANCE OF CLASS ATTRITION
 PERCENTAGES FOR THE DEPENDENT VARIABLE: T PERCENT

Source	DF	Sum of Squares	Mean Square	<u>F</u>
ship Class	23	6663.57996137	289.72086789	62.33
Error	461	2142.79369376	4.64314251	
Corrected Total	484	8806.37366013		

Model F Value = 62.33

Model PR > F = 0.0001

Model R-Square = 0.756677

Model Coefficient of Variation = 20.6501

Standard Deviation = 2.15595513

T Percent Mean = -10.44042315

TABLE 5
DUNCAN'S MULTIPLE RANGE TEST FOR DIFFERENCES IN
CLASS ATTRITION PERCENTAGES

S T A T I S T I C A L A N A L Y S I S S Y S T E M
ANALYSIS OF VARIANCE PROCEDURE
DUNCAN'S MULTIPLE RANGE TEST FOR VARIABLE PERCENT
MEANS WITH THE SAME LETTER ARE NOT SIGNIFICANTLY DIFFERENT.
ALPHA LEVEL=.05 DF=461 MS=0.00134

GROUPING	MEAN	N	TYPE
B B	A 0.125478	13	19
	A 0.119959	9	24
	A 0.117498	4	33
	A 0.115682	13	25
	A 0.115390	11	6
	A 0.113682	20	20
	A 0.112799	14	18
	A 0.111627	6	21
	A 0.109555	7	17
	A 0.109010	7	31
	A 0.096211	3	5
	A 0.092021	7	32
	A 0.091879	3	16
	A 0.086107	7	26
	A 0.085594	4	30
		57	10
		8	7
		37	9
		59	12
		9	34
		11	35
		20	8
		74	3
C C C		82	1

TABLE 6

DUNCAN'S MULTIPLE RANGE TEST FOR DIFFERENCES IN
TRANSFORMED CLASS ATTRITION PERCENTAGES

S T A T I S T I C A L A N A L Y S I S S Y S T E M

ANALYSIS OF VARIANCE PROCEDURE

DUNCAN'S MULTIPLE RANGE TEST FOR VARIABLE TPERCENT

MEANS WITH THE SAME LETTER ARE NOT SIGNIFICANTLY DIFFERENT.

ALPHA LEVEL=.05

DF=461

MS=4.64814

GROUPING	MEAN	N	TYPE
			A
	-6.131725	9	34
B			A
B	-7.686846	20	20
B	-8.052813	74	3
			C
	-9.058415	82	1
			C
	-9.117712	13	19
			C
	-9.133929	57	10
			C
	-9.382349	59	12
			C
	-9.568959	6	21
			C
	-10.051264	13	25
			C
	-10.481628	14	18
			F
	-10.908298	37	9
			F
	-10.952165	7	32
			F
	-11.159554	7	31
			F
	-12.210037	7	26
			F
	-12.536775	8	7
			F
	-13.076144	20	8
			I
	-13.198495	7	17
			I
	-14.338978	4	30
			I
	-14.407053	4	33
			I
	-14.523746	9	24
			I
	-16.053667	3	16
			I
	-19.088452	11	35
			J
	-27.336267	11	6
			K
	-28.519072	3	5
			K

C. OVER TIME COMPARISON OF ATTRITION HISTORY AND STEAMING HOURS UNDERWAY

As a precursor to further exploratory studies, a graphical cursory comparison between attrition and hours underway was performed. Using the STF COHRT6 file (see Appendix I) and the FUEL4 file (see Appendix L), attrition history was compared to underway hours for classes of ships and for individual ships of three classes.

1. Underway Hours and Attrition Comparisons Among Classes of Ships

SAS program CARLCLS1, listed in Appendix Y, displays class attrition history by loss month. Appendix BB is an overall class attrition summary table by loss month. Program CARLFHR2 displays class steaming hours underway by loss month. The program is listed in Appendix Z. Sample outputs of these programs, contained in Appendix AA and Appendix BB, are displayed in the same class order and cover the same period of time, i.e., 43 months from June 1977 to December 1980. Some interesting things can be seen by comparing these two graphs. For instance, SSN's (nuclear submarines) show an extremely high operating schedule but have almost no attrition. This is said to be characteristic of nuclear powered submarines which, popular wisdom says, transfer most marginal people before they become attrition statistics. This portion of the Navy also allegedly has enjoyed the cream of the recruiting crop each year. CV's (aircraft carriers) show a very flat constant operating curve of about 262 hours underway per month per CV, yet the attrition history curve shows large peaks at 15 and 38, 39 months. LHA's (amphibious assault ships) have one of the smaller averages of underway hours, 150 hours per month per LHA and also one of the smaller attrition percentages

for large ships--only 8.37 percent compared to 11.45 for CV's and 12.65 for LSD's (dock landing ships) (see Table 2 and Appendix D).

On the other side of the scale is the AD (destroyer tender) which is only underway an average of 64 hours a month, yet it has one of the highest attrition percentages of 12.4 percent. Clearly, no obvious pattern exists, but when more variables are controlled for and the employment of these ships during their underway periods is added, maybe more relationships will be evident. Appendix DD contains a summary of underway hours by class of ship, the mean, standard deviation, minimum, maximum, range, sum, and variance. This is a useful table, especially when compared with Table 2, which summarizes class attrition percentages.

2. Underway Hours and Attrition Comparisons Between Ships of Three Different Classes

SAS Program CAUWCLAS was used to generate from file FUEL4 a ship-by-ship underway steaming hours history for three classes of ships: CV (aircraft carriers), FF (fast frigate), and LST (tank landing ship). This program, which is listed in Appendix EE, also creates a table which displays mean, standard deviation, minimum, maximum, range, sum, and variance of underway hours for each ship of each class. These underway data are compared with attrition history generated for each ship of each class by the SAS programs CAHISTCV, CAHISTFF, and CARHISLST, all of which are contained in Appendix FF. A comparison of these two data sets for ships of the same class is a rough cut at attempting to control for a few more variables by looking at ships with similar crew size, engineering plant, age, weapons suite, mission, habitability, number of cohort members assigned, and maybe even similar cohort distribution functions over time

(i.e., roughly ten members assigned to each ship of this class after six months of service, 20 members/month/ship through the 14th month of service, etc.). Comparisons using these data yield some interesting observations. For example, for CV's, attrition comes in cycles--a period of high attrition followed by a lull of lower attrition. The underway history is similar, with long periods of underway time followed by periods of inport time. These lulls did not exactly coincide, but on several, such as the Ranger (CV 61), the two phases were close, with attrition falling off as the ship neared a long inport period and rising toward the end of the inport period, as the ship neared a period of a great number of hours of underway steaming. A comparison of Appendix U (attrition percentage summary by ship) and Appendix GG (underway hours by ship) yielded a rough relationship between underway ranking and attrition percentage ranking. The three CV's with the highest average underway hours per month had the 3 lowest attrition percentages, and of the four CV's with the lowest average underway hours per month, three of them had the highest three attrition percentages. The fourth was in the middle of the ranking. Table 7 shows this relationship more clearly. These types of relationships, while not necessarily true for all cases, definitely deserve further explanation and should be included in any kind of regression based prediction model. Appendix HH contains a sample of the attrition history for each ship of each class and Appendix GG contains a sample output of the underway hours history for each ship of each class. A sample of the table listing for each ship of each class for the mean, standard deviation, and variance of underway hours is contained in

TABLE 7
ATTRITION VS UNDERWAY HOURS RELATIONSHIP FOR AIRCRAFT CARRIERS

Ship		Attrition Percentage	Mean Underway Hours for Month	Attrition Rank	Underway Hours Rank
Midway	CV 41	1.19	382.8	1	10
Constellation	CV 64	8.99	363.9	2	9
Kitty Hawk	CV 63	10.87	317.6	3	8
Saratoga	CV 60	10.90	253.9	4	5
America	CV 66	12.16	207.04	5	1
Forrestal	CV 59	12.26	257.9	6	6
Coral Sea	CV 43	12.61	268.7	7	7
J. F. Kennedy	CV 67	13.20	220.6	8	2
Independence	CV 62	19.51	222.4	9	3
Ranger	CV 61	14.75	244.21	10	4

Appendix II. The data in Appendix II are most useful when compared to Appendix U, which shows attrition percentages for each ship.

V. CONCLUSIONS

A. SUMMARY

This thesis set out with the purpose of using several data bases, primarily the Survival Tracking File (STF), to explore ship connected attrition. As mentioned in the introduction to this thesis, the U.S. Navy can ill-afford to lose one third of the people it enlists into the Navy, especially in today's Navy with its high dependence on trained personnel. Since the Navy is ships at sea, this study concentrated on some of the many factors that affect shipboard attrition. Unfortunately, getting the available data into files that were useful in looking at ship-by-ship attrition took more time than was anticipated. Also, several data based deficiencies were discovered that made the approach in this thesis rather convoluted. This thesis has served the purpose of creating data file building blocks and illuminating areas of useful pursuit so that more exhaustive research can be made into explaining and predicting some of the attrition differences discovered during the course of this thesis. It is hoped that readers of this thesis will become aware of some of the many promising avenues of further study that were only touched on during this study, and, by avoiding some of the pitfalls described, find ways to make the data files and observations developed in this thesis more useful.

B. RECOMMENDATIONS

This section will attempt to point out some of the solutions to problems encountered during this study, and to indicate some of the many possible avenues open for continuing this type of research.

In updating master data tapes like the STF, Fleet Steaming Hours Report, and the Quarterly Force Employment Schedule (discussed below), the key is to start early. The Fleet Material Support Office was very responsive with tapes arriving in Monterey only a couple of days after requested. The other sources of data took longer to obtain, but OP-13 personnel were very helpful in obtaining and working with the STF. When requesting file updates, be sure to specify what field you want to be used as the key field in delineating the specific time period of interest. This study requested the cohort that entered the Navy from July 1977 to June 1980; however, the STF was created using the Active Duty Service Date (ADSD) which resulted in people with prior service or interrupted service, etc., being included in the data base and having to be separated out later. For this type of study, using the CADD (Current Active Duty Date) along with the ADSD would have avoided some of these problems and would have been a better way to go. It is important to realize that as-of dates only mean that the file was updated on this date and not that all changes that occurred before this date are included on the file. Old files are constantly revised as new data comes in on past events. Only date-of-occurrence dates indicate when an event actually took place.

Consult with Naval Postgraduate School (NPS) computer center personnel before ordering tapes to ensure data tape characteristics are compatible with the NPS computer. Check to ensure the entire tape reads into mass

storage correctly and ensure block size is correctly designated for the logical record length specified in mass storage file Job Control Language (JCL) cards. As mentioned earlier, the STF must be married to a more real-time oriented data base such as the Enlisted Master Record (EMR) for more meaningful attrition studies. The STF as it exists is fine for discrete period studies, but more information as to where a particular cohort member was at a given time is needed to study attrition in a continuous time manner.

C. AREAS OF FURTHER RESEARCH

This thesis suggests many different avenues for further research. One of the most promising ways of exploiting the data files created is to use the tool of multiple regression to develop predicting equations for attrition from ships or classes of ships. Some of the variables that are available and might be included in a regression model are the ship's class-wide attrition percentages, the ship's underway hours, its engineering plant type, its crew size, and its homeport. Use of the Quarterly Force Employment Schedule file described in Appendix JJ would allow the addition of information pertaining to what exactly was the ship doing while underway or in port (i.e., was it deployed to the Western Pacific or undergoing a major overhaul in Long Beach, California?) Other factors that might influence attrition could be explored: for instance comparing attrition to a plot of the tenure of the ship's commanding officers over time could perhaps prove interesting.

Perhaps development of a "Ship Performance Index" based on inspection scores, battle efficiency awards, retention figures, etc., could be

compared to ship attrition figures to see what affect being on a "top" ship has on attrition. Of course, this would be highly sensitive to the makeup of the index used, but maybe it could be shown that achieving measures of "success" are detrimental to attrition and retention. Then the trade-offs between men and mission could be explored. In short, the study of ship-connected attrition involves a large number of variables, each of which merits investigation to determine its impact on attrition to see if there really is a difference in attrition from ship to ship or among classes of ships. The important factors affecting attrition probably involve some combination of pre-service characteristics--like education and family background--taken together with post-enlistment factors--like class of ship assigned to, operational rate, homeport, commanding officer leadership, underway history, ship performance, and morale. Some of these factors are difficult to quantify, but most can be examined and their significance explored. Only when this is done will the Navy understand its attrition problem and be able to attack it effectively. Reducing the current high attrition figure is a relatively low-cost solution to at least part of the Navy's manpower problems. It is an area where even small gains can payoff in large savings to the Navy.

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APPENDIX A

SURVIVAL TRACKING FILE (LONGITUDINAL) VARIABLES

Social Security Number
As-Of Date Fiscal Year
 Quarter
 Count
Strength Indicator
Sex
Race
Ethnic Group
Date of Birth
AFQT (Armed Forces Qualification Test)
Education Years
Education Certification
A-School Indicator
Dependency Primary
Term Enlistment
Type Enlistment
Term Status
Number of Enlistments
Type of Acquisition
Type of Program
Rate/Special Prog Code
Branch/Class
RADO Mos (Reserve Action Duty Obligation)
Enlisted Designator
Present Rate Code
Present Pay Grade
PNEC (Primary Navy Enlisted Classification)
SNEC (Secondary Navy Enlisted Classification)
ADSD (Active Duty Start Date)
PEBD (Pay Entry Base Date)
CED (Current Enlistment Date)
CADD (Current Active Duty Date)
EAOS (Expiration of Active Obligated Service)
Soft EAOS
EAOS Change Indicator
Onboard Actual UIC (Unit Identification Code)
Onboard ACC (Accounting Category Code)
Onboard Sea/Shore Code
Onboard Transfer Date
Past Actual UIC
SRB Received Indicator (Selective Re-enlistment Bonus)
 Zone
 Skill Indicator
 Award Level

RQC (Recruit Quality Control Code)
Loss Date of Occurrence
Loss Code Navy
Loss code DOD (Department of Defense)

APPENDIX B

SHIP DATA BANK FILE DESCRIPTION

Count (Sequential Number for SAS Sort Use)

UIC (Unit Identification Code)

Hull Number

Ship Name

Homeport

TAC (Type of Activity Code)

Ship Type

Class

Sub-Class

Size (Personnel)

Age (Commissioning)

Engineering Plant

Nuclear Capable

Location

Active/NRF

APPENDIX C

FLEET STEAMING HOURS REPORT DATA FILE DESCRIPTION

<u>Variable</u>	<u>Position</u>	<u>Field Width</u>
Ship		
Type	1	4
Hull Number	5	4
Period		
Year	9	2
Month	11	2
UIC (Unit Identification Code)	13	5
Hours Steaming		
Underway	18	3
Standstill	21	3
Hours Not Steaming	24	3
Diesel Fuel Used (Gals.) Underway	27	8
Diesel Fuel Used (Gals.) Not Underway	35	6
JP 5 Fuel Used (Gals.) Underway	41	8
JP 5 Fuel Used (Gals.) Not Underway	49	6
Others -- Fuel Used (Gals.) Underway	55	8
Others -- Fuel Used (Gals.) Not Underway	63	6

APPENDIX D
SHIP CLASS NAMES

Class	Ship Type Designation	Class Name
1.	SSNB	Ballistic Missile Submarine (Nuclear)
2.	AGSS	Research Submarine Diesel
3.	SSN	Submarine (Nuclear)
4.	SS	Submarine (Diesel)
5.	CVN	Aircraft Carrier (Nuclear)
6.	CV	Aircraft Carrier
7.	CGN	Guided Missile Cruiser (Nuclear)
8.	CG	Guided Missile Cruiser
9.	DDG	Guided Missile Destroyer
10.	DD	Destroyer
11.	FFG	Guided Missile Frigate
12.	FF	Frigate
13.	PHM	Patrol Combatant Missile (Hydrofoil)
14.	PG	Patrol Combatant
15.	LCC	Amphibious Command Ship
16.	LHA	Amphibious Assault Ship
17.	LPH	Amphibious Assault Ship
18.	LPD	Amphibious Transport Dock
19.	LSD	Dock Landing Ship
20.	LST	Tank Landing Ship
21.	LKA	Amphibious Cargo Ship
22.	LPA	Amphibious Transport Ship
23.	MSO	Ocean Minesweeper
24.	AD	Destroyer Tender
25.	AE	Ammunition Ship
26.	AFS	Combat Stores Ship
27.	AG	Missile Test Ship
28.	AGDS	Auxiliary Deep Submergence Support Ship
29.	AGF	Command Ship
30.	AOE	Fast Combat Support Ship
31.	AOR	Replenishment Oiler
32.	AO	Oiler
33.	AR	Repair Ship
34.	ARS	Salvage Ship
35.	AS	Submarine Tender
36.	ASR	Submarine Rescue Ship
37.	ATF	Fleet Ocean Tug
38.	ATS	Salvage and Rescue Ship
39.	AVM	Guided Missile Ship

SHIP CLASS UNIT IDENTIFICATION CODE FILE

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292	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339											
52688	52689	52690	52691	52692	52693	52694	52695	52696	52697	52698	52699	52700	52701	52702	52703	52704	52705	52706	52707	52708	52709	52710	52711	52712	52713	52714	52715	52716	52717	52718	52719	52720	52721	52722											
CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG											
H E YARNELL	WORDE	DALE	TURNER	GRIDLEY	ENGLAND	HALSEY	REEVES	JOSEPHUS DANIEL	WAINWRIGHT	JOUE	STERNETT	W H STANDLEY	FOX	BIDLES F ADAMS	CHARLES KING	JOHN RENCE	CLAUDE RICKETTS	BARNEY B WILSON	LYNDE MCCORMICK	TOWERS	SAMPSON	SELLERS	ROBISON	HOEL	BUCHANAN	BERKELEY	JOSEPH STRAUSS	CONYNGHAM	SEMMES	TATNALL	GOLDSBOROUGH	COCHRANE	BEN STODDERT	RICHAED E BYRD	WADDELL	FARRAGUT	LUCE	MACDONOUGH	COONTZ	KING	MAHAN	DAHLGREN	WILLIAM V PRATT	DEWEY	
NORVA	YOKSKA	MAYPRT	CHARLE	SDGO	LNGBCH	SDGC	PEARL	NORVA	CHARLE	SDGO	LNGBCH	SDGO	SDGO	PHILA	MAYPRT	NORVA	NORVA	NORVA	SDGO	SDGO	SDGO	MAYPRT	CHARLE	SDGO	LNGBCH	SDGO	PEARL	CHARLE	MAYPRT	PEARL	PEARL	PEARL	NORVA	NORVA	MAYPRT	CHARLE	NORVA	NORVA	CHARLE	NORVA	PHILA	CHARLE			
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
2	4	2	2	2	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
13	1	1	1	2	2	2	4	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	

436	20049	FF	JOSEPH HEWES	CHARLE	2
437	20050	FF	BOWEN	CHARLE	2
438	20051	FF	PAUL	CHARLE	1
439	20052	FF	AYLMER	MAYPRT	1
440	20053	FF	ELMER MONTGOMER	MAYPRT	1
441	20054	FF	COOK	SDGO	1
442	20055	FF	MCCANDLESS	NORVA	1
443	20056	FF	DONALD B BEARY	NORVA	1
444	20057	FF	BREKTON	PEARL	1
445	20058	FF	KIRK	YOKSKA	1
446	20059	FF	BARBEY	SDGO	1
447	20060	FF	JESSE L BROWN	CHARLE	1
448	20061	FF	AINSWORTH	NORVA	1
449	20062	FF	MILLER	NEWPT	1
450	20063	FF	THOMAS C HART	NORVA	1
451	20064	FF	CAPODANNO	NEWPT	1
452	20065	FF	PHARRIS	NORVA	1
453	20066	FF	TRUETT	NORVA	1
454	20067	FF	VALDEZ	NEWPT	1
455	20068	FF	MOINSTER	N YCRK	1
456	20069	FF	GLOVER	NORVA	1
457	20070	FF	GARCIA	CHARLE	1
458	20071	FF	BRADLEY MCDONNEL	LNGBCH	1
459	20072	FF	EDWARD	MAYPRT	1
460	20073	FF	BRUMBY	CHARLE	1
461	20074	FF	DAVIDSON	PEARL	1
462	20075	FF	VOGE	MAYPRT	1
463	20076	FF	SAMPLE	PEARL	1
464	20077	FF	KOELSCH DAVID	MAYPRT	1
465	20078	FF	ALBERT	SDGO	1
466	20079	FF	OCALLAHAN	SDGO	1
467	20080	FF	BRONSTEIN	SDGO	1
468	20081	FF	MCCLOY	NORVA	1
469	20082	FF	PEGASUS	L CRK	1
470	20083	FF	TACOMA	L CRK	1
471	20084	FF	WELCH	YOKSKA	1
472	20085	FF	BLUE RIDGE	NORVA	1
473	20086	FF	MOUNT WHITNEY	SDGO	1
474	20087	FF	TARAWA	NORVA	1
475	20088	FF	SAIPAN	LNGBCH	1
476	20089	FF	BELLEAU WOOD	NORVA	1
477	20090	FF	IWO JIMA	SDGO	1
478	20091	FF	OKINAWA	NORVA	1
479	20092	FF	GUADALCANAL	PHILA	1
480	20093	FF	GUAM	SDGO	1
481	20094	FF	TRIPOLI	SDGO	1
482	20095	FF	NEW ORLEANS	NORVA	1
483	20096	FF	INCHON	NORVA	1

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580	20111	AE	SANTA BARBARA	28	CHARLE	22	2
581	20112	AE	MOUNT HOOD	29	CONCRD	22	2
582	20113	AE	FLYINT	32	CONCRD	12	2
583	20114	AE	SHASTA	33	CHARLE	12	2
584	20115	AE	MOUNT BAKER	34	CONCRD	12	2
585	20116	AE	KISKA	35	CONCRD	12	2
586	05831	AFS	MARS	1	OAKLAN	22	2
587	05832	AFS	SYLVANIA	2	NORVA	22	2
588	05833	AFS	NIAGARA FALLS	3	ALAMED	22	2
589	05834	AFS	WHITE PLAINS	4	YOKSKA	22	2
590	05835	AFS	CONCORD	5	NORVA	22	2
591	05836	AFS	SAN DIEGO	6	NORVA	22	2
592	20118	AFS	SAN JOSE	7	ALAMED	22	2
593	03954	AGDS	SAN COMPASS ISLAND	153	CHARLE	22	2
594	01936	AGDS	POINT LOMA	2	SDGO	22	2
595	07172	AGDS	LA SALLE	3	NORVA	22	2
596	05832	AOEE	SACRAMENTO	1	BREM	22	2
597	05833	AOEE	CAMDEN	2	NORVA	22	2
598	05848	AOEE	SEATTLE	3	BREM	22	2
599	20120	AOEE	DETROIT	4	NORVA	22	2
600	05849	AOEE	WICHITA	1	SFRAN	22	2
601	05850	AOEE	MILWAUKEE	2	NORVA	22	2
602	20122	AOEE	KANSAS CITY	3	SFRAN	22	2
603	20123	AOEE	SAVANNAH	4	NORVA	22	2
604	20124	AOEE	WABASH	5	SFRAN	22	2
605	20125	AOEE	KALAMAZOO	6	NORVA	22	2
606	20248	AOEE	ROANOK	7	SFRAN	22	2
607	04951	AOEE	ASH TABULA	51	PEARL	22	2
608	04848	AOEE	CALOOSA HATCHEE	98	NORVA	22	2
609	04849	AOEE	CANISTEO	99	NORVA	22	2
610	05905	AOEE	HASSAYAMPA	145	PEARL	22	2
611	05906	AOEE	KAWISHINI	146	NORVA	22	2
612	05907	AOEE	TRUCKEE	147	PEARL	22	2
613	05908	AOEE	PONCHATOULA	148	SDGO	22	2
614	08806	AR	AJAX	6	NORVA	22	2
615	08808	AR	VULCAN	5	SFRAN	22	2
616	08809	AR	HECTOR	7	SDGO	22	2
617	08810	AR	JASON	8	L CRK	22	2
618	02523	ARSS	PRESERVER	23	PEARL	22	2
619	02525	ARSS	DEIVER	25	PEARL	22	2
620	02533	ARSS	SAFEGUARD	38	PEARL	22	2
621	02534	ARSS	BOLSTER	39	L CRK	22	2
622	02535	ARSS	CONSERVER	40	PEARL	22	2
623	02536	ARSS	HOLIST	41	L CRK	22	2
624	02537	ARSS	OPPORTUNE	42	PEARL	22	2
625	02538	ARSS	RECLAIMER	43	L CRK	22	2
626	02539	ARSS	RECOVERY	44	NEWTON	22	2
627	04619	AS	FULTON	11			

APPENDIX F

FORTTRAN PROGRAM CARLMRG4: MERGES STF AND SHIP

DATA BANK FILE

```

//CARLMRG4 JOB (2987,0020), 'CARL CARLSON', CLASS=F
//EXEC FORTXCLG
//FORT SYSIN DD *
  INTEGER ISHIP(20), IREC(20)
  REAL *8 A(1), SSN, UIC2
  COMMON A(20), B(20,20), SSN(2), UIC2(554,9)
  NCASE=0
  C
  C
  C      READ IN THE UIC CODES
  C
  C      DC 10 I=1,554
  C      10 READ(5,20) (UIC2(I,J),J=1,9)
  C      20 FORMAT(A4,A5,6A8,A7)
  C
  C      READ IN THE VERY FIRST RECORD
  C
  C      READ(1,50) A
  C      50 FORMAT(A1,A8,T17,12A1,A2,T62,A4,T78,A4,T87,A5,T95,A1,T111,A7)
  C      SSN(1)=A(1)
  C      SSN(2)=A(2)
  C      LAST=1
  C
  C      SUBROUTINE RDREC  READS IN ALL THE RECORDS FOR ONE
  C      INDIVIDUAL.  THESE ARE PLACED IN THE MATRIX 'B'.
  C      THE FIRST RECORD OF THE NEXT PERSON IS SAVED IN VECTOR 'A'
  C      THE 'SSN' IS UPDATED TO THAT OF THE NEXT PERSON.
  C
  C      FOR THE LAST PERSON, LAST=2
  C
  C      100 CONTINUE
  C      CALL RDREC(NREC,LAST)
  C
  C      SUBROUTINE UIC CHECKS FOR SHIP UIC'S
  C
  C      NREC:  NUMBER OF RECORDS FOR ONE MAN
  C      NUIC:  NUMBER OF SHIP UIC'S
  C      NSHIP:  NUMBER OF SHIPS A MAN SERVED ON
  C
  C      ISHIP:  ARRAY CONTAINING INDEX OF THE MAN'S SHIP'S UIC
  C      IREC:  ARRAY CONTAINING RECORD NUMBER OF SHIPS
  C
  C      CALL UIC(NREC,NUIC,NSHIP,ISHIP,IREC)
  C
  C      200 CONTINUE
  C
  C      IF THE MAN SERVED ON NO SHIP,
  C      GO AROUND THE WRITE SUBROUTINE.

```



```

C      IF(NSHIP.EQ.0) GO TO 220
C      CALL SAVED(NREC,NSHIP,ISHIP,IREC)
C      NCASE=NCASE+1
C      IF THIS IS THE LAST CASE,
C      BRANCH OUT OF THE READ/WRITE LOOP.
C      220 IF(LAST.EQ.2) GO TO 250
C      GO TO 100
C      250 CONTINUE
C      WRITE(6,260) NCASE
C      260 FORMAT(IX,NUMBER OF CASES WRITTEN=,I7)
C      STOP
C      END
C      SUBROUTINE ROREC(NREC, LAST)
C      REAL*8 A,B,SSN,UIC2
C      COMMON A(20),B(20,20),SSN(2),UIC2(554,9)
C      DO 10 I=1,20
C      10 B(I,I)=A(I)
C      NREC=1
C      READ IN A NEW LRECL
C      40 READ(1,50,END=300) A
C      50 FORMAT(A1,A8,T17,I2A1,A2,T62,A4,T78,A4,T87,A5,T95,A1,T111,A7)
C      COMPARE THE PREVIOUS SSN WITH THE NEW ONE.
C      IF(SSN(1).EQ.A(1).AND.SSN(2).EQ.A(2)) GO TO 200
C      WITHOUT THE MATCH, ALL ONE PERSON'S RECORDS HAVE
C      BEEN READ IN. SAVE THE NEW PERSON'S SSN AND RETURN
C      SSN(1)=A(1)
C      SSN(2)=A(2)
C      RETURN
C      ACCUMULATE ANOTHER RECORD OF INFORMATION FOR
C      ONE PERSON IN MATRIX 'B'.
C      200 CONTINUE
C      NREC=NREC+1
C      DO 220 I=1,20
C      220 B(NREC,I)=A(I)
C      GO TO 40
C      300 LAST=2

```

```

      RETURN
      END
      SUBROUTINE UIC(NREC,NUIC,NSHIP,ISHIP,IREC)
      INTEGER*4 ISHIP(20),IREC(20)
      REAL*8 A,B,SSN,UIC2
      COMMON A(20),B(20),SSN(2),UIC2(554,9)

      NREC:  NUMBER OF RECORDS FOR ONE MAN
      NUIC:  NUMBER OF SHIP UIC'S
      NSHIP:  NUMBER OF SHIPS A MAN SERVED ON

      ISHIP:  ARRAY CONTAINING INDEX OF THE MAN'S SHIP'S UIC
      IREC:  ARRAY CONTAINING RECORD NUMBER OF SHIPS

      IJ:  INDEX THROUGH MAN'S RECORDS
      I:  INDEX THROUGH SHIP UIC'S

      IJ=0
      NSHIP=0
      DO 30 I=1,20
      ISHIP(I)=0
      30 IREC(I)=0

      50 IJ=IJ+1
      IF(IJ.GT.NREC) RETURN

      CHECK ALL SHIP UIC'S AGAIN THE UIC FROM ONE RECORD

      DO 100 I=1,554
      IF (B(IJ,18).EQ.UIC2(I,2)) GO TO 200
      100 CONTINUE
      GO TO 50
      200 CONTINUE
      NSHIP=NSHIP+1
      ISHIP(NSHIP)=I

      IF THIS IS THE LAST RECORD, RETURN

      IF(IJ.LT.NREC) GO TO 300
      250 IREC(NSHIP)=IJ
      RETURN
      300 CONTINUE

      IS THE NEXT UIC THE SAME?

      310 IF(B(IJ,18).NE.B(IJ+1,18)) GO TO 350
      IJ=IJ+1
      IF(IJ.EQ.NREC) GO TO 250

```


APPENDIX G

FORTTRAN PROGRAM CARLMRG7: SCANS STF IDENTIFYING ATTRITIONS,
ENTERING MONTH, LOSS MONTH AND UIC LOST FROM

```
//CARLMRG7 JOB (2987,0020),'CARL CARLSGN',CLASS=F
// EXEC FORTXCLG
//FORT.SYSIN DD *
  INTEGER ISHIP(20),IREC(20)
  REAL*8 A,B,SSN,UIC2
  COMMON A(5),B(20,5),SSN(2)
  NCASE=0
  C
  C      READ IN THE VERY FIRST RECORD
  C
  50  FORMAT(A1,A8,T70,A4,T87,A5,T111,A4)
  SSN(1)=A(1)
  SSN(2)=A(2)
  LAST=1
  C
  C      SUBROUTINE RDREC  READS IN ALL THE RECORDS FOR ONE
  C      INDIVIDUAL.  THESE ARE PLACED IN THE MATRIX 'B'.
  C      THE FIRST RECORD OF THE NEXT PERSON IS SAVED IN VECTOR 'A'
  C      THE 'SSN' IS UPDATED TO THAT OF THE NEXT PERSON.
  C
  FOR THE LAST PERSON, LAST=2
  100 CONTINUE
  CALL RDREC(NREC,LAST)
  C      SUBROUTINE DEFINE IDENTIFIES THE COHORT AND DETERMINES
  C      IF AN ATTRITION OCCURRED. IT NOTES THE LAST MONTH TRACKED
  C      OR IF AN ATTRITION OCCURRED WHEN IT OCCURRED. IT ALSO
  C      CALCULATES THE NUMBER OF MONTHS TRACKED.
  C      SAVES UIC ATTRITED FROM.
  C      CALL DEFINE(NREC,COHORT,ATTRIT,LMCN,NMON,UIC)
  200 CONTINUE
  CALL SAVED(COHORT,ATTRIT,LMON,NMON,UIC)
  NCASE=NCASE+1
  C
  C      IF THIS IS THE LAST CASE,
  C      BRANCH OUT OF THE READ/WRITE LOOP.
  220 IF(LAST.EQ.2) GO TO 250
  GO TO 100
  C
  250 CONTINUE
  260 WRITE(6,260) NCASE
  FORMAT(IX,NUMBER OF CASES WRITTEN=,I7)
  STOP
  END
  SUBROUTINE RDREC(NREC,LAST)
```



```

1.7912.,.8001.,.8002.,.8003.,.8004.,.8005.,.8006.,.8007.,.8008.,
1.8009.,.8010.,.8011.,.8012.,.8101.,.8102.,.8103.,./
REAL*8 DATE/'0000./
INTEGER COHORT,ATTRIT,LMON,NMON,MONTH,I,J,K
CCHORT=50
I INDEXES THROUGH THE MANS RECORDS
ATTRIT=7
LMON=55
NMON=60
MONTH=00
I=0
IF(I+1
IF(I.GT.NREC) RETURN
READ CURRENT ENLISTMENT DATE FOR THIS RECORD AND CONVERT
TO MONTH COUNT.
DATE=B(I,3)
IF(DATE.EQ.A1 )MONTH=1
IF(DATE.EQ.A2 )MONTH=2
IF(DATE.EQ.A3 )MONTH=3
IF(DATE.EQ.A4 )MONTH=4
IF(DATE.EQ.A5 )MONTH=5
IF(DATE.EQ.A6 )MONTH=6
IF(DATE.EQ.A7 )MONTH=7
IF(DATE.EQ.A8 )MONTH=8
IF(DATE.EQ.A9 )MONTH=9
IF(DATE.EQ.A10)MONTH=10
IF(DATE.EQ.A11)MONTH=11
IF(DATE.EQ.A12)MONTH=12
IF(DATE.EQ.A13)MONTH=13
IF(DATE.EQ.A14)MONTH=14
IF(DATE.EQ.A15)MONTH=15
IF(DATE.EQ.A16)MONTH=16
IF(DATE.EQ.A17)MONTH=17
IF(DATE.EQ.A18)MONTH=18
IF(DATE.EQ.A19)MONTH=19
IF(DATE.EQ.A20)MONTH=20
IF(DATE.EQ.A21)MONTH=21
IF(DATE.EQ.A22)MONTH=22
IF(DATE.EQ.A23)MONTH=23
IF(DATE.EQ.A24)MONTH=24
IF(DATE.EQ.A25)MONTH=25
IF(DATE.EQ.A26)MONTH=26
IF(DATE.EQ.A27)MONTH=27
IF(DATE.EQ.A28)MONTH=28
IF(DATE.EQ.A29)MONTH=29
IF(DATE.EQ.A30)MONTH=30
IF(DATE.EQ.A31)MONTH=31
IF(DATE.EQ.A32)MONTH=32

```

C

50

C
60
70

```

IF (DATE.EQ.A33) MONTH=33
IF (DATE.EQ.A34) MONTH=34
IF (DATE.EQ.A35) MONTH=35
IF (DATE.EQ.A36) MONTH=36
IF (DATE.EQ.A37) MONTH=37
IF (DATE.EQ.A38) MONTH=38
IF (DATE.EQ.A39) MONTH=39
IF (DATE.EQ.A40) MONTH=40
IF (DATE.EQ.A41) MONTH=41
IF (DATE.EQ.A42) MONTH=42
IF (DATE.EQ.A43) MONTH=43
IF (DATE.EQ.A44) MONTH=44
IF (DATE.EQ.A45) MONTH=45
IF (DATE.EQ.A46) MONTH=46
IF (ATTRIT.EQ.1) GO TO 100
IF THIS IS MAN'S FIRST RECORD DESIGNATE COHORT.
IF (I.EQ.1) COHORT = MONTH
LMON = MONTH
NMON = (LMON - COHORT) + 1
UIC = B(1,4)
CHECK TO SEE IF MAN ATTRITED THIS MONTH
IF (B(1,5).NE.BLANK) GO TO 90
ATTRIT = 0
GO TO 50
ATTRIT = 1
DATE = B(1,5)
GO TO 100 WITH
LMON = LMON - COHORT + 1
NMON = NMON - COHORT + 1
UIC = B(1,4)
RETURN
END
SUBROUTINE SAVED(COHORT,ATTRIT,LMON,NMON,UIC)
REAL*8 UIC
INTEGER COHORT,ATTRIT,LMON,NMON
WRITE(2,20) COHORT,ATTRIT,LMON,NMON,UIC
FORMAT(1X,12,1X,11,1X,12,1X,12,1X,A5)
RETURN
END
//GO.FT01F001 DD UNIT=3400-6,VOL=SER=CARSTF,DISP=(OLD,PASS),
// LABEL=(2,BLP,IN),
// DCB=(RECFM=FB,LRECL=120,BLKSIZE=32400,DEN=4)
//GO.FT02F001 DD UNIT=3330V,MSGVP=PUB48,DISP=(OLD,KEEP),
// DCB=(RECFM=FB,LRECL=17,BLKSIZE=6409),DSN=MSS.S2987.$TF.COVRT3

```

APPENDIX H

FORTRAN PROGRAM CARLUIC: SORTS AND LABELS FILE

COHRT6 WITH SHIP DATA BANK INFORMATION

```

//CARLUIC JOB (2987,0020),'CARL CARLSON',CLASS=B
//EXEC FORTXCLG
//FORT.SYSIN DD *
  REAL*8 A1,A2,A3,A4,A5,UIC2
  COMMON UIC2(554,9)
C
C
C      READ IN THE UIC CODES
      DO 80 I=1,554
      80 READ(5,75) (UIC2(I,J),J=1,9)
      75 FORMAT(A4,A5,6A8,A7)
      K=0
      10 READ(1,20,END=300)A1,A2,A3,A4,A5
      K=K+1
      20 FCRMAT(1X,A2,1X,A1,1X,A2,1X,A2,1X,A5)
      DO 100 I=1,554
      100 IF(A5.EQ.UIC2(1,2)) GO TO 200
      CONTINUE
      GC TO 10
      200 WRITE(2,30)A1,A2,A3,A4,A5,(UIC2(I,J),J=1,9)
      30 FORMAT(1X,A2,1X,A1,1X,A2,1X,A5,1X,A4,A5,6A8,A7)
      GC TO 10
      300 WRITE(6,50)K
      50 FORMAT(1X,'NUMBER OF RECORDS CHECKED=',1X,I6)
      STOP
      END
//GO.FT01F001 DD DISP=SHR,DSN=MSS.S2987.SIF.COHRT3
//GO.FT02F001 DD UNIT=3330V,MSVGP=PUB4A,DISP=(NEW,CATLG),
// DCB=(RECFM=FB,LRECL=82,BLKSIZE=6396),DSN=MSS.S2987.SIF.COHRT6
//GO.SYSIN DD *
100 30094 SSBN 598 G WASHINGTON GO PEARL 4 3 01 03 2 2 2 2 2 2 2 2 2 2 2
101 30093 SSBN 598 G WASHINGTON BL PEARL 4 3 01 03 2 2 2 2 2 2 2 2 2 2 2
102 30096 SSBN 599 P HENRY GOLD PEARL 4 3 01 03 2 2 2 2 2 2 2 2 2 2 2
103 30095 SSBN 599 P HENRY BLUE PEARL 4 3 01 03 2 2 2 2 2 2 2 2 2 2 2
104 30098 SSBN 600 T ROOSEVELT GOL BREM 4 3 01 03 2 2 2 2 2 2 2 2 2 2 2
105 30097 SSBN 600 T ROOSEVELT BLU BREM 4 3 01 03 2 2 2 2 2 2 2 2 2 2 2
106 30100 SSBN 601 R E LEE GOLD PEARL 4 3 01 03 2 2 2 2 2 2 2 2 2 2 2
107 30099 SSBN 601 R E LEE BLUE PEARL 4 3 01 03 2 2 2 2 2 2 2 2 2 2 2
108 30102 SSBN 602 A LINCOLN GOLD BREM 4 3 01 03 2 2 2 2 2 2 2 2 2 2 2
109 30101 SSBN 602 A LINCOLN BLUE BREM 4 3 01 03 2 2 2 2 2 2 2 2 2 2 2
110 30104 SSBN 608 E ALLEN GOLD PEARL 4 3 01 02 2 2 2 2 2 2 2 2 2 2 2
C*****ADD OTHER SHIPS AS NECESSARY FROM APPENDIX E.*****

```


APPENDIX I
FILE MSS.S2987.STF COHRT6 DESCRIPTION

Variable	Position	Field Width
COHORT (Month Began Current Enlistment)	2	2
ATTRIT (Attrition Indicator, Means Attrited)	5	1
LMON (Month Attrited)	7	2
NMON (Number of Months Tracked)	10	2
UIC (Unit Identification Code)	13	5
Count (Sequential Count Used to Keep Ships Ordered by Hull Number and Class)	19	3
UIC (Unit Identification Code)	23	5
Ship Type and Hull Number	29	9
Ship Name	39	17
Homeport	55	6
TAC (Type Activity Code)	62	1
Ship Type	64	1
Ship Class	66	2
Ship Sub-Class	69	2
Size (Personnel)	72	1
Age (Commissioning)	74	1
Engineering Plant	76	1
Nuclear Capable	78	1
Location	80	1
Active/NRF	82	1

APPENDIX J

FILE MSS.S2987.STF FUEL4 DESCRIPTION

Variable	Position	Field Width
Ship Type	2	4
Ship Hull Number	6	4
Period Year	11	2
Period Month	13	2
UIC (Unit Identification Code)	16	5
Hours Steaming Underway	22	3
Count (Sequential Count Used to Keep Ships Ordered by Hull Number and Class)	26	3
UIC (Unit Identification Code)	30	5
Ship Type and Hull Number	36	9
Ship Name	46	17
Homeport	62	6
TAC (Type Activity Code)	69	1
Ship Type	71	1
Ship Class	73	2
Ship Sub-Class	76	2
Size (Personnel)	79	1
Age (Commissioning)	81	1
Engineering Plant	83	1
Nuclear Capable	85	1
Location	87	1
Active/NRF	89	1

APPENDIX K

FORTRAN PROGRAM CARLFUEL: READS MASTER FILE FUELHR

FIELDS OF INTEREST

```

//CARLFUEL JOB (2987,0020), 'C.CARLSON SMC1725', CLASS=B
//EXEC FORTXCLG
//FORT.SYSIN DD *
REAL*8 A1,A2,A3,A4
INTEGER I
I=0
2 I=I+1
READ(1,10,END=50) A1,A2,A3,A4
WRITE(2,15) A1,A2,A3,A4
10 FORMAT(A8,A4,A5,A3)
15 FORMAT(1X,A8,1X,A4,1X,A5,1X,A3)
GO TO 2
50 WRITE(6,30)
30 FORMAT(' THE PROGRAM IS COMPLETE')
STOP
END
//GO.FT01F001 DD DISP=SHR,DSN=MSS.S2987.FUELHR
//GO.FT02F001 DD UNIT=3330V,MSVGP=PUB4A,DISP=(OLD,KEEP)
// DCB=(RECFM=FB,LRECL=24,BLKSIZE=6408),DSN=MSS.S2987.FUEL3
//

```

FORTRAN PROGRAM CARLFUEL1: SORTS AND LABELS FILE FUEL4

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APPENDIX M

SAS PROGRAM CARLCHT3: COHORT SURVIVAL CURVE

```

//CARLCHT3 JOB (2987,0020), 'C.G.CARLSON SMC1725', CLASS=A
//EXEC SAS
//SYSIN DD *
DATA;
  INPUT LMON 1-2 CUMATRT 4-8;
  CARDS:
1 2 93610
2 3 93586
3 4 93523
4 5 93263
5 6 52010
6 7 91068
7 8 90037
8 9 89145
9 10 88001
10 11 86596
11 12 85516
12 13 84462
13 14 82972
14 15 81202
15 16 79532
16 17 78466
17 18 77503
18 19 76694
19 20 75971
20 21 75227
21 22 74460
22 23 73685
23 24 72851
24 25 72025
25 26 71355
26 27 70553
27 28 69747
28 29 69117
29 30 68442
30 31 67813
31 32 67347
32 33 66852
33 34 66345
34 35 65857
35 36 65339
36 37 64825
37 38 64295
38 39 63113
39 40 61920
40 41 60949
41 42 60018
42 43 59224

```

43 58736
PROC SORT;BY LMON;
PROC CHART;
VBAR LMON/DISCRETE SUMVAR=CUMATRT;

APPENDIX N

SAS PROGRAM CARLCHT2: OVERALL COHORT ATTRITION BY MONTH

```
//CARLCHT2 JOB (2987,0020), 'C.G.CARLSON SMC1725', CLASS=B
// EXEC SAS
//DATAFILE DD DISP=SHR, DSN=NAME=MSS.S2987.SIF.COVRT2
//SYSIN DD *
DATA;
  INFILE DATAFILE;
  INPUT COHORT 2-3 ATTRIT 5 LMON 7-8 NMON 9 10-11;
  IF LMON GE 1;
  IF LMCN GT 43 THEN DELETE;
  IF LMON=** THEN NMON=00;
  PROC SORT; BY LMON; BY ATTRIT;
  PROC CHART;
  VBAR LMON / DISCRETE SUMVAR=ATTRIT;
  PROC MEANS SUM;
  BY LMCN;
  VAR ATTRIT;
```

APPENDIX O

SAS PROGRAM CARLCHT4: COHORTS DISPLAYED OVER TIME

```
//CARLCHT4 JOB (2987,0020), 'C.G.CARLSON SMCI725', CLASS=B
// EXEC SAS
//DATAFILE DD DISP=SHR, DSN=MSS.S2987.STF.COVRT2
//SYSIN DD *
DATA;
  INFILE DATAFILE;
  INPJT COHORT 2-3 ATTRIT 5 LMON 7-8 NMCN $ 10-11;
  IF LMON GE 1;
  IF LMON GT 43 THEN DELETE;
  IF COHORT GE 1;
  IF COHORT GT 12 THEN DELETE;
  IF NMN=1** THEN NMN=100;
  PROC SORT; BY LMON; BY ATTRIT;
  HBAR LMON/DISCRETE GROUP=COHORT SUMVAR=ATTRIT;
```

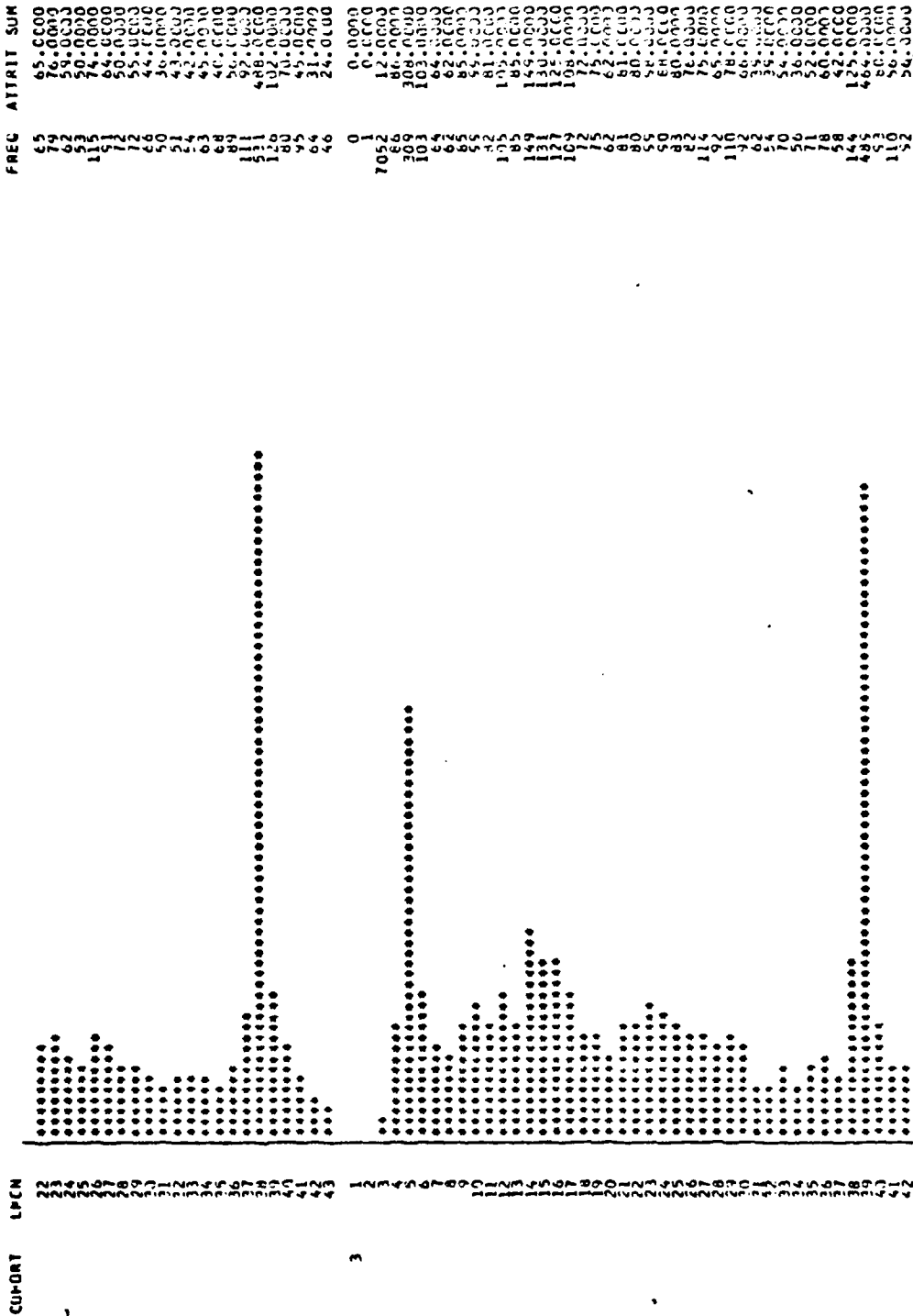

APPENDIX P

SAMPLE OUTPUT OF CARLCHT4: MONTHLY COHORTS DISPLAYED OVER TIME

12333 FRIDAY, SEPTEMBER 18, 19

STATISTICAL ANALYSIS SYSTEM

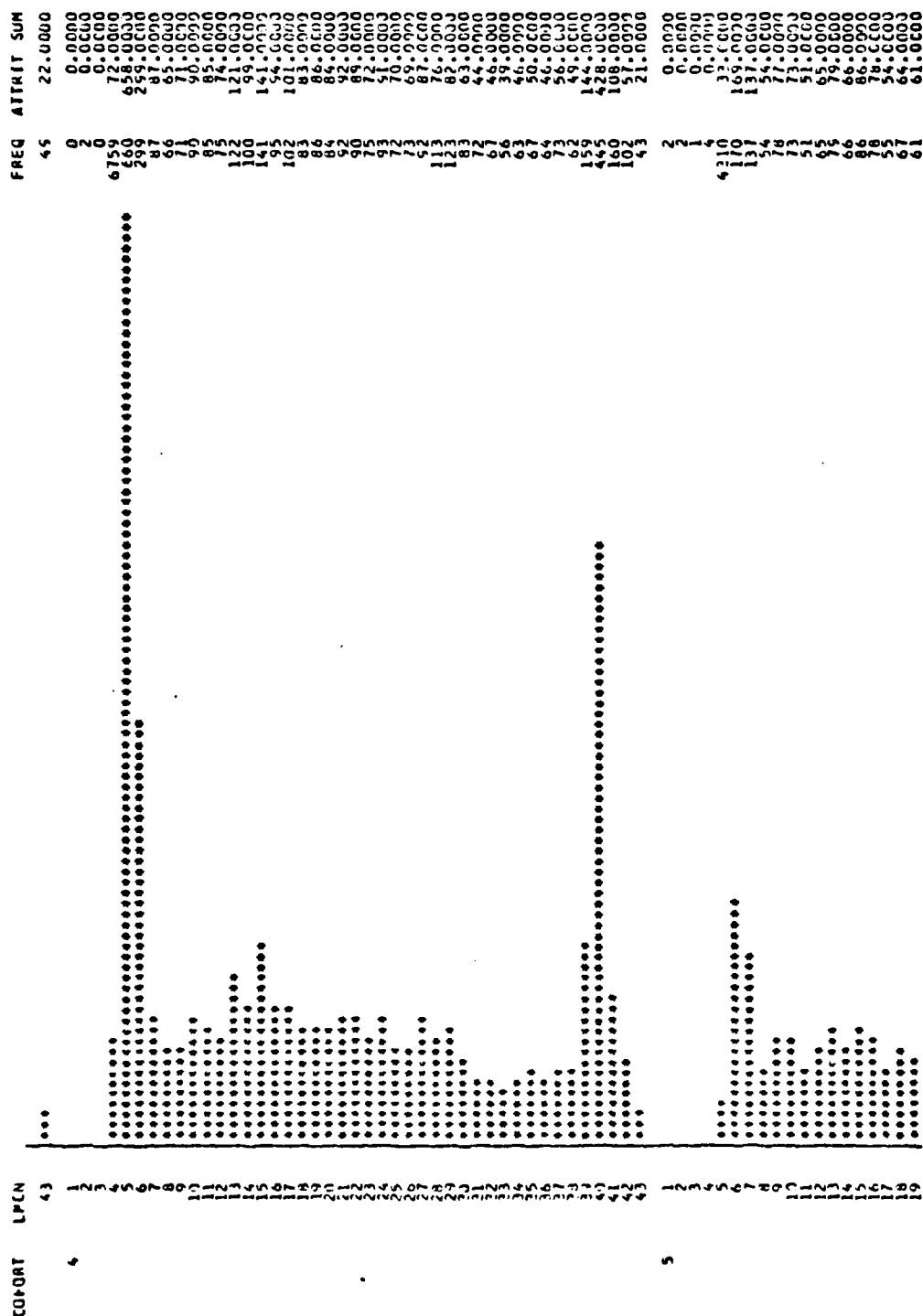
BAR CHART OF SUMS



STATISTICAL ANALYSIS SYSTEM

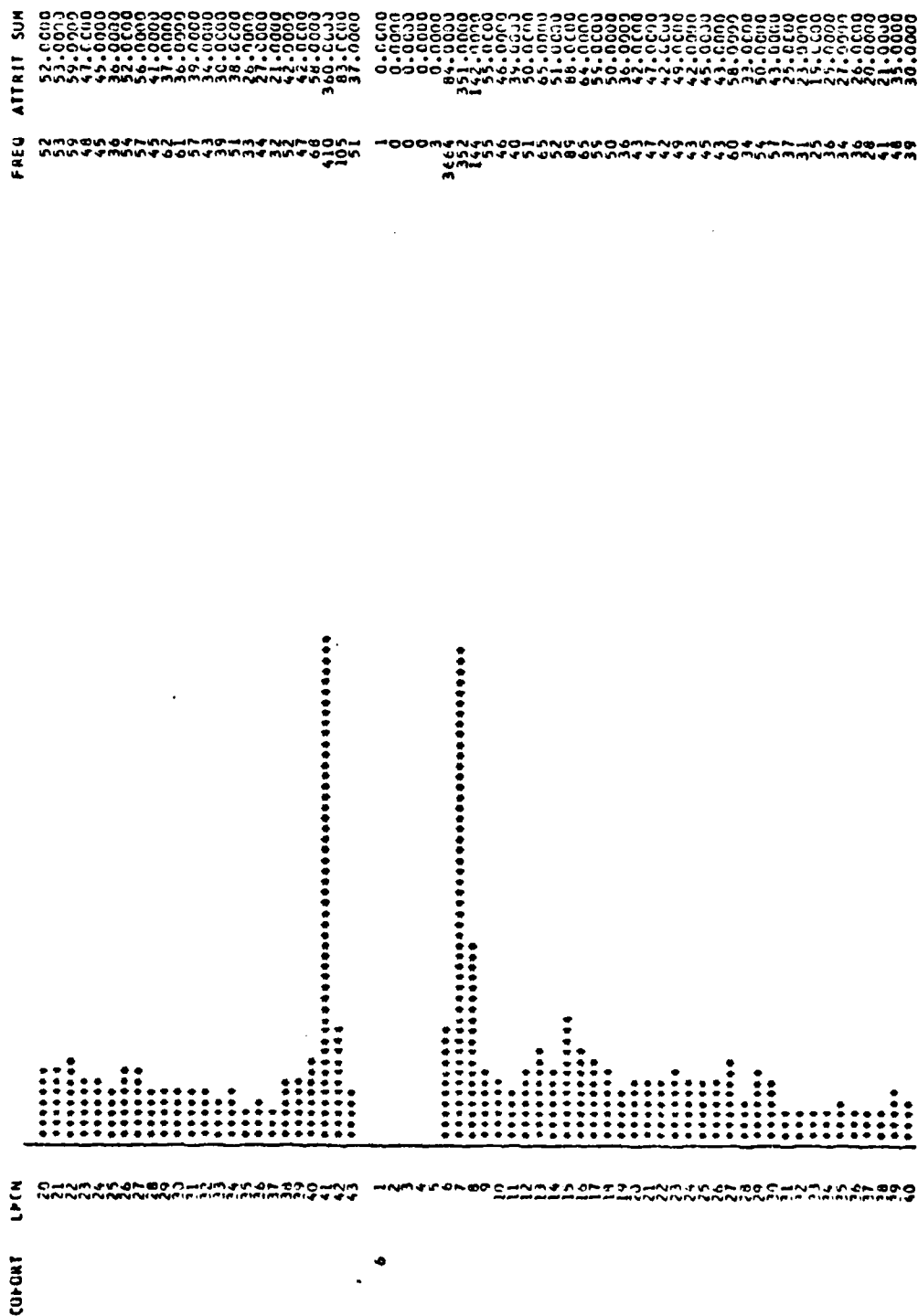
12:33 FRIDAY, SEPTEMBER 16, 1961

BAR CHART OF SUMS



STATISTICAL ANALYSIS SYSTEM BAR CHART OF SUMS

12:33 FRIDAY, SEPTEMBER 16, 1966



APPENDIX Q

SAS PROGRAM CARLFREQ: INDIVIDUAL SHIP ATTRITION SUMMARY

```
//CARLFREQ JOB (2987,0020),'C.G-CARLSON SMC1725',CLASS=B
//EXEC SAS
//DATAFILE DD DISP=SHR,DSNAME=MSS.S2987.STF.UIC4
//SYSIN DD *
DATA;
  INPUT UICSHIP $ 46-80 LCODE 42-43;
  IF LCODE=0 THEN LCODE=1;
  IF LCODE NE 0 THEN LCODE=1;
  PROC SORT;BY UICSHIP;BY LCODE;
  PROC FREQ;
  TABLES UICSHIP*LCODE;
```

APPENDIX R

SAS PROGRAM CARLCHRT: GRAPH OF INDIVIDUAL SHIP ATTRITION GROUPED BY CLASS

```
//CARLCHRT JOB (2987,0020),'C.G.CARLSON SMC1725',CLASS=B
//EXEC SAS
//DATAFILE DD DISP=SHR,DSNAME=MSS.S2987.STF.UIC4
//SYSIN DD *
DATA;
  INFILE DATAFILE;
  INPUT UICSHIP $ 46-80 LC00E 42-43;
  IF LC00E=0 THEN LC00E=1;
  IF LC00E=1 THEN LC00E=0;
  PROC SORT; BY UICSHIP; BY LC00E;
  PROC CHART;
  HBAR UICSHIP / SUMVAR=LC00E;
```

SAMPLE OUTPUT OF CARLCHRT: GRAPH OF INDIVIDUALSHIP ATTRITION
GROUPED BY CLASS

A scatter plot showing the distribution of the number of children per family. The x-axis is labeled 'Number of children' and ranges from 0 to 10. The y-axis is labeled 'Frequency' and ranges from 0 to 100. The data points are represented by asterisks. The distribution is unimodal and slightly right-skewed, with a peak at 3 children (frequency 100).

Number of children	Frequency
0	1
1	2
2	1
3	100
4	10
5	5
6	5
7	5
8	5
9	5
10	5

[illegible]

AD-A107 510

NAVAL POSTGRADUATE SCHOOL MONTEREY CA

F/G 5/9

A DESCRIPTIVE ANALYSIS OF FIRST TERM ATTENTION FROM U.S. NAVAL --ETC(U)

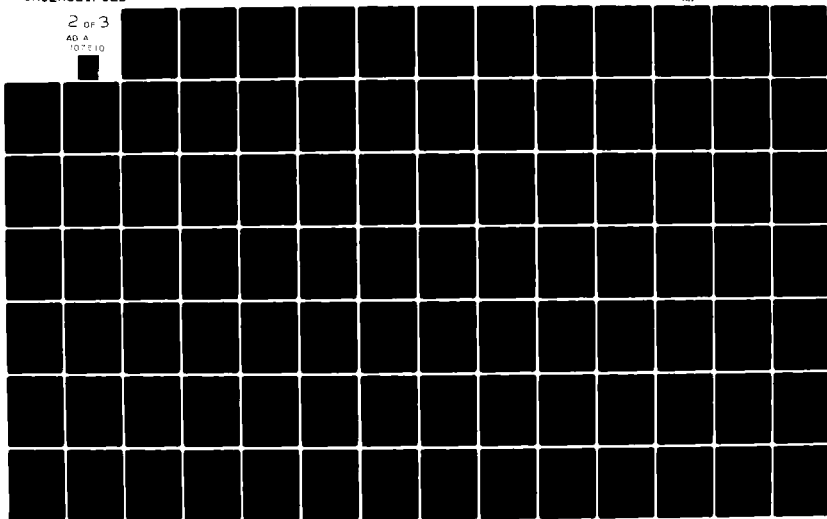
SEP 81 C G CARLSON

UNCLASSIFIED

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2 OF 3

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107510



APPENDIX T

CARLFREQ OUTPUT: INDIVIDUAL SHIP ATTRITON SUMMARY TABLE

TABLE OF UICSHIP BY LCCODE

UICSHIP	LCCODE			TOTAL
FREQUENCY		0	1	
PERCENT				
ROW PCT				
COL PCT				
100 30094 SSBN		31	0	31
		0.05	0.00	0.05
		100.00	0.00	
		0.06	0.00	
101 30093 SSBN		32	1	33
		0.05	0.00	0.05
		96.97	3.03	
		0.06	0.02	
102 30096 SSBN		42	1	43
		0.07	0.00	0.07
		97.67	2.33	
		0.08	0.02	
103 30095 SSBN		37	0	37
		0.06	0.00	0.06
		100.00	0.00	
		0.07	0.00	
104 30098 SSBN		5	0	5
		0.01	0.00	0.01
		100.00	0.00	
		0.01	0.00	
105 30097 SSBN		26	0	26
		0.04	0.00	0.04
		100.00	0.00	
		0.05	0.00	
106 30100 SSBN		39	0	39
		0.06	0.00	0.06
		100.00	0.00	
		0.07	0.00	
107 30099 SSBN		51	1	52
		0.08	0.00	0.09
		98.08	1.92	
		0.09	0.02	
108 30102 SSBN		17	0	17
		0.03	0.00	0.03
		100.00	0.00	
		0.03	0.00	
109 30101 SSBN		34	0	34
		0.06	0.00	0.06
		100.00	0.00	
		0.06	0.00	
110 30104 SSBN		29	1	30
		0.05	0.00	0.05
		96.67	3.33	
		0.05	0.02	
TOTAL		55705	5313	61018
		91.29	8.71	100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCODE

UICSHIP	LCCDE			
FREQUENCY				
PERCENT				
ROW PCT				
COL PCT				
		0	1	TOTAL
111 30103 SSBN		55 0.09 100.00 0.10	0 0.00 0.00 0.00	55 0.09
112 30106 SSBN		44 0.07 100.00 0.08	0 0.00 0.00 0.00	44 0.07
113 30105 SSBN		52 0.09 100.00 0.09	0 0.00 0.00 0.00	52 0.09
114 30108 SSBN		31 0.05 100.00 0.06	0 0.00 0.00 0.00	31 0.05
115 30107 SSBN		51 0.08 100.00 0.09	0 0.00 0.00 0.00	51 0.08
116 30110 SSBN		34 0.06 97.14 0.06	1 0.00 2.86 0.02	35 0.06
117 30109 SSBN		37 0.06 100.00 0.07	0 0.00 0.00 0.00	37 0.06
118 30112 SSBN		45 0.07 97.83 0.08	1 0.00 2.17 0.02	46 0.08
119 30111 SSBN		41 0.07 100.00 0.07	0 0.00 0.00 0.00	41 0.07
120 30114 SSBN		39 0.06 100.00 0.07	0 0.00 0.00 0.00	39 0.06
121 30113 SSBN		44 0.07 97.78 0.08	1 0.00 2.22 0.02	45 0.07
TOTAL		55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE CF UICSHIP BY LCCDE

UICSHIP			LCCDE		TOTAL
FREQUENCY	PERCENT	ROW PCT	COL PCT		
			0	1	
122 30116 SSBN	38	1	0.06	0.00	39
	97.44	2.56	0.07	0.02	0.06
123 30115 SSBN	44	0	0.07	0.00	44
	100.00	0.00	0.08	0.00	0.07
124 30080 SSBN	32	0	0.05	0.00	32
	100.00	0.00	0.06	0.00	0.05
125 30079 SSBN	45	0	0.07	0.00	45
	100.00	0.00	0.08	0.00	0.07
126 30082 SSBN	30	0	0.05	0.00	30
	100.00	0.00	0.05	0.00	0.05
127 30081 SSBN	48	0	0.08	0.00	48
	100.00	0.00	0.09	0.00	0.08
128 30084 SSBN	42	0	0.07	0.00	42
	100.00	0.00	0.08	0.00	0.07
129 30083 SSBN	37	1	0.06	0.00	38
	97.37	2.63	0.07	0.02	0.06
130 30086 SSBN	36	1	0.06	0.00	37
	97.30	2.70	0.06	0.02	0.06
131 30085 SSBN	35	0	0.06	0.00	35
	100.00	0.00	0.06	0.00	0.06
132 30088 SSBN	46	2	0.08	0.00	48
	95.83	4.17	0.08	0.04	0.08
TOTAL	55705	5313	91.29	8.71	61018
					100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCCDE

UICSHIP	LCCDE			
FREQUENCY				
PERCENT				
ROW PCT				
COL PCT				
		0	1	TOTAL
133 30087 SSBN		39 0.06 100.00 0.07	0 0.00 0.00 0.00	39 0.06
134 30090 SSBN		30 0.05 93.75 0.05	2 0.00 6.25 0.04	32 0.05
135 30089 SSBN		38 0.06 100.00 0.07	0 0.00 0.00 0.00	38 0.06
136 30092 SSBN		37 0.06 94.87 0.07	2 0.00 5.13 0.04	39 0.06
137 30091 SSBN		41 0.07 97.62 0.07	1 0.00 2.38 0.02	42 0.07
138 30131 SSBN		30 0.05 100.00 0.05	0 0.00 0.00 0.00	30 0.05
139 30130 SSBN		39 0.06 100.00 0.07	0 0.00 0.00 0.00	39 0.06
140 30133 SSBN		42 0.07 100.00 0.08	0 0.00 0.00 0.00	42 0.07
141 30132 SSBN		46 0.08 100.00 0.08	0 0.00 0.00 0.00	46 0.08
142 30135 SSBN		38 0.06 97.44 0.07	1 0.00 2.56 0.02	39 0.06
143 30134 SSBN		32 0.05 100.00 0.06	0 0.00 0.00 0.00	32 0.05
TOTAL		55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCCDE

UICSHIP	LCCDE			
FREQUENCY				
PERCENT				
ROW PCT				
COL PCT				
		0	1	TOTAL
144 30137 SSBN		47	0	47
		0.08	0.00	0.08
		100.00	0.00	
		0.08	0.00	
145 30136 SSBN		48	0	48
		0.08	0.00	0.08
		100.00	0.00	
		0.09	0.00	
146 30139 SSBN		52	2	54
		0.09	0.00	0.09
		96.30	3.70	
		0.09	0.04	
147 30138 SSBN		47	0	47
		0.08	0.00	0.08
		100.00	0.00	
		0.08	0.00	
148 30141 SSBN		26	0	26
		0.04	0.00	0.04
		100.00	0.00	
		0.05	0.00	
149 30140 SSBN		42	1	43
		0.07	0.00	0.07
		97.67	2.33	
		0.08	0.02	
150 30143 SSBN		33	0	33
		0.05	0.00	0.05
		100.00	0.00	
		0.06	0.00	
151 30142 SSBN		50	0	50
		0.08	0.00	0.08
		100.00	0.00	
		0.09	0.00	
152 30145 SSBN		51	0	51
		0.08	0.00	0.08
		100.00	0.00	
		0.09	0.00	
153 30144 SSBN		41	1	42
		0.07	0.00	0.07
		97.62	2.38	
		0.07	0.02	
154 30147 SSBN		55	3	58
		0.09	0.00	0.10
		94.83	5.17	
		0.10	0.06	
TOTAL		55705	5313	61018
		91.29	8.71	100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCCODE

UICSHIP	LCCODE			
FREQUENCY				
PERCENT				
ROW PCT				
COL PCT				
		0	1	TOTAL
155 30146 SSBN		47	0	47
		0.08	0.00	0.08
		100.00	0.00	
		0.08	0.00	
156 30149 SSBN		52	0	52
		0.09	0.00	0.09
		100.00	0.00	
		0.09	0.00	
157 30148 SSBN		44	0	44
		0.07	0.00	0.07
		100.00	0.00	
		0.08	0.00	
158 30151 SSBN		40	0	40
		0.07	0.00	0.07
		100.00	0.00	
		0.07	0.00	
159 30150 SSBN		40	2	42
		0.07	0.00	0.07
		95.24	4.76	
		0.07	0.04	
160 30153 SSBN		43	0	43
		0.07	0.00	0.07
		100.00	0.00	
		0.08	0.00	
161 30152 SSBN		41	0	41
		0.07	0.00	0.07
		100.00	0.00	
		0.07	0.00	
162 30155 SSBN		36	3	39
		0.06	0.00	0.06
		92.31	7.69	
		0.06	0.06	
163 30154 SSBN		44	0	44
		0.07	0.00	0.07
		100.00	0.00	
		0.08	0.00	
164 30157 SSBN		43	0	43
		0.07	0.00	0.07
		100.00	0.00	
		0.08	0.00	
165 30156 SSBN		42	0	42
		0.07	0.00	0.07
		100.00	0.00	
		0.08	0.00	
TOTAL		55705	5313	61018
		91.29	8.71	100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCCDE

UICSHIP	LCCDE			TOTAL
FREQUENCY		0	1	
PERCENT				
ROW PCT				
COL PCT				
166 30159 SSBN		45 0.07 97.83 0.08	1 0.03 2.17 0.02	46 0.08
167 30158 SSBN		35 0.06 100.00 0.06	0 0.00 0.00 0.00	35 0.06
168 30161 SSBN		32 0.05 100.00 0.06	0 0.00 0.00 0.00	32 0.05
169 30160 SSBN		38 0.06 100.00 0.07	0 0.03 0.00 0.00	38 0.06
170 30163 SSBN		37 0.06 100.00 0.07	0 0.00 0.00 0.00	37 0.06
171 30162 SSBN		47 0.08 100.00 0.08	0 0.00 0.00 0.00	47 0.08
172 30165 SSBN		33 0.05 97.06 0.06	1 0.00 2.94 0.02	34 0.06
173 30164 SSBN		30 0.05 100.00 0.05	0 0.00 0.00 0.00	30 0.05
174 30167 SSBN		32 0.05 96.97 0.06	1 0.00 3.03 0.02	33 0.05
175 30166 SSBN		46 0.08 100.00 0.08	0 0.00 0.00 0.00	46 0.08
176 30169 SSBN		31 0.05 100.00 0.06	0 0.00 0.00 0.00	31 0.05
TOTAL		55705 91.29	5313 8.71	61018 100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCODE

UICSHIP	LCCDE			TOTAL
FREQUENCY		0	1	
PERCENT				
ROW PCT				
COL PCT				
177 30168 SSBN		33 0.05 97.06 0.06	1 0.00 2.94 0.02	34 0.06
178 30171 SSBN		34 0.06 100.00 0.06	0 0.00 0.00 0.00	34 0.06
179 30170 SSBN		38 0.06 97.44 0.07	1 0.00 2.56 0.02	39 0.06
180 30173 SSBN		29 0.05 96.67 0.05	1 0.00 3.33 0.02	30 0.05
181 30172 SSBN		42 0.07 100.00 0.08	0 0.00 0.00 0.00	42 0.07
182 05591 SSN		27 0.04 100.00 0.05	0 0.00 0.00 0.00	27 0.04
183 05595 SSN		34 0.06 100.00 0.06	0 0.00 0.00 0.00	34 0.06
184 05597 SSN		31 0.05 96.88 0.06	1 0.00 3.13 0.02	32 0.05
185 05598 SSN		45 0.07 97.83 0.08	1 0.00 2.17 0.02	46 0.08
186 05608 SSN		30 0.05 96.77 0.05	1 0.00 3.23 0.02	31 0.05
187 05607 SSN		35 0.06 94.59 0.06	2 0.00 5.41 0.04	37 0.06
TOTAL		55705 91.29	5313 8.71	61018 100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCODE

UICSHIP	LCCDE			TOTAL
FREQUENCY		0	1	
PERCENT				
ROW PCT				
COL PCT				
188 05606 SSN		31 0.05 100.00 0.06	0 0.00 0.00 0.00	31 0.05
189 05051 SSN		24 0.04 100.00 0.04	0 0.00 0.00 0.00	24 0.04
190 05053 SSN		26 0.04 100.00 0.05	0 0.00 0.00 0.00	26 0.04
191 05054 SSN		28 0.05 100.00 0.05	0 0.00 0.00 0.00	28 0.05
192 05055 SSN		29 0.05 100.00 0.05	0 0.00 0.00 0.00	29 0.05
193 05057 SSN		29 0.05 69.05 0.05	13 0.02 30.95 0.24	42 0.07
194 05058 SSN		39 0.06 97.50 0.07	1 0.00 2.50 0.02	40 0.07
195 05059 SSN		19 0.03 100.00 0.03	0 0.00 0.00 0.00	19 0.03
196 05060 SSN		18 0.03 100.00 0.03	0 0.00 0.00 0.00	18 0.03
197 05111 SSN		23 0.04 95.83 0.04	1 0.00 4.17 0.02	24 0.04
198 05112 SSN		33 0.05 97.06 0.06	1 0.00 2.94 0.02	34 0.06
TOTAL		55705 91.29	5313 8.71	61018 100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCODE

UICSHIP	LCODE		TOTAL
FREQUENCY PERCENT ROW PCT COL PCT	0	1	
199 05113 SSN	34 0.06 100.00 0.06	0 0.00 0.00 0.00	34 0.06
200 05114 SSN	39 0.06 100.00 0.07	0 0.00 0.00 0.00	39 0.06
201 05115 SSN	30 0.05 100.00 0.05	0 0.00 0.00 0.00	30 0.05
202 05120 SSN	43 0.07 100.00 0.08	0 0.00 0.00 0.00	43 0.07
203 05121 SSN	32 0.05 96.97 0.06	1 0.00 3.03 0.02	33 0.05
204 05122 SSN	30 0.05 100.00 0.05	0 0.00 0.00 0.00	30 0.05
205 05126 SSN	35 0.06 97.22 0.06	1 0.00 2.78 0.02	36 0.06
206 05127 SSN	32 0.05 96.97 0.06	1 0.00 3.03 0.02	33 0.05
207 05130 SSN	25 0.04 89.29 0.04	3 0.00 10.71 0.06	28 0.05
208 05131 SSN	36 0.06 100.00 0.06	0 0.00 0.00 0.00	36 0.06
209 05132 SSN	38 0.06 100.00 0.07	0 0.00 0.00 0.00	38 0.06
TOTAL	55705 91.29	5313 8.71	61018 100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCODE

UICSHIP	LCODE			TOTAL
FREQUENCY		0	1	
PERCENT				
ROW PCT				
COL PCT				
210 05133 SSN		26 0.04 100.00 0.05	0 0.00 0.00 0.00	26 0.04
211 05134 SSN		29 0.05 100.00 0.05	0 0.00 0.00 0.00	29 0.05
212 05135 SSN		29 0.05 96.67 0.05	1 0.00 3.33 0.02	30 0.05
213 05136 SSN		33 0.05 100.00 0.06	0 0.00 0.00 0.00	33 0.05
214 05137 SSN		43 0.07 100.00 0.08	0 0.00 0.00 0.00	43 0.07
215 05138 SSN		35 0.06 100.00 0.06	0 0.00 0.00 0.00	35 0.06
216 05139 SSN		31 0.05 96.88 0.06	1 0.00 3.13 0.02	32 0.05
217 05140 SSN		34 0.06 97.14 0.06	1 0.00 2.86 0.02	35 0.06
218 05141 SSN		25 0.04 92.59 0.04	2 0.00 7.41 0.04	27 0.04
219 05142 SSN		32 0.05 96.97 0.06	1 0.00 3.03 0.02	33 0.05
220 05143 SSN		31 0.05 100.00 0.06	0 0.00 0.00 0.00	31 0.05
TOTAL		55705 91.29	5313 8.71	61018 100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCCDE

UICSHIP	LCCDE			
FREQUENCY				
PERCENT				
ROW PCT				
COL PCT				
		0	1	TOTAL
221 05144 SSN		31	0	31
		0.05	0.00	0.05
		100.00	0.00	
		0.06	0.00	
222 05145 SSN		29	0	29
		0.05	0.00	0.05
		100.00	0.00	
		0.05	0.00	
223 05147 SSN		38	0	38
		0.06	0.00	0.06
		100.00	0.00	
		0.07	0.00	
224 05148 SSN		28	0	28
		0.05	0.00	0.05
		100.00	0.00	
		0.05	0.00	
225 05149 SSN		36	0	36
		0.06	0.00	0.06
		100.00	0.00	
		0.06	0.00	
226 05150 SSN		34	0	34
		0.06	0.00	0.06
		100.00	0.00	
		0.06	0.00	
227 05151 SSN		29	0	29
		0.05	0.00	0.05
		100.00	0.00	
		0.05	0.00	
228 05152 SSN		32	0	32
		0.05	0.00	0.05
		100.00	0.00	
		0.06	0.00	
229 05146 SSN		34	0	34
		0.06	0.00	0.06
		100.00	0.00	
		0.06	0.00	
230 05153 SSN		29	0	29
		0.05	0.00	0.05
		100.00	0.00	
		0.05	0.00	
231 05154 SSN		39	0	39
		0.06	0.00	0.06
		100.00	0.00	
		0.07	0.00	
TOTAL		55705	5313	61018
		91.29	8.71	100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCODE

UICSHIP	LCCDE			TOTAL
FREQUENCY		0	1	
PERCENT				
ROW PCT				
COL PCT				
232 05155 SSN		36 0.06 100.00 0.06	0 0.00 0.00 0.00	36 0.06
233 05723 SSN		30 0.05 100.00 0.05	0 0.00 0.00 0.00	30 0.05
234 05724 SSN		24 0.04 100.00 0.04	0 0.00 0.00 0.00	24 0.04
235 05725 SSN		28 0.05 100.00 0.05	0 0.00 0.00 0.00	28 0.05
236 20041 SSN		27 0.04 100.00 0.05	0 0.00 0.00 0.00	27 0.04
237 20042 SSN		36 0.06 100.00 0.06	0 0.00 0.00 0.00	36 0.06
238 20043 SSN		21 0.03 95.45 0.04	1 0.00 4.55 0.02	22 0.04
239 20044 SSN		35 0.06 100.00 0.06	0 0.00 0.00 0.00	35 0.06
240 20045 SSN		33 0.05 100.00 0.06	0 0.00 0.00 0.00	33 0.05
241 20345 SSN		23 0.04 100.00 0.04	0 0.00 0.00 0.00	23 0.04
242 20346 SSN		25 0.04 89.29 0.04	3 0.00 10.71 0.06	28 0.05
TOTAL		55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCCDE

UICSHIP			LCCDE		TOTAL
FREQUENCY	PERCENT	ROW PCT	COL PCT		
			0	1	
243	20347	SSN	22 0.04 100.00 0.04	0 0.00 0.00 0.00	22 0.04
244	20350	SSN	23 0.04 95.83 0.04	1 0.00 4.17 0.02	24 0.04
245	20642	SSN	35 0.06 100.00 0.06	0 0.00 0.00 0.00	35 0.06
246	20202	SSN	33 0.05 100.00 0.06	0 0.00 0.00 0.00	33 0.05
247	20203	SSN	42 0.07 100.00 0.08	0 0.00 0.00 0.00	42 0.07
248	20204	SSN	26 0.04 100.00 0.05	0 0.00 0.00 0.00	26 0.04
249	20782	SSN	36 0.06 100.00 0.06	0 0.00 0.00 0.00	36 0.06
250	20783	SSN	31 0.05 96.88 0.06	1 0.00 3.13 0.02	32 0.05
251	20784	SSN	42 0.07 100.00 0.08	0 0.00 0.00 0.00	42 0.07
252	20785	SSN	34 0.06 97.14 0.06	1 0.00 2.86 0.02	35 0.06
253	20786	SSN	41 0.07 93.18 0.07	3 0.00 6.82 0.06	44 0.07
TOTAL			55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCCODE

UICSHIP			LCCDE				
FREQUENCY	PERCENT	ROW PCT	COL PCT				
				0	1	TOTAL	
254	20787	SSN		36 0.06 100.00 0.06	0 0.00 0.00 0.00	36 0.06	
255	20788	SSN		35 0.06 97.22 0.06	1 0.00 2.78 0.02	36 0.06	
256	05563	SS		14 0.02 100.00 0.03	0 0.00 0.00 0.00	14 0.02	
257	05565	SS		16 0.03 94.12 0.03	1 0.00 5.88 0.02	17 0.03	
258	05566	SS		15 0.02 93.75 0.03	1 0.00 6.25 0.02	16 0.03	
259	05594	SS		18 0.03 100.00 0.03	0 0.00 0.00 0.00	18 0.03	
260	05596	SS		25 0.04 96.15 0.04	1 0.00 3.85 0.02	26 0.04	
261	05603	SS		22 0.04 100.00 0.04	0 0.00 0.00 0.00	22 0.04	
262	05604	SS		22 0.04 88.00 0.04	3 0.00 12.00 0.06	25 0.04	
263	05605	SS		24 0.04 96.00 0.04	1 0.00 4.00 0.02	25 0.04	
264	05567	SSAG		19 0.03 95.00 0.03	1 0.00 5.00 0.02	20 0.03	
TOTAL				55705 91.29	5313 8.71	61018 100.00	

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCODE

UICSHIP	LCODE			
FREQUENCY				
PERCENT				
ROW PCT				
COL PCT				
		0	1	TOTAL
265 05072 AGSS		3	0	3
		0.00	0.00	0.00
		100.00	0.00	
		0.01	0.00	
266 03365 CVN		736	92	828
		1.21	0.15	1.36
		88.89	11.11	
		1.32	1.73	
267 03368 CVN		984	126	1110
		1.61	0.21	1.82
		88.65	11.35	
		1.77	2.37	
268 03369 CVN		775	53	828
		1.27	0.09	1.36
		93.60	6.40	
		1.39	1.00	
269 03341 CV		912	11	923
		1.49	0.02	1.51
		98.81	1.19	
		1.64	0.21	
270 03343 CV		714	103	817
		1.17	0.17	1.34
		87.39	12.61	
		1.28	1.94	
271 03359 CV		902	126	1028
		1.48	0.21	1.68
		87.74	12.26	
		1.62	2.37	
272 03360 CV		973	119	1092
		1.59	0.20	1.79
		89.10	10.90	
		1.75	2.24	
273 03361 CV		832	144	976
		1.36	0.24	1.60
		85.25	14.75	
		1.49	2.71	
274 03362 CV		913	155	1068
		1.50	0.25	1.75
		85.49	14.51	
		1.64	2.92	
275 03363 CV		877	107	984
		1.44	0.18	1.61
		89.13	10.87	
		1.57	2.01	
TOTAL		55705	5313	61018
		91.29	8.71	100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCCDE

UICSHIP	LCCDE		TOTAL
FREQUENCY PERCENT ROW PCT COL PCT	0	1	
276 03364 CV	840 1.38 91.01 1.51	83 0.14 8.99 1.56	923 1.51
277 03366 CV	917 1.50 87.84 1.65	127 0.21 12.16 2.39	1044 1.71
278 03367 CV	776 1.27 86.80 1.39	118 0.19 13.20 2.22	894 1.47
279 03318 AVT	486 0.80 84.52 0.87	89 0.15 15.48 1.68	575 0.94
280 03651 CGN	229 0.38 91.24 0.41	22 0.04 8.76 0.41	251 0.41
281 52700 CGN	113 0.19 93.39 0.20	8 0.01 6.61 0.15	121 0.20
282 52712 CGN	176 0.29 90.26 0.32	19 0.03 9.74 0.36	195 0.32
283 20541 CGN	130 0.21 88.44 0.23	17 0.03 11.56 0.32	147 0.24
284 20669 CGN	158 0.26 94.05 0.28	10 0.02 5.95 0.19	168 0.28
285 20681 CGN	127 0.21 93.38 0.23	9 0.01 6.62 0.17	136 0.22
286 20682 CGN	102 0.17 94.44 0.18	6 0.01 5.56 0.11	108 0.18
TOTAL	55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCODE

UICSHIP	LCODE			
FREQUENCY				
PERCENT				
ROW PCT				
COL PCT				
		0	1	TOTAL
287 20624 CGN		162 0.27 89.01 0.29	20 0.03 10.99 0.38	182 0.30
288 03591 CG		268 0.44 98.89 0.48	3 0.00 1.11 0.06	271 0.44
289 03623 CG		281 0.46 97.23 0.50	8 0.01 2.77 0.15	289 0.47
290 03636 CG		206 0.34 93.21 0.37	15 0.02 6.79 0.28	221 0.36
291 52687 CG		117 0.19 96.69 0.21	4 0.01 3.31 0.08	121 0.20
292 52688 CG		115 0.19 89.15 0.21	14 0.02 10.85 0.26	129 0.21
293 52689 CG		165 0.27 99.40 0.30	1 0.00 0.60 0.02	166 0.27
294 52690 CG		114 0.19 90.48 0.20	12 0.02 9.52 0.23	126 0.21
295 52691 CG		134 0.22 93.06 0.24	10 0.02 6.94 0.19	144 0.24
296 52692 CG		93 0.15 90.29 0.17	10 0.02 9.71 0.19	103 0.17
297 52693 CG		119 0.20 88.15 0.21	16 0.03 11.85 0.30	135 0.22
TOTAL		55705 91.29	5313 8.71	61018 100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCODE

UICSHIP			LCCODE		TOTAL
FREQUENCY	PERCENT	ROW PCT	COL PCT		
			0	1	
298	52698	CG	93 0.15 91.18 0.17	9 0.01 8.82 0.17	102 0.17
299	52699	CG	154 0.25 96.86 0.28	5 0.01 3.14 0.09	159 0.26
300	52702	CG	144 0.24 96.00 0.26	6 0.01 4.00 0.11	150 0.25
301	52703	CG	139 0.23 90.85 0.25	14 0.02 9.15 0.26	153 0.25
302	52704	CG	123 0.20 91.79 0.22	11 0.02 8.21 0.21	134 0.22
303	52705	CG	128 0.21 86.49 0.23	20 0.03 13.51 0.38	148 0.24
304	52706	CG	107 0.18 93.86 0.19	7 0.01 6.14 0.13	114 0.19
305	52707	CG	142 0.23 89.87 0.25	16 0.03 10.13 0.30	158 0.26
306	52708	CG	128 0.21 93.43 0.23	9 0.01 6.57 0.17	137 0.22
307	52709	CG	113 0.19 89.68 0.20	13 0.02 10.32 0.24	126 0.21
308	04668	DDG	101 0.17 88.60 0.18	13 0.02 11.40 0.24	114 0.19
TOTAL			55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCCDE

UICSHIP	LCCDE		TOTAL
FREQUENCY PERCENT ROW PCT COL PCT	0	1	
309 04669 DDG	109 0.18 91.60 0.20	10 0.02 8.40 0.19	119 0.20
310 04670 DDG	102 0.17 91.07 0.18	10 0.02 8.93 0.19	112 0.18
311 04671 DDG	109 0.18 89.34 0.20	13 0.02 10.66 0.24	122 0.20
312 04672 DDG	106 0.17 87.60 0.19	15 0.02 12.40 0.28	121 0.20
313 04673 DDG	100 0.16 89.29 0.18	12 0.02 10.71 0.23	112 0.18
314 04674 DDG	98 0.16 92.45 0.18	8 0.01 7.55 0.15	106 0.17
315 04675 DDG	95 0.16 89.62 0.17	11 0.02 10.38 0.21	106 0.17
316 04676 DDG	97 0.16 91.51 0.17	9 0.01 8.49 0.17	106 0.17
317 04677 DDG	106 0.17 93.81 0.19	7 0.01 6.19 0.13	113 0.19
318 04678 DDG	115 0.19 95.83 0.21	5 0.01 4.17 0.09	120 0.20
319 04679 DDG	89 0.15 91.75 0.16	8 0.01 8.25 0.15	97 0.16
TOTAL	55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCCDE

UICSHIP			LCCDE		TOTAL
FREQUENCY	PERCENT	ROW PCT	COL PCT		
			0	1	
320	04680	DDG	110 0.18 88.00 0.20	15 0.02 12.00 0.28	125 0.20
321	04681	DDG	94 0.15 94.95 0.17	5 0.01 5.05 0.09	99 0.16
322	04682	DDG	132 0.22 93.62 0.24	9 0.01 6.38 0.17	141 0.23
323	04683	DDG	99 0.16 95.19 0.18	5 0.01 4.81 0.09	104 0.17
324	04684	DDG	109 0.18 91.60 0.20	10 0.02 8.40 0.19	119 0.20
325	04685	DDG	103 0.17 88.03 0.18	14 0.02 11.97 0.26	117 0.19
326	04686	DDG	131 0.21 93.57 0.24	9 0.01 6.43 0.17	140 0.23
327	04687	DDG	123 0.20 93.18 0.22	9 0.01 6.82 0.17	132 0.22
328	04688	DDG	124 0.20 91.85 0.22	11 0.02 8.15 0.21	135 0.22
329	04690	DDG	89 0.15 95.70 0.16	4 0.01 4.30 0.08	93 0.15
330	04691	DDG	88 0.14 88.89 0.16	11 0.02 11.11 0.21	99 0.16
TOTAL			55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCODE

UICSHIP			LCCDE		TOTAL
FREQUENCY	PERCENT	ROW PCT	COL PCT		
			0	1	
331	52231	DDG	152 0.25 94.41 0.27	9 0.01 5.59 0.17	161 0.26
332	52232	DDG	122 0.20 87.77 0.22	17 0.03 12.23 0.32	139 0.23
333	52233	DDG	99 0.16 88.39 0.18	13 0.02 11.61 0.24	112 0.18
334	52234	DDG	101 0.17 89.38 0.18	12 0.02 10.62 0.23	113 0.19
335	52235	DDG	112 0.18 94.12 0.20	7 0.01 5.88 0.13	119 0.20
336	52236	DDG	109 0.18 91.60 0.20	10 0.02 8.40 0.19	119 0.20
337	52683	DDG	116 0.19 92.80 0.21	9 0.01 7.20 0.17	125 0.20
338	52684	DDG	117 0.19 93.60 0.21	8 0.01 6.40 0.15	125 0.20
339	52685	DDG	113 0.19 88.98 0.20	14 0.02 11.02 0.26	127 0.21
340	52686	DDG	157 0.26 93.45 0.28	11 0.02 6.55 0.21	168 0.28
341	52196	DDG	88 0.14 88.00 0.16	12 0.02 12.00 0.23	100 0.16
TOTAL			55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE CF UICSHIP BY LCCDE

UICSHIP			LCCDE		
FREQUENCY PERCENT ROW PCT COL PCT					
			0	1	TOTAL
342	52192	DDG	78 0.13 93.98 0.14	5 0.01 6.02 0.09	83 0.14
343	04665	DDG	142 0.23 98.61 0.25	2 0.00 1.39 0.04	144 0.24
344	04663	DDG	135 0.22 93.75 0.24	9 0.01 6.25 0.17	144 0.24
345	20574	DD	57 0.09 95.00 0.10	3 0.00 5.00 0.06	60 0.10
346	20575	DD	80 0.13 91.95 0.14	7 0.01 8.05 0.13	87 0.14
347	20576	DD	96 0.16 93.20 0.17	7 0.01 6.80 0.13	103 0.17
348	20586	DD	94 0.15 95.92 0.17	4 0.01 4.03 0.08	98 0.16
349	20587	DD	92 0.15 95.83 0.17	4 0.01 4.17 0.08	96 0.16
350	20588	DD	132 0.22 94.96 0.24	7 0.01 5.04 0.13	139 0.23
351	20589	DD	93 0.15 90.29 0.17	10 0.02 9.71 0.19	103 0.17
352	20590	DD	82 0.13 100.00 0.15	0 0.00 0.00 0.00	82 0.13
TOTAL			55705 91.29	5313 8.71	61018 100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCCODE

UICSHIP	LCCODE			
FREQUENCY				
PERCENT				
ROW PCT				
COL PCT				
		0	1	TOTAL
353 20591 DD		74 0.12 92.50 0.13	6 0.01 7.50 0.11	80 0.13
354 20598 DD		75 0.12 94.94 0.13	4 0.01 5.06 0.08	79 0.13
355 20599 DD		105 0.17 89.74 0.19	12 0.02 10.26 0.23	117 0.19
356 20601 DD		74 0.12 87.06 0.13	11 0.02 12.94 0.21	85 0.14
357 20602 DD		102 0.17 94.44 0.18	6 0.01 5.56 0.11	108 0.18
358 20603 DD		99 0.16 93.40 0.18	7 0.01 6.60 0.13	106 0.17
359 20604 DD		111 0.18 89.52 0.20	13 0.02 10.48 0.24	124 0.20
360 20611 DD		105 0.17 93.75 0.19	7 0.01 6.25 0.13	112 0.18
361 04661 DD		103 0.17 91.15 0.18	10 0.02 8.85 0.19	113 0.19
362 04662 DD		90 0.15 88.24 0.16	12 0.02 11.76 0.23	102 0.17
363 04664 DD		153 0.25 93.87 0.27	10 0.02 6.13 0.19	163 0.27
TOTAL		55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCCDE

UICSHIP	LCCDE			
FREQUENCY				
PERCENT				
ROW PCT				
COL PCT				
		0	1	TOTAL
364 04666 DD		118 0.19 90.77 0.21	12 0.02 9.23 0.23	130 0.21
365 04667 DD		100 0.16 90.91 0.18	10 0.02 9.09 0.19	110 0.18
366 52191 DD		92 0.15 87.62 0.17	13 0.02 12.33 0.24	105 0.17
367 52193 DD		86 0.14 90.53 0.15	9 0.01 9.47 0.17	95 0.16
368 52197 DD		81 0.13 95.29 0.15	4 0.01 4.71 0.08	85 0.14
369 52198 DD		83 0.14 95.40 0.15	4 0.01 4.60 0.08	87 0.14
370 52199 DD		99 0.16 86.84 0.18	15 0.02 13.16 0.28	114 0.19
371 52200 DD		71 0.12 92.21 0.13	6 0.01 7.79 0.11	77 0.13
372 52201 DD		80 0.13 84.21 0.14	15 0.02 15.79 0.28	95 0.16
373 52202 DD		81 0.13 92.05 0.15	7 0.01 7.95 0.13	88 0.14
374 52203 DD		93 0.15 89.42 0.17	11 0.02 10.58 0.21	104 0.17
TOTAL		55705 91.29	5313 8.71	61018 100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCCODE

UICSHIP	LCCODE			
FREQUENCY				
PERCENT				
ROW PCT				
COL PCT				
		0	1	TOTAL
376 03843 DD		62 0.10 96.88 0.11	2 0.00 3.13 0.04	64 0.10
377 03863 DD		107 0.18 84.25 0.19	20 0.03 15.75 0.38	127 0.21
378 03884 DD		52 0.09 96.30 0.09	2 0.00 3.70 0.04	54 0.09
379 03885 DD		63 0.10 91.30 0.11	6 0.01 8.70 0.11	69 0.11
380 03888 DD		51 0.08 96.23 0.09	2 0.00 3.77 0.04	53 0.09
381 03906 DD		50 0.08 98.04 0.09	1 0.00 1.96 0.02	51 0.08
382 52117 DD		59 0.10 90.77 0.11	6 0.01 9.23 0.11	65 0.11
383 52121 DD		64 0.10 90.14 0.11	7 0.01 9.86 0.13	71 0.12
384 52122 DD		58 0.10 92.06 0.10	5 0.01 7.94 0.09	63 0.10
385 52126 DD		66 0.11 90.41 0.12	7 0.01 9.59 0.13	73 0.12
386 52129 DD		58 0.10 95.08 0.10	3 0.00 4.92 0.06	61 0.10
TOTAL		55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCCODE

UICSHIP			LCCODE				
FREQUENCY							
PERCENT							
ROW PCT							
COL PCT							
			0	1	TOTAL		
387	52135	DD	48 0.08 90.57 0.09	5 0.01 9.43 0.09	53 0.09		
388	52142	DD	74 0.12 92.50 0.13	6 0.01 7.50 0.11	80 0.13		
389	52162	DD	57 0.09 86.36 0.10	9 0.01 13.64 0.17	66 0.11		
390	52163	DD	54 0.09 85.71 0.10	9 0.01 14.29 0.17	63 0.10		
391	52164	DD	62 0.10 91.18 0.11	6 0.01 8.82 0.11	68 0.11		
392	52166	DD	71 0.12 92.21 0.13	6 0.01 7.79 0.11	77 0.13		
393	52171	DD	55 0.09 85.94 0.10	9 0.01 14.06 0.17	64 0.10		
394	52173	DD	48 0.08 87.27 0.09	7 0.01 12.73 0.13	55 0.09		
395	52176	DD	33 0.05 84.62 0.06	6 0.01 15.38 0.11	39 0.06		
396	52180	DD	57 0.09 89.06 0.10	7 0.01 10.94 0.13	64 0.10		
397	52183	DD	64 0.10 85.33 0.11	11 0.02 14.67 0.21	75 0.12		
TOTAL			55705 91.29	5313 8.71	61018 100.00		

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCCDE

UICSHIP		LCCDE		TOTAL
FREQUENCY	PERCENT			
ROW PCT	COL PCT	0	1	
398 52185 DD		69 0.11 100.00 0.12	0 0.00 0.00 0.00	69 0.11
399 52186 DD		67 0.11 91.78 0.12	6 0.01 8.22 0.11	73 0.12
400 52190 DD		44 0.07 93.62 0.08	3 0.00 6.38 0.06	47 0.08
401 52125 DD		58 0.10 98.31 0.10	1 0.00 1.69 0.02	59 0.10
402 52127 DD		55 0.09 88.71 0.10	7 0.01 11.29 0.13	62 0.10
403 04692 FFG		61 0.10 92.42 0.11	5 0.01 7.58 0.09	66 0.11
404 04693 FFG		65 0.11 89.04 0.12	8 0.01 10.96 0.15	73 0.12
405 04694 FFG		62 0.10 95.38 0.11	3 0.00 4.62 0.06	65 0.11
406 04695 FFG		96 0.16 94.12 0.17	6 0.01 5.88 0.11	102 0.17
407 04698 FFG		69 0.11 92.00 0.12	6 0.01 8.00 0.11	75 0.12
408 04699 FFG		54 0.09 93.10 0.10	4 0.01 6.90 0.08	58 0.10
TOTAL		55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCODE

UICSHIP		LCCDE		FREQUENCY PERCENT ROW PCT COL PCT		TOTAL
				0	1	
409	21028	FFG		58 0.10 90.63 0.10	6 0.01 9.38 0.11	64 0.10
410	54047	FF	1	72 0.12 98.63 0.13	1 0.00 1.37 0.02	73 0.12
411	54048	FF	1	94 0.15 86.24 0.17	15 0.02 13.76 0.28	109 0.18
412	54049	FF	1	81 0.13 96.43 0.15	3 0.00 3.57 0.06	84 0.14
413	54050	FF	1	86 0.14 92.47 0.15	7 0.01 7.53 0.13	93 0.15
414	54051	FF	1	76 0.12 87.36 0.14	11 0.02 12.64 0.21	87 0.14
415	54052	FF	1	118 0.19 92.81 0.21	9 0.01 7.09 0.17	127 0.21
416	54053	FF	1	81 0.13 96.43 0.15	3 0.00 3.57 0.06	84 0.14
417	54054	FF	1	85 0.14 90.43 0.15	9 0.01 9.57 0.17	94 0.15
418	54055	FF	1	71 0.12 84.52 0.13	13 0.02 15.43 0.24	84 0.14
419	54056	FF	1	72 0.12 90.00 0.13	8 0.01 10.00 0.15	80 0.13
TOTAL				55705 91.29	5313 8.71	61018 100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCCDE

UICSHIP		LCCDE		FREQUENCY PERCENT ROW PCT COL PCT		TOTAL
				0	1	
420	54057	FF	1	63 0.10 94.03 0.11	4 0.01 5.97 0.08	67 0.11
421	54058	FF	1	77 0.13 95.06 0.14	4 0.01 4.94 0.08	81 0.13
422	54059	FF	1	84 0.14 100.00 0.15	0 0.00 0.00 0.00	84 0.14
423	54060	FF	1	67 0.11 82.72 0.12	14 0.02 17.28 0.26	81 0.13
424	54061	FF	1	82 0.13 92.13 0.15	7 0.01 7.87 0.13	89 0.15
425	54062	FF	1	52 0.09 100.00 0.09	0 0.00 0.00 0.00	52 0.09
426	54063	FF	1	70 0.11 92.11 0.13	6 0.01 7.89 0.11	76 0.12
427	54064	FF	1	97 0.16 98.98 0.17	1 0.00 1.02 0.02	98 0.16
428	54065	FF	1	80 0.13 93.02 0.14	6 0.01 6.98 0.11	86 0.14
429	54066	FF	1	99 0.16 93.40 0.18	7 0.01 6.60 0.13	106 0.17
430	54067	FF	1	69 0.11 83.13 0.12	14 0.02 16.87 0.26	83 0.14
TOTAL				55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCCDE

UICSHIP				LCCDE		
FREQUENCY						
PERCENT						
ROW PCT						
COL PCT				0	1	TOTAL
431	54068	FF	1	85	8	93
				0.14	0.01	0.15
				91.40	8.60	
				0.15	0.15	
432	54069	FF	1	91	4	95
				0.15	0.01	0.16
				95.79	4.21	
				0.16	0.08	
433	54070	FF	1	70	7	77
				0.11	0.01	0.13
				90.91	9.09	
				0.13	0.13	
434	54071	FF	1	96	5	101
				0.16	0.01	0.17
				95.05	4.95	
				0.17	0.09	
435	54072	FF	1	96	9	105
				0.16	0.01	0.17
				91.43	8.57	
				0.17	0.17	
436	20049	FF	1	79	9	88
				0.13	0.01	0.14
				89.77	10.23	
				0.14	0.17	
437	20050	FF	1	73	7	80
				0.12	0.01	0.13
				91.25	8.75	
				0.13	0.13	
438	20051	FF	1	65	5	70
				0.11	0.01	0.11
				92.86	7.14	
				0.12	0.09	
439	20052	FF	1	66	10	76
				0.11	0.02	0.12
				86.84	13.16	
				0.12	0.19	
440	20053	FF	1	88	4	92
				0.14	0.01	0.15
				95.65	4.35	
				0.16	0.08	
441	20054	FF	1	78	6	84
				0.13	0.01	0.14
				92.86	7.14	
				0.14	0.11	
TOTAL				55705	5313	61018
				91.29	8.71	100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCCODE

UICSHIP				LCCODE				TOTAL
FREQUENCY								
PERCENT								
ROW PCT								
COL PCT								
				0	1			
442	20055	FF	1	79 0.13 88.76 0.14	10 0.02 11.24 0.19	89 0.15		
443	20056	FF	1	67 0.11 93.06 0.12	5 0.01 6.94 0.09	72 0.12		
444	20057	FF	1	90 0.15 95.74 0.16	4 0.01 4.26 0.08	94 0.15		
445	20058	FF	1	90 0.15 98.90 0.16	1 0.00 1.10 0.02	91 0.15		
446	20066	FF	1	79 0.13 95.18 0.14	4 0.01 4.82 0.08	83 0.14		
447	20067	FF	1	81 0.13 94.19 0.15	5 0.01 5.81 0.09	86 0.14		
448	20068	FF	1	60 0.10 93.75 0.11	4 0.01 6.25 0.08	64 0.10		
449	20069	FF	1	79 0.13 85.87 0.14	13 0.02 14.13 0.24	92 0.15		
450	20070	FF	1	74 0.12 97.37 0.13	2 0.00 2.63 0.04	76 0.12		
451	20071	FF	1	86 0.14 95.56 0.15	4 0.01 4.44 0.08	90 0.15		
452	20072	FF	1	70 0.11 87.50 0.13	10 0.02 12.50 0.19	80 0.13		
TOTAL				55705 91.29	5313 8.71	61018 100.00		

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCODE

UICSHIP				LCODE				
FREQUENCY								
PERCENT								
ROW	PCT	COL	PCT					
				0	1			TOTAL
453	20073	FF	1	66	12			78
				0.11	0.02			0.13
				84.62	15.38			
				0.12	0.23			
454	20074	FF	1	59	5			64
				0.10	0.01			0.10
				92.19	7.81			
				0.11	0.09			
455	20075	FF	1	72	8			80
				0.12	0.01			0.13
				90.00	10.00			
				0.13	0.15			
456	17700	FF	1	74	8			82
				0.12	0.01			0.13
				90.24	9.76			
				0.13	0.15			
457	54037	FF	1	81	9			90
				0.13	0.01			0.15
				90.00	10.00			
				0.15	0.17			
458	54038	FF	1	81	12			93
				0.13	0.02			0.15
				87.10	12.90			
				0.15	0.23			
459	54039	FF	1	92	6			98
				0.15	0.01			0.16
				93.88	6.12			
				0.17	0.11			
460	54040	FF	1	71	2			73
				0.12	0.00			0.12
				97.26	2.74			
				0.13	0.04			
461	54041	FF	1	91	6			97
				0.15	0.01			0.16
				93.81	6.19			
				0.16	0.11			
462	54042	FF	1	63	4			67
				0.10	0.01			0.11
				94.03	5.97			
				0.11	0.08			
463	54043	FF	1	95	6			101
				0.16	0.01			0.17
				94.06	5.94			
				0.17	0.11			
TOTAL				55705	5313			61018
				91.29	8.71			100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCODE

UICSHIP				LCODE				TOTAL
FREQUENCY	PERCENT	ROW PCT	COL PCT			0	1	
464	54044	FF	1			63 0.10 91.30 0.11	6 0.01 8.70 0.11	69 0.11
465	54045	FF	1			61 0.10 88.41 0.11	8 0.01 11.59 0.15	69 0.11
466	54046	FF	1			63 0.10 90.00 0.11	7 0.01 10.00 0.13	70 0.11
467	54035	FF	1			43 0.07 91.49 0.08	4 0.01 8.51 0.08	47 0.08
468	54036	FF	1			67 0.11 88.16 0.12	9 0.01 11.84 0.17	76 0.12
469	20893	PHM				3 0.00 100.00 0.01	0 0.00 0.00 0.00	3 0.00
470	20085	PG				5 0.01 100.00 0.01	0 0.00 0.00 0.00	5 0.01
471	20086	PG				4 0.01 100.00 0.01	0 0.00 0.00 0.00	4 0.01
472	05840	LCC				254 0.42 96.58 0.46	9 0.01 3.42 0.17	263 0.43
473	20001	LCC				220 0.36 89.80 0.39	25 0.04 10.20 0.47	245 0.40
474	20550	LHA				237 0.39 91.86 0.43	21 0.03 8.14 0.40	258 0.42
TOTAL						55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCCDE

UICSHIP			LCCDE		TOTAL
FREQUENCY	PERCENT	ROW PCT	COL PCT		
			0	1	
475	20632	LHA	166 0.27 86.46 0.30	26 0.04 13.54 0.49	192 0.31
476	20633	LHA	352 0.58 94.12 0.63	22 0.04 5.88 0.41	374 0.61
477	07350	LPH	213 0.35 88.75 0.38	27 0.04 11.25 0.51	240 0.39
478	07351	LPH	195 0.32 88.64 0.35	25 0.04 11.36 0.47	220 0.36
479	07352	LPH	173 0.28 91.05 0.31	17 0.03 8.95 0.32	190 0.31
480	07178	LPH	186 0.30 90.29 0.33	20 0.03 9.71 0.38	206 0.34
481	07198	LPH	177 0.29 81.94 0.32	39 0.06 18.06 0.73	216 0.35
482	07202	LPH	182 0.30 91.92 0.33	16 0.03 8.08 0.30	198 0.32
483	20009	LPH	215 0.35 90.72 0.39	22 0.04 9.28 0.41	237 0.39
484	07170	LPD	104 0.17 83.20 0.19	21 0.03 16.80 0.40	125 0.20
485	07171	LPD	136 0.22 88.31 0.24	18 0.03 11.69 0.34	154 0.25
TOTAL			55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCCDE

UICSHIP	LCCDE			
FREQUENCY				
PERCENT				
ROW PCT				
COL PCT				
		0	1	TOTAL
486 07175 LPD		117	16	133
		0.19	0.03	0.22
		87.97	12.03	
		0.21	0.30	
487 07176 LPD		107	17	124
		0.18	0.03	0.20
		86.29	13.71	
		0.19	0.32	
488 07177 LPD		117	13	130
		0.19	0.02	0.21
		90.00	10.00	
		0.21	0.24	
489 07181 LPD		117	9	126
		0.19	0.01	0.21
		92.86	7.14	
		0.21	0.17	
490 07182 LPD		162	17	179
		0.27	0.03	0.29
		90.50	9.50	
		0.29	0.32	
491 07183 LPD		119	18	137
		0.20	0.03	0.22
		86.86	13.14	
		0.21	0.34	
492 07184 LPD		104	8	112
		0.17	0.01	0.18
		92.86	7.14	
		0.19	0.15	
493 07194 LPD		121	16	137
		0.20	0.03	0.22
		88.32	11.68	
		0.22	0.30	
494 07195 LPD		117	15	132
		0.19	0.02	0.22
		88.64	11.36	
		0.21	0.28	
495 07196 LPD		162	11	173
		0.27	0.02	0.28
		93.64	6.36	
		0.29	0.21	
496 07200 LPD		127	21	148
		0.21	0.03	0.24
		85.81	14.19	
		0.23	0.40	
TOTAL		55705	5313	61018
		91.29	8.71	100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCCDE

UICSHIP	LCCDE			
FREQUENCY		0	1	TOTAL
PERCENT				
ROW PCT				
COL PCT				
497 07201 LPD		112 0.18 86.82 0.20	17 0.03 13.18 0.32	129 0.21
498 03128 LSD		98 0.16 84.48 0.18	18 0.03 15.52 0.34	116 0.19
499 03129 LSD		107 0.18 88.43 0.19	14 0.02 11.57 0.26	121 0.20
500 03130 LSD		95 0.16 82.61 0.17	20 0.03 17.39 0.38	115 0.19
501 03131 LSD		71 0.12 83.53 0.13	14 0.02 16.47 0.26	85 0.14
502 03132 LSD		93 0.15 92.08 0.17	8 0.01 7.92 0.15	101 0.17
503 03133 LSD		84 0.14 86.60 0.15	13 0.02 13.40 0.24	97 0.16
504 03134 LSD		105 0.17 78.95 0.19	28 0.05 21.05 0.53	133 0.22
505 03135 LSD		103 0.17 84.43 0.18	19 0.03 15.57 0.36	122 0.20
506 07203 LSD		102 0.17 89.47 0.18	12 0.02 10.53 0.23	114 0.19
507 20012 LSD		121 0.20 88.97 0.22	15 0.02 11.03 0.28	136 0.22
TOTAL		55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCCDE

UICSHIP		LCCDE		TOTAL
FREQUENCY				
PERCENT				
ROW PCT COL PCT				
	0	1		
508 20013 LSD	107 0.18 93.86 0.19	7 0.01 6.14 0.13		114 0.19
509 20014 LSD	105 0.17 88.24 0.19	14 0.02 11.76 0.26		119 0.20
510 20015 LSD	100 0.16 95.24 0.18	5 0.01 4.76 0.09		105 0.17
511 20019 LST 1	61 0.10 92.42 0.11	5 0.01 7.58 0.09		66 0.11
512 20020 LST 1	81 0.13 88.04 0.15	11 0.02 11.96 0.21		92 0.15
513 20021 LST 1	67 0.11 97.10 0.12	2 0.00 2.90 0.04		69 0.11
514 20022 LST 1	64 0.10 92.75 0.11	5 0.01 7.25 0.09		69 0.11
515 20023 LST 1	66 0.11 83.54 0.12	13 0.02 16.46 0.24		79 0.13
516 20024 LST 1	56 0.09 86.15 0.10	9 0.01 13.85 0.17		65 0.11
517 20025 LST 1	62 0.10 83.78 0.11	12 0.02 16.22 0.23		74 0.12
518 20026 LST 1	68 0.11 88.31 0.12	9 0.01 11.69 0.17		77 0.13
TOTAL	55705 91.29	5313 8.71		61018 100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCCODE

UICSHIP		LCCODE				
FREQUENCY						
PERCENT						
ROW PCT						
COL PCT						
		0	1		TOTAL	
519 20027 LST 1		69	11		80	
		0.11	0.02		0.13	
		86.25	13.75			
		0.12	0.21			
520 20028 LST 1		59	8		67	
		0.10	0.01		0.11	
		88.06	11.94			
		0.11	0.15			
521 20029 LST 1		57	8		65	
		0.09	0.01		0.11	
		87.69	12.31			
		0.10	0.15			
522 20030 LST 1		71	7		78	
		0.12	0.01		0.13	
		91.03	8.97			
		0.13	0.13			
523 20031 LST 1		77	7		84	
		0.13	0.01		0.14	
		91.67	8.33			
		0.14	0.13			
524 20032 LST 1		74	12		86	
		0.12	0.02		0.14	
		86.05	13.95			
		0.13	0.23			
525 20033 LST 1		64	6		70	
		0.10	0.01		0.11	
		91.43	8.57			
		0.11	0.11			
526 20221 LST 1		68	12		80	
		0.11	0.02		0.13	
		85.00	15.00			
		0.12	0.23			
527 20222 LST 1		65	7		72	
		0.11	0.01		0.12	
		90.28	9.72			
		0.12	0.13			
528 20223 LST 1		58	7		65	
		0.10	0.01		0.11	
		89.23	10.77			
		0.10	0.13			
529 20224 LST 1		76	6		82	
		0.12	0.01		0.13	
		92.68	7.32			
		0.14	0.11			
TOTAL		55705	5313		61018	
		91.29	8.71		100.00	

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCCODE

UICSHIP				LCCODE		TOTAL
FREQUENCY	PERCENT	ROW PCT	COL PCT			
				0	1	
530	58179	LST	1	56 0.09 81.16 0.10	13 0.02 18.84 0.24	69 0.11
531	08608	LKA		77 0.13 95.06 0.14	4 0.01 4.94 0.08	81 0.13
532	05844	LKA		101 0.17 87.07 0.18	15 0.02 12.93 0.28	116 0.19
533	05845	LKA		94 0.15 90.38 0.17	10 0.02 9.62 0.19	104 0.17
534	05846	LKA		112 0.18 83.58 0.20	22 0.04 16.42 0.41	134 0.22
535	05847	LKA		81 0.13 83.51 0.15	16 0.03 16.49 0.30	97 0.16
536	20004	LKA		142 0.23 93.42 0.25	10 0.02 6.58 0.19	152 0.25
537	01770	LPA		61 0.10 96.83 0.11	2 0.00 3.17 0.04	63 0.10
538	01771	LPA		75 0.12 94.94 0.13	4 0.01 5.06 0.08	79 0.13
539	07957	MSD		13 0.02 100.00 0.02	0 0.00 0.00 0.00	13 0.02
540	07958	MSD		10 0.02 100.00 0.02	0 0.00 0.00 0.00	10 0.02
TOTAL				55705 91.29	5313 8.71	61018 100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCCDE

UICSHIP		LCCDE		
FREQUENCY	PERCENT			
ROW PCT	COL PCT			
COL PCT		0	1	TOTAL
541 07959 MSO		11 0.02 100.00 0.02	0 0.00 0.00 0.00	11 0.02
542 07960 MSO		13 0.02 100.00 0.02	0 0.00 0.00 0.00	13 0.02
543 07961 MSO		14 0.02 100.00 0.03	0 0.00 0.00 0.00	14 0.02
544 07963 MSU		9 0.01 100.00 0.02	0 0.00 0.00 0.00	9 0.01
545 07967 MSO		9 0.01 100.00 0.02	0 0.00 0.00 0.00	9 0.01
546 07968 MSO		12 0.02 100.00 0.02	0 0.00 0.00 0.00	12 0.02
547 07969 MSO		13 0.02 86.67 0.02	2 0.00 13.33 0.04	15 0.02
548 07970 MSO		15 0.02 83.33 0.03	3 0.00 16.67 0.06	18 0.03
549 07971 MSO		11 0.02 100.00 0.02	0 0.00 0.00 0.00	11 0.02
550 07972 MSO		13 0.02 100.00 0.02	0 0.00 0.00 0.00	13 0.02
551 07973 MSO		19 0.03 90.48 0.03	2 0.00 9.52 0.04	21 0.03
TOTAL		55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCCODE

UICSHIP	LCCODE			
FREQUENCY				
PERCENT				
ROW PCT				
COL PCT				
		0	1	TOTAL
552 07976 MSO		9 0.01 81.82 0.02	2 0.00 18.18 0.04	11 0.02
553 07978 MSO		17 0.03 100.00 0.03	0 0.00 0.00 0.00	17 0.03
554 07979 MSO		8 0.01 100.00 0.01	0 0.00 0.00 0.00	8 0.01
555 07985 MSO		14 0.02 100.00 0.03	0 0.00 0.00 0.00	14 0.02
556 07986 MSO		7 0.01 70.00 0.01	3 0.00 30.00 0.06	10 0.02
557 07994 MSO		11 0.02 100.00 0.02	0 0.00 0.00 0.00	11 0.02
558 08146 MSO		11 0.02 91.67 0.02	1 0.00 8.33 0.02	12 0.02
559 08147 MSO		11 0.02 100.00 0.02	0 0.00 0.00 0.00	11 0.02
560 08148 MSO		21 0.03 91.30 0.04	2 0.00 8.70 0.04	23 0.04
561 08150 MSO		10 0.02 100.00 0.02	0 0.00 0.00 0.00	10 0.02
562 08157 MSO		15 0.02 83.33 0.03	3 0.00 16.67 0.06	18 0.03
TOTAL		55705 91.29	5313 8.71	61018 100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCCODE

UICSHIP	LCCODE			
FREQUENCY				
PERCENT				
ROW PCT				
COL PCT				
		0	1	TOTAL
563 08159 MSO		11	0	11
		0.02	0.00	0.02
		100.00	0.00	
		0.02	0.00	
564 04618 AD		236	38	274
		0.39	0.06	0.45
		86.13	13.87	
		0.42	0.72	
565 04620 AD		245	35	280
		0.40	0.06	0.46
		87.50	12.50	
		0.44	0.66	
566 04637 AD		247	40	287
		0.40	0.07	0.47
		86.06	13.94	
		0.44	0.75	
567 04638 AD		239	28	267
		0.39	0.05	0.44
		89.51	10.49	
		0.43	0.53	
568 04639 AD		238	32	270
		0.39	0.05	0.44
		88.15	11.85	
		0.43	0.60	
569 04644 AD		154	10	164
		0.25	0.02	0.27
		93.90	6.10	
		0.28	0.19	
570 01720 AD		221	31	252
		0.36	0.05	0.41
		87.70	12.30	
		0.40	0.58	
571 04648 AD		340	61	401
		0.56	0.10	0.66
		84.79	15.21	
		0.61	1.15	
572 05837 AD		362	48	410
		0.59	0.08	0.67
		88.29	11.71	
		0.65	0.90	
573 08821 AE		134	10	144
		0.22	0.02	0.24
		93.06	6.94	
		0.24	0.19	
TOTAL		55705	5313	61018
		91.29	8.71	100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCCDE

UICSHIP	LCCDE			
FREQUENCY				
PERCENT				
ROW PCT				
COL PCT				
		0	1	TOTAL
574 08822 AE		108 0.18 92.31 0.19	9 0.01 7.69 0.17	117 0.19
575 08391 AE		129 0.21 87.16 0.23	19 0.03 12.84 0.36	148 0.24
576 08392 AE		95 0.16 87.16 0.17	14 0.02 12.84 0.26	109 0.18
577 08301 AE		118 0.19 83.10 0.21	24 0.04 16.90 0.45	142 0.23
578 05838 AE		84 0.14 84.00 0.15	16 0.03 16.00 0.30	100 0.16
579 05839 AE		119 0.20 88.81 0.21	15 0.02 11.19 0.28	134 0.22
580 20111 AE		132 0.22 88.00 0.24	18 0.03 12.00 0.34	150 0.25
581 20112 AE		131 0.21 89.12 0.24	16 0.03 10.88 0.30	147 0.24
582 20113 AE		116 0.19 89.92 0.21	13 0.02 10.08 0.24	129 0.21
583 20114 AE		121 0.20 86.43 0.22	19 0.03 13.57 0.36	140 0.23
584 20115 AE		105 0.17 91.30 0.19	10 0.02 8.70 0.19	115 0.19
TOTAL		55705 91.29	5313 8.71	61018 100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCCDE

UICSHIP	LCCDE		TOTAL
FREQUENCY PERCENT ROW PCT COL PCT	0	1	
585 20245 AE	108 0.18 89.26 0.19	13 0.02 10.74 0.24	121 0.20
586 05831 AFS	144 0.24 94.74 0.26	8 0.01 5.26 0.15	152 0.25
587 74025 AFS	147 0.24 86.98 0.26	22 0.04 13.02 0.41	169 0.28
588 05834 AFS	128 0.21 92.09 0.23	11 0.02 7.91 0.21	139 0.23
589 05835 AFS	125 0.20 100.00 0.22	0 0.00 0.00 0.00	125 0.20
590 05836 AFS	121 0.20 84.62 0.22	22 0.04 15.38 0.41	143 0.23
591 20116 AFS	131 0.21 92.25 0.24	11 0.02 7.75 0.21	142 0.23
592 20118 AFS	122 0.20 89.05 0.22	15 0.02 10.95 0.28	137 0.22
593 03954 AG	80 0.13 90.91 0.14	8 0.01 9.09 0.15	88 0.14
594 01936 AGDS	71 0.12 98.61 0.13	1 0.00 1.39 0.02	72 0.12
595 07172 AGF	264 0.43 100.00 0.47	0 0.00 0.00 0.00	264 0.43
TOTAL	55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCODE

UICSHIP			LCODE		TOTAL
FREQUENCY	PERCENT	ROW PCT	COL PCT		
			0	1	
596 05832 AOE	182	14	196		
	0.30	0.02	0.32		
	92.86	7.14			
	0.33	0.26			
597 05833 AOE	225	23	248		
	0.37	0.04	0.41		
	90.73	9.27			
	0.40	0.43			
598 05848 AOE	227	23	250		
	0.37	0.04	0.41		
	90.80	9.20			
	0.41	0.43			
599 20120 AOE	159	15	174		
	0.26	0.02	0.29		
	91.38	8.62			
	0.29	0.28			
600 05849 AOR	146	11	157		
	0.24	0.02	0.26		
	92.99	7.01			
	0.26	0.21			
601 05850 AOR	128	11	139		
	0.21	0.02	0.23		
	92.09	7.91			
	0.23	0.21			
602 20122 AOR	145	19	164		
	0.24	0.03	0.27		
	88.41	11.59			
	0.26	0.36			
603 20123 AOR	142	12	154		
	0.23	0.02	0.25		
	92.21	7.79			
	0.25	0.23			
604 20124 AOR	150	28	178		
	0.25	0.05	0.29		
	84.27	15.73			
	0.27	0.53			
605 20125 AOR	128	15	143		
	0.21	0.02	0.23		
	89.51	10.49			
	0.23	0.28			
606 20248 AOR	112	21	133		
	0.18	0.03	0.22		
	84.21	15.79			
	0.20	0.40			
TOTAL	55705	5313	61018		
	91.29	8.71	100.00		

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCCDE

UICSHIP	LCCDE			
FREQUENCY				
PERCENT				
ROW PCT				
COL PCT				
		0	1	TOTAL
607 04951 AO		156 0.26 91.76 0.28	14 0.02 8.24 0.26	170 0.28
608 04848 AO		101 0.17 83.47 0.18	20 0.03 16.53 0.38	121 0.20
609 04849 AO		146 0.24 89.02 0.26	18 0.03 10.98 0.34	164 0.27
610 05905 AO		72 0.12 92.31 0.13	6 0.01 7.69 0.11	78 0.13
611 05906 AO		131 0.21 97.04 0.24	4 0.01 2.96 0.08	135 0.22
612 05907 AO		79 0.13 89.77 0.14	9 0.01 10.23 0.17	88 0.14
613 05908 AO		142 0.23 92.21 0.25	12 0.02 7.79 0.23	154 0.25
614 08806 AR		270 0.44 87.38 0.48	39 0.06 12.62 0.73	309 0.51
615 08808 AR		195 0.32 89.45 0.35	23 0.04 10.55 0.43	218 0.36
616 08809 AR		232 0.38 89.92 0.42	26 0.04 10.08 0.49	258 0.42
617 08810 AR		276 0.45 86.25 0.50	44 0.07 13.75 0.83	320 0.52
TOTAL		55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCCDE

UICSHIP	LCCDE			
FREQUENCY				
PERCENT				
ROW PCT				
COL PCT				
		0	1	TOTAL
618 02508 ARS		17 0.03 85.00 0.03	3 0.00 15.00 0.06	20 0.03
619 02523 ARS		26 0.04 100.00 0.05	0 0.00 0.00 0.00	26 0.04
620 02525 ARS		18 0.03 90.00 0.03	2 0.00 10.00 0.04	20 0.03
621 02533 ARS		38 0.06 97.44 0.07	1 0.00 2.56 0.02	39 0.06
622 02534 ARS		34 0.06 91.89 0.06	3 0.00 8.11 0.06	37 0.06
623 02535 ARS		23 0.04 82.14 0.04	5 0.01 17.86 0.09	28 0.05
624 02536 ARS		26 0.04 89.66 0.05	3 0.00 10.34 0.06	29 0.05
625 02537 ARS		42 0.07 93.33 0.08	3 0.00 6.67 0.06	45 0.07
626 02538 ARS		41 0.07 100.00 0.07	0 0.00 0.00 0.00	41 0.07
627 04619 AS		271 0.44 91.55 0.49	25 0.04 8.45 0.47	296 0.49
628 04621 AS		127 0.21 84.67 0.23	23 0.04 15.33 0.43	150 0.25
TOTAL		55705 91.29	5313 8.71	61018 100.00

STATISTICAL ANALYSIS SYSTEM

TABLE OF UICSHIP BY LCCODE

UICSHIP			LCCDE		
FREQUENCY					
PERCENT					
ROW PCT					
COL PCT			0	1	TOTAL
629	04626	AS	514 0.84 97.90 0.92	11 0.02 2.10 0.21	525 0.86
630	04628	AS	295 0.48 90.21 0.53	32 0.05 9.79 0.60	327 0.54
631	04629	AS	201 0.33 98.05 0.36	4 0.01 1.95 0.08	205 0.34
632	04689	AS	464 0.76 95.87 0.83	20 0.03 4.13 0.38	484 0.79
633	04696	AS	385 0.63 99.48 0.69	2 0.00 0.52 0.04	387 0.63
634	04697	AS	342 0.56 90.72 0.61	35 0.06 9.28 0.66	377 0.62
635	04720	AS	342 0.56 90.00 0.61	38 0.06 10.00 0.72	380 0.62
636	05851	AS	311 0.51 89.37 0.56	37 0.06 10.63 0.70	348 0.57
637	20132	AS	147 0.24 90.18 0.26	16 0.03 9.82 0.30	163 0.27
638	04709	ASR	26 0.04 96.30 0.05	1 0.00 3.70 0.02	27 0.04
639	04712	ASR	26 0.04 89.66 0.05	3 0.00 10.34 0.06	29 0.05
TOTAL			55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCCDE

UICSHIP	LCCDE			
FREQUENCY				
PERCENT				
ROW PCT				
COL PCT				
	0	1	TOTAL	
640 04713 ASR	29 0.05 93.55 0.05	2 0.00 6.45 0.04	31 0.05	
641 04714 ASR	32 0.05 94.12 0.06	2 0.00 5.88 0.04	34 0.06	
642 20143 ASR	45 0.07 97.83 0.08	1 0.00 2.17 0.02	46 0.08	
643 20144 ASR	45 0.07 90.00 0.08	5 0.01 10.00 0.09	50 0.08	
644 07105 ATF	9 0.01 100.00 0.02	0 0.00 0.00 0.00	9 0.01	
645 07110 ATF	11 0.02 78.57 0.02	3 0.00 21.43 0.06	14 0.02	
646 07113 ATF	21 0.03 100.00 0.04	0 0.00 0.00 0.00	21 0.03	
647 07159 ATF	14 0.02 93.33 0.03	1 0.00 6.67 0.02	15 0.02	
648 07160 ATF	15 0.02 100.00 0.03	0 0.00 0.00 0.00	15 0.02	
649 07162 ATF	18 0.03 90.00 0.03	2 0.00 10.00 0.04	20 0.03	
650 20151 ATS	31 0.05 100.00 0.06	0 0.00 0.00 0.00	31 0.05	
TOTAL	55705 91.29	5313 8.71	61018 100.00	

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF UICSHIP BY LCCODE

UICSHIP			LCCDE		
FREQUENCY					
PERCENT					
ROW	PCT				
COL	PCT		0	1	TOTAL
651	20153	ATS	33 0.05 97.06 0.06	1 0.00 2.94 0.02	34 0.06
652	20154	ATS	39 0.06 100.00 0.07	0 0.00 0.00 0.00	39 0.06
653	01711	AVM	84 0.14 87.50 0.15	12 0.02 12.50 0.23	96 0.16
TOTAL			55705 91.29	5313 8.71	61018 100.00

APPENDIX U
SHIP CLASS ATTRITION SUMMARY TABLE
TABLE OF CLASS BY LCCODE

2

CLASS	LCCODE		
FREQUENCY PERCENT ROW PCT COL PCT	0	1	TOTAL
1	3207 5.26 98.89 5.76	36 0.06 1.11 0.68	3243 5.31
2	3 0.00 100.00 0.01	0 0.00 0.00 0.00	3 0.00
3	2336 3.83 98.15 4.19	44 0.07 1.85 0.83	2380 3.90
4	175 0.29 95.63 0.31	8 0.01 4.37 0.15	183 0.30
5	2495 4.09 90.20 4.48	271 0.44 9.80 5.10	2766 4.53
6	9142 14.98 88.55 16.41	1182 1.94 11.45 22.25	10324 16.92
7	1197 1.96 91.51 2.15	111 0.18 8.49 2.09	1308 2.14
8	2883 4.72 93.42 5.18	203 0.33 6.58 3.82	3086 5.06
9	4070 6.67 91.85 7.31	361 0.59 8.15 6.79	4431 7.26
10	4407 7.22 91.58 7.91	405 0.66 8.42 7.62	4812 7.89
TOTAL	55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF CLASS BY LCODE

CLASS	LCODE		
FREQUENCY			
PERCENT			
ROW PCT			
COL PCT			
	0	1	TOTAL
11	465 0.76 92.45 0.83	38 0.06 7.55 0.72	503 0.82
12	4560 7.47 92.12 8.19	390 0.64 7.88 7.34	4950 8.11
13	3 0.00 100.00 0.01	0 0.00 0.00 0.00	3 0.00
14	9 0.01 100.00 0.02	0 0.00 0.00 0.00	9 0.01
15	474 0.78 93.31 0.85	34 0.06 6.69 0.64	508 0.83
16	755 1.24 91.63 1.36	69 0.11 8.37 1.30	824 1.35
17	1341 2.20 88.98 2.41	166 0.27 11.02 3.12	1507 2.47
18	1722 2.82 88.81 3.09	217 0.36 11.19 4.08	1939 3.18
19	1291 2.12 87.35 2.32	187 0.31 12.65 3.52	1478 2.42
20	1319 2.16 88.58 2.37	170 0.28 11.42 3.20	1489 2.44
TOTAL	55705 91.29	5313 8.71	61018 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF CLASS BY LCODE

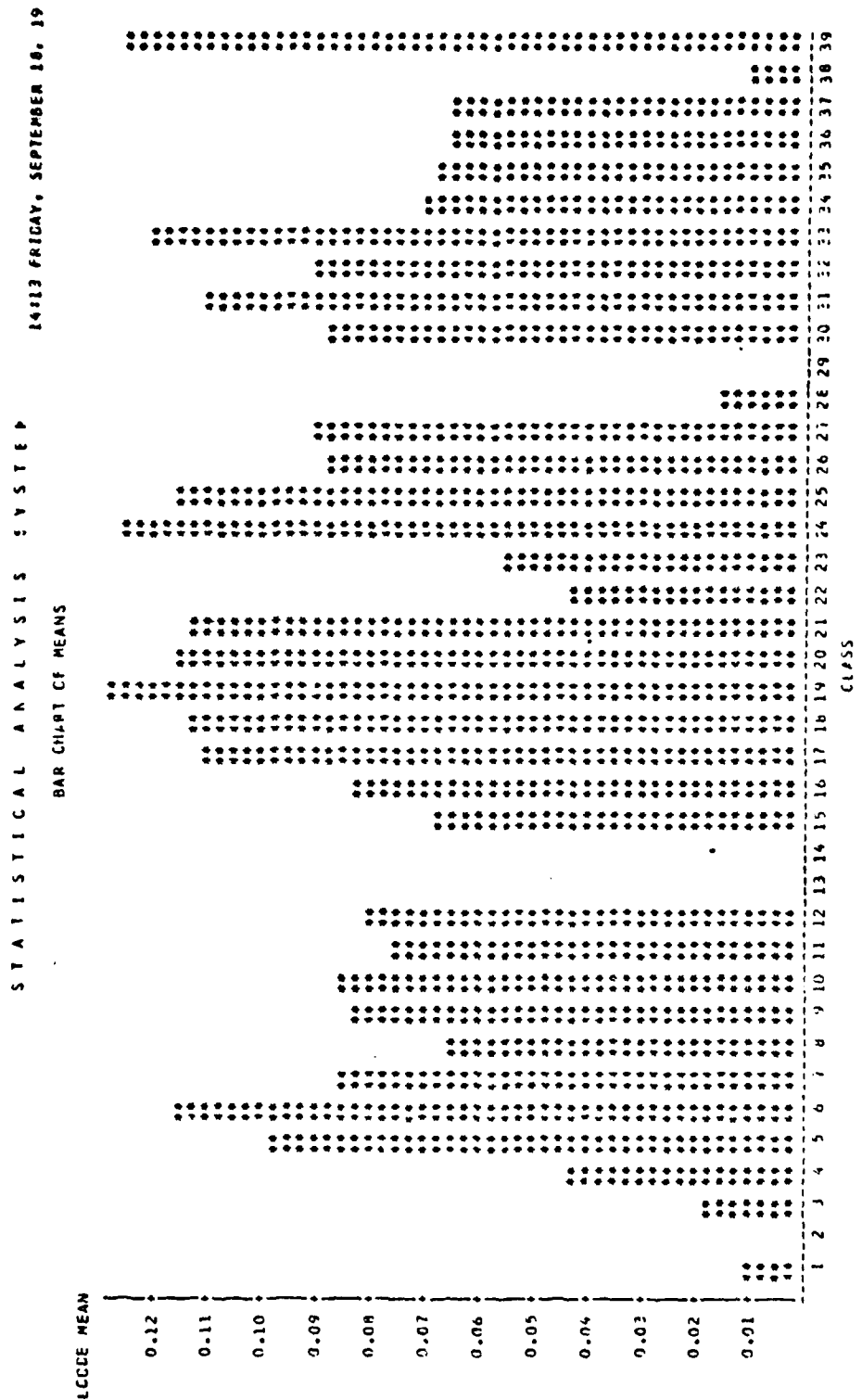
CLASS	LCODE		
FREQUENCY PERCENT ROW PCT COL PCT	0	1	TOTAL
21	607 0.99 88.74 1.09	77 0.13 11.26 1.45	684 1.12
22	136 0.22 95.77 0.24	6 0.01 4.23 0.11	142 0.23
23	307 0.50 94.46 0.55	18 0.03 5.54 0.34	325 0.53
24	2282 3.74 87.60 4.10	323 0.53 12.40 6.08	2605 4.27
25	1500 2.46 83.44 2.69	196 0.32 11.56 3.69	1696 2.78
26	918 1.50 91.16 1.65	89 0.15 8.84 1.68	1007 1.65
27	80 0.13 90.91 0.14	8 0.01 9.09 0.15	88 0.14
28	71 0.12 98.61 0.13	1 0.00 1.39 0.02	72 0.12
29	264 0.43 100.00 0.47	0 0.00 0.00 0.00	264 0.43
30	793 1.30 91.36 1.42	75 0.12 8.64 1.41	868 1.42
TOTAL	55705 91.29	5313 8.71	61019 100.00

S T A T I S T I C A L A N A L Y S I S S Y S T E M

TABLE OF CLASS BY LCODE

CLASS		LCODE		
FREQUENCY	PERCENT			
ROW PCT	COL PCT			
COL PCT		0	1	TOTAL
31		951 1.56 89.04 1.71	117 0.19 10.96 2.20	1068 1.75
32		827 1.36 90.88 1.48	83 0.14 9.12 1.56	910 1.49
33		973 1.59 88.05 1.75	132 0.22 11.95 2.48	1105 1.81
34		265 0.43 92.98 0.48	20 0.03 7.02 0.38	285 0.47
35		3399 5.57 93.33 6.10	243 0.40 6.67 4.57	3642 5.97
36		203 0.33 93.55 0.36	14 0.02 6.45 0.26	217 0.36
37		88 0.14 93.62 0.16	6 0.01 6.38 0.11	94 0.15
38		103 0.17 99.04 0.18	1 0.00 0.96 0.02	104 0.17
39		84 0.14 87.50 0.15	12 0.02 12.50 0.23	96 0.16
TOTAL		55705 91.29	5313 8.71	61018 100.00

APPENDIX V SHIP CLASS ATTRITION PERCENTAGE BAR GRAPH



APPENDIX W

SAS PROGRAM CARLDAT2: ANOVA AND DUNCAN TESTS ON CLASS ATTRITION PERCENTAGES

```

//CARLDAT2 JOB (2987,0020),'C.G.CARLSON SMC1725',CLASS=B
// EXEC SAS
//DATAFILE DD DISP=SHR,DSNAME=MSS.S2987.STF.UIC4
//SYSIN DD *
DATA MODSTF;
  INFILE DATAFILE;
  INPUT UICSHIP $ 46-80 LDACODE 38-44 TYPE 93-94;
  IF LDACODE=0 THEN LDACODE=0;
  IF LDACODE=1 THEN LDACODE=1;
  IF LDACODE=2 OR TYPE=4 OR TYPE=11 OR TYPE=13 THEN DELETE;
  IF TYPE=14 OR TYPE=15 OR TYPE=22 OR TYPE=23 THEN DELETE;
  IF TYPE=27 OR TYPE=28 OR TYPE=29 OR TYPE=36 THEN DELETE;
  IF TYPE=37 OR TYPE=38 OR TYPE=39 THEN DELETE;
PROC SORT DATA=MODSTF; BY UICSHIP;
PRCC SUMMARY DATA=MODSTF;
CLASS UICSHIP;
VAR LDACODE TYPE;
OUTPUT OUT=BYUIC
  MEAN(TYPE)=TYPE
  N(LDACODE)=ASSIGN
  SUM(LDACODE)=ATTRIT;
DATA BYUIC;
  SET BYUIC;
  IF TYPE=0 THEN DELETE;
  TP PERCENT=ATTRIT/ASSIGN;
  TP PERCENT=(SQRT(ASSIGN))*(AR SIN((2*PERCENT)-1));
PROC ANCOVA DATA=BYUIC;
  CLASSES TYPE;
  MODEL TP PERCENT=TYPE;
  MEANS TYPE/DUNCAN;
PROC PRINT DATA=BYUIC;
  VAR UICSHIP ATTRIT ASSIGN PERCENT;
  TITLE SHIP CLASS ATTRITION PERCENTAGE SUMMARY;
PROC SORT DATA=BYUIC; BY TYPE;
PROC MEANS DATA=BYUIC; BY TYPE;
  VAR ATTRIT ASSIGN PERCENT;

```

APPENDIX X
CARLOAT2 OUTPUT: CLASS ATTRITION SUMMARY TABLE

SHIP CLASS ATTRITION PERCENTAGE SUMMARY				12:32 FRI		
LICSHIP				ATTRIT	ASSIGN	PERCENT
100	30094	SEN	599	G WASHINGTON	00	0.000000
101	30095	SEN	598	G WASHINGTON	01	0.000000
102	30096	SEN	599	P HENRY	00	0.000000
103	30097	SEN	599	P HENRY	01	0.000000
104	30098	SEN	600	T ROOSEVELT	00	0.000000
105	30099	SEN	600	T ROOSEVELT	01	0.000000
106	30100	SEN	601	R EISENHOWER	00	0.000000
107	30101	SEN	601	R EISENHOWER	01	0.000000
108	30102	SEN	602	A LINCOLN	00	0.000000
109	30103	SEN	602	A LINCOLN	01	0.000000
110	30104	SEN	608	ALLEN	00	0.000000
111	30105	SEN	608	ALLEN	01	0.000000
112	30106	SEN	609	S HOLSTEN	00	0.000000
113	30107	SEN	609	S HOLSTEN	01	0.000000
114	30108	SEN	610	T EDISON	00	0.000000
115	30109	SEN	610	T EDISON	01	0.000000
116	30110	SEN	611	J MARSHALL	00	0.000000
117	30111	SEN	611	J MARSHALL	01	0.000000
118	30112	SEN	616	LAFAYETTE	00	0.000000
119	30113	SEN	616	LAFAYETTE	01	0.000000
120	30114	SEN	617	A HAMILTON	00	0.000000
121	30115	SEN	617	A HAMILTON	01	0.000000
122	30116	SEN	618	T JEFFERSON	00	0.000000
123	30117	SEN	618	T JEFFERSON	01	0.000000
124	30118	SEN	619	A JACKSON	00	0.000000
125	30119	SEN	619	A JACKSON	01	0.000000
126	30120	SEN	620	J ADAMS	00	0.000000
127	30121	SEN	620	J ADAMS	01	0.000000
128	30122	SEN	622	J MONROE	00	0.000000
129	30123	SEN	622	J MONROE	01	0.000000
130	30124	SEN	623	N HARRIS	00	0.000000
131	30125	SEN	623	N HARRIS	01	0.000000
132	30126	SEN	624	WILSON	00	0.000000
133	30127	SEN	624	WILSON	01	0.000000
134	30128	SEN	625	H CLAY	00	0.000000
135	30129	SEN	625	H CLAY	01	0.000000
136	30130	SEN	626	F BUSTARD	00	0.000000
137	30131	SEN	626	F BUSTARD	01	0.000000
138	30132	SEN	627	J MACDONALD	00	0.000000
139	30133	SEN	627	J MACDONALD	01	0.000000
140	30134	SEN	628	T CUMMINGS	00	0.000000
141	30135	SEN	628	T CUMMINGS	01	0.000000
142	30136	SEN	629	B BROWN	00	0.000000
143	30137	SEN	629	B BROWN	01	0.000000
144	30138	SEN	630	L CALHOUN	00	0.000000
145	30139	SEN	630	L CALHOUN	01	0.000000
146	30140	SEN	631	C GRANT	00	0.000000
147	30141	SEN	631	C GRANT	01	0.000000
148	30142	SEN	632	V STEUBEN	00	0.000000
149	30143	SEN	632	V STEUBEN	01	0.000000
150	30144	SEN	633	C PULASKI	00	0.000000
151	30145	SEN	633	C PULASKI	01	0.000000
152	30146	SEN	634	S JACKSON	00	0.000000
153	30147	SEN	634	S JACKSON	01	0.000000
154	30148	SEN	635	S RAYBURN	00	0.000000
155	30149	SEN	635	S RAYBURN	01	0.000000
156	30150	SEN	636	N GREENE	00	0.000000
157	30151	SEN	636	N GREENE	01	0.000000
158	30152	SEN	640	B FRANKLIN	00	0.000000
159	30153	SEN	640	B FRANKLIN	01	0.000000
160	30154	SEN	641	S BOLIVAR	00	0.000000
161	30155	SEN	641	S BOLIVAR	01	0.000000
162	30156	SEN	642	K AMERICA	00	0.000000
163	30157	SEN	642	K AMERICA	01	0.000000
164	30158	SEN	643	G BANCROFT	00	0.000000
165	30159	SEN	643	G BANCROFT	01	0.000000
166	30160	SEN	644	L SECULAR	00	0.000000
167	30161	SEN	644	L SECULAR	01	0.000000

SHIP CLASS ATTRITION PERCENTAGE SUMMARY

UICSHIP	ATTRIT	ASSIGN	PERCENT
168 301161 SSBN	645 J K POLK BLUE	32	0.000000
169 301162 SSBN	645 J K POLK BLUE	38	0.000000
170 301163 SSBN	654 G MARSHALL BLUE	37	0.000000
171 301162 SSBN	654 G MARSHALL BLUE	47	0.000000
172 301165 SSBN	655 H L STIMSON BLUE	34	0.029412
173 301164 SSBN	655 H L STIMSON BLUE	33	0.000000
174 301167 SSBN	656 G W CARVER BLUE	32	0.000000
175 301166 SSBN	656 G W CARVER BLUE	46	0.000000
176 301169 SSBN	657 F S KEY BLUE	31	0.000000
177 301168 SSBN	657 F S KEY BLUE	34	0.029412
178 301171 SSBN	658 M VALLEJO BLUE	34	0.000000
179 301170 SSBN	658 M VALLEJO BLUE	39	0.023333
180 301173 SSBN	659 W REGERSON BLUE	30	0.000000
181 301172 SSBN	659 W REGERSON BLUE	42	0.000000
182 055591 SSBN	571 NAUTILUS	27	0.000000
183 055595 SSBN	575 SEAWOLF	34	0.000000
184 055597 SSBN	578 SKATE	32	0.031250
185 055598 SSBN	579 SWORDFISH	46	0.021739
186 055608 SSBN	583 SARGO	31	0.032258
187 055607 SSBN	584 SEACRAGON	37	0.054545
188 055606 SSBN	585 SKIPJACK	31	0.000000
189 055605 SSBN	588 SCAMP	24	0.000000
190 055603 SSBN	590 SCULPIN	26	0.000000
191 055604 SSBN	591 SHARK	28	0.000000
192 055605 SSBN	592 SNOCK	29	0.000000
193 055607 SSBN	594 PERMIT	42	0.033333
194 055608 SSBN	595 PLUNGER	40	0.025000
195 055609 SSBN	596 BARB	19	0.000000
196 055610 SSBN	597 TULLIBEE	19	0.000000
197 055111 SSBN	603 POLLOCK	24	0.041667
198 055112 SSBN	604 HADDOCK	34	0.025412
199 055113 SSBN	605 JACK	34	0.000000
200 055114 SSBN	606 TINCAS	39	0.000000
201 055115 SSBN	607 UACE	30	0.000000
202 055120 SSBN	612 GUARDFISH	43	0.000000
203 055121 SSBN	613 FLASHER	33	0.000000
204 055122 SSBN	614 GREENLING	30	0.000000
205 055126 SSBN	615 GAT	36	0.027778
206 055127 SSBN	621 HADDOCK	33	0.000000
207 055127 SSBN	637 STURGEON	28	0.107143
208 055127 SSBN	638 WHALE	36	0.000000
209 055127 SSBN	639 TAU TIG	38	0.000000
210 055127 SSBN	646 GRAYLING	26	0.000000
211 055127 SSBN	647 DOGY	29	0.000000
212 055127 SSBN	648 ASPERG	30	0.000000
213 055127 SSBN	649 SUNFISH	33	0.000000
214 055127 SSBN	650 PARROT	43	0.000000
215 055127 SSBN	651 QUEENFISH	35	0.000000
216 055127 SSBN	652 PUFFER	32	0.000000
217 055140 SSBN	653 RAY	35	0.028571
218 055141 SSBN	660 SAND LANCE	27	0.074074
219 055142 SSBN	661 CAPON	33	0.000000
220 055143 SSBN	662 GURNARD	31	0.000000
221 055144 SSBN	663 HAMMERHEAD	31	0.000000
222 055145 SSBN	664 SEA DEVIL	39	0.000000
223 055147 SSBN	665 GUITARFISH	38	0.000000
224 055148 SSBN	666 HAWKBILL	26	0.000000
225 055149 SSBN	667 BERGALL	36	0.000000
226 055150 SSBN	668 SPACEFISH	34	0.000000
227 055151 SSBN	669 SEAFORSE	25	0.000000
228 055152 SSBN	670 FINBACK	32	0.000000
229 055156 SSBN	671 MARSHAL	34	0.000000
230 055153 SSBN	672 PINTAD	29	0.000000
231 055154 SSBN	673 FLYING FISH	39	0.000000
232 055155 SSBN	674 TREPANG	36	0.000000
233 055155 SSBN	675 BLUEFISH	30	0.000000
234 055155 SSBN	676 BILLYFISH	24	0.000000
235 055155 SSBN	677 DRUM	28	0.000000

SHIP CLASS ATTRITION PERCENTAGE SUMMARY

LICSHIP	ATTRIT	ASSIGN	PERCENT			
236	20041	SSN	678 ARCHERFISH	0	21	0.000000
237	20042	SSN	679 SILVERSIDES	0	36	0.000000
238	20043	SSN	680 WILLIAM F BATES	1	24	0.045455
239	20044	SSN	681 BATFISH	0	24	0.000000
240	20045	SSN	682 TUNNY	0	33	0.000000
241	20046	SSN	683 PARCHE	0	24	0.000000
242	20047	SSN	684 CAVALLA	2	24	0.083333
243	20048	SSN	685 G P LIPSCOMB	0	24	0.000000
244	20049	SSN	686 L MENDEL FIVEFS	1	24	0.041667
245	20050	SSN	687 RICHARD RUSSELL	0	33	0.000000
246	20051	SSN	688 LOS ANGELES	0	33	0.000000
247	20052	SSN	689 BATON ROUGE	0	44	0.000000
248	20053	SSN	690 PHILADELPHIA	0	26	0.000000
249	20054	SSN	691 MEMPHIS	0	36	0.000000
250	20055	SSN	692 OMAHA	1	36	0.027778
251	20056	SSN	693 CINCINNATI	0	44	0.000000
252	20057	SSN	694 GROTON	1	36	0.027778
253	20058	SSN	695 BIRMINGHAM	0	44	0.000000
254	20059	SSN	696 NEW YORK CITY	0	36	0.000000
255	20060	SSN	697 INDIANAPOLIS	1	36	0.027778
256	03365	CVN	65 ENTERPRISE	92	32	0.287500
257	03366	CVN	66 NIMITZ	126	110	0.114545
258	03367	CVN	67 DWIGHT D EISENHOWER	53	32	0.165625
259	03368	CVN	41 MIDWAY	11	42	0.026190
270	03369	CV	43 CORAL SEA	103	81	0.127160
271	03370	CV	59 FORRESTAL	126	102	0.123529
272	03371	CV	60 SARATOGA	119	109	0.108257
273	03372	CV	61 RANGER	144	97	0.147526
274	03373	CV	62 INDEPENDENCE	155	106	0.145282
275	03374	CV	63 KITTY HAWK	107	96	0.111458
276	03375	CV	64 CONSTELLATION	83	92	0.089130
277	03376	CV	66 AMERICA	127	104	0.122115
278	03377	CV	67 JOHN F KENNEDY	113	85	0.132941
279	03378	AVT	16 LEXINGTON	89	57	0.156140
280	03379	CGN	9 LONG BEACH	22	25	0.087692
281	03380	CGN	25 BAINBRIDGE	3	12	0.025000
282	03381	CGN	35 TRUXTON	19	19	0.100000
283	03382	CGN	36 CALIFORNIA	17	14	0.121429
284	03383	CGN	37 SOUTH CAROLINA	10	16	0.062500
285	03384	CGN	38 VIRGINIA	9	13	0.069231
286	03385	CGN	39 TEXAS	26	10	0.260000
287	03386	CGN	40 MISSISSIPPI	20	18	0.111111
288	03387	CGN	5 OKLAHOMA CITY	3	27	0.011111
289	03388	CGG	10 ALBANY	8	28	0.028571
290	03389	CGG	11 CHICAGO	15	21	0.071429
291	03390	CGG	16 LEAFY	14	12	0.116667
292	03391	CGG	17 H E YARNELL	14	12	0.116667
293	03392	CGG	18 WARDEN	1	16	0.006250
294	03393	CGG	19 DALE	12	12	0.100000
295	03394	CGG	20 R K TURNER	10	14	0.071429
296	03395	CGG	21 GRIDLEY	10	10	0.100000
297	03396	CGG	22 ENGLAND	16	10	0.160000
298	03397	CGG	23 HALSEY	9	10	0.090000
299	03398	CGG	24 REEVES	5	15	0.033333
300	03399	CGG	27 JC SEPTUS DANIEL	9	15	0.060000
301	03400	CGG	28 MAINWRIGHT	14	15	0.093333
302	03401	CGG	29 JOUETT	11	13	0.084615
303	03402	CGG	30 HORNE	20	14	0.142857
304	03403	CGG	31 STERETT	7	11	0.063636
305	03404	CGG	32 W H STANDLEY	16	15	0.106667
306	03405	CGG	33 FOX	9	13	0.069231
307	03406	CGG	34 BIDDLE	13	12	0.108333
308	04668	DDG	2 CHARLES F ADAMS	13	11	0.118182
309	04669	DDG	3 JOHN KING	10	11	0.090909
310	04670	DDG	4 LAWRENCE	10	11	0.090909
311	04671	DDG	5 CLAUDE BICKETTS	13	12	0.108333
312	04672	DDG	6 BARNEY	15	12	0.125000
313	04673	DDG	7 HENRY B WILSON	12	11	0.109091

SHIP CLASS ATTRITION PERCENTAGE SUMMARY

LCGSHIP	ATTRIT	ASSIGN	PERCENT
14 04674 ECG	8 LYNCE MCCORMICK	106	0.075472
15 04675 ECG	9 TOWERS	106	0.103774
16 04676 ECG	10 SAMPSON	106	0.084906
17 04677 ECG	11 SELLERS	113	0.061947
18 04678 ECG	12 ROBINSON	120	0.041667
19 04679 ECG	13 HOEL	57	0.082474
20 04680 ECG	14 BUCHANAN	125	0.120000
21 04681 ECG	15 BERKELEY	99	0.050505
22 04682 ECG	16 JOSEPH STRAUSS	141	0.063820
23 04683 ECG	17 CONYNGHAM	104	0.048077
24 04684 ECG	18 SEMMES	119	0.084034
25 04685 ECG	19 TATNALL	117	0.115656
26 04686 ECG	20 GOLDSBOROUGH	140	0.064286
27 04687 ECG	21 COCHRANE	132	0.068182
28 04688 ECG	22 BEN STICERT	135	0.081481
29 04689 ECG	23 RICHARD E BYRD	93	0.043011
30 04690 ECG	24 WADDELL	99	0.111111
31 52231 ECG	37 FAHRAGUT	101	0.059901
32 52232 ECG	38 LUCE	139	0.122302
33 52233 ECG	39 MACDONOUGH	112	0.116071
34 52234 ECG	40 CCONTZ	113	0.106195
35 52235 ECG	41 KING	119	0.058824
36 52236 ECG	42 MAHAN	119	0.084034
37 52237 ECG	43 DAHLGREN	125	0.072000
38 52238 ECG	44 WILLIAM V PRATT	125	0.064000
39 52239 ECG	45 DEWEY	127	0.110236
40 52240 ECG	46 PREBLE	103	0.065476
41 52196 ECG	31 DECATUR	100	0.120000
42 52197 ECG	32 JOHN PAUL JONES	93	0.060241
43 52198 ECG	33 PARSONS	144	0.073889
44 52199 ECG	34 SCHERS	144	0.062500
45 20551 ECG	963 SPRANCE	60	0.050000
46 20552 ECG	964 PAUL F FOSTER	87	0.080460
47 20553 ECG	965 KINKAID	103	0.067961
48 20554 ECG	966 HEWITT	38	0.040816
49 20555 ECG	967 ELLICT	96	0.041667
50 20556 ECG	968 ARTHUR W RACER	139	0.050000
51 20557 ECG	969 PETERSON	103	0.097087
52 20558 ECG	970 CARON	32	0.000000
53 20559 ECG	971 DAVID R RAY	80	0.075000
54 20560 ECG	972 OLDENDORF	79	0.050633
55 20561 ECG	973 JOHN YOUNG	117	0.102564
56 20562 ECG	975 OBRIEN	85	0.129412
57 20563 ECG	976 MERRILL	108	0.055556
58 20564 ECG	977 BRISCOE	106	0.066038
59 20565 ECG	978 STUMP	124	0.104839
60 20566 ECG	979 CONCLLY	112	0.062500
61 04681 ECG	945 HULL	113	0.068496
62 04682 ECG	946 EDSON	102	0.117647
63 04683 ECG	948 MORTON	163	0.061350
64 04684 ECG	950 RICHARD EDWARDS	130	0.092308
65 04685 ECG	951 TURNER JOY	110	0.090909
66 52191 ECG	931 FORREST SHERMAN	105	0.122810
67 52192 ECG	933 BARRY	55	0.094737
68 52193 ECG	937 DAVIS	55	0.047059
69 52194 ECG	938 JONAS INGRAM	87	0.045977
70 52195 ECG	940 MANLEY	114	0.131579
71 52200 ECG	941 DUPONT	77	0.077922
72 52201 ECG	942 BIGELOW	95	0.157895
73 52202 ECG	943 BLANDY	88	0.079545
74 52203 ECG	944 MULLINIX	104	0.105769
75 03384 ECG	743 SOUTHERLAND	64	0.031250
76 03385 ECG	763 WILLIAM C LAKE	127	0.157480
77 03386 ECG	784 MCKEAN	54	0.037037
78 03387 ECG	785 HENDERSCH	69	0.086957
79 03388 ECG	788 HOLLIISTER	53	0.037736
80 03389 ECG	806 HIGBEE	51	0.019608
81 52117 ECG	817 CORRY	65	0.092308

SHIP CLASS ATTRITION PERCENTAGE SUMMARY

LICSHIP	ATTRIT	ASSIGN	PERCENT
383 52121 CC	821 JOHNSTON	71	0.058592
384 52122 CC	822 ROBERT F MCCARD	63	0.079365
385 52126 CC	826 AGERHCLM	73	0.055250
386 52129 CC	829 MYLES C FOX	61	0.045160
387 52135 CC	835 CHARLES F CECIL	53	0.094340
388 52142 CC	842 FISKE	80	0.075700
389 52162 CC	862 VOGELGESANG	66	0.136364
390 52163 CC	863 STEINAKER	63	0.142857
391 52164 CC	864 HAROLD J ELLISC	68	0.088235
392 52166 CC	866 CONE	77	0.077922
393 52171 CC	871 JAMATO	64	0.140625
394 52173 CC	873 HAWKINS	55	0.127273
395 52176 CC	876 ROGERS	39	0.153846
396 52180 CC	880 DYESS	64	0.109375
397 52183 CC	883 NEWMAN K FERRY	75	0.146667
398 52185 CC	885 JOHN R CRAIG	69	0.000000
399 52186 CC	886 ORLECK	73	0.082152
400 52190 CC	890 MEREDITH	47	0.063830
401 52125 CC	825 CARPENTER	59	0.016545
402 52127 CC	827 ROBERT A CHENS	62	0.112500
410 54047 FF	1052 KNOX	73	0.013659
411 54048 FF	1053 ROARK	109	0.137615
412 54049 FF	1054 GRAY	84	0.035714
413 54050 FF	1055 HEPBURN	93	0.075269
414 54051 FF	1056 CONNOLLY	87	0.126437
415 54052 FF	1057 RATHBURN	127	0.070866
416 54053 FF	1058 MEYERKORD	84	0.035714
417 54054 FF	1059 W S SIMS	94	0.095745
418 54055 FF	1060 LANG	84	0.154762
419 54056 FF	1061 PATTERSON	80	0.100000
420 54057 FF	1062 WHIFPLE	67	0.059701
421 54058 FF	1063 REASONER	81	0.049383
422 54059 FF	1064 LOCKWOOD	84	0.000000
423 54060 FF	1065 STEIN	81	0.172840
424 54061 FF	1066 MARVIN SHIELDS	39	0.078652
425 54062 FF	1067 FRANCIS HAMMOND	52	0.000000
426 54063 FF	1068 VREELAND	76	0.078947
427 54064 FF	1069 BAGLEY	98	0.010204
428 54065 FF	1070 DOWNES	86	0.069767
429 54066 FF	1071 BADGER	106	0.066038
430 54067 FF	1072 BLAKELY	83	0.168675
431 54068 FF	1073 ROBERT E PEARY	93	0.036022
432 54069 FF	1074 HAROLD E FCLT	95	0.042105
433 54070 FF	1075 TRIFPE	77	0.050909
434 54071 FF	1076 FANNING	101	0.049505
435 54072 FF	1077 DUELLET	105	0.085714
436 20045 FF	1078 JOSEPH FEWES	88	0.102273
437 20050 FF	1079 BOWEN	80	0.037500
438 20051 FF	1080 PAUL	70	0.071429
439 20052 FF	1081 AYLWIN	76	0.131579
440 20053 FF	1082 ELMER MONTGOMER	92	0.043478
441 20054 FF	1083 COOK	84	0.071429
442 20055 FF	1084 MCCANDLESS	80	0.112360
443 20056 FF	1085 DONALD B BEARY	72	0.069444
444 20057 FF	1086 BREWTON	94	0.042553
445 20058 FF	1087 KIRK	91	0.010689
446 20059 FF	1088 BARBEY	83	0.048193
447 20060 FF	1089 JESSE L BROWN	86	0.058140
448 20061 FF	1090 AINSWORTH	64	0.062500
449 20062 FF	1091 MILLER	92	0.141304
450 20063 FF	1092 THOMAS C HART	76	0.026316
451 20064 FF	1093 CAPCDANCK	90	0.044444
452 20065 FF	1094 PHARRIS	80	0.125000
453 20066 FF	1095 TRUETT	78	0.153846
454 20067 FF	1096 VALLEE	64	0.078125
455 20068 FF	1097 MCINESTER	81	0.100000
456 17700 FF	1098 GLOVER	32	0.097561
457 54037 FF	1040 GARCIA	90	0.100000

SHIP CLASS ATTRITION PERCENTAGE SUMMARY

LICSHIP	ATTRIT	ASSIGN	PERCENT	
458 540338 FF	1041 BRADLEY	12	93	0.129032
459 540339 FF	1043 EDWARD MCCOMEL	5	98	0.061224
460 540400 FF	1044 BRUMBY	2	73	0.027397
461 540401 FF	1045 DAVIDSON	6	97	0.061856
462 540402 FF	1047 VOGEL	4	87	0.059701
463 540403 FF	1048 SAMPLE	6	101	0.059406
464 540404 FF	1049 KOELSCHE	6	69	0.066957
465 540405 FF	1050 ALBERT DAVID	3	69	0.115642
466 540406 FF	1051 OCALLAHAN	7	70	0.100000
467 540335 FF	1037 BRONSTEIN	4	47	0.085106
468 540336 FF	1038 MCCLOY	9	76	0.116421
474 205500 LHA	1 TARAWA	21	258	0.081355
475 206320 LHA	2 SAIPAN	26	192	0.135417
476 206330 LHA	3 BELLEAU WOOD	22	374	0.058624
477 073500 LPH	2 IWO JIMA	27	243	0.112500
478 073510 LPH	3 OKINAWA	25	220	0.113636
479 073520 LPH	7 GUACALCANAL	17	190	0.089474
480 071178 LPH	9 GUAM	21	206	0.097067
481 071198 LPH	10 TRIPOLI	39	216	0.180556
482 072020 LPH	11 NEW ORLEANS	16	198	0.080808
483 200009 LPH	12 INCHON	22	237	0.092627
484 071170 LPD	1 RALEIGH	21	125	0.168000
485 071171 LPD	2 VANCOUVER	18	154	0.116663
486 071175 LPD	4 AUSTIN	16	133	0.120301
487 071176 LPD	5 OGDEN	17	124	0.137057
488 071177 LPD	6 DULUTH	13	130	0.100000
489 071181 LPD	7 CLEVELAND	9	126	0.071429
490 071182 LPD	8 DUBLUQUE	17	179	0.094972
491 071183 LPD	9 DENVER	13	137	0.131357
492 071184 LPD	10 JUNEAU	8	112	0.071429
493 071194 LPD	11 CORCORAN	16	137	0.116788
494 071195 LPD	12 SHREVEPORT	15	132	0.113636
495 071196 LPD	13 NASHVILLE	11	173	0.063584
496 072000 LPD	14 TRENTON	21	148	0.141892
497 072001 LPD	15 PONCE	17	129	0.131783
498 031128 LSD	28 THOMASTON	13	116	0.155172
499 031129 LSD	29 PLYMOUTH ROCK	14	121	0.115702
500 031130 LSD	30 FORT SNELLING	20	115	0.173913
501 031131 LSD	31 POINT DEFIANCE	14	85	0.164706
502 031132 LSD	32 SPIEGEL GROVE	3	101	0.079208
503 031133 LSD	33 ALAMO	13	57	0.134021
504 031134 LSD	34 HERMITAGE	28	133	0.210526
505 031135 LSD	35 MONTICELLO	19	122	0.155738
506 072003 LSD	36 ANCHORAGE	12	114	0.105263
507 200112 LSD	37 PORTLAND	15	136	0.110294
508 200113 LSD	38 PENSACOLA	7	114	0.061404
509 200114 LSD	39 MOUNT VERNON	14	119	0.117647
510 200115 LSD	40 FORT FISHER	5	105	0.047619
511 200116 LST	1180 MANITOWOC	5	66	0.075758
512 200200 LST	1181 SUMTER	11	92	0.119565
513 200201 LST	1182 FRESNO	2	69	0.028586
514 200202 LST	1183 PEORIA	5	69	0.072464
515 200203 LST	1184 FREDERICK	13	79	0.164557
516 200204 LST	1185 SCHENECTADY	9	65	0.138462
517 200205 LST	1186 CAYUGA	12	74	0.162162
518 200206 LST	1187 TUSCALOOSA	9	77	0.116667
519 200207 LST	1188 SAGINAW	11	80	0.137500
520 200208 LST	1189 SAN BERNARDINO	8	67	0.119403
521 200209 LST	1190 BOULDER	8	65	0.123077
522 200300 LST	1191 RACINE	7	78	0.089744
523 200301 LST	1192 SPARTANBURG	7	84	0.083333
524 200302 LST	1193 FAIRFAX COUNTY	12	36	0.133333
525 200303 LST	1194 LA MOURE COUNTY	6	70	0.085714
526 200304 LST	1195 BARBOL COUNTY	12	30	0.150000
527 200305 LST	1196 HARLAN COUNTY	7	72	0.097222
528 200306 LST	1197 BARNSTABLE CITY	7	65	0.107692
529 200307 LST	1198 BRISTOL COUNTY	6	32	0.073171
530 581179 LST	1179 NEWPORT	13	69	0.188406

SHIP CLASS ATTRITION PERCENTAGE SUMMARY

LICSHIP	ATTRIT	ASSIGN	PERCENT
112 TULARE	4	81	0.0493383
113 CHARLESTON	15	115	0.129310
114 DURHAM	10	104	0.096154
115 MOBILE	22	134	0.164179
116 ST LOUIS	16	97	0.164948
117 EL PASO	10	152	0.065785
14 DIXIE	38	274	0.138686
15 PRAIRIE	35	280	0.125000
17 PIECEMCNT	40	287	0.139379
18 SIERRA	28	267	0.104869
19 YOSEMITE	32	270	0.118519
26 SHEANANCAH	10	164	0.060576
36 BRYCE CANYON	31	252	0.123016
37 SAMUEL GCMPEPS	61	401	0.152120
38 PUGET SOUND	48	410	0.117073
21 SURIBACHI	10	144	0.065444
22 MAUNA KEA	9	117	0.076923
23 NITRO	19	143	0.128378
24 PYRC	14	109	0.128440
25 HALEAKALA	24	142	0.163014
26 KILAUEA	16	100	0.160000
27 BUTTE	15	134	0.111540
28 SANTA BAREARA	18	150	0.120000
29 MOUNT MCCO	16	147	0.108844
32 FLINT	13	129	0.100715
33 SHASTA	19	140	0.135714
34 MOUNT BAKER	10	115	0.086957
35 KISKA	13	121	0.107438
1 HARS	8	152	0.052632
2 SYLVANIA	22	169	0.130178
3 NIAGARA FALLS	11	139	0.079137
4 WHITE PLAINS	0	125	0.000000
5 CCNCCRO	22	143	0.153846
6 SAN DIEGO	11	142	0.077465
7 SAN JOSE	15	137	0.105485
1 SACRAMENTO	14	136	0.107142
2 CAMDEN	23	244	0.092742
3 SEATTLE	23	250	0.092000
4 DETROIT	15	174	0.086207
1 WICHITA	11	157	0.070064
2 MILWAUKEE	11	139	0.079137
3 KANSAS CITY	19	164	0.115854
4 SAVANNAH	12	154	0.077922
5 WABASH	28	173	0.157300
6 KALAMAZOO	15	143	0.104859
7 ROANOKE	21	133	0.157855
51 ASHTABULA	14	170	0.082255
98 CALCOHATCHEE	20	121	0.165205
99 CANISTEC	18	164	0.109146
145 HAS SAYANPA	6	78	0.076923
146 KAWISTHUI	4	135	0.024630
147 TRUCKEE	9	138	0.102222
148 PONCHATULLA	12	154	0.077922
6 AJAX	39	204	0.126214
5 VULCAN	23	273	0.105505
7 HECTOR	26	258	0.100775
8 JASON	44	250	0.137500
PRE SERVER	3	20	0.150000
23 DELIVER	0	26	0.000000
25 SAFEGUARD	23	25	0.100000
38 BGLSTER	39	39	0.025641
39 CONSERVER	37	28	0.178571
40 HOIST	33	24	0.103448
41 OPPORTUNE	33	45	0.066667
42 RECLAIMER	33	41	0.000000
43 RECOVERY	25	29	0.084459
11 FULTON	23	150	0.153333
12 SPERRY			

SHIP CLASS ATTRITION PERCENTAGE SUMMARY

UICSHIP			ATTRIT	ASSIGN	PERCENT		
623	04626	AS	16	HOWARD W GILMER	11	525	0.020952
630	04628	AS	18	URICN	32	327	0.097859
631	04629	AS	19	PROTEUS	4	205	0.019512
632	04685	AS	31	HUNLEY	20	484	0.041222
633	04696	AS	32	HOLLAND	2	387	0.005168
634	04697	AS	33	SIMON LAKE	35	377	0.092838
635	04720	AS	34	CANCPLS	33	380	0.100000
636	05851	AS	36	L Y SPEAR	37	343	0.106322
637	20132	AS	37	DIXCN	16	163	0.098160

APPENDIX Y

SAS PROGRAM CARLCLS1: CLASS ATTRITION HISTORY BY LOSS MONTH

```
//CARLCLS1 JOB (2987,0020), 'C.G.CARLSON SMC1725', CLASS=B
// EXEC SAS
//DATAFILE DD DISP=SHR, DSN=NAME=MSS.S2987.STF.COVRT6
//SYSIN DD *
DATA;
  INFILE DATAFILE;
  INPUT UIC COHORT 2-3 ATTRIT 5 LMON 7-8 COUNT 19-21
        UIC 23-27 SHIP $ 29-37 NAME $ 39-53 HOMEPORT $ 55-65
        CLASS 66-67 DATASHIP $ 68-82;
  IF CLASS=2 OR CLASS=4 OR CLASS=11 OR CLASS=13 THEN DELETE;
  IF CLASS=14 OR CLASS=15 OR CLASS=22 OR CLASS=23 THEN DELETE;
  IF CLASS=27 OR CLASS=28 OR CLASS=29 OR CLASS=36 THEN DELETE;
  IF CLASS=37 OR CLASS=38 OR CLASS=39 OR CLASS=26 THEN DELETE;
PROC SORT; BY COUNT; BY CLASS;
PROC CHART;
  HBAR LMON/DISCRETE GROUP=CLASS SUMVAR=ATTRIT;
```

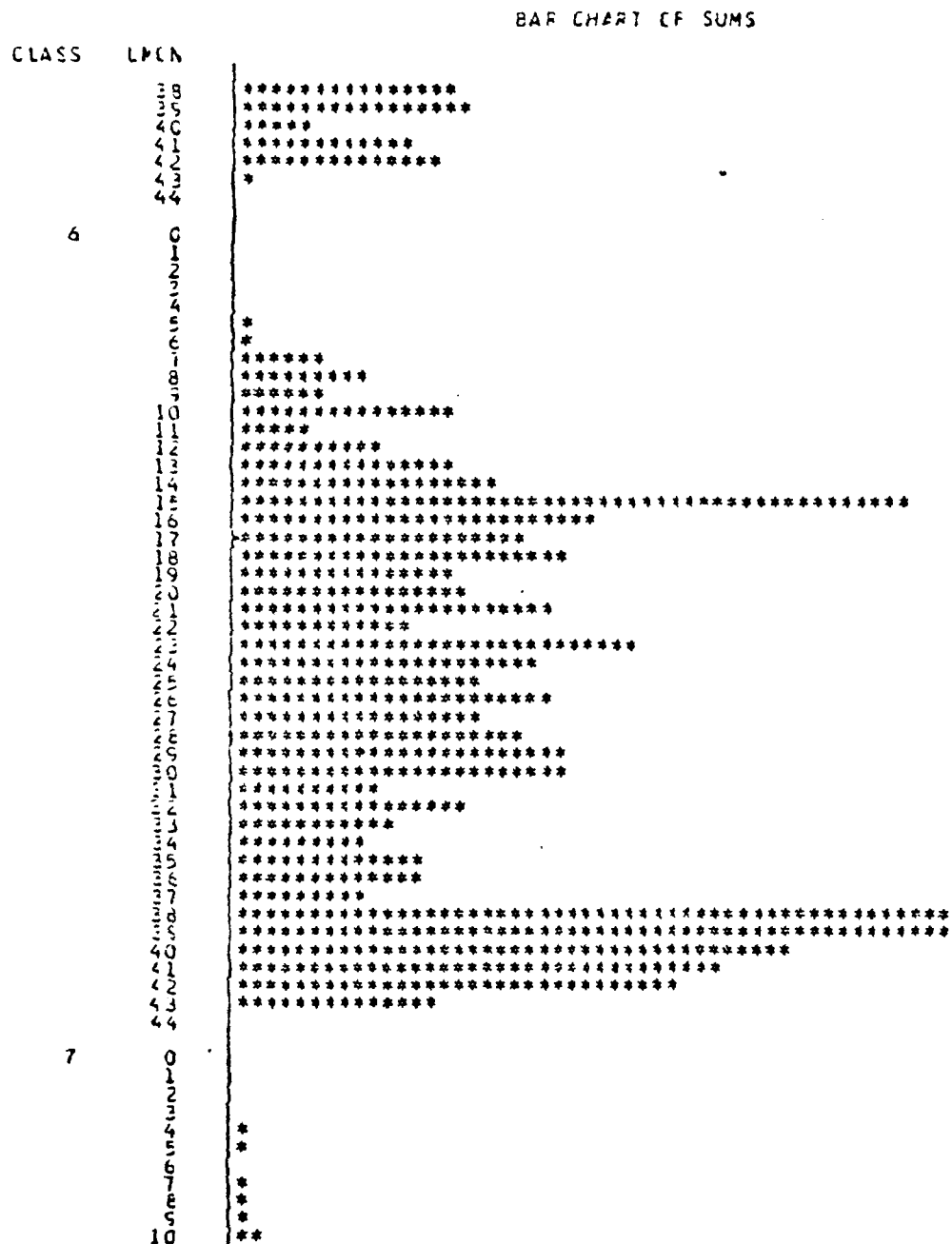
APPENDIX Z

SAS PROGRAM CARLFHR2: CLASS STEAMING HOURS

UNDERWAY BY LOSS MONTH

```
//CARLFHR2 JOB (2987,0020), 'C.G.CARLSON SMC1725', CLASS=B
// EXEC SAS, REGION=700K
//DATAFILE DD DISP=SHR, DSN=MS5.52987.FUEL4
//SYSIN DD *
DATA:
  INFILE DATAFILE;
  INPUT UICSHIP $ 26-60 PERIOD 11-14 UHRS 22-24 CLASS 73-74;
  IF PERIOD GE 7707;
    IF CLASS=2 OR CLASS=4 OR CLASS=11 OR CLASS=13 THEN DELETE;
    IF CLASS=14 OR CLASS=15 OR CLASS=22 OR CLASS=23 THEN DELETE;
    IF CLASS=27 OR CLASS=28 OR CLASS=29 OR CLASS=36 THEN DELETE;
    IF CLASS=37 OR CLASS=38 OR CLASS=39 THEN DELETE;
  PROC SORT;
  BY UICSHIP;
  BY PERIOD;
  PROC CHART;
  HBAR PERIOD/DISCRETE GROUP=CLASS SUMVAR=UHRS;
  PROC MEANS;
  BY CLASS;
  VAR UHRS;
```

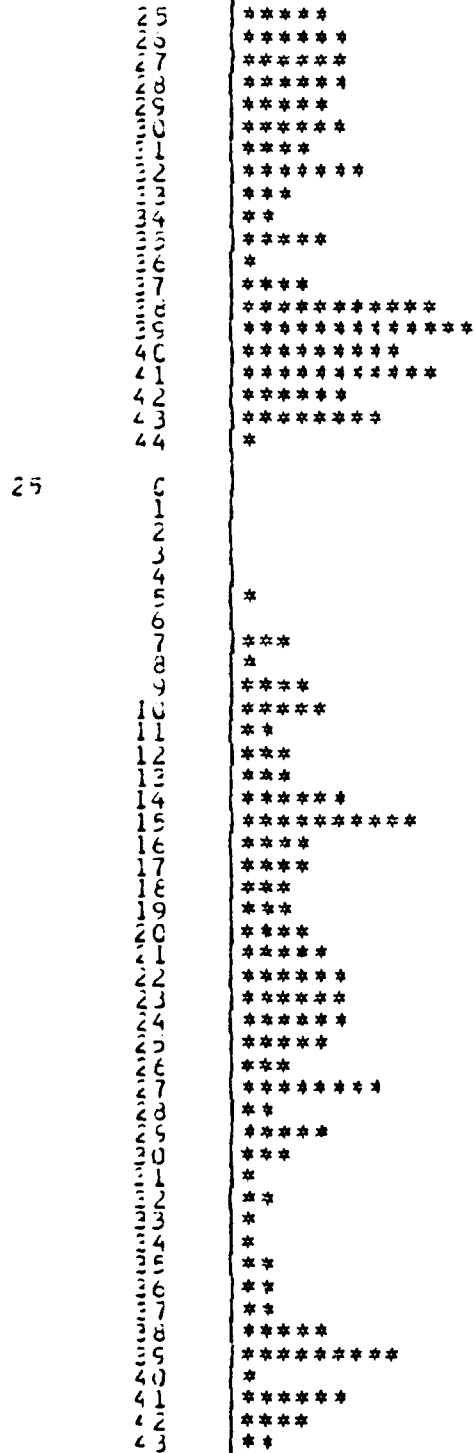
APPENDIX AA
SAMPLE OUTPUT OF CARLCLS1: CLASS ATTRITION HISTORY BY LOSS MONTH



STATISTICAL ANALYSIS SYS

BAR CHART OF SUMS

CLASS LMCN



BAR CHART CF SUMS

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21
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23
24
25
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27

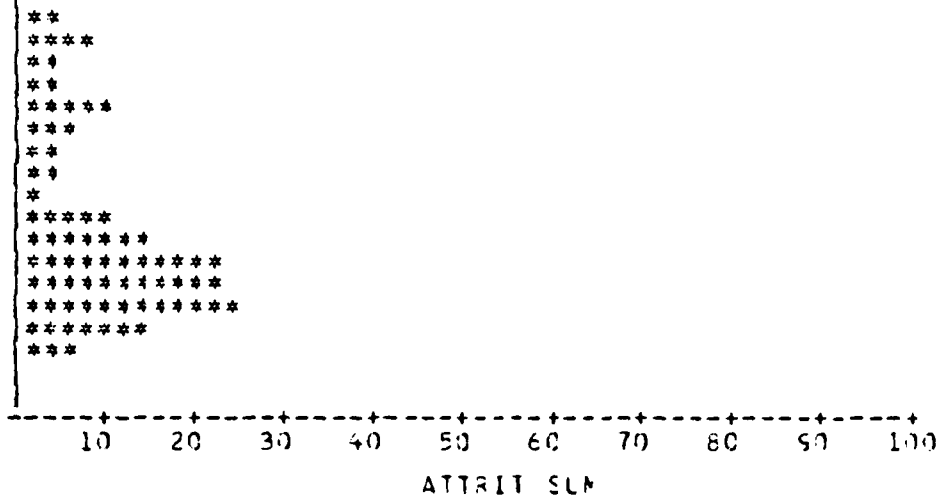
[illegible]

STATISTICAL ANALYSIS SYS

BAR CHART OF SUMS

CLASS LMCN

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APPENDIX BB
OVERALL CLASS ATTRITION SUMMARY BY LOS MONTH

VARIABLE	SUM
ATTRIT	24.00000000
----- LMON=2 -----	
ATTRIT	24.00000000
----- LMON=3 -----	
ATTRIT	63.00000000
----- LMON=4 -----	
ATTRIT	260.00000000
----- LMON=5 -----	
ATTRIT	1253.00000000
----- LMON=6 -----	
ATTRIT	942.00000000
----- LMON=7 -----	
ATTRIT	1031.00000000
----- LMON=8 -----	
ATTRIT	888.00000000
----- LMON=9 -----	
ATTRIT	1148.00000000
----- LMON=10 -----	
ATTRIT	1405.00000000
----- LMON=11 -----	
ATTRIT	1080.00000000
----- LMON=12 -----	
ATTRIT	1054.00000000
----- LMON=13 -----	
ATTRIT	1490.00000000
----- LMON=14 -----	
ATTRIT	1770.00000000
----- LMON=15 -----	
ATTRIT	1670.00000000
----- LMON=16 -----	
ATTRIT	1066.00000000
----- LMON=17 -----	
ATTRIT	963.00000000

S T A T I S T I C A L A N A L Y S I S S Y S T E M

LMON=18

VARIABLE	SUM
ATTRIT	809.00000000
----- LMON=19 -----	
ATTRIT	723.00000000
----- LMON=20 -----	
ATTRIT	744.00000000
----- LMON=21 -----	
ATTRIT	767.00000000
----- LMON=22 -----	
ATTRIT	771.00000000
----- LMON=23 -----	
ATTRIT	838.00000000
----- LMON=24 -----	
ATTRIT	826.00000000
----- LMON=25 -----	
ATTRIT	690.00000000
----- LMON=26 -----	
ATTRIT	782.00000000
----- LMON=27 -----	
ATTRIT	806.00000000
----- LMON=28 -----	
ATTRIT	630.00000000
----- LMON=29 -----	
ATTRIT	675.00000000
----- LMON=30 -----	
ATTRIT	629.00000000
----- LMON=31 -----	
ATTRIT	466.00000000
----- LMON=32 -----	
ATTRIT	495.00000000
----- LMON=33 -----	
ATTRIT	503.00000000
----- LMON=34 -----	
ATTRIT	492.00000000

STATISTICAL ANALYSIS SYSTEM

LMON=35

VARIABLE	SUM
ATTRIT	518.00000000
----- LMON=36 -----	
ATTRIT	517.00000000
----- LMON=37 -----	
ATTRIT	527.00000000
----- LMON=38 -----	
ATTRIT	1182.00000000
----- LMON=39 -----	
ATTRIT	1193.00000000
----- LMON=40 -----	
ATTRIT	971.00000000
----- LMON=41 -----	
ATTRIT	931.00000000
----- LMON=42 -----	
ATTRIT	794.00000000
----- LMON=43 -----	
ATTRIT	488.00000000

APPENDIX CC
SAMPLE OUTPUT OF CARLFHR2: CLASS STEAMING HOURS UNDERWAY BY LOSS MONTH

CLASS PERIOD

	7905	**
	7906	*
	7907	**
	7908	***
	7909	**
	7910	**
	7911	****
	7912	**
	8001	*****
	8002	*****
	8003	*****
	8004	*****
	8005	*****
	8006	*****
	8007	*****
	8008	*****
	8009	*****
	8010	*****
	8011	*****
	8012	*****
6	7707	*****
	7708	*****
	7709	*****
	7710	*****
	7711	*****
	7712	*****
	7801	*****
	7802	*****
	7803	*****
	7804	*****
	7805	*****
	7806	*****
	7807	*****
	7808	*****
	7809	*****
	7810	*****
	7811	*****
	7812	*****
	7901	*****
	7902	*****
	7903	*****
	7904	*****
	7905	*****
	7906	*****
	7907	*****
	7908	*****
	7909	*****
	7910	*****
	7911	*****
	7912	*****
	8001	*****
	8002	*****
	8003	*****
	8004	*****
	8005	*****
	8006	*****
	8007	*****
	8008	*****
	8009	*****
	8010	*****
	8011	*****
	8012	*****
7	7707	*****

BAR CHART OF SUMS

CLASS PERIOD

7712	*****
7801	*****
7802	*****
7803	*****
7804	*****
7805	*****
7806	*****
7807	*****
7808	*****
7809	*****
7810	*****
7811	*****
7812	*****
7901	*****
7902	*****
7903	*****
7904	*****
7905	*****
7906	*****
7907	*****
7908	*****
7909	*****
7910	*****
7911	*****
7912	*****
8001	*****
8002	*****
8003	*****
8004	*****
8005	*****
8006	*****
8007	*****
8008	*****
8009	*****
8010	*****
8011	***
8012	***

26

7707	*****
7708	*****
7709	*****
7710	*****
7711	*****
7712	*****
7801	*****
7802	*****
7803	*****
7804	*****
7805	*****
7806	*****
7807	*****
7808	*****
7809	*****
7810	*****
7811	*****
7812	*****
7901	*****
7902	*****
7903	*****
7904	*****
7905	*****
7906	*****
7907	*****
7908	*****
7909	*****

BAR CHART OF SUMS

CLASS PERIOD

7802 *****
 7803 *****
 7804 *****
 7805 *****
 7806 *****
 7807 *****
 7808 *****
 7809 *****
 7810 *****
 7811 *****
 7812 *****
 7901 *****
 7902 *****
 7903 *****
 7904 *****
 7905 *****
 7906 *****
 7907 *****
 7908 *****
 7909 *****
 7910 *****
 7911 *****
 7912 *****
 8001 *****
 8002 *****
 8003 *****
 8004 *****
 8005 *****
 8006 *****
 8007 *****
 8008 *****
 8009 *****
 8010 *****
 8011 *****
 8012 *****

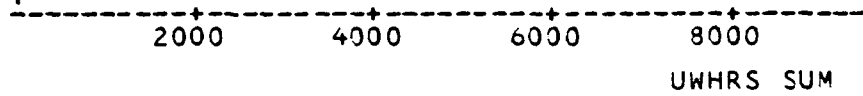
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BAR CHART OF SUMS

CLASS PERIOD

7912	*
8001	*
8002	*
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8008	***
8009	*
8010	*
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8012	**



APPENDIX DD
CARLFHR2 OUTPUT: CLASS STEAMING HOURS UNDERWAY SUMMARY TABLE

S T A T I S T I C A L A N A L Y S I S S Y S T E M						14:14 SUNDAY, SEPTEMBER
CLASS=3						
VARIABLE	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	RANGE	SUM VARIANCE
UHRS	186.96892039	199.77406391	0	744.00000000	744.00000000	342901.000000 39909.6766113
CLASS=5						
UHRS	321.64077670	230.00551507	0	744.00000000	744.00000000	33129.00000000 52902.5461641
CLASS=6						
UHRS	262.50115473	196.91319441	0	744.00000000	744.00000000	113663.000000 38774.8061329
CLASS=7						
UHRS	262.34201954	218.00654400	0	744.00000000	744.00000000	80539.00000000 47526.8532286
CLASS=8						
UHRS	223.30705394	190.34587935	0	845.00000000	845.00000000	161451.000000 36231.5537867
CLASS=9						
UHRS	192.12978723	180.76706924	0	744.00000000	744.00000000	270933.000000 32676.7333237
CLASS=10						
UHRS	142.67109145	156.58118019	0	744.00000000	744.00000000	290193.000000 24517.6659912
CLASS=12						
UHRS	201.59894227	182.18979947	0	744.00000000	744.00000000	457428.000000 33193.1230324
CLASS=16						
UHRS	154.36000000	158.21930950	0	624.00000000	624.00000000	15406.00000000 25033.3498990
CLASS=17						
UHRS	182.44964029	171.32647487	0	672.00000000	672.00000000	50721.00000000 29352.7609924
CLASS=18						
UHRS	160.77037037	154.91743882	0	678.00000000	678.00000000	86816.00000000 23999.4128446
CLASS=19						
UHRS	162.46804124	161.24564671	0	720.00000000	720.00000000	78797.00000000 26009.1585840
CLASS=20						
UHRS	178.82564103	163.38755948	0	720.00000000	720.00000000	139484.000000 26495.4945920
CLASS=21						
UHRS	143.79545455	154.51219153	0	613.00000000	613.00000000	31635.00000000 23874.0173308
CLASS=24						
UHRS	64.87246377	102.98908257	0	632.00000000	632.00000000	22381.00000000 10606.7511291
CLASS=25						
UHRS	176.11491935	154.64894393	0	679.00000000	679.00000000	87353.00000000 23916.2958578
CLASS=26						
UHRS	221.34572491	176.23393171	0	717.00000000	717.00000000	59542.00000000 31058.3986850

APPENDIX EE

SAS PROGRAM CAUWCLAS: INDIVIDUAL SHIP STEAMING HOURS UNDERWAY
HISTORY FOR THREE CLASSES OF SHIPS

```
//CAUWCLAS JOB (2987,0020), 'C.G.CARLSON SMC1725', CLASS=B
//EXEC SAS, REGION=700K
//DATAFILE DD DISP=SHR, DSN=NAME=MSS.S2987.FUEL4
//SYSIN DD *
DATA;
  INFILE DATAFILE;
  INPT UICSHIP $ 36-60 PERIOD 11-14 UWHRS 22-24 CLASS 73-74
  COUNT 26-28;
  IF PERIOD GE 7707;
  IF CLASS=6 OR CLASS=12 OR CLASS=20;
PROC SORT;
  BY COUNT;
  BY CLASS;
  BY PERIOD;
PROC CHART;
  HBAR PERIOD/DISCRETE GROUP=UICSHIP SUMVAR=UWHRS;
PROC SORT; BY UICSHIP;
PROC MEANS MEAN STD MIN MAX RANGE SUM VAR;
  BY UICSHIP;
  VAR UWHRS;
```

APPENDIX FF

SAS PROGRAM CAHISTCV, CAHISTFF AND CAHISTLST: INDIVIDUAL SHIP
ATTRITION HISTORY FOR THREE CLASSES CV (AIRCRAFT CARRIERS),
FF (FAST FRIGATES) AND LST (TANK LANDING SHIP)

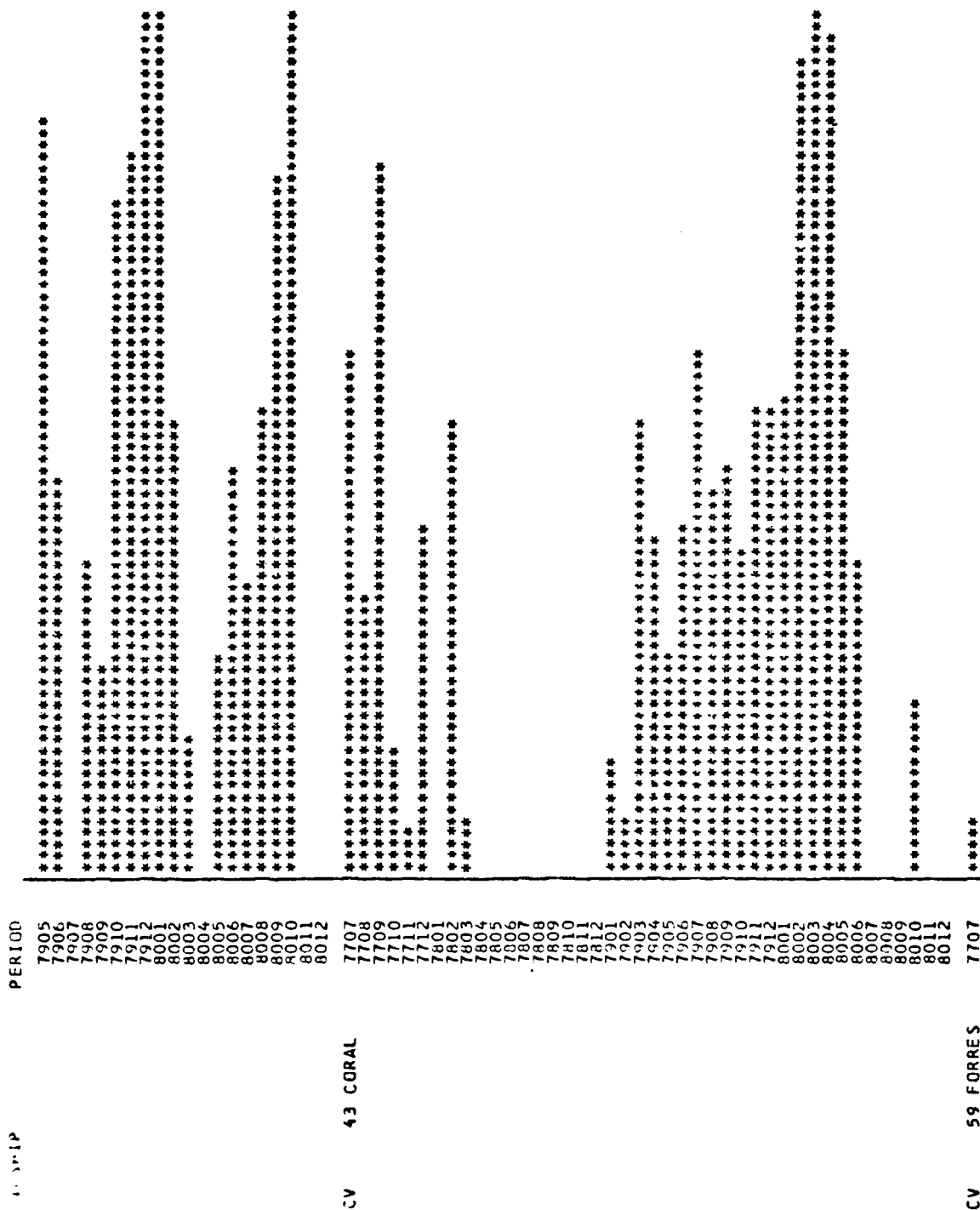
```
//CAHISTCV JOB (2987,0020),'C.G.CARLSON SMC1725',CLASS=B
//EXEC SAS
//DATAFILE DD DISP=SHR,DSNAME=MSS.S2987.STF.COVRT6
//SYSIN DD *
DATA:
  INFILE DATAFILE;
  INPUT COHORT 2-3 ATTRIT 5 LMON 7-8 CCUNT 19-21
        UIC 23-27 SHIP $ 29-37 NAME $ 39-53 HOMEPORT $ 55-65
        CLASS 66-67 DATASHIP $ 68-82;
  IF COUNT GE 269;
  IF COUNT LE 278;
  PROC SORT;BY COUNT;BY CLASS;
  PROC CHART;
  HBAR LMON/DISCRETE GROUP=SHIP SUMVAR=ATTRIT;

//CAHISTFF JOB (2987,0020),'C.G.CARLSON SMC1725',CLASS=B
//EXEC SAS
//DATAFILE DD DISP=SHR,DSNAME=MSS.S2987.STF.COVRT6
//SYSIN DD *
DATA:
  INFILE DATAFILE;
  INPUT COHORT 2-3 ATTRIT 5 LMON 7-8 CCUNT 19-21
        UIC 23-27 SHIP $ 29-37 NAME $ 39-53 HOMEPORT $ 55-65
        CLASS 66-67 DATASHIP $ 68-82;
  IF COUNT GE 410;
  IF COUNT LE 468;
  PROC SORT;BY COUNT;BY CLASS;
  PROC CHART;
  HBAR LMON/DISCRETE GROUP=SHIP SUMVAR=ATTRIT;

//CAHISTLST JOB (2987,0020),'C.G.CARLSON SMC1725',CLASS=B
//EXEC SAS
//DATAFILE DD DISP=SHR,DSNAME=MSS.S2987.STF.COVRT6
//SYSIN DD *
DATA:
  INFILE DATAFILE;
  INPUT COHORT 2-3 ATTRIT 5 LMON 7-8 CCUNT 19-21
        UIC 23-27 SHIP $ 29-37 NAME $ 39-53 HOMEPORT $ 55-65
        CLASS 66-67 DATASHIP $ 68-82;
  IF COUNT GE 511;
  IF COUNT LE 529;
  PROC SORT;BY COUNT;BY CLASS;
  PROC CHART;
  HBAR LMON/DISCRETE GROUP=SHIP SUMVAR=ATTRIT;
```

APPENDIX GG
SAMPLE OUTPUT OF CAUWCLAS: INDIVIDUAL SHIP STEAMING HOURS
UNDERWAY HISTORY FOR THREE CLASSES OF SHIPS

BAR CHART OF SUMS



BAR CHART OF SUMS

UICSHIP

PERIOD

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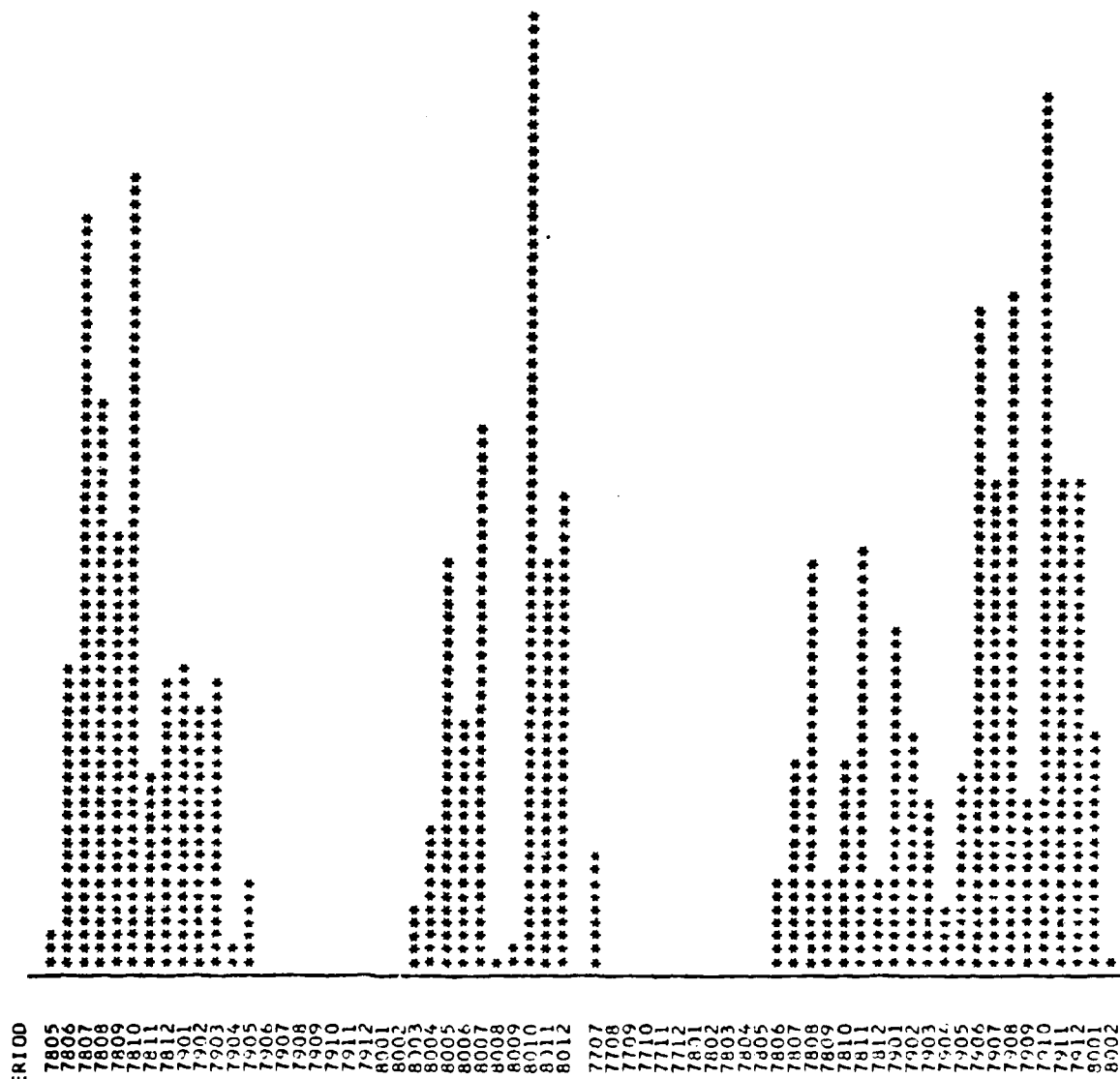
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CV 6C SARATO

PERIOD	UICSHIP
8002	
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7707	FF 1058 MEYERK
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7804	

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BAR CHART OF SUMS



UICSHIP

FF 10CC LANG

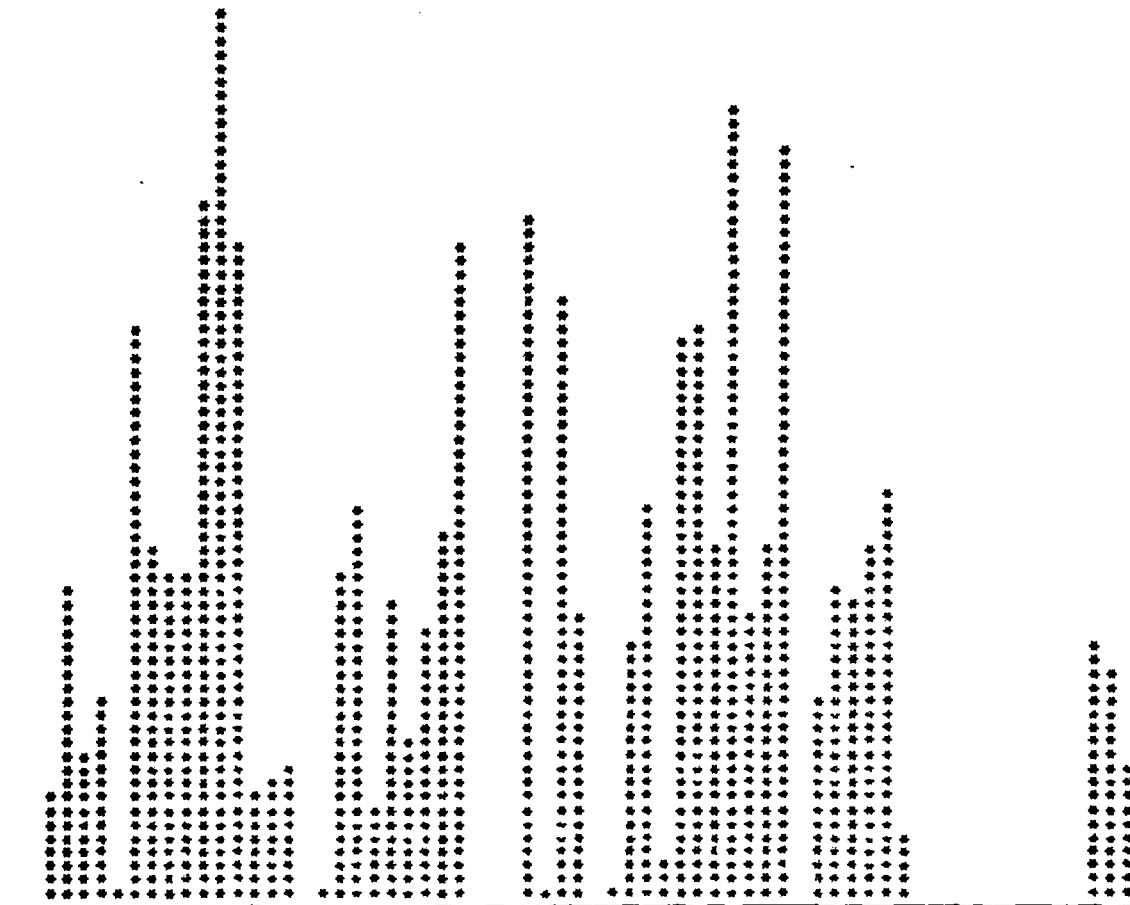
BAR CHART OF SUMS

UICSHIP PERIOD

FF 1072 BLAKEL

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BAR CHART OF SUMS

UICSHIP	PERIOD
LST 1185 SCHEME	7908
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	7912
	8001
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	8003
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	8012
LST 1186 CAYUGA	7707
	7708
	7709
	7710
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	7712
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	8012
	7707
	7708
	7709
	7710

BAR CHART OF SUMS

UICSHIP	PERIOD
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LST 1107 TUSCAL	7707
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BAR CHART OF SUMS

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BAR CHART OF SUMS

[illegible][illegible]

BAR CHART OF SUMS

CV 60

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CV 61

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STATISTICAL ANALYSIS SYS

BAR CHART OF SUMS

SHIP

LMON

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FF 1059

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FF 1060

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BAR CHART OF SUMS

FF 1073

[illegible]

STATISTICAL ANALYSIS SYS

BAR CHART OF SUMS

SHIP

LMON

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LST 1185

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STATISTICAL ANALYSIS SYS

BAR CHART OF SUMS

SHIP

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A DESCRIPTIVE ANALYSIS OF FIRST TERM ATTRITION FROM U.S. NAVAL --ETC(U)

SEP 81 C G CARLSON

UNCLASSIFIED

3 of 3

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APPENDIX II
SAMPLE OUTPUT OF CAUWCLAS: INDIVIDUAL SHIP STEAMING HOURS
SUMMARY TABLE FOR THREE CLASSES

VARIABLE	MEAN	STANDARD DEVIATION	UICSHIP-AVT MINIMUM VALUE	16 LEXINGTON MAXIMUM VALUE	RANGE	14:14 SUNDAY, SEPTEMBER	
						SUM	VARIANCE
UHRS	163.29268293	96.04094020	0	360.00000000	360.00000000	6695.00000000	9223.86219512
----- UICSHIP=CV 41 MIDWAY -----							
UHRS	382.80000000	197.18742874	0	744.00000000	744.00000000	15312.00000000	38882.8820513
----- UICSHIP=CV 43 CORAL SEA -----							
UHRS	268.79411765	223.43893199	0	744.00000000	744.00000000	9139.00000000	44924.9563280
----- UICSHIP=CV 55 FOKRESTAL -----							
UHRS	257.97560976	182.47910672	0	583.00000000	583.00000000	10577.00000000	33298.6243902
----- UICSHIP=CV 60 SARATOGA -----							
UHRS	253.97368421	175.61344017	0	497.00000000	497.00000000	9651.00000000	30840.0803698
----- UICSHIP=CV 61 RANGER -----							
UHRS	244.21621622	178.77812679	0	586.00000000	586.00000000	9036.00000000	31961.6186136
----- UICSHIP=CV 62 INDEPENDENCE -----							
UHRS	222.45230095	200.27617546	0	744.00000000	744.00000000	9343.00000000	40113.5464576
----- UICSHIP=CV 63 KITTY HAWK -----							
UHRS	317.59459459	205.13633129	0	744.00000000	744.00000000	11751.00000000	42080.9144144
----- UICSHIP=CV 64 CONSTELLATION -----							
UHRS	363.94871795	219.76446108	0	744.00000000	744.00000000	14194.00000000	48296.4183536
----- UICSHIP=CV 66 AMERICA -----							
UHRS	207.04761905	165.37790462	0	526.00000000	526.00000000	8696.00000000	27349.8913357
----- UICSHIP=CV 67 JOHN F KENNEDY -----							
UHRS	220.69047619	203.31166608	0	652.00000000	652.00000000	9269.00000000	41335.6335656
----- UICSHIP=FF 1037 BRENSTEIN -----							
UHRS	231.07894737	195.92585216	0	640.00000000	640.00000000	8781.00000000	38384.9395448
----- UICSHIP=FF 1038 MCCLLOY -----							
UHRS	175.20930233	164.03550111	0	518.00000000	518.00000000	7534.00000000	26907.6456257
----- UICSHIP=FF 1040 GARCIA -----							
UHRS	149.97619048	179.12926088	0	691.00000000	691.00000000	6299.00000000	32087.2921022
----- UICSHIP=FF 1041 BRADLEY -----							
UHRS	175.03030303	174.25833639	0	611.00000000	611.00000000	5776.00000000	30365.9678330
----- UICSHIP=FF 1043 EDWARD MCDONNEL -----							
UHRS	171.41463415	154.88543760	0	448.00000000	448.00000000	7028.00000000	23989.4987805
----- UICSHIP=FF 1044 BRUMBY -----							
UHRS	193.37209302	188.06724016	0	605.00000000	605.00000000	8315.00000000	35369.2868217

VARIABLE	MEAN	STANDARD DEVIATION	UICSHIP=FF MINIMUM VALUE	1045 DAVIDSON MAXIMUM VALUE	RANGE	SUM	VARIANCE
UNHRS	206.9250000	192.46703181	0	740.0000000	740.0000000	8277.0000000	37043.5583333
----- UICSHIP=FF 1047 VOGEL -----							
UNHRS	175.23809524	211.23098090	0	704.0000000	704.0000000	7360.0000000	44618.5272938
----- UICSHIP=FF 1048 SAMPLE -----							
UNHRS	237.45454545	192.05078933	0	720.0000000	720.0000000	7836.0000000	36883.5956818
----- UICSHIP=FF 1049 KOELSCH -----							
UNHRS	192.14634146	198.98939180	0	644.0000000	644.0000000	7878.0000000	39596.7780488
----- UICSHIP=FF 1050 ALBERT DAVID -----							
UNHRS	229.86842105	185.75327592	0	607.0000000	607.0000000	8735.0000000	34504.2195164
----- UICSHIP=FF 1051 OCALLAHAN -----							
UNHRS	219.62500000	169.08603295	0	574.0000000	574.0000000	8785.0000000	28590.0865395
----- UICSHIP=FF 1052 KNOX -----							
UNHRS	272.48717949	183.95077600	0	744.0000000	744.0000000	10627.0000000	33837.8879892
----- UICSHIP=FF 1053 ROARK -----							
UNHRS	232.51724138	154.99622592	0	537.0000000	537.0000000	6743.0000000	24023.8300493
----- UICSHIP=FF 1054 GRAY -----							
UNHRS	201.66666667	146.19432824	0	527.0000000	527.0000000	6050.0000000	21372.7816032
----- UICSHIP=FF 1055 HEPBURN -----							
UNHRS	188.75000000	166.00995619	0	600.0000000	600.0000000	5285.0000000	27559.3355556
----- UICSHIP=FF 1056 CONNOLLY -----							
UNHRS	183.33333333	176.62329580	0	520.0000000	520.0000000	7700.0000000	31195.7886179
----- UICSHIP=FF 1057 RATHBURN -----							
UNHRS	168.12121212	165.34599284	0	646.0000000	646.0000000	5548.0000000	27339.2973485
----- UICSHIP=FF 1058 MEYERKORD -----							
UNHRS	191.03448276	143.17259384	0	513.0000000	513.0000000	5540.0000000	20498.3916256
----- UICSHIP=FF 1059 W S SIMS -----							
UNHRS	195.00000000	185.69291086	0	600.0000000	600.0000000	8385.0000000	34481.8571429
----- UICSHIP=FF 1060 LANG -----							
UNHRS	169.47222222	167.82362955	0	655.0000000	655.0000000	6101.0000000	28164.7706349
----- UICSHIP=FF 1061 PATTERSON -----							
UNHRS	214.80952381	182.77151378	0	596.0000000	596.0000000	9022.0000000	33405.4262485
----- UICSHIP=FF 1062 WHIPPLE -----							
UNHRS	181.58333333	152.65879321	0	464.0000000	464.0000000	6537.0000000	23304.7071429

VARIABLE	MEAN	STANDARD DEVIATION	UICSHIP=FF MINIMUM VALUE	1063 REASONER MAXIMUM VALUE	RANGE	SUM	VARIANCE
UNHRS	220.6000000	173.14227142	0	744.0000000	744.0000000	8824.0000000	29978.2461538
UNHRS	260.51515152	182.33264951	0	620.0000000	620.0000000	8597.0000000	33245.1950758
UNHRS	236.7500000	204.95956047	0	743.0000000	743.0000000	8523.0000000	42008.4214286
UNHRS	207.25806452	166.75430384	0	537.0000000	537.0000000	6425.0000000	27806.9978495
UNHRS	299.62857143	212.79306238	0	720.0000000	720.0000000	10487.0000000	45280.8873950
UNHRS	227.25581395	184.85091715	0	657.0000000	657.0000000	9772.0000000	34169.8615725
UNHRS	250.18181818	212.44064679	0	688.0000000	688.0000000	8256.0000000	45131.0284091
UNHRS	186.97435897	187.05733531	0	660.0000000	660.0000000	7292.0000000	34990.4466937
UNHRS	228.6500000	171.90494541	0	645.0000000	645.0000000	9146.0000000	29551.3102554
UNHRS	172.26829268	168.63377841	0	576.0000000	576.0000000	7063.0000000	28437.3512195
UNHRS	203.47222222	177.13602297	0	683.0000000	683.0000000	7325.0000000	31377.1706349
UNHRS	245.4500000	191.95872286	0	743.0000000	743.0000000	9818.0000000	36846.1512821
UNHRS	185.62790698	191.78497673	0	548.0000000	548.0000000	7982.0000000	36781.4772979
UNHRS	175.0750000	206.66725238	0	744.0000000	744.0000000	7003.0000000	42711.3532051
UNHRS	217.06250000	161.46165779	0	505.0000000	505.0000000	6946.0000000	26069.8669355
UNHRS	239.09523810	154.16601908	0	625.0000000	625.0000000	10042.0000000	23767.1614432
UNHRS	219.40476190	195.85921518	0	594.0000000	594.0000000	9215.0000000	38360.8321719

VARIABLE	MEAN	STANDARD DEVIATION	UICSHIP=FF	1080 PAUL	MINIMUM VALUE	RANGE	SUM	VARIANCE
UWHS	207.24390244	171.83157168	0	596.00000000	556.00000000	8497.00000000	29526.0890244	
----- UICSHIP=FF 1081 AYLWIN -----								
UWHS	209.58139535	211.27191152	0	672.00000000	672.00000000	9012.00000000	44635.8205980	
----- UICSHIP=FF 1082 ELMER MONTGOMER -----								
UWHS	188.47619048	166.58525073	0	512.00000000	512.00000000	7916.00000000	27750.6457637	
----- UICSHIP=FF 1083 COOK -----								
UWHS	180.00000000	186.81197576	0	655.00000000	655.00000000	5220.00000000	34898.7142857	
----- UICSHIP=FF 1084 MCCANDLESS -----								
UWHS	173.53658537	173.87353128	0	549.00000000	549.00000000	7115.00000000	30232.0048780	
----- UICSHIP=FF 1085 DONALD B BEARY -----								
UWHS	171.73809524	176.87325757	0	655.00000000	655.00000000	7213.00000000	31284.1492451	
----- UICSHIP=FF 1086 BREWTON -----								
UWHS	196.19444444	170.65182925	0	648.00000000	648.00000000	7063.00000000	29122.0468254	
----- UICSHIP=FF 1087 KIRK -----								
UWHS	275.90000000	169.87624455	0	639.00000000	639.00000000	11036.00000000	28857.9384615	
----- UICSHIP=FF 1088 BARBEY -----								
UWHS	204.78125000	181.32037844	0	720.00000000	720.00000000	6553.00000000	32877.0796371	
----- UICSHIP=FF 1089 JESSE L BROWN -----								
UWHS	174.63414634	202.07928594	0	744.00000000	744.00000000	7160.00000000	40836.0378049	
----- UICSHIP=FF 1090 AINSWORTH -----								
UWHS	210.02380952	216.23536049	0	725.00000000	725.00000000	8821.00000000	46757.7311266	
----- UICSHIP=FF 1091 MILLER -----								
UWHS	185.02325581	207.89987155	0	707.00000000	707.00000000	7956.00000000	43222.3565891	
----- UICSHIP=FF 1092 THOMAS C HART -----								
UWHS	195.50000000	186.28358267	0	637.00000000	637.00000000	8211.00000000	34701.5731707	
----- UICSHIP=FF 1093 CAPODANNO -----								
UWHS	175.87804878	178.55954121	0	561.00000000	561.00000000	7211.00000000	31883.5097561	
----- UICSHIP=FF 1094 PHARRIS -----								
UWHS	186.00000000	160.76493975	0	471.00000000	471.00000000	7812.00000000	25845.3658537	
----- UICSHIP=FF 1095 TRUETT -----								
UWHS	135.17073171	166.67811831	0	634.00000000	634.00000000	5419.00000000	27781.5951220	
----- UICSHIP=FF 1096 VALDEZ -----								
UWHS	163.69047619	171.44173270	0	573.00000000	573.00000000	6875.00000000	29392.2677120	

VARIABLE	MEAN	STANDARD DEVIATION	UICSHIP=FF	1097 MOINESTER	MINIMUM VALUE	RANGE	SUM	VARIANCE
UNHRS	174.30552381	170.76377752	0	462.00000000	462.00000000	7321.00000000	29160.2677120	
UNHRS	203.97500000	195.00446905	UICSHIP=FF	1098 GLOVER	560.00000000	8159.00000000	38026.7429487	
UNHRS	186.64285714	192.21543064	UICSHIP=LST	1179 NEWPORT	648.00000000	7839.00000000	36946.7717770	
UNHRS	126.09523810	139.01830192	UICSHIP=LST	1180 MANITOWOC	444.00000000	5296.00000000	19326.3882695	
UNHRS	163.42500000	173.95753792	UICSHIP=LST	1181 SUMTER	690.00000000	6537.00000000	30261.2250000	
UNHRS	165.33333333	166.04336783	UICSHIP=LST	1182 FRESNO	536.00000000	5952.00000000	27570.4000000	
UNHRS	162.28571429	127.89459119	UICSHIP=LST	1183 PEDRIA	431.00000000	4544.00000000	16357.3264550	
UNHRS	202.02857143	171.93509133	UICSHIP=LST	1184 FREDERICK	557.00000000	7099.00000000	29561.6756303	
UNHRS	148.41666667	146.40128317	UICSHIP=LST	1185 SCHENECTADY	444.00000000	5343.00000000	21433.3357143	
UNHRS	170.38571429	165.56292058	UICSHIP=LST	1186 CAYUGA	516.00000000	5953.00000000	27411.0806723	
UNHRS	168.67647059	146.01613041	UICSHIP=LST	1187 TUSCALOOSA	516.00000000	5735.00000000	21320.7103387	
UNHRS	223.00000000	160.21267116	UICSHIP=LST	1188 SAGINAW	544.00000000	9143.00000000	25668.1000000	
UNHRS	205.92500000	202.17451049	UICSHIP=LST	1189 SAN BERNARDINO	720.00000000	8237.00000000	40874.5326923	
UNHRS	187.88095238	147.23056456	UICSHIP=LST	1190 BOULDER	563.00000000	7891.00000000	21676.8391405	
UNHRS	184.27500000	167.32709982	UICSHIP=LST	1191 RACINE	547.00000000	7371.00000000	27998.3583333	
UNHRS	191.56097561	152.14319715	UICSHIP=LST	1192 SPARTANBURG	552.00000000	7854.00000000	23147.5524390	
UNHRS	144.37142857	127.43824767	UICSHIP=LST	1193 FAIRFAX COUNTY	409.00000000	6051.00000000	16240.5069686	

VARIABLE	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	RANGE	SUM	VARIANCE
UICSHIP=LST 1194 LA MOURE COUNTY							
UWHR5	198.54761905	181.17195745	0	706.00000000	8339.00000000	32823.2781649	
----- UICSHIP=LST 1195 BARBOUR COUNTY -----							
UWHR5	189.47500000	164.52339675	0	587.00000000	7579.00000000	27067.9480769	
----- UICSHIP=LST 1196 HARLAN COUNTY -----							
UWHR5	179.69047619	189.30418006	0	720.00000000	7547.00000000	35836.0725901	
----- UICSHIP=LST 1197 BARNSTABLE CTY -----							
UWHR5	177.42857143	170.73458833	0	495.00000000	7452.00000000	29150.2996516	
----- UICSHIP=LST 1198 BRISTOL COUNTY -----							
UWHR5	193.05000000	147.51896010	0	520.00000000	7722.00000000	21761.8435897	

APPENDIX JJ

QUARTERLY FORCE EMPLOYMENT SCHEDULE FILE DESCRIPTION

Variables*	Column	Field Width
UIC	1	6
BDATE	7	6
EDATE	13	6
EDUR	19	2
ETYPE	21	1
ETERM	22	10
ECAT	32	2
ESUF	34	1
ELOC	35	18
ECC	53	2
EGEO	55	4
EOAC	59	2
EUNIT	61	6
QTR	67	1
FILLER	68	13

*Variables are explained in NWP10 (Naval Warfare Publication) entitled Operational Reports.

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