

Appendix D: Estimation

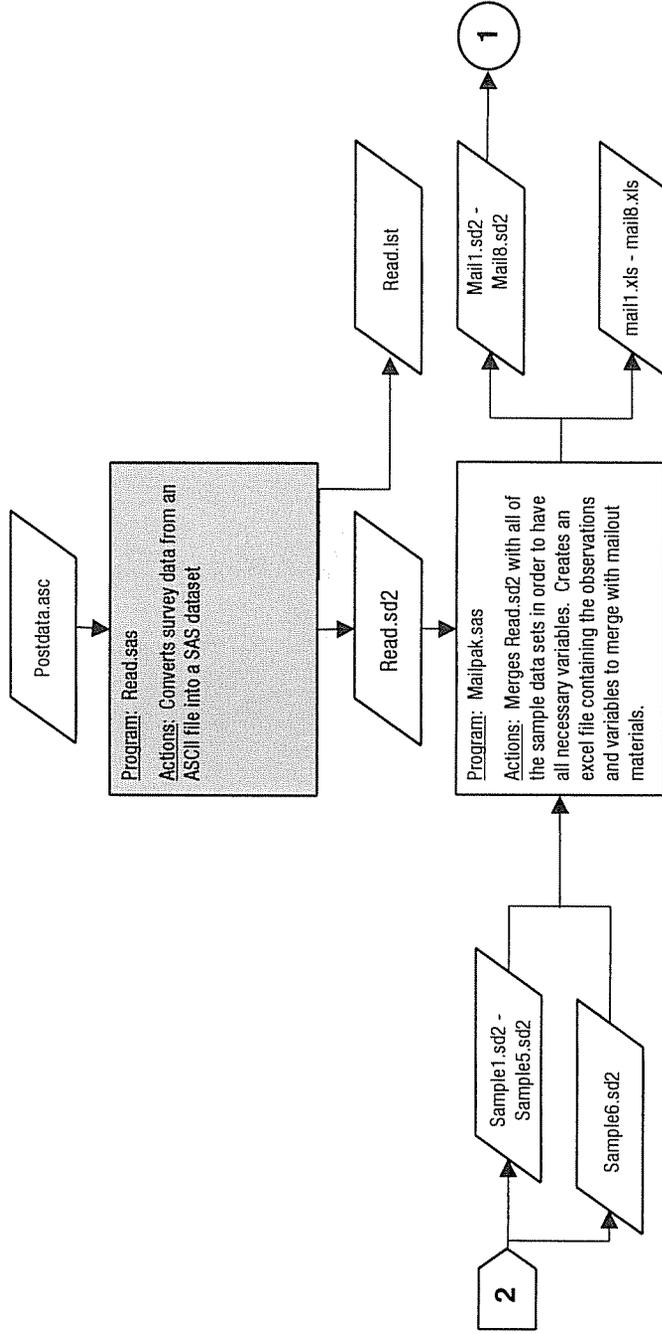
Appendix D: Estimation

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Section I: Documentation of Read.sas

Flowchart of Screener Programs



1 Mail1.sq2-Mail8.sq2 are shown as input data sets in Appendix B, Section VI, page 69-70.
 2 Sample1.sd2-sample6.sd2 are shown as input data sets in Appendix B, Section VI, page 69.

FIRST-CLASS MAIL ESTIMATION PROGRAMS

STUDY: USPS Destination-Entry Discount Study

PROGRAM: Read.sas

I. Requirements of Computer Analysis Relied Upon

A. General description of the program:

1. Objectives of the program: The objective of the program is to convert the screener survey data from an ASCII file into a SAS data set.
2. Processing tasks performed: The program reads the screener survey data from an ASCII file, converts needed variables to a usable form, and performs two frequency procedures. The first frequency procedure determines the number of eligible completed interviews. The second frequency procedure determines the number of completed screeners in each stratum.
3. Methods and procedures employed: See attached program listing.
4. A listing of the input and output data: See attached pages describing names and sizes of input and output data.
5. A listing of source codes: See attached program and documentation.

B. Input data:

1. Designation of all sources of data: The input data set, postdata.asc is the ASCII file of data from completed screener interviews.
2. Explanation of any modifications of the data made for use in the program: None.

C. Definitions of all input and output variables or sets of variables: See attached description of input and output data.

D. A description of input and output data file organization: See attached description of input and output data.

E. A machine-readable copy of all databases: The databases used in this program contain confidential data and are not provided.

F. For all source codes, documentation sufficiently comprehensive and detailed to satisfy generally accepted software documentation standards appropriate to the type of program and to its intended use in the proceedings: See attached program and documentation.

G. The source program in machine-readable form: The databases associated with this program are not provided due to confidentiality. The program can be provided upon request.
Name of Program: Read.sas

H. All pertinent operating system and programming language manuals: SAS Language: Reference, SAS Procedures Guide

- I. **If requested program is interactive, a representative sample program run, together with any explanation necessary to illustrate the response sequence: N/A**
- J. **“Canned” Statistical Packages: SAS v6.12 for Windows**
- K. **Special requirements for computer simulations models offered if evidence or relied upon as support for other evidence: N/A**

Program: Read.sas

Input:

- (1) Postdata.asc
Description: Postdata.asc is the ASCII file of the completed screener interviews.
- | | |
|-------------------------|-----|
| Number of observations: | 378 |
| Number of variables: | 88 |

Outputs:

- (1) Read.sd2
Description: Read.sd2 is the SAS data set of the completed screener interviews.
- | | |
|-------------------------|-----|
| Number of observations: | 378 |
| Number of variables: | 52 |
- (2) Read.lst Read.lst is a SAS listing file with the output from a frequency procedures.

Description of variables:

CASEID	CATI (Computer Assisted Telephone Interviewing) system identification number showing order in which interviews were completed
INTNUM	Telephone interviewer's identification code
TEST	Standard CATI variable
PHONENUM	Business establishment contact's telephone number as listed in the sample
PWCID	PricewaterhouseCoopers identification number
COMPANY	Business establishment's name
CONTACT	Business establishment's contact person
PERMIT	Business establishment's sampled USPS FCM permit number
PHONE1	Business establishment contact's telephone number which is different from PHONENUM if the interviewer finds a more appropriate number
PERMTYPE	Type of mail that is mailed under the sampled permit (precanceled stamp, permit imprint, or metered mail)
POCITY	City of the post office that issued the permit
PERMDATE	Date that the permit was issued
POSTATE	State of the post office that issued the permit
POZIP	Zip Code of the post office that issued the permit
STRATA	Stratum assigned according to business establishment's 1998 mail volume under sampled permit (1 = Less than 1,000,000 pieces, 2 = Between 1,000,000 and 16,500,000 pieces, 3 = Between 16,500,000 and 127,000,000, 4 = Over 127,000,000)
TOTBULK	Total 1998 FCM volume sent under the sampled permit
CAT1VOL	Volume of rate group 1 FCM mailed under the permit in 1998
CAT2VOL	Volume of rate group 2 FCM mailed under the permit in 1998

CAT3VOL	Volume of rate group 3 FCM mailed under the permit in 1998
ADDRESS	Business establishment contact's address
TITLE	Business establishment contact's title
CITY	Business establishment contact's city
STATE	Business establishment contact's state
ZIP	Business establishment contact's Zip Code
NUMREF	Standard CATI variable
COUNT	Number of permits sampled from business establishment
CALLED	Indicates if the business establishment at the same address was called for the pretest study for a different permit
SCRATCH	Standard CATI variable
CALLS	Indicates the number of calls made to the case
NOTE01-NOTE05	Notes on previous call attempts entered by telephone interviewer(s)
DTIME	Date and time that the interview was completed
FIRSTCON	Standard CATI variable
CHGLEAD	Standard CATI variable
STATUS	Standard CATI variable
NONINT	Standard CATI variable
WHYNOT	Standard CATI variable
STARTIME	Standard CATI variable
Q2	Indicates whether the business establishment has sent or planned to send any discounted First-Class Mail under the sampled permit and mail type in calendar year 1999.
Q3B	Indicated whether the mailing address that is already in the CATI system is correct.
STOPTIME	Standard CATI variable
SUSPTIME	Standard CATI variable
LENGTH	Indicates the amount of time in seconds that the interview took to complete
TERMINAT	Indicates whether the interview was terminated before the end of the questionnaire
ENDTERM	Standard CATI variable
SUSPMARK	Standard CATI variable
SUSPSTOP	Standard CATI variable
RESMDATE	Standard CATI variable
RESMID	Standard CATI variable

Actions of the program:

- Converts screener survey data from an ASCII file into a SAS data set.
- Performs a frequency procedure to determine the number of eligible completed interviews.
- Performs a frequency procedure to determine the number of completed screeners in each stratum.

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 NOTE: SAS (r) Proprietary Software Release 6.12 TS045
 Licensed to PRICEWATERHOUSECOOPERS LLP, Site 0015509006.

```

1 *****
2 ** Program Name:   read.sas                **
3 ** Author:       Pahl Schutte             **
4 ** Reviewed By:  Rachel Allen            **
5 ** Purpose:      Converts screener survey data from an ASCII file into **
6 **               a SAS data set. Performs a frequency procedure to **
7 **               determine the number of eligible completed interviews.**
8 **               Performs a frequency procedure to determine the **
9 **               number of completed screeners in each stratum.    **
10 **               **
11 ** Inputs:       postdata.asc             **
12 ** Outputs:      read.sd2                 **
13 *****
14
15 options nodate;
16 Libname usps 's:\ogs\common\usps\main study\screener\screener data';
NOTE: Libref USPS was successfully assigned as follows:
Engine:   V612
Physical Name: s:\ogs\common\usps\main study\screener\screener data
17
18 Data usps.read;
19   infile 's:\ogs\common\usps\main study\screener\screener data\postdata.asc' lrecl=5000;
20
21   Input
22   @1 CASEID      $4.
23   @5 INTNUM      $4.
24   @9 TEST        $10.
25   @19 PHONENUM   $10.
26   @29 PWCID      $5.
27   @34 COMPANY    $50.
28   @84 CONTACT    $20.
29   @104 PERMIT    $5.
30   @109 PHONE1    $15.
31   @124 PERMTYPE  $25.
32   @149 POCITY    $22.
33   @171 PERMDATE  $8.
34   @179 POSTATE   $2.
35   @181 POZIP     $5.
36   @186 STRATA    $1.
37   @187 TOTBULK   comma20.
38   @207 CATIVOL   comma20.
39   @227 CAT2VOL   comma20.
40   @247 CAT3VOL   comma20.
41   @267 ADDRESS   $25.
42   @292 TITLE     $40.
43   @332 CITY      $20.
44   @352 STATE     $2.
45   @354 ZIP       $5.
46   @359 NUMREF    $1.
47   @360 COUNT     $1.
48   @361 CALLED    $1.
49   @362 SCRATCH   $70.
50   @432 CALLS     $3.
51   @435 NOTE01    $70.
52   @505 NOTE02    $70.
53   @575 NOTE03    $70.
54   @645 NOTE04    $70.
55   @715 NOTE05    $70.
56   @785 DTIME     $27.
57   @812 FIRSTCON  $1.
58   @814 CHGLEAD   $1.
59   @815 STATUS    $2.
60   @817 NONINT    $1.
61   @818 WHYNOT    $1.

```

```
62 @819 STARTIME $9.
63 @828 Q2 $1.
64 @881 Q3B $1.
65 @882 STOPTIME $9.
66 @891 SUSPTIME $1.
67 @892 LENGTH $9.
68 @901 TERMINAT $8.
69 @909 ENDTERM $1.
70 @910 SUSPMARK $1.
71 @911 SUSPSTOP $9.
72 @920 RESMDATE $12.
73 @932 RESMID $4.;
74
75 run;
```

NOTE: The infile 's:\ogs\common\usps\main study\screeener\screeener data\postdata.asc' is:

```
FILENAME=s:\ogs\common\usps\main study\screeener\screeener data\postdata.asc.
RECFM=V,LRECL=5000
```

NOTE: 378 records were read from the infile 's:\ogs\common\usps\main study\screeener\screeener data\postdata.asc'.

The minimum record length was 5000.

The maximum record length was 5000.

NOTE: The data set USPS.READ has 378 observations and 52 variables.

NOTE: The DATA statement used 3.95 seconds.

```
76
77
78 /*** determine how many eligible screener cases are in each stratum****/
79
80 proc freq;
81     where q2='1';
82     tables strata;
83 run;
```

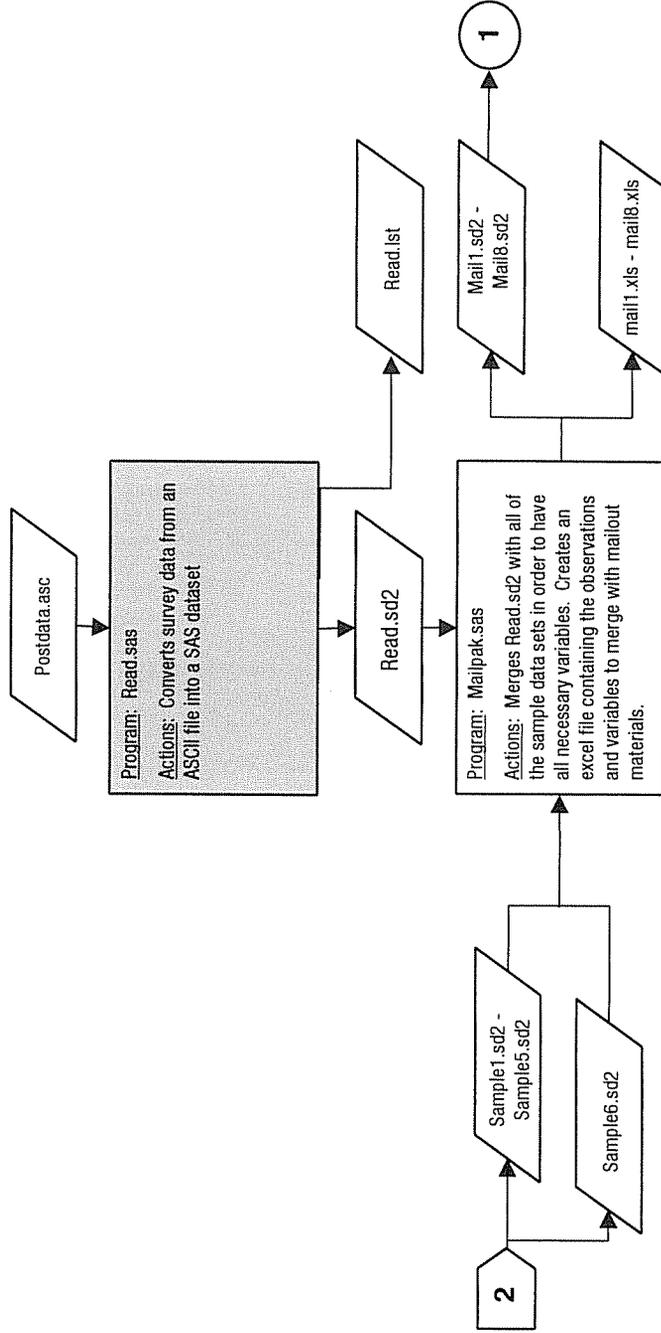
NOTE: The PROCEDURE FREQ printed page 1.

NOTE: The PROCEDURE FREQ used 0.88 seconds.

NOTE: SAS Institute Inc., SAS Campus Drive, Cary, NC USA 27513-2414

Section II: Documentation of Mailpak.sas

Flowchart of Screener Programs



1 Mail1.sd2-Mail8.sd2 are shown as input data sets in Appendix B, Section VI, page 69-70.
 2 Sample1.sd2-sample6.sd2 are shown as input data sets in Appendix B, Section VI page 69.

FIRST-CLASS MAIL ESTIMATION PROGRAMS

STUDY: USPS Destination-Entry Discount Study
PROGRAM: Mailpak.sas

I. Requirements of Computer Analysis Relied Upon

A. General description of the program:

1. Objectives of the program: The objective of the program is to create an Excel file that has the necessary observations and variables to be merged with the mail package materials.
2. Processing tasks performed: The program merges the six SAS data sets, USPS screener sample1.sd2 to USPS screener sample6.sd2 to create one data set of all sampled batches used by CATI. This data set is then merged with read.sd2 to have one data set with all of the needed variables. Each time the program is run, it creates a new data set (mail1.sd2-mail8.sd2) and Excel file (mail1.xls-mail8.xls) which contains only data from additional completed interviews since the last mailing.
3. Methods and procedures employed: See attached program listing.
4. A listing of the input and output data: See attached pages describing names and sizes of input and output data.
5. A listing of source codes: See attached program and documentation.

B. Input data:

1. Designation of all sources of data: The input data set is a SAS data set of completed interviews, read.sd2, from the program, read.sas. Other input data includes the SAS data sets, sample1.sd2-sample6.sd2, from the programs, screener sample.sas and screener sample_additional batch.sas.
2. Explanation of any modifications of the data made for use in the program: None.

C. Definitions of all input and output variables or sets of variables: See attached description of input and output data.

D. A description of input and output data file organization: See attached description of input and output data.

E. A machine-readable copy of all databases: The databases used in this program contain confidential data and are not provided.

F. For all source codes, documentation sufficiently comprehensive and detailed to satisfy generally accepted software documentation standards appropriate to the type of program and to its intended use in the proceedings: See attached program and documentation.

G. The source program in machine-readable form: The databases associated with this program are not provided due to confidentiality. The program can be provided upon request.
Name of Program: Mailpak.sas

- H. All pertinent operating system and programming language manuals:** SAS Language: Reference, SAS Procedures Guide
- I. If requested program is interactive, a representative sample program run, together with any explanation necessary to illustrate the response sequence:** N/A
- J. “Canned” Statistical Packages:** SAS v6.12 for Windows
- K. Special requirements for computer simulations models offered if evidence or relied upon as support for other evidence:** N/A

Program: Mailpak.sas

Inputs:

- (1) Read.sd2
Description: Read.sd2 is an output SAS data set from read.sas containing data from completed screener interviews.

Number of observations: 378
Number of variables: 52

- (2) Sample1.sd2
Description: Sample1.sd2 is a SAS data set from screener sample.sas containing data from the first batch of observations used by the CATI system for the screening questionnaire.

Number of observations: 118
Number of variables: 43

- (3) Sample2.sd2
Description: Sample2.sd2 is a SAS data set from screener sample.sas containing data from the second batch of observations used by the CATI system for the screening questionnaire.

Number of observations: 78
Number of variables: 43

- (4) Sample3.sd2
Description: Sample3.sd2 is a SAS data set from screener sample.sas containing data from the third batch of observations used by the CATI system for the screening questionnaire.

Number of observations: 168
Number of variables: 43

- (5) Sample4.sd2
Description: Sample4.sd2 is a SAS data set from screener sample.sas containing data from the fourth batch of observations used by the CATI system for the screening questionnaire.

Number of observations: 29
Number of variables: 43

- (6) Sample5.sd2
Description: Sample5.sd2 is a SAS data set from screener sample.sas containing data from the fifth batch of observations used by the CATI system for the screening questionnaire.

Number of observations: 14
Number of variables: 43

(7) Sample6.sd2
Description: Sample6.sd2 is a SAS data set from screener sample_additional batch.sas containing data from the sixth batch of observations used by the CATI system for the screening questionnaire.

Number of observations: 48
Number of variables: 43

Outputs:

(1) Mail1.sd2
Description: Mail1.sd2 is the SAS data set of survey cases comprising the first mailing.

Number of observations: 83
Number of variables: 22

(2) Mail1.xls
Description: Mail1.xls is the Excel file to be merged with the mail package materials for the first mailing.

(3) Mail2.sd2
Description: Mail2.sd2 is the SAS data set of survey cases comprising the second mailing.

Number of observations: 87
Number of variables: 22

(4) Mail2.xls
Description: Mail2.xls is the Excel file to be merged with the mail package materials for the second mailing.

(5) Mail3.sd2
Description: Mail3.sd2 is the SAS data set of survey cases comprising the third mailing.

Number of observations: 45
Number of variables: 22

(6) Mail3.xls
Description: Mail3.xls is the Excel file to be merged with the mail package materials for the third mailing.

(7) Mail4.sd2
Description: Mail4.sd2 is the SAS data set of survey cases comprising the fourth mailing.

Number of observations: 22
Number of variables: 22

(8) Mail4.xls
Description: Mail4.xls is the Excel file to be merged with the mail package materials for the fourth mailing.

- (9) Mail5.sd2
Description: Mail5.sd2 is the SAS data set of survey cases comprising the fifth mailing.

Number of observations: 65
Number of variables: 22
- (10) Mail5.xls
Description: Mail5.xls is the Excel file to be merged with the mail package materials for the fifth mailing.
- (11) Mail6.sd2
Description: Mail6.sd2 is the SAS data set of survey cases comprising the sixth mailing.

Number of observations: 18
Number of variables: 22
- (12) Mail6.xls
Description: Mail6.xls is the Excel file to be merged with the mail package materials for the sixth mailing.
- (13) Mail7.sd2
Description: Mail7.sd2 is the SAS data set of survey cases comprising the seventh mailing.

Number of observations: 21
Number of variables: 22
- (14) Mail7.xls
Description: Mail7.xls is the Excel file to be merged with the mail package materials for the seventh mailing.
- (15) Mail8.sd2
Description: Mail8.sd2 is the SAS data set of survey cases comprising the eighth mailing.

Number of observations: 4
Number of variables: 22
- (16) Mail8.xls
Description: Mail8.xls is the Excel file to be merged with the mail package materials for the eighth mailing.

Description of variables (Mail1.sd2-Mail8.sd2):

COMPANY	Business establishment's name
CONTACT	Business establishment's contact person
ADDRESS	Business establishment contact's address
CITY	Business establishment contact's city
STATE	Business establishment contact's state
ZIP	Business establishment contact's Zip Code

CAT1AVG	1998 weighted average of all rates in rate group 1, based on the business establishment's 1998 permit volume
CAT2AVG	1998 weighted average of all rates in rate group 2, based on the business establishment's 1998 permit volume
CAT3AVG	1998 weighted average of all rates in rate group 3, based on the business establishment's 1998 permit volume
CAT1VOL	Volume of rate group 1 FCM mailed under the permit in 1998
CAT2VOL	Volume of rate group 2 FCM mailed under the permit in 1998
CAT3VOL	Volume of rate group 3 FCM mailed under the permit in 1998
TOTBULK	Total 1998 FCM volume sent under the sampled permit
PERMDATE	Date that the permit was issued
PERMIT	Business establishment's sampled USPS FCM permit number
PERMTYPE	Type of mail that is mailed under the sampled permit (precanceled stamp, permit imprint, or metered mail)
PHONE1	Business establishment contact's telephone number
POCITY	City of the post office that issued the permit
POSTATE	State of the post office that issued the permit
POZIP	ZIP Code of the post office that issued the permit
PWCID	PricewaterhouseCoopers identification number
TITLE	Business establishment contact's title

Actions of the program:

- Concatenate all of the screener sample data sets into a temporary data set, samp.
- Merge the screener sample data with data from the completed screening interviews.
- The merged data set only keeps cases that passed the screening interview and that have been completed since the last mailing.
- Load the merged data into Excel.

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```
1 *****
2 * PROGRAM:   Mailpak.sas           *
3 * AUTHOR:    Pahla Schutte        *
4 * PURPOSE:   To merge 6 sample batches with read.sd2 *
5 *           in order to create a file in Excel.      *
6 *           This Excel file will be used to merge   *
7 *           with the mailing materials              *
8 * REVIEWED BY: Rachel Allen      *
9 * INPUTS:    read.sd2             *
10 *           sample1.sd2-sample6.sd2                *
11 * OUTPUTS:   mail1.sd2-mail8.sd2                  *
12 *           mail1.xls-mail8.xls                   *
13 *****
14
15 options nodate nocenter;
16
17 libname usps 's:\ogs\common\usps\main study\screener\screener data';
NOTE: Libref USPS was successfully assigned as follows:
Engine:      V612
Physical Name: s:\ogs\common\usps\main study\screener\screener data
18 libname samp 's:\ogs\common\usps\main study\screener\screener sample';
NOTE: Libref SAMP was successfully assigned as follows:
Engine:      V612
Physical Name: s:\ogs\common\usps\main study\screener\screener sample
19
20
21
22 %let num=8; /*Change number each time there is a new mailout, 2 for 2nd
23 mailout, etc.*/
24 %let comp=341; /*Change to the number of completes in all mailouts sent to date*/
25
26
27 /*Set the permanent data sets, sample1.sd2-sample6.sd2, to a temporary data set. Keep the variables, pwcid,
28 cat1avg cat2avg cat3avg permdate*/
29
30
31 data samp (keep=pwcid cat1avg cat2avg cat3avg permdate);
32 ***Sample1.sd2, Sample2.sd2, sample3.sd2 contain all of the sample data that was used
33 for data collection***;
34
35 set samp.sample1 samp.sample2 samp.sample3 samp.sample4 samp.sample5 samp.sample6;
36 run;
```

NOTE: The data set WORK.SAMP has 455 observations and 5 variables.
NOTE: The DATA statement used 0.88 seconds.

```
37
38
39
40 /*Sort the temporary data set, samp, in preparation for the merge*/
41 proc sort data=samp;
42 by pwcid;
43 run;
```

NOTE: The data set WORK.SAMP has 455 observations and 5 variables.
NOTE: The PROCEDURE SORT used 0.11 seconds.

```
44
45
46
47
48 /*Set the permanent data set, read.sd2, to a temporary data set. Keep the variables
```

```

49 permtype, permit, company, totbulk, catvol1, catvol2, catvol3, pocity, postate,
50 pozip, contact, pwcid, title, address, city, state, and zip*/
51
52 data read;
53     ***Read.sd2 contains the collected data from completed screeners***;
54     set usps.read (keep=permtype permit company totbulk cat1vol cat2vol cat3vol
55     pocity postate pozip contact pwcid title address city state zip
56     phone1 q2);
57
58     ***Keep only respondents who will mail in 1999 under sampled permit***;
59     if q2='1';
60
61     ***Create a variable, count, that will increment by one for each observation***;
62     count+1;
63 run;

```

NOTE: The data set WORK.READ has 345 observations and 20 variables.

NOTE: The DATA statement used 0.42 seconds.

```

64
65
66
67 /*Sort the temporary data set, read, in preparation for the merge*/
68 proc sort data=read;
69     by pwcid;
70 run;

```

NOTE: The data set WORK.READ has 345 observations and 20 variables.

NOTE: The PROCEDURE SORT used 0.11 seconds.

```

71
72
73
74 /*Merge the sample data (samp) and the read data (read) by pwcid.*/
75 data usps.mail&num (drop=q2);
76     merge samp(in=a) read(in=b);
77     by pwcid;
78
79     ***Only keep observations that are in read dataset***;
80     if b;
81
82     ***Make sure count is greater than the number of completes for all mailouts sent
83     to date. This will ensure that we are only creating a dataset with screeners completed
84     since the last mailout***;
85
86     if count>&comp;
87 run;

```

NOTE: The data set USPS.MAIL8 has 4 observations and 23 variables.

NOTE: The DATA statement used 0.17 seconds.

```

88
89
90 /*Drop count variable because it is not necessary for the merge*/
91 data usps.mail&num (drop=count);
92     set usps.mail&num;
93 run;

```

NOTE: The data set USPS.MAIL8 has 4 observations and 22 variables.

NOTE: The DATA statement used 0.22 seconds.

```

94
95
96
97 /*Create an Excel file to use when merging with Word to create the worksheets and letters */
98 /*Excel file should contain only permits that passed the screener and who have not already received

```

```

99 a mail package*/
100 proc dbload dbms=xls data=usps.mail&num;
101 path="s:\ogs\common\usps\main study\screener\screener data\Mailout Materials\Excel Merge Files\mail&num..xls";
102 putnames=yes;
103 list all;
--- Columns for: mail8.xls ---
Num Collabel Type SASname Format
1 CAT1AVG N CAT1AVG 5.3
2 CAT2AVG N CAT2AVG 5.3
3 CAT3AVG N CAT3AVG 5.3
4 PWCID C PWCID $5.
5 PERMDATE N PERMDATE MMDDYY8.
6 COMPANY C COMPANY $50.
7 CONTACT C CONTACT $20.
8 PERMIT C PERMIT $5.
9 PHONE1 C PHONE1 $15.
10 PERMTYPE C PERMTYPE $25.
11 POCITY C POCITY $22.
12 POSTATE C POSTATE $2.
13 POZIP C POZIP $5.
14 TOTBULK N TOTBULK BEST15.
15 CAT1VOL N CAT1VOL BEST15.
16 CAT2VOL N CAT2VOL BEST15.
17 CAT3VOL N CAT3VOL BEST15.
18 ADDRESS C ADDRESS $25.
19 TITLE C TITLE $40.
20 CITY C CITY $20.
21 STATE C STATE $2.
22 ZIP C ZIP $5.
104 load;
105 run;

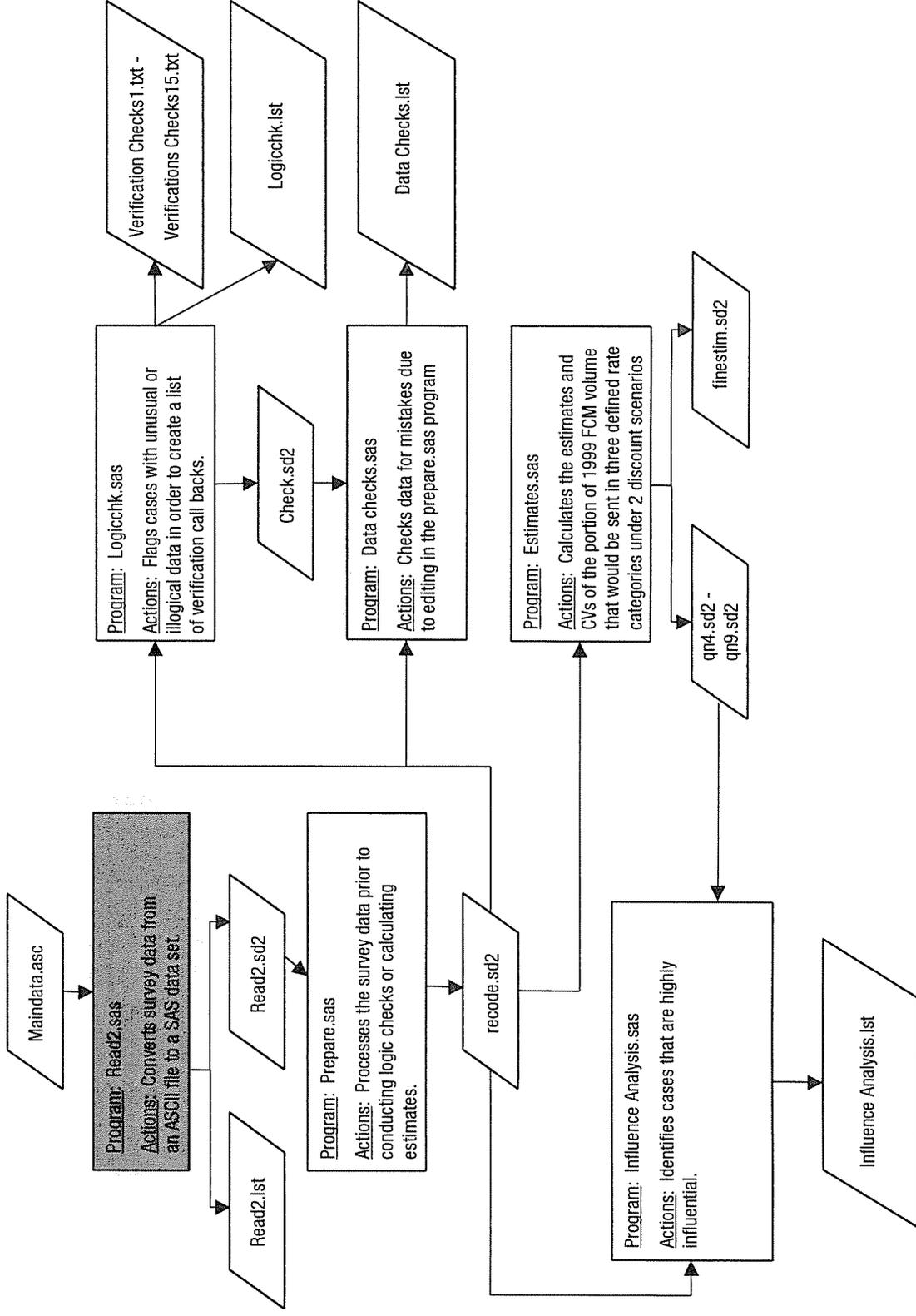
```

NOTE: Load completed. Examine statistics below.
NOTE: Inserted (4) obs into mail8.xls.
NOTE: Rejected (0) insert attempts see the log for details.

NOTE: The PROCEDURE DBLOAD used 0.81 seconds.

Section III: Documentation of Read2.sas

Flowchart of Survey Questionnaire Estimation Programs



FIRST-CLASS MAIL ESTIMATION PROGRAMS

STUDY: USPS Destination-Entry Discount Study
PROGRAM: Read2.sas

I. Requirements of Computer Analysis Relied Upon

A. General description of the program:

1. Objectives of the program: The objective of the program is to convert the survey questionnaire data from an ASCII file into a SAS data set.
2. Processing tasks performed: The program reads the questionnaire data from an ASCII file, converts needed variables to a usable form and performs a frequency procedure to ensure that the data are being read correctly.
3. Methods and procedures employed: See attached program listing.
4. A listing of the input and output data: See attached pages describing names and sizes of input and output data.
5. A listing of source codes: See attached program and documentation.

B. Input data:

1. Designation of all sources of data: The input data set, maindata.asc, is the ASCII file of data from completed survey interviews.
2. Explanation of any modifications of the data made for use in the program: None.

C. Definitions of all input and output variables or sets of variables: See attached description of input and output data.

D. A description of input and output data file organization: See attached description of input and output data.

E. A machine-readable copy of all databases: The databases used in this program contain confidential data and are not provided.

F. For all source codes, documentation sufficiently comprehensive and detailed to satisfy generally accepted software documentation standards appropriate to the type of program and to its intended use in the proceedings: See attached program and documentation.

G. The source program in machine-readable form: The databases associated with this program are not provided due to confidentiality. The program can be provided upon request.
Name of Program: Read2.sas

H. All pertinent operating system and programming language manuals: SAS Language: Reference, SAS Procedures Guide

- I. **If requested program is interactive, a representative sample program run, together with any explanation necessary to illustrate the response sequence: N/A**
- J. **“Canned” Statistical Packages: SAS v6.12 for Windows**
- K. **Special requirements for computer simulations models offered if evidence or relied upon as support for other evidence: N/A**

Program: Read2.sas

Input:

- (1) Maindata.asc
Description: Maindata.asc is the ASCII file of the completed main interviews.
- Number of observations: 243
Number of variables: 207

Outputs:

- (1) Read2.sd2
Description: Read2.sd2 is the SAS data set of the completed main interviews.
- Number of observations: 243
Number of variables: 136
- (2) Read2.lst Read2.lst is the SAS listing file with the output from the frequency procedure.

Description of variables:

CASEID	CATI (Computer Aided Telephone Interviewing) system identification number showing the order in which interviews were completed
INTNUM	Telephone interviewer's identification code
TEST	Standard CATI variable
PHONENUM	Business establishment contact's telephone number
PWCID	PricewaterhouseCoopers identification number
COMPANY	Business establishment's name
CONTACT	Business establishment's contact person
PERMIT	Business establishment's sampled USPS permit number
PHONE1	Business establishment contact's telephone number if different from PHONENUM
PERMTYPE	Type of mail that is mailed under the sampled permit (precanceled stamp, permit imprint, or metered mail)
POCITY	City of the post office that issued the permit
PERMDATE	Date that the permit was issued
POSTATE	State of the post office that issued the permit
POZIP	Zip Code of the post office that issued the permit
STRATA	Stratum assigned according to business establishment's 1998 mail volume under sampled permit (1 = Less than 1,000,000 pieces, 2 = Between 1,000,000 and 16,500,000 pieces, 3 = Between 16,500,000 and 127,000,000, 4 = Over 127,000,000)
TOTBULK	Total 1998 FCM volume sent under the sampled permit
CAT1VOL	Volume of rate group 1 FCM mailed under the permit in 1998
CAT2VOL	Volume of rate group 2 FCM mailed under the permit in 1998

CAT3VOL	Volume of rate group 3 FCM mailed under the permit in 1998
ADDRESS	Business establishment contact's address
TITLE	Business establishment contact's title
NOTE01-NOTE05	Notes on previous call attempts entered by telephone interviewer(s)
CITY	Business establishment contact's city
STATE	Business establishment contact's state
ZIP	Business establishment contact's Zip Code
NUMREF	Standard CATI variable
COUNT	Number of permits sampled from business establishment
CALLED	Indicates if the business establishment at the same address was called for the pretest study
SCRATCH	Standard CATI variable
CALLS	Indicates the number of calls made to the case
DTIME	Date and time that the interview was completed
FIRSTCON	Standard CATI variable
CHGLEAD	Standard CATI variable
STATUS	Standard CATI variable
NONINT	Standard CATI variable
WHYNOT	Standard CATI variable
Q1MILL	Number of millions entered for Q1
Q1THOU	Number of thousands entered for Q1
Q1ONES	Number of ones entered for Q1
Q1DKRF	Indicates whether 'Don't Know' or 'Refused' was entered for Q1
Q1TOT	Establishment's estimated 1999 volume of rate group 1
Q2MILL	Number of millions entered for Q2
Q2THOU	Number of thousands entered for Q2
Q2ONES	Number of ones entered for Q2
Q2DKRF	Indicates whether 'Don't Know' or 'Refused' was entered for Q2
Q2TOT	Establishment's estimated 1999 volume of rate group 2
Q3MILL	Number of millions entered for Q3
Q3THOU	Number of thousands entered for Q3
Q3ONES	Number of ones entered for Q3
Q3DKRF	Indicates whether 'Don't Know' or 'Refused' was entered for Q3
Q3TOT	Establishment's estimated 1999 volume of rate group 3
TOT	Establishment's total estimated 1999 mail volume
Q4A	Indicates whether the respondent agreed that the sum of the volumes for the three rate groups was their+B79 total estimated 1999 mail volume for the permit
SUM	Indicates which 1999 volume required correction (asked if respondent answered 'No' to Q4A)
Q4BMILL	Number of millions entered for Q4B
Q4BTHOU	Number of thousands entered for Q4B
Q4BONES	Number of ones entered for Q4B

Q4BDKRF	Indicates whether 'Don't Know' or 'Refused' was entered for Q4B
Q4BTOT	Establishment's total estimated 1999 mail volume (asked if the sum of the volumes for the three rate groups does not equal the total)
Q4CMILL	Number of millions entered for Q4C
Q4CTHOU	Number of thousands entered for Q4C
Q4CONES	Number of ones entered for Q4C
Q4CDKRF	Indicates whether 'Don't Know' or 'Refused' was entered for Q4C
Q4CTOT	Establishment's total estimated 1999 mail volume (asked if the respondent said 'Don't Know' or 'Refused' to any of the volumes for the three rate groups)
Q5	Indicates whether the respondent would take advantage of the discount under a 0.4 cent discount per piece
Q6MILL	Number of millions entered for Q6
Q6THOU	Number of thousands entered for Q6
Q6ONES	Number of ones entered for Q6
Q6DKRF	Indicates whether 'Don't Know' or 'Refused' was entered for Q6
Q6TOT	Estimated volume of rate group 1 that the establishment would expect to send destination-entry under a 0.4 cent discount per piece
Q7MILL	Number of millions entered for Q7
Q7THOU	Number of thousands entered for Q7
Q7ONES	Number of ones entered for Q7
Q7DKRF	Indicates whether 'Don't Know' or 'Refused' was entered for Q7
Q7TOT	Estimated volume of rate group 2 that the establishment would expect to send destination-entry under a 0.4 cent discount per piece
Q8MILL	Number of millions entered for Q8
Q8THOU	Number of thousands entered for Q8
Q8ONES	Number of ones entered for Q8
Q8DKRF	Indicates whether 'Don't Know' or 'Refused' was entered for Q8
Q8TOT	Estimated volume of rate group 3 that the establishment would expect to send destination-entry under a 0.4 cent discount per piece
TOT1	Total mail volume that the establishment would expect to send destination-entry under a 0.4 cent discount per piece
Q9A	Indicates whether the respondent agreed that the sum of the volumes for the three rate groups was their total estimated volume under a 0.4 cent discount per piece
SUM2	Indicates which volume under the 0.4 cent discount required correction (asked if respondent answered 'No' to Q9A)
Q9BMILL	Number of millions entered for Q9B
Q9BTHOU	Number of thousands entered for Q9B
Q9BONES	Number of ones entered for Q9B
Q9BDKRF	Indicates whether 'Don't Know' or 'Refused' was entered for Q9B

Q9BTOT	Total mail volume that the establishment would expect to send destination-entry for a 0.4 cent discount per piece (asked if the sum of the volumes for the three rate groups does not equal the total)
Q9CMILL	Number of millions entered for Q9C
Q9CTHOU	Number of thousands entered for Q9C
Q9CONES	Number of ones entered for Q9C
Q9CDKRF	Indicates whether 'Don't Know' or 'Refused' was entered for Q9C
Q9CTOT	Total mail volume that the establishment would expect to send destination-entry for a 0.4 cent discount per piece (asked if the respondent said 'Don't Know' or 'Refused' to any of the volumes for the three rate groups)
Q10	Indicates whether the respondent would take advantage of the discount under a 1 cent discount per piece
Q11MILL	Number of millions entered for Q11
Q11THOU	Number of thousands entered for Q11
Q11ONES	Number of ones entered for Q11
Q11DKRF	Indicates whether 'Don't Know' or 'Refused' was entered for Q11
Q11TOT	Estimated volume of rate group 1 that the establishment would expect to send destination-entry under a 1 cent discount per piece
Q12MILL	Number of millions entered for Q12
Q12THOU	Number of thousands entered for Q12
Q12ONES	Number of ones entered for Q12
Q12DKRF	Indicates whether 'Don't Know' or 'Refused' was entered for Q12
Q12TOT	Estimated volume of rate group 2 that the establishment would expect to send destination-entry under a 1 cent discount per piece
Q13MILL	Number of millions entered for Q13
Q13THOU	Number of thousands entered for Q13
Q13ONES	Number of ones entered for Q13
Q13DKRF	Indicates whether 'Don't Know' or 'Refused' was entered for Q13
Q13TOT	Estimated volume of rate group 3 that the establishment would expect to send destination-entry under a 1 cent discount per piece
TOT2	Total mail volume that the establishment would expect to send destination-entry under a 1 cent discount per piece
Q14A	Indicates whether the respondent agreed that the sum of the volumes for the three rate groups was their total estimated volume under a 1 cent discount per piece
SUM3	Indicates which volume under the 0.4 cent discount required correction (asked if respondent answered 'No' to Q14A)
Q14BMILL	Number of millions entered for Q14B
Q14BTHOU	Number of thousands entered for Q14B
Q14BONES	Number of ones entered for Q14B
Q14BDKRF	Indicates whether 'Don't Know' or 'Refused' was entered for Q14B

Q14BTOT	Total mail volume that the establishment would expect to send destination-entry for a 1 cent discount per piece (asked if the sum of the volumes for the three rate groups does not equal the total)
Q14CMILL	Number of millions entered for Q14C
Q14CTHOU	Number of thousands entered for Q14C
Q14CONES	Number of ones entered for Q14C
Q14CDKRF	Indicates whether 'Don't Know' or 'Refused' was entered for Q14C
Q14CTOT	Total mail volume that the establishment would expect to send destination-entry for a 1 cent discount per piece (asked if the respondent said 'Don't Know' or 'Refused' to any of the volumes for the three rate groups)
Q15A	Indicates whether the interview was completed with the original contact
STOPTIME	Standard CATI variable
SUSPTIME	Standard CATI variable
LENGTH	Indicates the amount of time in seconds that the interview took to complete
TERMINAT	Indicates whether the interview was terminated before the end of the questionnaire
ENDTERM	Standard CATI variable
SUSPMARK	Standard CATI variable
SUSPSTOP	Standard CATI variable
RESMDATE	Standard CATI variable
RESMID	Standard CATI variable

Actions of the program:

- Converts survey data from an ASCII file into a SAS data set.
- Performs a frequency procedure to ensure that the data are being read correctly.

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 NOTE: SAS (r) Proprietary Software Release 6.12 TS025
 Licensed to PRICEWATERHOUSECOOPERS LLP, Site 0015509006.

```

1 *****
2 ** Program Name:   read2.sas                **
3 ** Author:        Pahla Schutte             **
4 ** Reviewed By:   Rachel Allen              **
5 ** Purpose:       Converts survey questionnaire data from an ASCII file **
6 **                into a SAS data set. Performs a frequency procedure **
7 **                to ensure that the data are being read correctly.  **
8 ** Inputs:        maindata.asc              **
9 ** Outputs:       read2.sd2                 **
10 *****
11
12 options nodate;
13 Libname usps 's:\ogs\common\usps\main study\questionnaire\questionnaire data';
NOTE: Libref USPS was successfully assigned as follows:
Engine: V612
Physical Name: s:\ogs\common\usps\main study\questionnaire\questionnaire data
14
15 Data usps.read2;
16   Infile 's:\ogs\common\usps\main study\questionnaire\questionnaire data\maindata.asc' lrecl=5000;
17   input
18   @1 CASEID      $4.
19   @5 INTNUM     $4.
20   @9 TEST       $10.
21   @19 PHONENUM  $10.
22   @29 PWCID     $5.
23   @34 COMPANY   $50.
24   @84 CONTACT   $20.
25   @104 PERMIT   $5.
26   @109 PHONE1   $15.
27   @124 PERMTYPE $30.
28   @154 POCITY   $22.
29   @176 PERMDATE $8.
30   @184 POSTATE  $2.
31   @186 POZIP    $5.
32   @191 STRATA   $1.
33   @192 TOTBULK  comma20.
34   @212 CAT1VOL  comma20.
35   @232 CAT2VOL  comma20.
36   @252 CAT3VOL  comma20.
37   @272 ADDRESS  $25.
38   @297 TITLE    $40.
39   @325 NOTE01   $70.
40   @395 NOTE02   $70.
41   @465 NOTE03   $70.
42   @535 NOTE04   $70.
43   @605 NOTE05   $70.
44   @337 CITY     $20.
45   @357 STATE    $2.
46   @359 ZIP      $5.
47   @364 NUMREF   $1.
48   @365 COUNT    $1.
49   @366 CALLED   $1.
50   @367 SCRATCH  $70.
51   @437 CALLS    $3.
52   @790 DTIME    $27.
53   @817 FIRSTCON $1.
54   @819 CHGLEAD  $1.
55   @820 STATUS   $2.
56   @822 NONINT   $1.
57   @823 WHYNOT   $1.
58   @833 Q1MILL   $3.
59   @836 Q1THOU   $3.
60   @839 Q1ONES   $3.
61   @842 Q1DKRF   $2.

```

62	@844 Q1TOT	\$9.
63	@855 Q2MILL	\$3.
64	@858 Q2THOU	\$3.
65	@861 Q2ONES	\$3.
66	@864 Q2DKRF	\$2.
67	@866 Q2TOT	\$9.
68	@877 Q3MILL	\$3.
69	@880 Q3THOU	\$3.
70	@883 Q3ONES	\$3.
71	@886 Q3DKRF	\$2.
72	@888 Q3TOT	\$9.
73	@899 TOT	\$10.
74	@912 Q4A	\$1.
75	@913 SUM	\$1.
76	@923 Q4BMILL	\$3.
77	@926 Q4BTHOU	\$3.
78	@929 Q4BONES	\$3.
79	@932 Q4BDKRF	\$2.
80	@934 Q4BTOT	\$9.
81	@946 Q4CMILL	\$3.
82	@949 Q4CTHOU	\$3.
83	@952 Q4CONES	\$3.
84	@955 Q4CDKRF	\$2.
85	@957 Q4CTOT	\$9.
86	@973 Q5	\$1.
87	@974 Q6MILL	\$3.
88	@977 Q6THOU	\$3.
89	@980 Q6ONES	\$3.
90	@983 Q6DKRF	\$2.
91	@985 Q6TOT	\$9.
92	@996 Q7MILL	\$3.
93	@999 Q7THOU	\$3.
94	@1002 Q7ONES	\$3.
95	@1005 Q7DKRF	\$2.
96	@1007 Q7TOT	\$9.
97	@1018 Q8MILL	\$3.
98	@1021 Q8THOU	\$3.
99	@1024 Q8ONES	\$3.
100	@1027 Q8DKRF	\$2.
101	@1029 Q8TOT	\$9.
102	@1040 TOT1	\$10.
103	@1053 Q9A	\$1.
104	@1054 SUM2	\$1.
105	@1064 Q9BMILL	\$3.
106	@1067 Q9BTHOU	\$3.
107	@1070 Q9BONES	\$3.
108	@1073 Q9BDKRF	\$2.
109	@1075 Q9BTOT	\$9.
110	@1087 Q9CMILL	\$3.
111	@1090 Q9CTHOU	\$3.
112	@1093 Q9CONES	\$3.
113	@1096 Q9CDKRF	\$2.
114	@1098 Q9CTOT	\$9.
115	@1110 Q10	\$1.
116	@1111 Q11MILL	\$3.
117	@1114 Q11THOU	\$3.
118	@1117 Q11ONES	\$3.
119	@1120 Q11DKRF	\$2.
120	@1122 Q11TOT	\$9.
121	@1133 Q12MILL	\$3.
122	@1136 Q12THOU	\$3.
123	@1139 Q12ONES	\$3.
124	@1142 Q12DKRF	\$2.
125	@1144 Q12TOT	\$9.
126	@1155 Q13MILL	\$3.
127	@1158 Q13THOU	\$3.
128	@1161 Q13ONES	\$3.
129	@1164 Q13DKRF	\$2.
130	@1166 Q13TOT	\$9.
131	@1177 TOT2	\$10.

```

132 @1190 Q14A      $1.
133 @1191 SUM3      $1.
134 @1201 Q14BMILL $3.
135 @1204 Q14BTHOU $3.
136 @1207 Q14BONES $3.
137 @1210 Q14BDKRF $2.
138 @1212 Q14BTOT  $9.
139 @1223 Q14CMILL $3.
140 @1226 Q14CTHOU $3.
141 @1229 Q14CONES $3.
142 @1232 Q14CDKRF $2.
143 @1234 Q14CTOT  $9.
144 @1245 Q15A      $1.
145 @1246 STOPTIME $9.
146 @1255 SUSPTIME $1.
147 @1256 LENGTH   $9.
148 @1265 TERMINAT $8.
149 @1273 ENDTERM   $1.
150 @1274 SUSPMARK  $1.
151 @1275 SUSPSTOP  $9.
152 @1284 RESMDATE  $12.
153 @1296 RESMID    $4.;
154
155 run;

```

NOTE: The infile 's:\ogs\common\usps\main study\questionnaire\questionnaire data\maindata.asc' is:
FILENAME=s:\ogs\common\usps\main study\questionnaire\questionnaire data\maindata.asc,
RECFM=V.LRECL=5000

NOTE: 243 records were read from the infile 's:\ogs\common\usps\main study\questionnaire\questionnaire data\maindata.asc'.
The minimum record length was 5000.
The maximum record length was 5000.

NOTE: The data set USPS.READ2 has 243 observations and 136 variables.

NOTE: The DATA statement used 2.25 seconds.

```

156
157 /***Perform a frequency procedure to ensure that the data are read correctly***/
158
159 proc freq;
160 run;

```

NOTE: For table location in print file, see

- page 1 for CASEID
- page 4 for INTNUM
- page 5 for TEST
- page 7 for PHONENUM
- page 11 for PWCID
- page 15 for COMPANY
- page 19 for CONTACT
- page 23 for PERMIT
- page 26 for PHONE1
- page 26 for PERMTYPE
- page 27 for POCITY
- page 30 for PERMDATE
- page 33 for POSTATE
- page 34 for POZIP
- page 36 for STRATA
- page 37 for TOTBULK
- page 41 for CAT1VOL
- page 44 for CAT2VOL
- page 47 for CAT3VOL
- page 49 for ADDRESS
- page 52 for TITLE
- page 53 for NOTE01
- page 57 for NOTE02
- page 60 for NOTE03
- page 63 for NOTE04
- page 66 for NOTE05
- page 69 for CITY

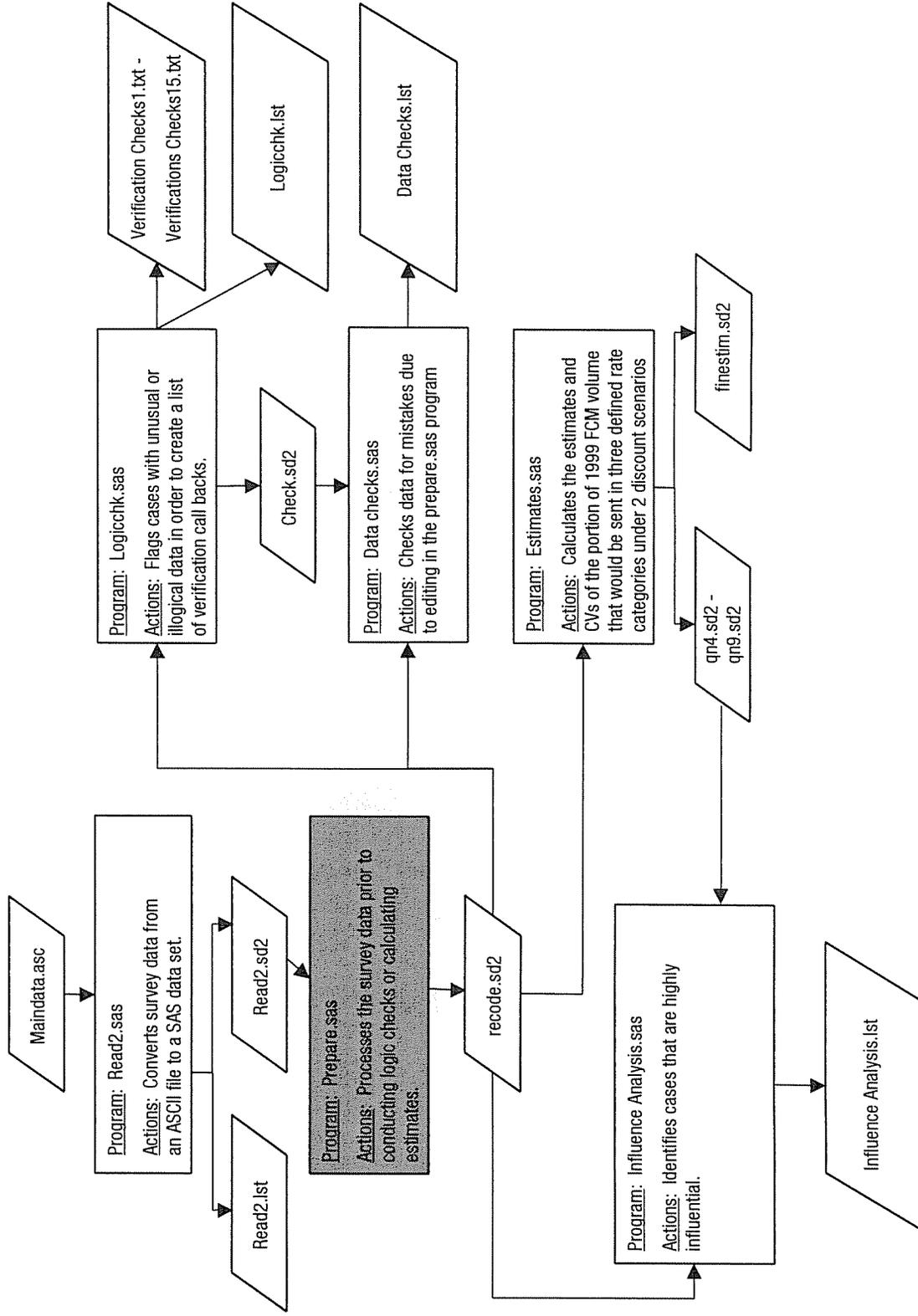
page 72 for STATE
page 73 for ZIP
page 76 for NUMREF
page 76 for COUNT
page 76 for CALLED
page 76 for SCRATCH
page 77 for CALLS
page 78 for DTIME
page 81 for FIRSTCON
page 81 for CHGLEAD
page 81 for STATUS
page 81 for NONINT
page 81 for WHYNOT
page 82 for Q1MILL
page 83 for Q1THOU
page 85 for Q1ONES
page 85 for Q1DKRF
page 87 for Q1TOT
page 90 for Q2MILL
page 92 for Q2THOU
page 94 for Q2ONES
page 94 for Q2DKRF
page 95 for Q2TOT
page 97 for Q3MILL
page 98 for Q3THOU
page 99 for Q3ONES
page 99 for Q3DKRF
page 100 for Q3TOT
page 102 for TOT
page 105 for Q4A
page 105 for SUM
page 105 for Q4BMILL
page 105 for Q4BTHOU
page 105 for Q4BONES
page 106 for Q4BDKRF
page 106 for Q4BTOT
page 106 for Q4CMILL
page 106 for Q4CTHOU
page 106 for Q4CONES
page 106 for Q4CDKRF
page 107 for Q4CTOT
page 107 for Q5
page 107 for Q6MILL
page 108 for Q6THOU
page 109 for Q6ONES
page 109 for Q6DKRF
page 110 for Q6TOT
page 111 for Q7MILL
page 112 for Q7THOU
page 112 for Q7ONES
page 113 for Q7DKRF
page 114 for Q7TOT
page 115 for Q8MILL
page 115 for Q8THOU
page 116 for Q8ONES
page 116 for Q8DKRF
page 116 for Q8TOT
page 117 for TOT1
page 118 for Q9A
page 118 for SUM2
page 119 for Q9BMILL
page 119 for Q9BTHOU
page 119 for Q9BONES
page 119 for Q9BDKRF
page 119 for Q9BTOT
page 119 for Q9CMILL
page 120 for Q9CTHOU
page 120 for Q9CONES
page 120 for Q9CDKRF
page 120 for Q9CTOT

page 120 for Q10
page 121 for Q11MILL
page 121 for Q11THOU
page 122 for Q11ONES
page 122 for Q11DKRF
page 123 for Q11TOT
page 124 for Q12MILL
page 125 for Q12THOU
page 125 for Q12ONES
page 126 for Q12DKRF
page 127 for Q12TOT
page 128 for Q13MILL
page 128 for Q13THOU
page 128 for Q13ONES
page 128 for Q13DKRF
page 129 for Q13TOT
page 130 for TOT2
page 131 for Q14A
page 131 for SUM3
page 131 for Q14BMILL
page 131 for Q14BTHOU
page 132 for Q14BONES
page 132 for Q14BDKRF
page 132 for Q14BTOT
page 132 for Q14CMILL
page 132 for Q14CTHOU
page 132 for Q14CONES
page 132 for Q14CDKRF
page 133 for Q14CTOT
page 133 for Q15A
page 134 for STOPTIME
page 137 for SUSPTIME
page 138 for LENGTH
page 140 for TERMINAT
page 141 for ENDTERM
page 141 for SUSPMARK
page 141 for SUSPSTOP
page 141 for RESMDATE
page 141 for RESMID

NOTE: The PROCEDURE FREQ used 1.69 seconds.

Section IV: Documentation of Prepare.sas

Flowchart of Survey Questionnaire Estimation Programs



FIRST-CLASS MAIL ESTIMATION PROGRAMS

STUDY: USPS Destination-Entry Discount Study
PROGRAM: Prepare.sas

I. Requirements of Computer Analysis Relied Upon

A. A general description of the program:

1. Objectives of the program: The objective of the program is to process the survey data prior to conducting logic checks or calculating estimates. The program also contains edits to the data based on the validation call backs to respondents identified by logicchk.sas.
2. Processing of tasks performed: . The program makes changes to the data based on problem sheets completed by interviewers. It also sets the 1 cent discount volumes equal to the 0.4 cent discount volumes if '3- YES, SAME AS COLUMN B' was entered for Q10. Numeric variables are created for each volume and blank volumes are stored as missing. Discount volumes are set equal to zero if the respondent said that they would not take advantage of the discount. Proportions are calculated in order for unusual data to be flagged in the logicchk.sas program. Unusable survey cases are deleted and verified data consistency problems flagged by logicchk.sas are fixed.
3. Methods and procedures employed: See attached program listing.
4. A listing of the input and output data: See attached pages describing the names and sizes of input and output data.
5. A listing of the source codes: See attached program and documentation.

B. Input Data:

1. Designation of all sources of such data: The input data is the SAS data set of completed interviews, Read2.sd2, from the Read2.sas program.
2. Explanation of any modifications to data made for use in the program: None.

C. Definitions of all input and output variables or sets of variables: See attached description of input and output data.

D. A description of input and output data file organization: See attached description of input and output data.

E. A machine-readable copy of all databases: The databases used in this program contain confidential information and are not provided.

F. For all source codes, documentation sufficiently comprehensive and detailed to satisfy generally accepted software documentation standards appropriate to the type of program and its intended use in the proceedings: See attached program and documentation.

G. The source program in machine-readable form: Both this program and the databases it uses are not provided due to confidentiality.

Name of Program: Prepare.sas

- H. **All pertinent operating system and programming language manuals:** SAS Language: Reference, SAS Procedures Guide
- I. **If requested program is interactive, a representative sample program run, together with any explanation necessary to illustrate the response sequence:** N/A
- J. **“Canned” Statistical Packages:** SAS v6.12 for Windows
- K. **Special requirements for computer simulations models offered if evidence or relied upon as support for other evidence:** N/A

Program: Prepare.sas

Input:

(1) Read2.sd2
Description: Read2.sd2 is SAS data set containing data from all completed questionnaire interviews created by the program, Read2.sas .

Number of observations: 243
Number of variables: 136

Output:

(1) Recode.sd2
Description: Recode.sd2 is the SAS data set containing cleaned data from all completed questionnaire interviews.

Number of observations: 241
Number of variables: 78

Description of new variables:

DKRF1-DKRF12	Q1DKRF, Q2DKRF, Q3DKRF, Q4BDKRF, Q6DKRF, Q7DKRF, Q8DKRF, Q9BDKRF, Q11DKRF, Q12DKRF, Q13DKRF, and Q14BDKRF are renamed DKRF1-DKRF12 respectively
PROP1-PROP9	The proportion of estimated 1999 volume for a specific rate group to the total estimated 1999 volume three scenarios: no discount, 0.4 cent discount, and a 1 cent discount
PROP98_1-PROP_98_3	The proportion of 1998 volume for each rate group to the total 1998 volume
QN1-QN9	Numeric versions of Q1TOT, Q2TOT, Q3TOT, Q6TOT, Q7TOT, Q8TOT, Q11TOT, Q12TOT, and Q13TOT
QNTOT1-QNTOT3	Numeric versions of TOT, TOT1, and TOT2
VOL98_1-VOL98_3	Numeric versions of CAT1VOL-CAT3VOL
TOT98	Numeric version of the permit's total 1998 volume
i	An index variable used in a SAS 'do loop'

Actions of the program:

- Keeps only variables containing contact/respondent/permit information, mail volumes, and answers to survey questions regarding the use of potential discounts.
- Performs necessary edits based on problem sheets and verification call results. Three unusable observations are deleted and one case is added. The first case was deleted because the respondent only completed part of the interview. The second case was deleted because as of July 1, 1999, the company no longer uses the sampled permit. The third case was deleted because the respondent said that the company would use the 0.4 cent discount but not the 1 cent discount. This contact could not be reached for a validation call in order to correct this illogical data. One case was added because a respondent called the Survey Research Center after data collection concluded.

- Sets the 1 cent discount volumes equal to the 0.4 cent discount volumes if '3- YES, SAME AS COLUMN B' was entered for Q10.
- Sets discount volumes equal to zero if the respondent said he/she would not take advantage of the discount.
- Creates numeric variables for each of the character volumes.
- Calculates proportions necessary to flag unusual data in the logicchk.sas program.
- Sets blank volumes equal to missing, thus every volume where the response was 'Don't Know' or 'Refused' is missing.

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NOTE: SAS (r) Proprietary Software Release 6.12 TS045
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```
1 *****
2 ** Program Name:   prepare.sas           **
3 ** Author:        Pahla Schutte         **
4 ** Reviewed By:   Rachel Allen and Kelly Thomas **
5 ** Purpose:       To edit the data according to interviewer problem sheets **
6 **               and validation call results. To prepare the data for **
7 **               the calculations performed in the logic checks program. **
8 ** Inputs:        read2.sd2             **
9 ** Outputs:       recode.sd2           **
10 *****
11
12 libname usps 's:\logs\common\usps\main study\questionnaire\questionnaire data';
NOTE: Libref USPS was successfully assigned as follows:
Engine: V612
Physical Name: s:\logs\common\usps\main study\questionnaire\questionnaire data
13
14 /***Create a data set from read2.sd2 that recodes the data in preparation for logic checks.***/
15 /***Keep only variables that serve as identifying information of the contact and volumes***/
16 /***Rename variables for simplicity and ease of identification***/
17
18 data usps.recode;
19     length q2tot $10.;
20     set usps.read2 (keep=intnum address caseid cat1vol cat2vol cat3vol city company contact permdate permit
permtype
21     phone1 phonenum pocity postate pozip pwcid q5 q10 q11tot q12tot q13tot q15a q1tot q2tot
22     q3tot q6tot q7tot q8tot state strata title tot tot1 tot2 totbulk zip q4a q9a q14a q15a
23     q1dkrf q2dkrf q3dkrf q4dkrf q6dkrf q7dkrf q8dkrf q9dkrf q11dkrf q12dkrf q13dkrf q14dkrf
24     rename=(cat1vol=vol98_1 cat2vol=vol98_2 cat3vol=vol98_3 totbulk=tot98 q1dkrf=dkrf1 q2dkrf=dkrf2
25     q3dkrf=dkrf3 q4dkrf=dkrf4 q6dkrf=dkrf5 q7dkrf=dkrf6 q8dkrf=dkrf7 q9dkrf=dkrf8 q11dkrf=dkrf9
26     q12dkrf=dkrf10 q13dkrf=dkrf11 q14dkrf=dkrf12));
27
28 /***Edit the data according to the interviewers' problem sheets***/
29
30     if pwcid= [REDACTED] then do;
31         [REDACTED];
32         [REDACTED];
33         [REDACTED];
34     end;
35     if pwcid= [REDACTED] then do;
36         [REDACTED];
37         [REDACTED];
38         [REDACTED];
39         [REDACTED];
40         [REDACTED];
41     end;
42     if pwcid= [REDACTED] then do;
43         [REDACTED];
44         [REDACTED];
45     end;
46     if pwcid= [REDACTED] then do;
47         [REDACTED];
48         [REDACTED];
49         [REDACTED];
50         [REDACTED];
51     end;
52     if pwcid= [REDACTED] then do;
53         [REDACTED];
54         [REDACTED];
55         [REDACTED];
56         [REDACTED];
57     end;
58     if pwcid= [REDACTED] then do;
59         [REDACTED];
60         [REDACTED];
```

```
61 [REDACTED];
62 [REDACTED];
63 [REDACTED];
64 [REDACTED];
65 [REDACTED];
66 [REDACTED];
67 [REDACTED];
68 end;
69
70 if pwcid=[REDACTED] then [REDACTED];
71 if pwcid=[REDACTED] then do;
72 [REDACTED];
73 [REDACTED];
74 [REDACTED];
75 [REDACTED];
76 [REDACTED];
77 [REDACTED];
78 [REDACTED];
79 [REDACTED];
80 [REDACTED];
81 [REDACTED];
82 [REDACTED];
83 [REDACTED];
84 end;
85 if pwcid=[REDACTED] then do;
86 [REDACTED];
87 [REDACTED];
88 [REDACTED];
89 [REDACTED];
90 [REDACTED];
91 [REDACTED];
92 end;
93
94 if pwcid=[REDACTED] then delete; ***Deleted because it is a refusal***;
95
96
97 /***Edit data according to corrections made after re-contacting the respondents***/
98
99 if pwcid=[REDACTED] then do;
100 [REDACTED];
101 [REDACTED];
102 [REDACTED];
103 [REDACTED];
104 [REDACTED];
105 [REDACTED];
106 [REDACTED];
107 end;
108 if pwcid=[REDACTED] then do;
109 [REDACTED];
110 [REDACTED];
111 [REDACTED];
112 [REDACTED];
113 end;
114 if pwcid=[REDACTED] then do;
115 [REDACTED];
116 [REDACTED];
117 [REDACTED];
118 [REDACTED];
119 [REDACTED];
120 [REDACTED];
121 end;
122 if pwcid=[REDACTED] then do;
123 [REDACTED];
124 [REDACTED];
125 [REDACTED];
126 [REDACTED];
127 [REDACTED];
128 [REDACTED];
129 [REDACTED];
130 [REDACTED];
```

```
131 end;
132 if pwcid= [REDACTED] then do;
133 [REDACTED];
134 [REDACTED];
135 [REDACTED];
136 [REDACTED];
137 [REDACTED];
138 [REDACTED];
139 [REDACTED];
140 [REDACTED];
141 [REDACTED];
142 [REDACTED];
143 [REDACTED];
144 end;
145 if pwcid= [REDACTED] then do;
146 [REDACTED];
147 [REDACTED];
148 end;
149 if pwcid= [REDACTED] then [REDACTED];
150 if pwcid in ([REDACTED]) then do;
151 [REDACTED];
152 [REDACTED];
153 [REDACTED];
154 [REDACTED];
155 [REDACTED];
156 [REDACTED];
157 end;
158 if pwcid= [REDACTED] then do;
159 [REDACTED];
160 [REDACTED];
161 end;
162 if pwcid in ([REDACTED]) then do;
163 [REDACTED];
164 [REDACTED];
165 [REDACTED];
166 [REDACTED];
167 [REDACTED];
168 end;
169 if pwcid= [REDACTED] then do;
170 [REDACTED];
171 [REDACTED];
172 [REDACTED];
173 [REDACTED];
174 [REDACTED];
175 [REDACTED];
176 [REDACTED];
177 [REDACTED];
178 [REDACTED];
179 [REDACTED];
180 end;
181
182 if pwcid= [REDACTED] then do;
183 [REDACTED];
184 [REDACTED];
185 [REDACTED];
186 [REDACTED];
187 [REDACTED];
188 [REDACTED];
189 [REDACTED];
190 [REDACTED];
191 [REDACTED];
192 [REDACTED];
193 [REDACTED];
194 [REDACTED];
195 end;
196 if pwcid= [REDACTED] then do;
197 [REDACTED];
198 [REDACTED];
199 [REDACTED];
200 [REDACTED];
```

```
201 [REDACTED]
202 [REDACTED]
203 [REDACTED]
204 [REDACTED]
205 [REDACTED]
206 [REDACTED]
207 [REDACTED]
208 [REDACTED]
209 end;
210 if pwcid=[REDACTED] then do;
211 [REDACTED]
212 [REDACTED]
213 [REDACTED]
214 [REDACTED]
215 [REDACTED]
216 [REDACTED]
217 [REDACTED]
218 end;
219 if pwcid=[REDACTED] then do;
220 [REDACTED]
221 [REDACTED]
222 [REDACTED]
223 [REDACTED]
224 [REDACTED]
225 [REDACTED]
226 [REDACTED]
227 [REDACTED]
228 end;
229
230 if pwcid=[REDACTED] then do;
231 [REDACTED]
232 [REDACTED]
233 [REDACTED]
234 [REDACTED]
235 [REDACTED]
236 [REDACTED]
237 [REDACTED]
238 [REDACTED]
239 [REDACTED]
240 end;
241 if pwcid=[REDACTED] then do;
242 [REDACTED]
243 [REDACTED]
244 [REDACTED]
245 [REDACTED]
246 [REDACTED]
247 [REDACTED]
248 end;
249 if pwcid=[REDACTED] then do;
250 [REDACTED]
251 [REDACTED]
252 [REDACTED]
253 [REDACTED]
254 [REDACTED]
255 [REDACTED]
256 [REDACTED]
257 [REDACTED]
258 end;
259 if pwcid=[REDACTED] then do;
260 [REDACTED]
261 [REDACTED]
262 [REDACTED]
263 [REDACTED]
264 end;
265 if pwcid=[REDACTED] then do;
266 [REDACTED]
267 [REDACTED]
268 [REDACTED]
269 [REDACTED]
270 [REDACTED]
```

```
271 [REDACTED];
272 end;
273 if pwcid=[REDACTED] then do;
274 [REDACTED];
275 [REDACTED];
276 [REDACTED];
277 end;
278 if pwcid=[REDACTED] then do;
279 [REDACTED];
280 [REDACTED];
281 [REDACTED];
282 [REDACTED];
283 [REDACTED];
284 [REDACTED];
285 [REDACTED];
286 [REDACTED];
287 end;
288 if pwcid=[REDACTED] then do;
289 [REDACTED];
290 [REDACTED];
291 [REDACTED];
292 [REDACTED];
293 [REDACTED];
294 [REDACTED];
295 [REDACTED];
296 [REDACTED];
297 [REDACTED];
298 [REDACTED];
299 end;
300 if pwcid='00405' then do;
301 [REDACTED];
302 [REDACTED];
303 [REDACTED];
304 [REDACTED];
305 [REDACTED];
306 [REDACTED];
307 [REDACTED];
308 [REDACTED];
309 end;
310 if pwcid=[REDACTED] then do;
311 [REDACTED];
312 [REDACTED];
313 [REDACTED];
314 [REDACTED];
315 end;
316 if pwcid=[REDACTED] then do;
317 [REDACTED];
318 [REDACTED];
319 [REDACTED];
320 [REDACTED];
321 [REDACTED];
322 [REDACTED];
323 [REDACTED];
324 end;
325 if pwcid=[REDACTED] then do;
326 [REDACTED];
327 [REDACTED];
328 [REDACTED];
329 [REDACTED];
330 [REDACTED];
331 end;
332 if pwcid=[REDACTED] then do;
333 [REDACTED];
334 [REDACTED];
335 [REDACTED];
336 [REDACTED];
337 [REDACTED];
338 [REDACTED];
339 [REDACTED];
340 [REDACTED];
```

```
341  
342  
343  
344  
345  
346  
347  
348 end;  
349 if pwcid= then do;  
350  
351  
352  
353 end;  
354 if pwcid= then do;  
355  
356  
357  
358  
359  
360 end;  
361 if pwcid= then do;  
362  
363  
364  
365  
366  
367  
368  
369 end;  
370 if pwcid= then do;  
371  
372  
373  
374 end;  
375 if pwcid= then do;  
376  
377  
378  
379  
380  
381 end;  
382 if pwcid= then do;  
383  
384  
385  
386  
387  
388  
389 end;  
390 if pwcid= then do;  
391  
392  
393  
394  
395  
396 end;  
397 if pwcid= then do;  
398  
399  
400  
401  
402  
403  
404  
405  
406  
407  
408  
409  
410
```

```
411 [REDACTED];
412 [REDACTED];
413 end;
414 if pwcid=[REDACTED] then do;
415 [REDACTED];
416 [REDACTED];
417 end;
418 if pwcid=[REDACTED] then do;
419 [REDACTED];
420 [REDACTED];
421 [REDACTED];
422 [REDACTED];
423 end;
424 if pwcid=[REDACTED] then do;
425 [REDACTED];
426 [REDACTED];
427 [REDACTED];
428 [REDACTED];
429 [REDACTED];
430 [REDACTED];
431 [REDACTED];
432 end;
433 if pwcid=[REDACTED] then do;
434 [REDACTED];
435 [REDACTED];
436 [REDACTED];
437 [REDACTED];
438 end;
439 if pwcid=[REDACTED] then do;
440 [REDACTED];
441 [REDACTED];
442 end;
443 if pwcid=[REDACTED] then do;
444 [REDACTED];
445 [REDACTED];
446 [REDACTED];
447 [REDACTED];
448 [REDACTED];
449 [REDACTED];
450 [REDACTED];
451 end;
452 if pwcid=[REDACTED] then do;
453 [REDACTED];
454 [REDACTED];
455 [REDACTED];
456 [REDACTED];
457 [REDACTED];
458 end;
459 if pwcid=[REDACTED] then do;
460 [REDACTED];
461 [REDACTED];
462 [REDACTED];
463 [REDACTED];
464 [REDACTED];
465 end;
466 if pwcid=[REDACTED] then do;
467 [REDACTED];
468 [REDACTED];
469 [REDACTED];
470 [REDACTED];
471 [REDACTED];
472 [REDACTED];
473 [REDACTED];
474 end;
475 if pwcid=[REDACTED] then do;
476 [REDACTED];
477 [REDACTED];
478 [REDACTED];
479 [REDACTED];
480 [REDACTED];
```

```
481 [REDACTED];
482 [REDACTED];
483 [REDACTED];
484 end;
485 if pwcid=[REDACTED] then do;
486 [REDACTED];
487 [REDACTED];
488 [REDACTED];
489 [REDACTED];
490 [REDACTED];
491 [REDACTED];
492 end;
493 if pwcid=[REDACTED] then do;
494 [REDACTED];
495 [REDACTED];
496 [REDACTED];
497 end;
498 if pwcid=[REDACTED] then do;
499 [REDACTED];
500 [REDACTED];
501 [REDACTED];
502 [REDACTED];
503 [REDACTED];
504 end;
505
506 if pwcid=[REDACTED] then delete; ***Delete because this permit was closed on July 1,1999.***;
507
508 if pwcid=[REDACTED] then do;
509 [REDACTED];
510 [REDACTED];
511 end;
512 if pwcid=[REDACTED] then do;
513 [REDACTED];
514 [REDACTED];
515 [REDACTED];
516 [REDACTED];
517 [REDACTED];
518 [REDACTED];
519 [REDACTED];
520 [REDACTED];
521 [REDACTED];
522 [REDACTED];
523 end;
524 if pwcid=[REDACTED] then do;
525 [REDACTED];
526 [REDACTED];
527 [REDACTED];
528 [REDACTED];
529 end;
530 if pwcid=[REDACTED] then do;
531 [REDACTED];
532 [REDACTED];
533 [REDACTED];
534 [REDACTED];
535 end;
536 if pwcid=[REDACTED] then do;
537 [REDACTED];
538 [REDACTED];
539 [REDACTED];
540 [REDACTED];
541 [REDACTED];
542 end;
543 if pwcid=[REDACTED] then do;
544 [REDACTED];
545 [REDACTED];
546 end;
547 if pwcid=[REDACTED] then do;
548 [REDACTED];
549 [REDACTED];
550 [REDACTED];
```

```
551 end;
552 if pwcid= [REDACTED] then do;
553 [REDACTED];
554 [REDACTED];
555 end;
556 if pwcid= [REDACTED] then do;
557 [REDACTED];
558 [REDACTED];
559 [REDACTED];
560 [REDACTED];
561 [REDACTED];
562 [REDACTED];
563 [REDACTED];
564 [REDACTED];
565 [REDACTED];
566 end;
567 if pwcid= [REDACTED] then do;
568 [REDACTED];
569 [REDACTED];
570 [REDACTED];
571 [REDACTED];
572 [REDACTED];
573 [REDACTED];
574 [REDACTED];
575 [REDACTED];
576 [REDACTED];
577 [REDACTED];
578 end;
579 if pwcid= [REDACTED] then do;
580 [REDACTED];
581 [REDACTED];
582 [REDACTED];
583 [REDACTED];
584 end;
585 if pwcid= [REDACTED] then do;
586 [REDACTED];
587 [REDACTED];
588 [REDACTED];
589 end;
590 if pwcid= [REDACTED] then do;
591 [REDACTED];
592 [REDACTED];
593 [REDACTED];
594 [REDACTED];
595 [REDACTED];
596 [REDACTED];
597 [REDACTED];
598 end;
599 if pwcid= [REDACTED] then do;
600 [REDACTED];
601 [REDACTED];
602 [REDACTED];
603 [REDACTED];
604 [REDACTED];
605 end;
606 if pwcid= [REDACTED] then do;
607 [REDACTED];
608 [REDACTED];
609 [REDACTED];
610 [REDACTED];
611 [REDACTED];
612 [REDACTED];
613 [REDACTED];
614 [REDACTED];
615 [REDACTED];
616 [REDACTED];
617 [REDACTED];
618 [REDACTED];
619 [REDACTED];
620 [REDACTED];
```

```

621 [REDACTED];
622 [REDACTED];
623 [REDACTED];
624 end;
625 if pwcid=[REDACTED] then do;
626 [REDACTED];
627 [REDACTED];
628 [REDACTED];
629 [REDACTED];
630 end;
631 if pwcid=[REDACTED] then do;
632 [REDACTED];
633 [REDACTED];
634 [REDACTED];
635 [REDACTED];
636 [REDACTED];
637 [REDACTED];
638 [REDACTED];
639 [REDACTED];
640 end;
641 if pwcid=[REDACTED] then delete; ***This contact said that they would use the discount under 0.4 cent
642 discount and not under a 1 cent discount.;
643 ***Delete case because the contact could not be reached for a
644 validation call back.;
645 run;

```

NOTE: The data set USPS.RECODE has 240 observations and 53 variables.
NOTE: The DATA statement used 2.08 seconds.

```

646
647 /***The following case was completed hard copy because the contact called the 800 number ***/
648
649 data addon:
650 [REDACTED];
651 [REDACTED];
652 [REDACTED];
653 [REDACTED];
654 [REDACTED];
655 [REDACTED];
656 [REDACTED];
657 [REDACTED];
658 [REDACTED];
659 [REDACTED];
660 [REDACTED];
661 [REDACTED];
662 [REDACTED];
663 [REDACTED];
664 [REDACTED];
665 [REDACTED];
666 run;

```

NOTE: The data set WORK.ADDON has 1 observations and 16 variables.
NOTE: The DATA statement used 0.0 seconds.

```

667
668 /***Perform edits on all data. Prepare the data for flagging unusual and illogical data in the
669 program. logicchk.sas.***/
670
671 data usps.recode;
672 set usps.recode addon;
673
674 /***If the respondent said that they would mail the same volumes under the 0.4 cent discount and the
675 1 cent discount, then set the 1 cent estimates equal to the 0.4 cent estimates (the interviewer
676 was able to select '3 - SAME AS COLUMN B' for Q10.)***/
677
678 if q10='3' then do;
679 q11tot=q6tot;
680 q12tot=q7tot;

```

```

681         q13tot=q8tot;
682         tot2=tot1;
683     end;
684
685     array qc{9} q1tot q2tot q3tot q6tot q7tot q8tot q11tot q12tot q13tot;
686     array qn{9} qn1-qn9;
687     array prop{9} prop1-prop9;
688
689     array qctot{3} tot tot1 tot2;
690     array qntot{3} qntot1-qntot3;
691
692     array prop98_{3} prop98_1-prop98_3;
693     array vol98_{3} vol98_1-vol98_3;
694
695
696     do i = 1 to 3;
697
698     /**Store blank character volumes to '.' When converted to numeric it will store as missing rather
699     than zero***/
700
701         if qctot{i}='.' then qctot{i}='.';
702
703     /**Convert the following character variables to numeric: the 1999 estimated total, the estimated total under
704     the 0.4 cent discount,
705     and the estimated total under the 1 cent discount***/
706
707         qntot{i}=qctot{i}*1;
708
709     /**Calculate the proportion of the volume of each rate group to the total 98 volume***/
710
711         if tot98^=0 then prop98_{i}=vol98_{i}/tot98;
712     end;
713
714     do i = 1 to 9;
715
716     /**Store blank character volumes to '.' When converted to numeric it will store as missing rather
717     than zero***/
718
719         if qc{i}='.' then qc{i}='.';
720
721     /**Convert the following character variables to numeric for each rate group: the estimated 99
722     volumes, the estimated volumes under the 0.4 cent discount, and the estimated volumes
723     under the 1 cent discount***/
724
725         qn{i}=qc{i}*1;
726
727     /**Calculate the proportion of estimated 1999 volume for each rate group to the total estimated
728     1999 volume***/
729
730         if qntot1^=0 and qntot1^=. then do;
731             if i in (1,2,3) then prop{i}=qn{i}/qntot1;
732         end;
733
734         if qntot2^=0 and qntot2^=. then do;
735             if i in (4,5,6) and q5='1' then prop{i}=qn{i}/qntot2;
736         end;
737
738         if qntot3^=0 and qntot3^=. then do;
739             if i in (7,8,9) and q10='1' then prop{i}=qn{i}/qntot3;
740         end;
741     end;
742
743     /**Set the values of the volumes under the 0.4 cent discount and/or the 1 cent discount
744     to zero if the respondent said that he/she would not take advantage of the discount***/
745
746     do i=4 to 6;
747         if q5='2' then do;
748             qn{i}=0;
749             qntot2=0;

```

```
750         end;
751     end;
752     do i=7 to 9;
753         if q10='2' then do;
754             qn{i}=0;
755             qntot3=0;
756         end;
757     end;
758 run;
```

NOTE: Character values have been converted to numeric values at the places given by: (Line):(Column).
706:18 725:15

NOTE: Missing values were generated as a result of performing an operation on missing values.
Each place is given by: (Number of times) at (Line):(Column).

206 at 706:26 646 at 725:20 8 at 731:51 6 at 735:62 6 at 739:63

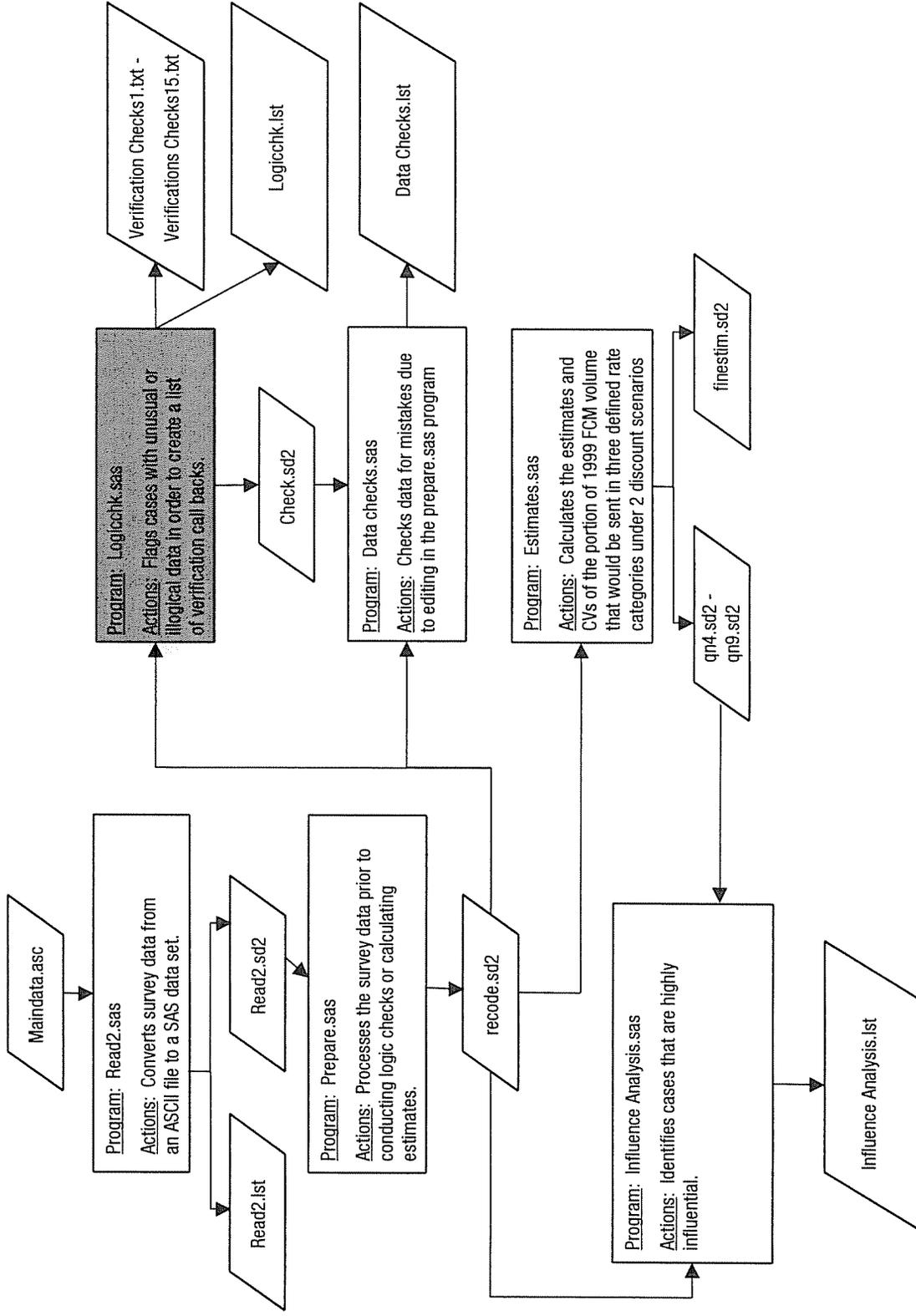
NOTE: The data set USPS.RECODE has 241 observations and 78 variables.

NOTE: The DATA statement used 0.48 seconds.

NOTE: SAS Institute Inc., SAS Campus Drive, Cary, NC USA 27513-2414

Section V: Documentation of Logicchk.sas

Flowchart of Survey Questionnaire Estimation Programs



FIRST-CLASS MAIL ESTIMATION PROGRAMS

STUDY: USPS Destination-Entry Discount Study

PROGRAM: Logicchk.sas

I. Requirements of Computer Analysis Relied Upon

A. A general description of the program:

1. Objectives of the program: The objective of the program is to flag unusual and illogical data for further review. Observations with at least one instance of the unusual data are printed, and a text file is created for observations with illogical data that require validation call back to the respondents.
2. Processing of tasks performed: This program automatically runs Prepare.sas in order to include all of the latest edits made to the data. Ten data checks are defined. Cases that fail require a validation call. Ten additional checks are performed that could potentially result in a validation call. These cases are output to a text file in preparation for the validation calls.

After this program was developed, it was determined that flag 4, 9, and 10 should be called for a validation check. Although the program was not designed to include flag 4, 9, and 10 in the text file output, these cases were examined and recontacted. See 'Actions of the program' for flag definitions.

3. Methods and procedures employed: See attached program listing.
4. A listing of the input and output data: See attached pages describing the names and sizes of input and output data.
5. A listing of the source codes: See attached program and documentation.

B. Input Data:

1. Designation of all sources of such data: The input data is the SAS data set of completed interviews, Recode.sd2, from the Prepare.sas program.
2. Explanation of any modifications to data made for use in the program: None.

C. Definitions of all input and output variables or sets of variables: See attached description of input and output data.

D. A description of input and output data file organization: See attached description of input and output data.

E. A machine-readable copy of all databases: The databases used in this program contain confidential information and are not provided.

F. For all source codes, documentation sufficiently comprehensive and detailed to satisfy generally accepted software documentation standards appropriate to the type of program and its intended use in the proceedings: See attached program and documentation.

- G. The source program in machine-readable form:** Both this program and the databases it uses are not provided due to confidentiality.
Name of Program: Logicchk.sas
- H. All pertinent operating system and programming language manuals:** SAS Language: Reference, SAS Procedures Guide
- I. If requested program is interactive, a representative sample program run, together with any explanation necessary to illustrate the response sequence:** N/A
- J. “Canned” Statistical Packages:** SAS v6.12 for Windows
- K. Special requirements for computer simulations models offered if evidence or relied upon as support for other evidence:** N/A

Program: Logicchk.sas

Input:

- (1) Recode.sd2
Description: Recode.sd2 is the cleaned SAS data set of the completed interviews created by the program, Prepare.sas.
- Number of observations: 241
Number of variables: 78

Outputs:

- (1) Check.sd2
Description: Check.sd2 is the SAS data set of the completed main interviews.
- Number of observations: 241
Number of variables: 95
- (2) Logicchk.lst
Description: Logicchk.lst is SAS listing file with potential data inconsistencies to be reviewed.
- (3) Verification Checks1.txt – Verification Checks15.txt
Description: These are 15 different text files each containing the cases that require a validation call. Each time the logicchk.sas program is run it creates a new text file with the additional cases that need to be called. Verification Checks15.txt contains 0 observations because the last time this program was run, there were no verification call backs required.

Description of new variables:

- Flag1-Flag3 Flags (for each of the three rate groups) if the proportion of any of the three rate groups to the total volume differs by more than +/-10% from 1998 to 1999
- Flag4 Flags if the total estimated 1999 volume differs by more than +/-25% of the 1998 volume
- Flag5 Flags if the total volume under the 0.4 cent discount is zero and the total volume under the 1 cent discount is nonzero
- Flag6-Flag8 Flags (for each of the three rate groups) if the increase of the volume under the 0.4 cent discount to the volume under the 1 cent discount is over 20%
- Flag9
Flag10 Flags if all 1999 volumes are zero
Flags if the respondent said 'Don't Know' or 'Refused' to any of the volumes.
- Contact1-Contact3 Flags for a re-contact if the total volume differs from the sum of the three rate groups
- Contact4-Contact6 Flags for a re-contact if the estimated volume for the 1 cent discount are lower than the estimated volume for the 0.4 cent discount

Contact7-Contact9

Flags (for each of the three rate groups) for a re-contact if the estimated volume for either discount level is greater than the corresponding 1999 estimated volume under no discount

Contact10

Flags for a re-contact if the respondent answered 'Don't Know' to whether they would take advantage of the discounts under either scenario

Actions of the program:

- Runs the Prepare.sas program.
- Flags cases for further review and possible validation call back to respondent.
- Flags cases for definitive validation call back to respondent. Prints out all potential problems for further review.
- Creates a text file with cases that require a validation call back.

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```
1 *****
2 ** Program Name:    logicchk.sas          **
3 ** Author:         Pahla Schutte         **
4 ** Reviewed By:    Rachel Allen and Kelly Thomas      **
5 ** Purpose:        To flag unusual survey data.      **
6 ** Inputs:         recode.sd2            **
7 ** Outputs:        check.sd2, logicchk.lst,          **
8 **                 Verification Checks1.txt-Verification Checks15.txt **
9 *****
10
11 options source2 mprint mlogic symbolgen;
12 Libname usps 's:\ogs\common\usps\main study\questionnaire\questionnaire data';
NOTE: Libref USPS was successfully assigned as follows:
   Engine:    V612
   Physical Name: s:\ogs\common\usps\main study\questionnaire\questionnaire data
13
14 /***Run the program that prepares the data set, prepare.sas***/
15 %include 's:\ogs\common\usps\main study\questionnaire\questionnaire data\prepare.sas';
NOTE: %INCLUDE (level 1) file s:\ogs\common\usps\main study\questionnaire\questionnaire data\prepare.sas is file
s:\ogs\common\usps\main study\questionnaire\questionnaire data\prepare.sas.
16 +*****
17 +** Program Name:    prepare.sas          **
18 +** Author:         Pahla Schutte         **
19 +** Reviewed By:    Rachel Allen and Kelly Thomas      **
20 +** Purpose:        To edit the data according to interviewer problem sheets **
21 +**                 and validation call results. To prepare the data for **
22 +**                 the calculations performed in the logic checks program. **
23 +** Inputs:         read2.sd2            **
24 +** Outputs:        recode.sd2          **
25 +*****
26 +
27 +libname usps 's:\ogs\common\usps\main study\questionnaire\questionnaire data';
NOTE: Libref USPS was successfully assigned as follows:
   Engine:    V612
   Physical Name: s:\ogs\common\usps\main study\questionnaire\questionnaire data
28 +
29 +/***Create a data set from read2.sd2 that recodes the data in preparation for logic checks.***/
30 +/***Keep only variables that serve as identifying information of the contact and volumes***/
31 +/***Rename variables for simplicity and ease of identification***/
32 +
33 +data usps.recode;
34 +   length q2tot $10.;
35 +   set usps.read2 (keep=intnum address caseid cat1vol cat2vol cat3vol city company contact permdate permit
permtyp
36 +   phone1 phonenumber pocity postate pozip pwcid q5 q10 q11tot q12tot q13tot q15a q1tot q2tot
37 +   q3tot q6tot q7tot q8tot state strata title tot tot1 tot2 totbulk zip q4a q9a q14a q15a
38 +   q1dkrf q2dkrf q3dkrf q4bdkrf q6dkrf q7dkrf q8dkrf q9bdkrf q11dkrf q12dkrf q13dkrf q14bdkrf
39 +   rename=(cat1vol=vol98_1 cat2vol=vol98_2 cat3vol=vol98_3 totbulk=tot98 q1dkrf=dkrf1 q2dkrf=dkrf2
40 +   q3dkrf=dkrf3 q4bdkrf=dkrf4 q6dkrf=dkrf5 q7dkrf=dkrf6 q8dkrf=dkrf7 q9bdkrf=dkrf8 q11dkrf=dkrf9
41 +   q12dkrf=dkrf10 q13dkrf=dkrf11 q14bdkrf=dkrf12));
42 +
43 +/***Edit the data according to the interviewers' problem sheets***/
44 +
45 +   if pwcid='[REDACTED]' then do;
46 +       [REDACTED];
47 +       [REDACTED];
48 +       [REDACTED];
49 +   end;
50 +   if pwcid='[REDACTED]' then do;
51 +       [REDACTED];
52 +       [REDACTED];
53 +       [REDACTED];
54 +       [REDACTED];
55 +
```

```

56 + end;
57 + if pwcid= [REDACTED] then do;
58 + [REDACTED];
59 + [REDACTED];
60 + end;
61 + if pwcid= [REDACTED] then do;
62 + [REDACTED];
63 + [REDACTED];
64 + [REDACTED];
65 + [REDACTED];
66 + end;
67 + if pwcid= [REDACTED] then do;
68 + [REDACTED];
69 + [REDACTED];
70 + [REDACTED];
71 + [REDACTED];
72 + [REDACTED];
73 + end;
74 + if pwcid= [REDACTED] then do;
75 + [REDACTED];
76 + [REDACTED];
77 + [REDACTED];
78 + [REDACTED];
79 + [REDACTED];
80 + [REDACTED];
81 + [REDACTED];
82 + [REDACTED];
83 + end;
84 +
85 + if pwcid= [REDACTED] then [REDACTED];
86 + if pwcid= [REDACTED] then do;
87 + [REDACTED];
88 + [REDACTED];
89 + [REDACTED];
90 + [REDACTED];
91 + [REDACTED];
92 + [REDACTED];
93 + [REDACTED];
94 + [REDACTED];
95 + [REDACTED];
96 + [REDACTED];
97 + [REDACTED];
98 + [REDACTED];
99 + end;
100 + if pwcid= [REDACTED] then do;
101 + [REDACTED];
102 + [REDACTED];
103 + [REDACTED];
104 + [REDACTED];
105 + [REDACTED];
106 + [REDACTED];
107 + end;
108 +
109 + if pwcid= [REDACTED] then delete; ***Deleted because it is a refusal***;
110 +
111 +
112 +/**Edit data according to corrections made after re-contacting the respondents***/
113 +
114 + if pwcid= [REDACTED] then do;
115 + [REDACTED];
116 + [REDACTED];
117 + [REDACTED];
118 + [REDACTED];
119 + [REDACTED];
120 + [REDACTED];
121 + [REDACTED];
122 + end;
123 + if pwcid= [REDACTED] then do;
124 + [REDACTED];
125 + [REDACTED];

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```
126 + [REDACTED];
127 + [REDACTED];
128 + end;
129 + if pwcid=[REDACTED] then do;
130 + [REDACTED];
131 + [REDACTED];
132 + [REDACTED];
133 + [REDACTED];
134 + [REDACTED];
135 + [REDACTED];
136 + end;
137 + if pwcid=[REDACTED] then do;
138 + [REDACTED];
139 + [REDACTED];
140 + [REDACTED];
141 + [REDACTED];
142 + [REDACTED];
143 + [REDACTED];
144 + [REDACTED];
145 + [REDACTED];
146 + end;
147 + if pwcid=[REDACTED] then do;
148 + [REDACTED];
149 + [REDACTED];
150 + [REDACTED];
151 + [REDACTED];
152 + [REDACTED];
153 + [REDACTED];
154 + [REDACTED];
155 + [REDACTED];
156 + [REDACTED];
157 + [REDACTED];
158 + [REDACTED];
159 + end;
160 + if pwcid=[REDACTED] then do;
161 + [REDACTED];
162 + [REDACTED];
163 + end;
164 + if pwcid=[REDACTED] then [REDACTED];
165 + if pwcid in ([REDACTED]) then do;
166 + [REDACTED];
167 + [REDACTED];
168 + [REDACTED];
169 + [REDACTED];
170 + [REDACTED];
171 + [REDACTED];
172 + end;
173 + if pwcid=[REDACTED] then do;
174 + [REDACTED];
175 + [REDACTED];
176 + end;
177 + if pwcid in ([REDACTED]) then do;
178 + [REDACTED];
179 + [REDACTED];
180 + [REDACTED];
181 + [REDACTED];
182 + [REDACTED];
183 + end;
184 + if pwcid=[REDACTED] then do;
185 + [REDACTED];
186 + [REDACTED];
187 + [REDACTED];
188 + [REDACTED];
189 + [REDACTED];
190 + [REDACTED];
191 + [REDACTED];
192 + [REDACTED];
193 + [REDACTED];
194 + [REDACTED];
195 + end;
```

```
196 +
197 + if pwcid= [REDACTED] then do;
198 + [REDACTED]
199 + [REDACTED]
200 + [REDACTED]
201 + [REDACTED]
202 + [REDACTED]
203 + [REDACTED]
204 + [REDACTED]
205 + [REDACTED]
206 + [REDACTED]
207 + [REDACTED]
208 + [REDACTED]
209 + [REDACTED]
210 + end;
211 + if pwcid= [REDACTED] then do;
212 + [REDACTED]
213 + [REDACTED]
214 + [REDACTED]
215 + [REDACTED]
216 + [REDACTED]
217 + [REDACTED]
218 + [REDACTED]
219 + [REDACTED]
220 + [REDACTED]
221 + [REDACTED]
222 + [REDACTED]
223 + [REDACTED]
224 + end;
225 + if pwcid= [REDACTED] then do;
226 + [REDACTED]
227 + [REDACTED]
228 + [REDACTED]
229 + [REDACTED]
230 + [REDACTED]
231 + [REDACTED]
232 + [REDACTED]
233 + end;
234 + if pwcid= [REDACTED] then do;
235 + [REDACTED]
236 + [REDACTED]
237 + [REDACTED]
238 + [REDACTED]
239 + [REDACTED]
240 + [REDACTED]
241 + [REDACTED]
242 + [REDACTED]
243 + end;
244 +
245 + if pwcid= [REDACTED] then do;
246 + [REDACTED]
247 + [REDACTED]
248 + [REDACTED]
249 + [REDACTED]
250 + [REDACTED]
251 + [REDACTED]
252 + [REDACTED]
253 + [REDACTED]
254 + [REDACTED]
255 + end;
256 + if pwcid= [REDACTED] then do;
257 + [REDACTED]
258 + [REDACTED]
259 + [REDACTED]
260 + [REDACTED]
261 + [REDACTED]
262 + [REDACTED]
263 + end;
264 + if pwcid= [REDACTED] then do;
265 + [REDACTED]
```

```
266 + ██████████
267 + ██████████
268 + ██████████
269 + ██████████
270 + ██████████
271 + ██████████
272 + ██████████
273 + end;
274 + if pwcid=████████ then do;
275 + ██████████
276 + ██████████
277 + ██████████
278 + ██████████
279 + end;
280 + if pwcid=████████ then do;
281 + ██████████
282 + ██████████
283 + ██████████
284 + ██████████
285 + ██████████
286 + ██████████
287 + end;
288 + if pwcid=████████ then do;
289 + ██████████
290 + ██████████
291 + ██████████
292 + end;
293 + if pwcid=████████ then do;
294 + ██████████
295 + ██████████
296 + ██████████
297 + ██████████
298 + ██████████
299 + ██████████
300 + ██████████
301 + ██████████
302 + end;
303 + if pwcid=████████ then do;
304 + ██████████
305 + ██████████
306 + ██████████
307 + ██████████
308 + ██████████
309 + ██████████
310 + ██████████
311 + ██████████
312 + ██████████
313 + ██████████
314 + end;
315 + if pwcid=████████ then do;
316 + ██████████
317 + ██████████
318 + ██████████
319 + ██████████
320 + ██████████
321 + ██████████
322 + ██████████
323 + ██████████
324 + end;
325 + if pwcid=████████ then do;
326 + ██████████
327 + ██████████
328 + ██████████
329 + ██████████
330 + end;
331 + if pwcid=████████ then do;
332 + ██████████
333 + ██████████
334 + ██████████
335 + ██████████
```

```
336 + [REDACTED];
337 + [REDACTED];
338 + [REDACTED];
339 + end;
340 + if pwcid=[REDACTED] then do;
341 + [REDACTED];
342 + [REDACTED];
343 + [REDACTED];
344 + [REDACTED];
345 + [REDACTED];
346 + end;
347 + if pwcid=[REDACTED] then do;
348 + [REDACTED];
349 + [REDACTED];
350 + [REDACTED];
351 + [REDACTED];
352 + [REDACTED];
353 + [REDACTED];
354 + [REDACTED];
355 + [REDACTED];
356 + [REDACTED];
357 + [REDACTED];
358 + [REDACTED];
359 + [REDACTED];
360 + [REDACTED];
361 + [REDACTED];
362 + [REDACTED];
363 + end;
364 + if pwcid=[REDACTED] then do;
365 + [REDACTED];
366 + [REDACTED];
367 + [REDACTED];
368 + end;
369 + if pwcid=[REDACTED] then do;
370 + [REDACTED];
371 + [REDACTED];
372 + [REDACTED];
373 + [REDACTED];
374 + [REDACTED];
375 + end;
376 + if pwcid=[REDACTED] then do;
377 + [REDACTED];
378 + [REDACTED];
379 + [REDACTED];
380 + [REDACTED];
381 + [REDACTED];
382 + [REDACTED];
383 + [REDACTED];
384 + end;
385 + if pwcid=[REDACTED] then do;
386 + [REDACTED];
387 + [REDACTED];
388 + [REDACTED];
389 + end;
390 + if pwcid=[REDACTED] then do;
391 + [REDACTED];
392 + [REDACTED];
393 + [REDACTED];
394 + [REDACTED];
395 + [REDACTED];
396 + end;
397 + if pwcid=[REDACTED] then do;
398 + [REDACTED];
399 + [REDACTED];
400 + [REDACTED];
401 + [REDACTED];
402 + [REDACTED];
403 + [REDACTED];
404 + [REDACTED];
405 + end;
```

```
406 + if pwcid= [REDACTED] then do;
407 + [REDACTED];
408 + [REDACTED];
409 + [REDACTED];
410 + [REDACTED];
411 + [REDACTED];
412 + end;
413 + if pwcid= [REDACTED] then do;
414 + [REDACTED];
415 + [REDACTED];
416 + [REDACTED];
417 + [REDACTED];
418 + [REDACTED];
419 + [REDACTED];
420 + [REDACTED];
421 + [REDACTED];
422 + [REDACTED];
423 + [REDACTED];
424 + [REDACTED];
425 + [REDACTED];
426 + [REDACTED];
427 + [REDACTED];
428 + end;
429 + if pwcid= [REDACTED] then do;
430 + [REDACTED];
431 + [REDACTED];
432 + end;
433 + if pwcid= [REDACTED] then do;
434 + [REDACTED];
435 + [REDACTED];
436 + [REDACTED];
437 + [REDACTED];
438 + end;
439 + if pwcid= [REDACTED] then do;
440 + [REDACTED];
441 + [REDACTED];
442 + [REDACTED];
443 + [REDACTED];
444 + [REDACTED];
445 + [REDACTED];
446 + [REDACTED];
447 + end;
448 + if pwcid= [REDACTED] then do;
449 + [REDACTED];
450 + [REDACTED];
451 + [REDACTED];
452 + [REDACTED];
453 + end;
454 + if pwcid= [REDACTED] then do;
455 + [REDACTED];
456 + [REDACTED];
457 + end;
458 + if pwcid= [REDACTED] then do;
459 + [REDACTED];
460 + [REDACTED];
461 + [REDACTED];
462 + [REDACTED];
463 + [REDACTED];
464 + [REDACTED];
465 + [REDACTED];
466 + end;
467 + if pwcid= [REDACTED] then do;
468 + [REDACTED];
469 + [REDACTED];
470 + [REDACTED];
471 + [REDACTED];
472 + [REDACTED];
473 + end;
474 + if pwcid= [REDACTED] then do;
475 + [REDACTED];
```

```

476 + ██████████;
477 + ██████████;
478 + ██████████;
479 + ██████████;
480 + end;
481 + if pwcid=████████ then do;
482 + ██████████;
483 + ██████████;
484 + ██████████;
485 + ██████████;
486 + ██████████;
487 + ██████████;
488 + ██████████;
489 + end;
490 + if pwcid=████████ then do;
491 + ██████████;
492 + ██████████;
493 + ██████████;
494 + ██████████;
495 + ██████████;
496 + ██████████;
497 + ██████████;
498 + ██████████;
499 + end;
500 + if pwcid=████████ then do;
501 + ██████████;
502 + ██████████;
503 + ██████████;
504 + ██████████;
505 + ██████████;
506 + ██████████;
507 + end;
508 + if pwcid=████████ then do;
509 + ██████████;
510 + ██████████;
511 + ██████████;
512 + end;
513 + if pwcid=████████ then do;
514 + ██████████;
515 + ██████████;
516 + ██████████;
517 + ██████████;
518 + ██████████;
519 + end;
520 +
521 + if pwcid=████████ then delete; ***Delete because this permit was closed on July 1,1999.***;
522 +
523 + if pwcid=████████ then do;
524 + ██████████;
525 + ██████████;
526 + end;
527 + if pwcid=████████ then do;
528 + ██████████;
529 + ██████████;
530 + ██████████;
531 + ██████████;
532 + ██████████;
533 + ██████████;
534 + ██████████;
535 + ██████████;
536 + ██████████;
537 + ██████████;
538 + end;
539 + if pwcid=████████ then do;
540 + ██████████;
541 + ██████████;
542 + ██████████;
543 + ██████████;
544 + end;
545 + if pwcid=████████ then do;

```

```
546 + [REDACTED];
547 + [REDACTED];
548 + [REDACTED];
549 + [REDACTED];
550 + end;
551 + if pwcid=[REDACTED] then do;
552 + [REDACTED];
553 + [REDACTED];
554 + [REDACTED];
555 + [REDACTED];
556 + [REDACTED];
557 + end;
558 + if pwcid=[REDACTED] then do;
559 + [REDACTED];
560 + [REDACTED];
561 + end;
562 + if pwcid=[REDACTED] then do;
563 + [REDACTED];
564 + [REDACTED];
565 + [REDACTED];
566 + end;
567 + if pwcid=[REDACTED] then do;
568 + [REDACTED];
569 + [REDACTED];
570 + end;
571 + if pwcid=[REDACTED] then do;
572 + [REDACTED];
573 + [REDACTED];
574 + [REDACTED];
575 + [REDACTED];
576 + [REDACTED];
577 + [REDACTED];
578 + [REDACTED];
579 + [REDACTED];
580 + [REDACTED];
581 + end;
582 + if pwcid=[REDACTED] then do;
583 + [REDACTED];
584 + [REDACTED];
585 + [REDACTED];
586 + [REDACTED];
587 + [REDACTED];
588 + [REDACTED];
589 + [REDACTED];
590 + [REDACTED];
591 + [REDACTED];
592 + [REDACTED];
593 + end;
594 + if pwcid=[REDACTED] then do;
595 + [REDACTED];
596 + [REDACTED];
597 + [REDACTED];
598 + [REDACTED];
599 + end;
600 + if pwcid=[REDACTED] then do;
601 + [REDACTED];
602 + [REDACTED];
603 + [REDACTED];
604 + end;
605 + if pwcid=[REDACTED] then do;
606 + [REDACTED];
607 + [REDACTED];
608 + [REDACTED];
609 + [REDACTED];
610 + [REDACTED];
611 + [REDACTED];
612 + [REDACTED];
613 + end;
614 + if pwcid=[REDACTED] then do;
615 + [REDACTED];
```

```

616 + ██████████;
617 + ██████████;
618 + ██████████;
619 + ██████████;
620 + end;
621 + if pwcid=████████ then do;
622 + ██████████;
623 + ██████████;
624 + ██████████;
625 + ██████████;
626 + ██████████;
627 + ██████████;
628 + ██████████;
629 + ██████████;
630 + ██████████;
631 + ██████████;
632 + ██████████;
633 + ██████████;
634 + ██████████;
635 + ██████████;
636 + ██████████;
637 + ██████████;
638 + ██████████;
639 + end;
640 + if pwcid=████████ then do;
641 + ██████████;
642 + ██████████;
643 + ██████████;
644 + ██████████;
645 + end;
646 + if pwcid=████████ then do;
647 + ██████████;
648 + ██████████;
649 + ██████████;
650 + ██████████;
651 + ██████████;
652 + ██████████;
653 + ██████████;
654 + ██████████;
655 + end;
656 + if pwcid=████████ then delete; ***This contact said that they would use the discount under 0.4 cent
657 + discount and not under a 1 cent discount.;
658 + ***Delete case because the contact could not be reached for a
659 + validation call back.;
660 +run;

```

NOTE: The data set USPS.RECODE has 240 observations and 53 variables.
NOTE: The DATA statement used 0.6 seconds.

```

661 +
662 +/**The following case was completed hard copy because the contact called the 800 number ***/
663 +
664 +data addon;
665 + pwcid=████████;
666 + ██████████;
667 + ██████████;
668 + ██████████;
669 + ██████████;
670 + ██████████;
671 + ██████████;
672 + ██████████;
673 + ██████████;
674 + ██████████;
675 + ██████████;
676 + ██████████;
677 + ██████████;
678 + ██████████;
679 + ██████████;
680 + ██████████;

```

681 +run;

NOTE: The data set WORK.ADDON has 1 observations and 16 variables.

NOTE: The DATA statement used 0.05 seconds.

```
682 +
683 +/**Perform edits on all data. Prepare the data for flagging unusual and illogical data in the
684 +program. logicchk.sas.***/
685 +
686 +data usps.recode;
687 +   set usps.recode addon;
688 +
689 +/**If the respondent said that they would mail the same volumes under the 0.4 cent discount and the
690 +   1 cent discount, then set the 1 cent estimates equal to the 0.4 cent estimates (the interviewer
691 +   was able to select '3 - SAME AS COLUMN B' for Q10.)***/
692 +
693 +   if q10='3' then do;
694 +       q11tot=q6tot;
695 +       q12tot=q7tot;
696 +       q13tot=q8tot;
697 +       tot2=tot1;
698 +   end;
699 +
700 +   array qc{9} q1tot q2tot q3tot q6tot q7tot q8tot q11tot q12tot q13tot;
701 +   array qn{9} qn1-qn9;
702 +   array prop{9} prop1-prop9;
703 +
704 +   array qctot{3} tot tot1 tot2;
705 +   array qntot{3} qntot1-qntot3;
706 +
707 +   array prop98_{3} prop98_1-prop98_3;
708 +   array vol98_{3} vol98_1-vol98_3;
709 +
710 +
711 +   do i = 1 to 3;
712 +
713 +/**Store blank character volumes to '.' When converted to numeric it will store as missing rather
714 +   than zero***/
715 +
716 +   if qctot{i}=' ' then qctot{i}='.';
717 +
718 +/**Convert the following character variables to numeric: the 1999 estimated total, the estimated total under
719 +   the 0.4 cent discount,
720 +   and the estimated total under the 1 cent discount***/
721 +
722 +   qntot{i}=qctot{i}*1;
723 +
724 +/**Calculate the proportion of the volume of each rate group to the total 98 volume***/
725 +
726 +   if tot98^=0 then prop98_{i}=vol98_{i}/tot98;
727 +   end;
728 +
729 +   do i = 1 to 9;
730 +
731 +/**Store blank character volumes to '.' When converted to numeric it will store as missing rather
732 +   than zero***/
733 +
734 +   if qc{i}=' ' then qc{i}='.';
735 +
736 +/**Convert the following character variables to numeric for each rate group: the estimated 99
737 +   volumes, the estimated volumes under the 0.4 cent discount, and the estimated volumes
738 +   under the 1 cent discount***/
739 +
740 +   qn{i}=qc{i}*1;
741 +
742 +/**Calculate the proportion of estimated 1999 volume for each rate group to the total estimated
743 +   1999 volume***/
744 +
```

```

745 +   if qntot1 ^=0 and qntot1 ^=. then do;
746 +       if i in (1,2,3) then prop{i}=qn{i}/qntot1;
747 +   end;
748 +
749 +   if qntot2 ^=0 and qntot2 ^=. then do;
750 +       if i in (4,5,6) and q5='1' then prop{i}=qn{i}/qntot2;
751 +   end;
752 +
753 +   if qntot3 ^=0 and qntot3 ^=. then do;
754 +       if i in (7,8,9) and q10='1' then prop{i}=qn{i}/qntot3;
755 +   end;
756 +   end;
757 +
758 +/***Set the values of the volumes under the 0.4 cent discount and/or the 1 cent discount
759 +   to zero if the respondent said that he/she would not take advantage of the discount***/
760 +
761 +   do i=4 to 6;
762 +       if q5='2' then do;
763 +           qn{i}=0;
764 +           qntot2=0;
765 +       end;
766 +   end;
767 +   do i=7 to 9;
768 +       if q10='2' then do;
769 +           qn{i}=0;
770 +           qntot3=0;
771 +       end;
772 +   end;
773 +run;

```

NOTE: Character values have been converted to numeric values at the places given by: (Line):(Column).
721:18 740:15

NOTE: Missing values were generated as a result of performing an operation on missing values.
Each place is given by: (Number of times) at (Line):(Column).

206 at 721:26 646 at 740:20 8 at 746:51 6 at 750:62 6 at 754:63

NOTE: The data set USPS.RECODE has 241 observations and 78 variables.

NOTE: The DATA statement used 0.66 seconds.

NOTE: %INCLUDE (level 1) ending.

```

774
775   /***Change the value of num to the number of completed interviews from the last time the program
776   was run.***/
777   /***Type in the number of completes there are now: 241***/
778   %let num=232;
779   %let num=%eval(&num);
SYMBOLGEN: Macro variable NUM resolves to 232
780
781   /***Increase a by 1 each time the program is run.***/
782   %let a=15;
783
784   data usps.check;
785       set usps.recode (drop=tot tot1 tot2);
786       array dkrf{12} dkrf1-dkrf12;
787
788   /***This data set will only contain data from interviews completed since the last time this
789   program was run. This will ensure that new flag and re-contact lists are generated
790   each time the program is run.***/
791
792   if _n_ > &num;
SYMBOLGEN: Macro variable NUM resolves to 232
793
794   array flag{3} flag1-flag3;
795   array qn{9} qn1-qn9;
796   array prop{9} prop1-prop9;
797   array qntot{3} qntot1-qntot3;
798   array prop98_{3} prop98_1-prop98_3;
799   array qc{9} q1tot q2tot q3tot q6tot q7tot q8tot q11tot q12tot q13tot;
800
801   /***Flag if the "mix" of mail sent differs more than +/- 10% from 1998 to 1999***/

```

```

802
803     do i = 1 to 3;
804         if abs(prop{i}-prop98_{i}) > .1 then flag{i}=1;
805     end;
806
807     /**Flag if 1999 estimated total volume (qntot1) differs by more than +/- 25% of the 1998 total
808     (tot98)*/
809
810     if not ((.75*tot98)<qntot1<(1.25*tot98)) then flag4=1;
811
812     /**Flag if the total estimated 1999 volume under the 0.4 cent discount is 0 and the total of
813     estimated volume under the 1 cent discount is nonzero***/
814
815     if qntot2=0 and qntot3^=0 then flag5=1;
816
817     /**Flag if the increase from the estimated volumes (nonzero) under the 0.4 cent discount to
818     the estimated volumes under the 1 cent discount is over 20%**/
819
820     if q5='1' then do;
821         if qn4^=0 then do;
822             if (qn7-qn4)/qn4 > .2 then flag6=1;
823         end;
824         if qn5^=0 then do;
825             if (qn8-qn5)/qn5 > .2 then flag7=1;
826         end;
827         if qn6^=0 then do;
828             if (qn9-qn6)/qn6 > .2 then flag8=1;
829         end;
830     end;
831
832     /**Flag if all 1999 volumes are zero***/
833     if qn1=0 and qn2=0 and qn3=0 then flag9=1;
834
835     /**Flag if respondent said 'Don't know' or 'Refused' for any volume***/
836     do i=1 to 12;
837         if dkrf{i} in ('DK','RF') or q4a='9' or q9a='9' or q14a='9' then flag10=1;
838     end;
839
840
841
842     /**Recontact if the total volume differs from the sum of the 3 rate groups***/
843     if qntot1 ne qn1+qn2+qn3 then contact1=1;
844     if qntot2 ne qn4+qn5+qn6 then contact2=1;
845     if qntot3 ne qn7+qn8+qn9 then contact3=1;
846
847     /**Recontact if the estimates for the 1 cent discount are less than the estimates
848     for the 0.4 cent discount***/
849     if qn7 < qn4 then contact4=1;
850     if qn8 < qn5 then contact5=1;
851     if qn9 < qn6 then contact6=1;
852
853     /**Recontact if the estimated discount volumes for any rate group are greater than
854     their corresponding 1999 estimated volume***/
855     do i = 1 to 9;
856         if i in (4,7) then do;
857             if qn{i}>qn1 then contact7=1;
858         end;
859         if i in (5,8) then do;
860             if qn{i}>qn2 then contact8=1;
861         end;
862         if i in (6,9) then do;
863             if qn{i}>qn3 then contact9=1;
864         end;
865     end;
866
867     /**Recontact if the respondent answered 'Don't Know' to Q5 or to Q10***/
868
869     if q5='8' or q10='8' then contac10=1;
870 run;

```

NOTE: The data set USPS.CHECK has 9 observations and 95 variables.
NOTE: The DATA statement used 0.33 seconds.

```
871
872  /***Create a data set that contains observations with at least one flag***/
873  data flags;
874      set usps.check;
875      if flag1=1 or flag2=1 or flag3=1 or flag4=1 or flag5=1 or flag6=1 or flag7=1 or flag8=1 or
876          flag9=1 or flag10=1;
877  run;
```

NOTE: The data set WORK.FLAGS has 4 observations and 95 variables.
NOTE: The DATA statement used 0.05 seconds.

```
878
879  proc sort data=flags;
880      by pwcid;
881  run;
```

NOTE: The data set WORK.FLAGS has 4 observations and 95 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

```
882
883  proc print data=flags;
884      by pwcid;
885      pageby pwcid;
886      title 'Flagged Cases';
887  run;
```

NOTE: The PROCEDURE PRINT printed pages 1-4.
NOTE: The PROCEDURE PRINT used 0.22 seconds.

```
888
889  proc print data=flags;
890      var pwcid flag1-flag10;
891      title 'Flag Summary';
892  run;
```

NOTE: The PROCEDURE PRINT printed page 5.
NOTE: The PROCEDURE PRINT used 0.0 seconds.

```
893
894  /***Create a data set that contains observations with at least one reason for re-contact***/
895
896  data contact;
897      set usps.check;
898      if contact1=1 or contact2=1 or contact3=1 or contact4=1 or contact5=1 or contact6=1 or
899          contact7=1 or contact8=1 or contact9=1 or contact10=1;
900  run;
```

NOTE: The data set WORK.CONTACT has 0 observations and 95 variables.
NOTE: The DATA statement used 0.05 seconds.

```
901
902  proc sort data=contact;
903      by pwcid;
904  run;
```

NOTE: Input data set is empty.
NOTE: The data set WORK.CONTACT has 0 observations and 95 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

```
905
```

```

906 proc print data=contact;
907     var pwcid contact1-contact9 contac10 intnum;
908     title 'Re-contact Summary';
909 run;

```

NOTE: No observations in data set WORK.CONTACT.
NOTE: The PROCEDURE PRINT used 0.0 seconds.

```

910
911 /***Create a data set of all cases that should be called to verify data. This includes all
912 contacts and flags 4,9, and 10***/
913
914 data combo;
915     set usps.check;
916     if contact1=1 or contact2=1 or contact3=1 or contact4=1 or contact5=1 or contact6=1 or
917     contact7=1 or contact8=1 or contact9=1 or contac10=1 or
918     flag4=1 or flag9=1 or flag10=1;
919 run;

```

NOTE: The data set WORK.COMBO has 3 observations and 95 variables.
NOTE: The DATA statement used 0.05 seconds.

```

920
921 proc sort data=combo;
922     by pwcid;
923 run;

```

NOTE: The data set WORK.COMBO has 3 observations and 95 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

```

924
925 proc print data=combo;
926     title 'All Calls';
927     var pwcid flag4 flag9 flag10 contact1-contact9 contac10;
928 run;

```

NOTE: The PROCEDURE PRINT printed page 6.
NOTE: The PROCEDURE PRINT used 0.0 seconds.

```

929 /***Create a text file that has all necessary information for re-contacting the respondents who
930 contributed inconsistent or illogical data***/
931
932 data contact;
933     set contact;
SYMBOLGEN: Macro variable A resolves to 15
934     file "s:\logs\common\usps\main study\questionnaire\questionnaire data\Verification Checks&a.txt"
irecl=360;
935
936     put @1 'Pwcid: '
937         @8 pwcid $5.
938         @35 'Company: '
939         @45 company $40.
940         @86 'City: '
941         @92 city $20.
942         @107 'PO City: '
943         @116 pocity $15.;
944     put @1 'Contact: '
945         @10 contact $20.
946         @35 'Phone Number: '
947         @49 phonenum $10.
948         @86 'State: '
949         @93 state $2.
950         @107 'PO State: '
951         @117 postate $2.;
952     put @1 'Permit: '
953         @9 permit $5.
954         @35 'Mailtype: '

```

```

955      @45 permtyp $30.
956      @107 'PO ZIP: '
957      @115 pozip $5.;
958      put @1 '1998 Volume (1): '
959      @18 vol98_1 commal2.
960      @35 '1998 Volume (2): '
961      @52 vol98_2 commal2.
962      @69 '1998 Volume (3): '
963      @86 vol98_3 commal2.
964      @103 'Total 1998 Vol: '
965      @119 tot98 commal2.;
966      put @1 'Est 99 Vol (1): '
967      @18 qn1 commal2.
968      @35 'Est 99 Vol (2): '
969      @52 qn2 commal2.
970      @69 'Est 99 Vol (3): '
971      @86 qn3 commal2.
972      @103 'Total Est 99 Vol: '
973      @122 qntot1 commal2.;
974      put @1 '0.4 Cent Vol (1): '
975      @18 qn4 commal2.
976      @35 '0.4 Cent Vol (2): '
977      @52 qn5 commal2.
978      @69 '0.4 Cent Vol (3): '
979      @86 qn6 commal2.
980      @103 '0.4 Cent Tot: '
981      @122 qntot2 commal2.;
982      put @1 '1 Cent Vol (1): '
983      @18 qn7 commal2.
984      @35 '1 Cent Vol (2): '
985      @52 qn8 commal2.
986      @69 '1 Cent Vol (3): '
987      @86 qn9 commal2.
988      @103 '1 Cent Tot: '
989      @122 qntot3 commal2.;
990      put @1 'Q5: '
991      @5 q5 $1.
992      @10 'Q10: '
993      @15 q10 $1.;
994
995      put;
996      put;
997      put @1 'Type of Re-contact: ';
998      put @5 'Total estimated 99 volume differs from the sum of the 3 rate groups: '
999      @74 contact1 1.;
1000     put @5 'Total estimated volume for 0.4 cent discount differs from the sum of the 3 rate groups: '
1001     @94 contact2 1.;
1002     put @5 'Total estimated volume for 1 cent discount differs from the sum of the 3 rate groups: '
1003     @92 contact3 1.;
1004     put @5 '1 cent estimates are less than the 0.4 cent estimates for rate group 1: '
1005     @79 contact4 1.;
1006     put @5 '1 cent estimates are less than the 0.4 cent estimates for rate group 2: '
1007     @79 contact5 1.;
1008     put @5 '1 cent estimates are less than the 0.4 cent estimates for rate group 3: '
1009     @79 contact6 1.;
1010     put @5 'Estimates for rate group 1 are greater than their corresponding 1999 estimated volume: '
1011     @94 contact7 1.;
1012     put @5 'Estimates for rate group 2 are greater than their corresponding 1999 estimated volume: '
1013     @94 contact8 1.;
1014     put @5 'Estimates for rate group 3 are greater than their corresponding 1999 estimated volume: '
1015     @94 contact9 1.;
1016     put @5 "Respondent answered Don't Know to Q5 or to Q10: "
1017     @55 contact10 1.;
1018     put;
1019     put;
1020
1021     put @1 'Recontact Notes: ';
1022
1023
1024     run;

```

NOTE: The file "s:\ogs\common\usps\main study\questionnaire\questionnaire data\Verification Checks15.txt" is:
FILENAME=s:\ogs\common\usps\main study\questionnaire\questionnaire data\Verification Checks15.txt,
RECFM=V,LRECL=360

NOTE: 0 records were written to the file "s:\ogs\common\usps\main study\questionnaire\questionnaire data\Verification Checks15.txt".

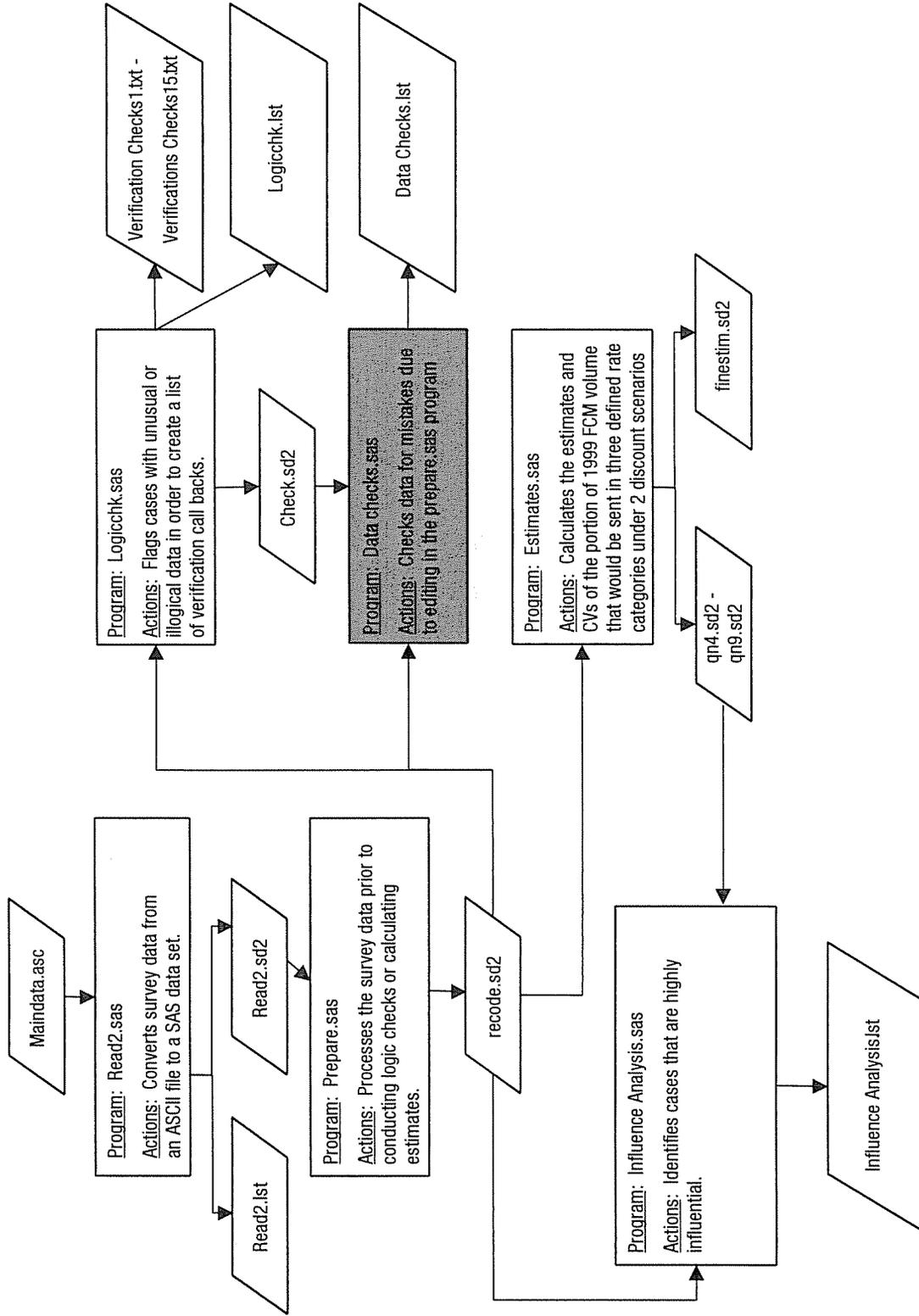
NOTE: The data set WORK.CONTACT has 0 observations and 95 variables.

NOTE: The DATA statement used 0.1 seconds.

NOTE: SAS Institute Inc., SAS Campus Drive, Cary, NC USA 27513-2414

Section VI: Documentation of Data Checks.sas

Flowchart of Survey Questionnaire Estimation Programs



FIRST-CLASS MAIL ESTIMATION PROGRAMS

STUDY: USPS Destination-Entry Discount Study

PROGRAM: Data Checks.sas

I. Requirements of Computer Analysis Relied Upon

A. A general description of the program:

1. Objectives of the program: The objective of this program is to review the data for any possible errors due to the editing in the prepare.sas program.
2. Processing of task performed: This program prints out the data in ten different ways in order to show any possible errors due to editing in prepare.sas.
3. Methods and procedures employed: See attached program listing.
4. A listing of the input and output data: See attached pages describing the names and sizes of input and output data.
5. A listing of the source codes: See attached program and documentation.

B. Input Data:

1. Designation of all sources of such data: The input data are the SAS data set of completed interviews, Recode.sd2, from the Prepare.sas program, and the SAS data set, check.sd2, from the Logicchk.sas program.
2. Explanation of any modifications to data made for use in the program: None.

C. Definitions of all input and output variables or sets of variables: See attached description of input and output data.

D. A description of input and output data file organization: See attached description of input and output data.

E. A machine-readable copy of all databases: The databases used in this program contain confidential information and are not provided.

F. For all source codes, documentation sufficiently comprehensive and detailed to satisfy generally accepted software documentation standards appropriate to the type of program and its intended use in the proceedings: See attached program and documentation.

G. The source program in machine-readable form: The databases associated with this program are not provided due to confidentiality. The program can be provided upon request.
Name of Program: Data Checks.sas

H. All pertinent operating system and programming language manuals: SAS Language: Reference, SAS Procedures Guide

- I. **If requested program is interactive, a representative sample program run, together with any explanation necessary to illustrate the response sequence:** N/A
- J. **“Canned” Statistical Packages:** SAS v6.12 for Windows
- K. **Special requirements for computer simulations models offered if evidence or relied upon as support for other evidence:** N/A

Program: Data Checks.sas

Inputs:

- (1) Recode.sd2
Description: Recode.sd2 is the cleaned SAS data set of the completed interviews created by the program, Prepare.sas.
- | | |
|-------------------------|-----|
| Number of observations: | 241 |
| Number of variables: | 78 |
- (2) Check.sd2
Description: Check.sd2 is the SAS data set of the completed main interviews created by the program, Logicchk.sas.
- | | |
|-------------------------|-----|
| Number of observations: | 241 |
| Number of variables: | 95 |

Output:

- (1) Data Checks.lst
Description: Data Checks.lst is a SAS list file that prints the data for review.

Actions of the Program:

- Prints data from recode.sd2 that shows potential errors due to improper editing.
- Prints data from check.sd2 that shows the cases that are still flagged after the validation calls are made. All validation calls that are unresolved are not included in the temporary data set that is created with check.sd2.

NOTE: Copyright (c) 1989-1996 by SAS Institute Inc., Cary, NC, USA.
NOTE: SAS (r) Proprietary Software Release 6.12 TS025
Licensed to PRICEWATERHOUSECOOPERS LLP, Site 0015509006.

```
1 *****
2 ** Program Name:   data checks.sas           **
3 ** Author:       Pahlia Schutte           **
4 ** Reviewed By:  Rachel Allen             **
5 ** Purpose:      To check the data for mistakes due to editing in the **
6 **               prepare.sas program     **
7 ** Inputs:       check.sd2, recode.sd2     **
8 ** Outputs:      data checks.lst          **
9 *****
10
11 libname usps 's:\logs\common\usps\main study\questionnaire\questionnaire data';
NOTE: Libref USPS was successfully assigned as follows:
      Engine:      V612
      Physical Name: s:\logs\common\usps\main study\questionnaire\questionnaire data
12
13
14 /***Check #1***/
15 proc print data=usps.recode;
16     var pwcid q1tot dkrf1 q2tot dkrf2 q3tot dkrf3 tot dkrf4 q6tot dkrf5 q7tot dkrf6 q8tot dkrf7 tot1 dkrf8
17     q11tot dkrf9 q12tot dkrf10 q13tot dkrf11 tot2 dkrf12;
18     title "Check #1: If there is a DK or RF, make sure that the corresponding volume is 0";
19 run;
```

NOTE: The PROCEDURE PRINT used 0.66 seconds.

```
20
21 data recodes;
22     set usps.recode;
23 run;
```

NOTE: The data set WORK.RECODES has 241 observations and 78 variables.
NOTE: The DATA statement used 0.55 seconds.

```
24
25 proc sort data=recodes;
26     by q5;
27 run;
```

NOTE: The data set WORK.RECODES has 241 observations and 78 variables.
NOTE: The PROCEDURE SORT used 0.16 seconds.

```
28
29 /***Check #2***/
30 proc print data=recodes;
31     var pwcid q5 q6tot dkrf5 q7tot dkrf6 q8tot dkrf7 tot1 dkrf8;
32     title "Check#2: If Q5 is 2, then all other variables should be missing";
33     title2 "Check #3: If Q5 is 1 or 3, then all other variables should have values";
34 run;
```

NOTE: The PROCEDURE PRINT used 0.0 seconds.

```
35
36
37 proc sort data=recodes;
38     by q10;
39 run;
```

NOTE: The data set WORK.RECODES has 241 observations and 78 variables.
NOTE: The PROCEDURE SORT used 0.17 seconds.

```

40
41
42 /***Check #4 and Check #5***/
43 proc print data=recedes;
44     var pwcid q10 q11tot dkrf9 q12tot dkrf10 q13tot dkrf11 tot2 dkrf12;
45     title "Check #4: If Q10 is 2, then all other variables should be missing";
46     title2 "Check #5: If Q10 is 1 or 3, then all other variables should have values";
47 run;

```

NOTE: The PROCEDURE PRINT used 0.0 seconds.

```

48
49 /***Check #6***/
50 proc print data=recedes;
51     where Q10='3';
52     var pwcid q10 q6tot q11tot q7tot q12tot q8tot q13tot tot1 tot2;
53     title "Check #6: Because Q10=3, all 0.4 volumes should equal 1 cent volumes";
54 run;

```

NOTE: The PROCEDURE PRINT used 0.05 seconds.

```

55
56 data checking;
57     set usps.check;
58 run;

```

NOTE: The data set WORK.CHECKING has 9 observations and 95 variables.

NOTE: The DATA statement used 0.11 seconds.

```

59
60 /***Check #7***/
61 proc print data=checking;
62     where contact1=1 or contact2=1 or contact3=1;
63     var pwcid contact company;
64     title 'Check #7: Cases Where Totals Do Not Equal the Sum of the 3 Rate Groups';
65 run;

```

NOTE: No observations were selected from data set WORK.CHECKING.

NOTE: The PROCEDURE PRINT used 0.0 seconds.

```

66
67 /***Check #8***/
68 proc print data=checking;
69     where contact4=1 or contact5=1 or contact6=1;
70     var pwcid contact company;
71     title 'Check #8: Cases Where 0.4 Cent Volumes Are Greater Than 1 Cent Volumes';
72 run;

```

NOTE: No observations were selected from data set WORK.CHECKING.

NOTE: The PROCEDURE PRINT used 0.0 seconds.

```

73
74 /***Check #9***/
75 proc print data=checking;
76     where contact7=1 or contact8=1 or contact9=1;
77     var pwcid contact company;
78     title 'Check #9: Cases Where Discount Volumes Are Greater Than 99 Volumes';
79 run;

```

NOTE: No observations were selected from data set WORK.CHECKING.

NOTE: The PROCEDURE PRINT used 0.05 seconds.

80

```
81 /**Check #10***/
82 proc print data=checking;
83     where contac10=1;
84     var pwcid contact company;
85     title 'Check #10: Cases Where Q5=DK or Q10=DK';
86 run;
```

NOTE: No observations were selected from data set WORK.CHECKING.

NOTE: The PROCEDURE PRINT used 0.0 seconds.

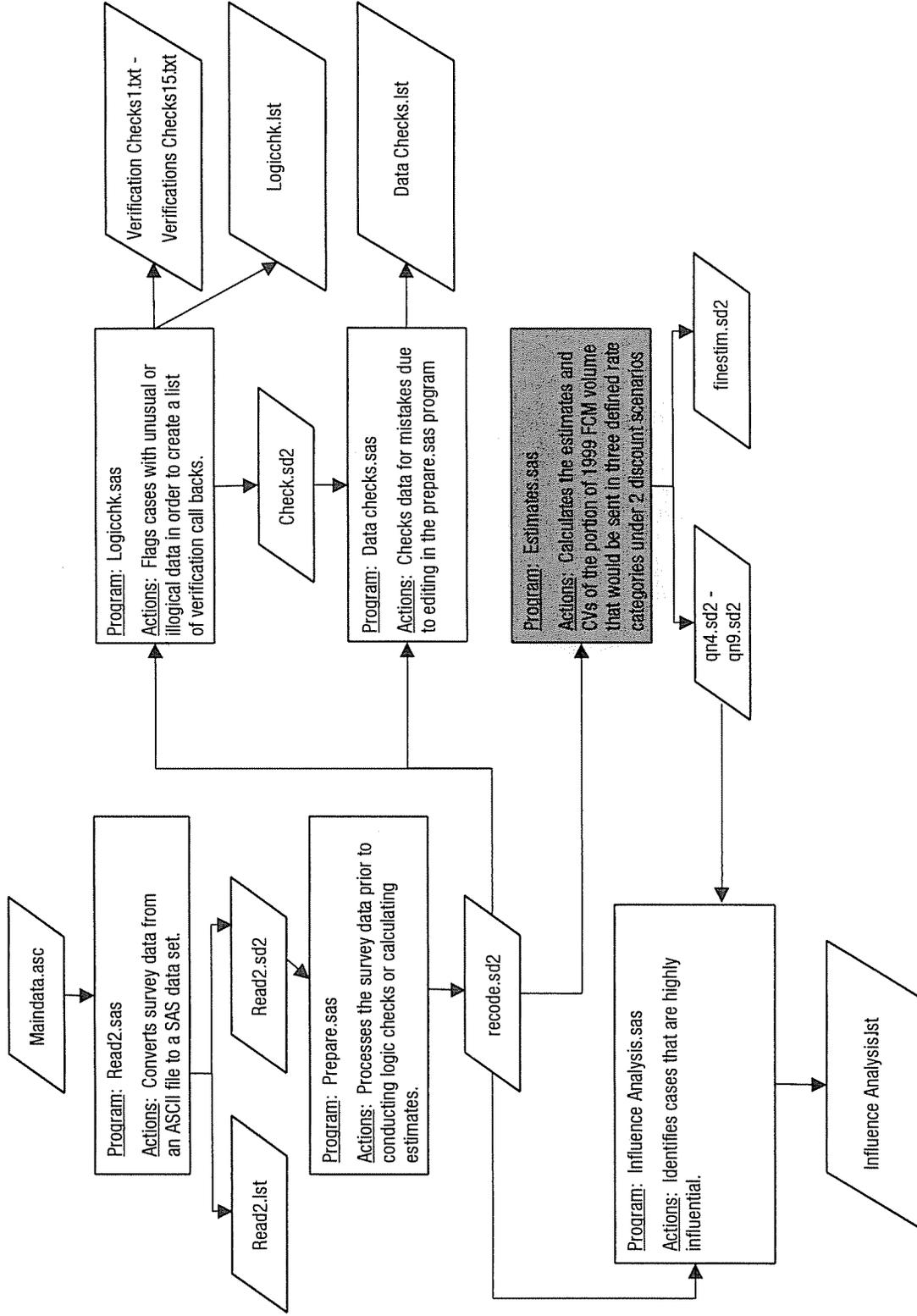
```
87
88 /**Summary of Checks 7-10. This shows the cases that still have a 'contact' flag***/
89 proc print data=checking;
90     var pwcid contact company;
91     where contact1=1 or contact2=1 or contact3=1 or contact4=1 or contact5=1 or contact6=1 or
92         contact7=1 or contact8=1 or contact9=1 or contac10=1;
93     title 'Cases That Have At Least One Contact';
94 run;
```

NOTE: No observations were selected from data set WORK.CHECKING.

NOTE: The PROCEDURE PRINT used 0.0 seconds.

Section VII: Documentation of Estimates.sas

Flowchart of Survey Questionnaire Estimation Programs



FIRST-CLASS MAIL ESTIMATION PROGRAMS

STUDY: USPS Destination-Entry Discount Study
PROGRAM: Estimates.sas

I. Requirements of Computer Analysis Relied Upon

A. A general description of the program:

1. Objectives of the program: The objective of this program is calculate the six estimates of the proportion of 1999 First-Class Mail that would be sent in three defined rate categories under two discount scenarios and compute coefficient of variation for each estimate.
2. Processing of tasks performed: A fifth stratum is created for highly influential cases. This stratum has a weight of one. This estimation program was initially run without the fifth stratum. Output data sets created by this program were used in influence analysis.sas, in order to identify the cases that were highly influential.

The program uses SAS macro procedures to cycle through the program six times in order to calculate each of the estimates. Hence, all calculations are made on one rate group and one discount scenario at a time. Cases are omitted if they have a missing 1999 volume or scenario volume corresponding to the estimate being calculated. A volume is missing if the respondent answered 'Don't Know' or 'Refused'. Stratum weights are calculated to reflect each permit's inverse probability of selection and are adjusted for survey non-response. Strata weights are used to compute weighted mail volumes for each permit. These weighted volumes are used to calculate the overall weighted ratio estimator by dividing the sum of the weighted scenario volumes by the sum of the weighted 1999 volumes.

A macro procedure is used to calculate the overall weighted ratio using a jackknife technique. That is, the ratio estimator is computed repeatedly as each observation is omitted in turn. This recalculating procedure is repeated until every observation has been dropped and all replicate ratio estimators have been computed. The replicate ratio estimators are stored in a SAS data set for analysis performed by the program, influence analysis.sas. The mean of the replicate ratio estimators is computed and is used to compute the jackknife ratio estimator and the jackknife variance estimator.

3. Methods and procedures employed: See attached program listing.
4. A listing of the input and output data: See attached pages describing the names and sizes of input and output data.
5. A listing of the source codes: See attached program and documentation.

B. Input Data:

1. Designation of all sources of such data: The input data is the SAS data set of completed interviews, Recode.sd2, from the Prepare.sas program.
2. Explanation of any modifications to data made for use in the program: None.

C. Definitions of all input and output variables or sets of variables: See attached description of input

and output data.

- D. A description of input and output data file organization:** See attached description of input and output data.
- E. A machine-readable copy of all databases:** The databases used in this program contain confidential information and are not provided.
- F. For all source codes, documentation sufficiently comprehensive and detailed to satisfy generally accepted software documentation standards appropriate to the type of program and its intended use in the proceedings:** See attached program and documentation.
- G. The source program in machine-readable form:** The databases associated with this program are not provided due to confidentiality. The program can be provided upon request.
Name of Program: Estimates.sas
- H. All pertinent operating system and programming language manuals:** SAS Language: Reference, SAS Procedures Guide
- I. If requested program is interactive, a representative sample program run, together with any explanation necessary to illustrate the response sequence:** N/A
- J. “Canned” Statistical Packages:** SAS v6.12 for Windows
- K. Special requirements for computer simulations models offered if evidence or relied upon as support for other evidence:** N/A

Program: Estimates.sas

Input:

- (1) Recode.sd2
Description: Recode.sd2 is the cleaned SAS data set of the completed interviews created by the program, Prepare.sas .

Number of observations: 241
Number of variables: 78

Outputs:

- (1) Estimates.lst
Description: Estimates.lst is a SAS list file that shows the data at various stages of the program.

- (2) qn4.sd2
Description: A SAS data set containing the variables necessary for estimating the proportion of 1999 volume of nonautomation presort letters, flats, and parcels that would be sent under a 0.4 cent discount.

Number of observations: 236
Number of variables: 17

- (3) qn5.sd2
Description: A SAS data set containing the variables necessary for estimating the proportion of 1999 volume of automation letters and flats that would be sent under a 0.4 cent discount.

Number of observations: 237
Number of variables: 17

- (4) qn6.sd2
Description: A SAS data set containing the variables necessary for estimating the proportion of 1999 volume of cards that would be sent under a 0.4 cent discount.

Number of observations: 238
Number of variables: 17

- (5) qn7.sd2
Description: A SAS data set containing the variables necessary for estimating the proportion of 1999 volume of nonautomation presort letters, flats, and parcels that would be sent under a 1 cent discount.

Number of observations: 236
Number of variables: 17

- (6) qn8.sd2
 Description: A SAS data set containing the variables necessary for estimating the proportion of 1999 volume of automation letters and flats that would be sent under a 1 cent discount.
- Number of observations: 237
 Number of variables: 17
- (7) qn9.sd2
 Description: A SAS data set containing the variables necessary for estimating the proportion of 1999 volume of cards that would be sent under a 1 cent discount.
- Number of observations: 238
 Number of variables: 17
- (8) finestim.sd2
 Description: A SAS data set that contains the final six estimates, the jackknife variance, and the coefficients of variation.
- Number of observations: 6
 Number of variables: 3

Description of variables in qn4.sd2-qn9.sd2:

ALLNUM	Total number of non-missing 1999 volumes for the rate group
SUMSCEN	Sum of the weighted discount scenario volumes for the rate group
SUMCURR	Sum of the weighted 1999 volumes for the rate group
SUMWGHT	Sum of the weights
ALLRATIO	Overall weighted ratio of scenario volume to 1999 volume for the rate group
PWCID	PricewaterhouseCoopers identification number
STRATA	Indicates which strata is assigned to the observation (1-5).
QN1	Estimated 1999 volume of rate group 1 (qn4.sd2 and qn7.sd2)
QN2	Estimated 1999 volume of rate group 2 (qn5.sd2 and qn8.sd2)
QN3	Estimated 1999 volume of rate group 3 (qn6.sd2 and qn9.sd2)
QN4	Estimated volume of rate group 1 that the establishment would expect to send destination-entry for a 0.4 cent discount per piece (qn4.sd2)
QN5	Estimated volume of rate group 2 that the establishment would expect to send destination-entry for a 0.4 cent discount per piece (qn5.sd2)
QN6	Estimated volume of rate group 3 that the establishment would expect to send destination-entry for a 0.4 cent discount per piece (qn6.sd2)
QN7	Estimated volume of rate group 1 that the establishment would expect to send destination-entry for a 1 cent discount per piece (qn7.sd2)
QN8	Estimated volume of rate group 2 that the establishment would expect to send destination-entry for a 1 cent discount per piece (qn8.sd2)
QN9	Estimated volume of rate group 3 that the establishment would expect to send destination-entry for a 1 cent discount per piece (qn9.sd2)

SAMPSIZE	Sample frame size for each stratum
TOTNUM	Weighted discount scenario volume for each observation
TOTWGHT	Weighted 1999 volume for each observation
WGHTSCEN	Sum of the weighted 1999 volumes for each replicate
WGHTCURR	Sum of the weighted discount scenario volumes for each replicate
CURR_SUM	Sum of the weighted 1999 volumes for each replicate
SCEN_SUM	Sum of the weighted discount scenario volumes for each replicate
REPRATIO	Ratio of discount scenario volume to 1999 volume for each replicate

Description of variables in finestim.sd2:

TOTVAR	Jackknife variance for each ratio estimator
ALLRATIO	Ratio estimator of discount scenario volume to 1999 volume for each rate group
CV	Coefficient of variation for each overall ratio

Actions of the Program:

- Assigns sample frame size to each stratum.
- Places eight outliers into a fifth certainty stratum.
- Removes cases where the 1999 volume or discount scenario volume for a particular rate group is missing.
- Counts the total number of non-missing values for 1999 volumes in each stratum.
- Calculates the following in preparation for the overall weighted ratio estimator:
 - Total number of non-missing 1999 volumes.
 - Weight for each stratum.
 - Weighted scenario volumes and weighted 1999 volumes.
 - Sums of the weighted scenario volumes and the weighted 1999 volumes.
- Calculates the overall weighted ratio of discount scenario volume to 1999 volume for each rate group.
- Omits one observation at a time and computes a replicate ratio estimator after each case is omitted. This is repeated until all observations have been omitted once.
- A permanent SAS data set is created that contains all replicate ratio estimators for the rate group and scenario.
- Calculates the following in preparation for the computation of the jackknife estimate:
 - Average of replicate ratios within each stratum.
 - Sample size in each stratum.
 - Pseudo factor for each stratum.
 - Product of stratum ratios and the pseudo factor.
 - Sum of the product of stratum ratios and the pseudo factor, across strata.
 - Sum of the pseudo factor across strata.

- Calculates the jackknife ratio estimator.
- Calculates the following in preparation for the computation of the jackknife variance estimator:
 - Sum of squared differences between each replicate ratio estimator and the overall ratio estimator.
 - Pseudo factor for variance calculation.
- Calculates the jackknife variance estimator.
- Calculates the coefficient of variation for the overall estimate.
- Creates a permanent SAS data set that contains the final six ratio estimators and coefficients of variation.

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```
1
2  /*****
3  Project:      USPS Destination-Entry FCM Study
4  Program Name: Estimates.sas
5  Author:       Rachel Allen
6  Reviewed By:  Kelly Thomas and Tyler Knight
7  Purpose:      To produce SAS output of 6 estimates for proportion of 1999 FCM volume
8                that would be sent under 2 discount scenarios
9  Inputs:       recode.sd2 (cleaned, verified survey data produced by prepare.sas)
10
11  Outputs:      finestim.sd2; qn4.sd2-qn9.sd2
12  *****/
13
14  libname usps 's:\ogs\common\usps\main study\questionnaire\questionnaire data';
NOTE: Libref USPS was successfully assigned as follows:
      Engine:    V612
      Physical Name: s:\ogs\common\usps\main study\questionnaire\questionnaire data
15  libname usps2 's:\ogs\common\usps\main study\questionnaire\estimation';
NOTE: Libref USPS2 was successfully assigned as follows:
      Engine:    V612
      Physical Name: s:\ogs\common\usps\main study\questionnaire\estimation
16
17  options nodate nocenter;
18
19  /*****
20  access edited survey data
21  hardcode frame sample size for each stratum
22  *****/
23  data final;
24      set usps.recode (keep=pwcid qn1 qn2 qn3 qn4 qn5 qn6 qn7 qn8 qn9 strata);
25      if strata="1" then sampsize=37734;
26      else if strata="2" then sampsize=2685;
27      else if strata="3" then sampsize=421;
28      else if strata="4" then sampsize=41;
29
30  /*****
31  create a new strata based on the outliers from influence.sas
32  *****/
33      if pwcid in ("██████", "██████", "██████", "██████", "██████", "██████", "██████", "██████")
34      then do;
35          strata="5";
36          sampsize=8;
37      end;
38  run;
```

NOTE: The data set WORK.FINAL has 241 observations and 12 variables.
NOTE: The DATA statement used 0.22 seconds.

```
39
40  %macro estimate (curr_vol,scen_vol);
41
42  /*****
43  keep scenario volume and 1999 (current) volume for rate group
44  keep strata assignment and sample size
45  remove cases where 1999 volume or scenario volume is missing
46  *****/
47  data estimate (keep=&curr_vol &scen_vol strata sampsize pwcid);
48      set final;
49      if &curr_vol=. or &scen_vol=. then delete;
50  run;
51
52  /*****
53  calculate total number of non-missing values for 1999 volumes in each stratum
```

```

54 *****/
55 proc sort data=estimate;
56     by strata;
57 run;
58
59 proc summary data=estimate n nway sum noprint;
60     by strata;
61     var &curr_vol;
62     output out=nums n(&curr_vol)=totnum;
63 run;
64
65
66 /*****
67 merge totnum values onto estimate dataset
68 *****/
69 proc sort data=estimate;
70     by strata;
71 run;
72
73 proc sort data=nums;
74     by strata;
75 run;
76
77 data estimate;
78     merge estimate nums;
79     by strata;
80
81 /*****
82 calculate final weight for each record
83 *****/
84     totwght=sampsize/totnum;
85
86 /*****
87 calculate weighted scenario volume and weighted 1999 volume for rate group
88 *****/
89     wghtscen=totwght*&scen_vol;
90     wghtcurr=totwght*&curr_vol;
91 run;
92
93 /*****
94 calculate total number of non-missing values for 1999 volumes
95 sum weighted ratios
96 *****/
97 proc summary data=estimate n nway sum noprint;
98     var &curr_vol wghtscen wghtcurr totwght;
99     output out=nums n(&curr_vol)=allnum sum(wghtscen wghtcurr totwght)=sumscen sumcurr sumwght;
100 run;
101
102 /*****
103 calculate overall weighted ratio of scenario volume to 1999 volume for rate group
104 *****/
105 data ratio (drop=_type__freq_);
106     set nums;
107     allratio=sumscen/sumcurr;
108 run;
109
110 /*****
111 Add value of allratio variable to each record in estimate dataset
112 *****/
113 data estimate;
114     if _n_ =1 then set ratio;
115     set estimate;
116     call symput ('loops',allnum);
117 run;
118
119 /*****
120 Cycle through dataset dropping one record each time
121 Reweight remaining records in that stratum to account for dropped unit
122 Recalculate ratio of means
123

```

```

124 'do while' statement will submit SAS code repeatedly for each record in the dataset
125 *****/
126 %let b=1;
127 %do %while (&b<=&loops);
128
129 data replicat;
130     set estimate;
131     if _n_ ^=&b;
132 run;
133
134 *****/
135 compute sample size for each stratum after dropping unit
136 *****/
137 proc sort data=replicat;
138     by strata;
139 run;
140
141 proc summary data=replicat nway n noprint;
142     by strata;
143     var &curr_vol;
144     output out=repnums n(&curr_vol)=repnum;
145 run;
146
147 *****/
148 merge stratum sample sizes onto replicat dataset
149 reweight volumes to account for dropped unit
150 *****/
151 data replicat (drop=_type__freq_);
152     merge replicat repnums;
153     by strata;
154     totrepwt=sampsize/repnum;
155     repwtcur=totrepwt*&curr_vol;
156     repwtscn=totrepwt*&scen_vol;
157 run;
158
159
160
161 *****/
162 compute sum of weighted volumes for each replicate
163 *****/
164 proc summary data=replicat nway mean noprint;
165     var repwtcur repwtscn;
166     output out=sums sum(repwtcur repwtscn)=curr_sum scen_sum;
167 run;
168
169
170 *****/
171 compute ratio of scenario volume to 1999 volume for each replicate
172 *****/
173 data sums (drop=_type__freq_);
174     set sums;
175     repratio=scen_sum/curr_sum;
176 run;
177
178
179 *****/
180 append results of each replicate to ratios dataset
181 ratios dataset will contain one observation for each replicate
182 *****/
183 proc append base=ratios data=sums;
184 run;
185
186
187
188 %let b=%eval(&b+1);
189 %end;
190
191 *****/
192 merge ratios dataset with estimate dataset to pick up strata variable
193 calculate squared difference between replicate ratio and overall ratio...

```

```

194 *****/
195 data estimate;
196     merge estimate ratios;
197 run;
198
199 /*****
200 create permanent dataset to use to use for influence analysis
201 influence analysis will be conducted in a separate SAS program
202 one permanent dataset is needed for each estimate
203 *****/
204 data usps2.&scen_vol (drop=_type__freq_);
205     set estimate;
206 run;
207
208 /*****
209 calculate average of replicate ratios within each stratum
210 calculate sample size in each stratum
211 *****/
212 proc sort data=estimate;
213     by strata;
214 run;
215
216 proc summary data=estimate nway mean n noprint;
217     by strata;
218     var repratio;
219     output out=strratio mean(repratio)=strratio n(repratio)=totnum;
220 run;
221
222 data estimate;
223     merge estimate strratio;
224     by strata;
225 run;
226
227 /*****
228 calculate pseudo factor in each stratum as: (n-1)(1-n/N)
229 *****/
230 data strratio (drop=_type__freq_);
231     set strratio;
232     if strata=1 then pseudo=(totnum-1)*(1-totnum/37734);
233     else if strata=2 then pseudo=(totnum-1)*(1-totnum/2685);
234     else if strata=3 then pseudo=(totnum-1)*(1-totnum/421);
235     else if strata=4 then pseudo=(totnum-1)*(1-totnum/41);
236     else if strata=5 then pseudo=(totnum-1)*(1-totnum/8);
237
238 /*****
239 multiply stratum ratio by pseudo factor
240 *****/
241     strat_ps=strratio*pseudo;
242 run;
243
244 /*****
245 total pseudo factors across strata
246 total stratum ratios across strata
247 *****/
248 proc summary data=strratio nway sum noprint;
249     var pseudo strat_ps;
250     output out=totals sum(pseudo strat_ps)=pseudo_s strat_s;
251 run;
252
253 /*****
254 add variables from strratio dataset to estimate dataset
255 compute jackknife estimate
256 *****/
257 data jackest (keep=jackest pseudo_s allratio strat_s);
258     if _n_ then set totals;
259     set estimate;
260     jackest=((1+pseudo_s)*allratio)-strat_s;
261 run;
262
263 /*****

```

```

264 sum squared differences within each stratum
265 calculate sample size in each stratum
266 *****/
267 data estimate;
268     set estimate;
269     sqdiff=(repratio-strratio)**2;
270 run;
271
272 proc sort data=estimate;
273     by strata;
274 run;
275
276 proc summary data=estimate nway sum n noprint;
277     by strata;
278     var sqdiff;
279     output out=sqdiff sum(sqdiff)=sum_sqdf n(sqdiff)=totnum;
280 run;
281
282 /******
283 merge estimate dataset with sqdiff dataset to pick up sampsize
284 and totnum variables for pseudo factor calculation
285 calculate pseudo factor for variance calculation
286 multiply pseudo factor by sum of squared differences
287 within each stratum
288 *****/
289 data sqdiff (drop=_type_ _freq_);
290     set sqdiff;
291     if strata=1 then pseudo_n=((totnum-1)*(1-totnum/37734))/totnum;
292     else if strata=2 then pseudo_n=((totnum-1)*(1-totnum/2685))/totnum;
293     else if strata=3 then pseudo_n=((totnum-1)*(1-totnum/421))/totnum;
294     else if strata=4 then pseudo_n=((totnum-1)*(1-totnum/41))/totnum;
295     else if strata=5 then pseudo_n=((totnum-1)*(1-totnum/8))/totnum;
296     strvar=sum_sqdf*pseudo_n;
297 run;
298
299 /******
300 compute jackknife variance by summing strvar variable across strata
301 *****/
302 proc summary data=sqdiff nway sum noprint;
303     var strvar;
304     output out=totvar sum(strvar)=totvar;
305 run;
306
307
308 /******
309 compute coefficient of variation for overall estimate
310 *****/
311 data coefvar;
312     merge totvar (keep=totvar);
313     if _n_ then set estimate (keep=allratio);
314     cv=sqrt(totvar)/allratio;
315 run;
316
317 /******
318 group final estimates for each scenario and rate group
319 *****/
320 proc append base=finestim data=coefvar;
321 run;
322
323 /******
324 delete ratios dataset created by proc append
325 this dataset must be deleted before submitting the next
326 macro so that the data currently comprising the ratios
327 dataset is not further appended with data from the next macro
328 *****/
329 proc datasets library=work;
330     delete ratios;
331 run;
332 quit;
333

```

334
335 %mend estimate;
336
337
338 /*****
339 macro call for each volume that will be estimated
340 *****/
341 %estimate (qn1,qn4); /** qn1=1999 volume for rate group 1 - qn4=0.4 cent volume for rate group 1**/

NOTE: The data set WORK.ESTIMATE has 236 observations and 5 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.ESTIMATE has 236 observations and 5 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.NUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: Input data set is already sorted, no sorting done.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.NUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.ESTIMATE has 236 observations and 11 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.NUMS has 1 observations and 6 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.RATIO has 1 observations and 5 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Numeric values have been converted to character values at the places given by: (Line):(Column).
341:1

NOTE: The data set WORK.ESTIMATE has 236 observations and 16 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: BASE data set does not exist. DATA file is being copied to BASE file.
NOTE: The data set WORK.RATIOS has 1 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 2 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 3 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 4 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.

NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 5 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.28 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 6 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 7 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 8 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 9 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 10 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 11 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 12 observations and 3 variables.

NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.28 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 13 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 14 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 15 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.

NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 16 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 17 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 18 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 19 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 20 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 21 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 22 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 23 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 24 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 25 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 26 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 27 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 28 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.1 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 29 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.

NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.11 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.39 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 30 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.22 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.66 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.38 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.33 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.66 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.22 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.59 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 31 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.44 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.66 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.39 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.44 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.59 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.38 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.6 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 32 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.44 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.59 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.33 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.77 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.39 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.48 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 33 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.55 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.11 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.38 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.48 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.28 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.44 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 34 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.48 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.59 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.22 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.44 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.55 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.17 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 35 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 36 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 37 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 38 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 39 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 40 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 41 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 42 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 43 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 44 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.

NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 45 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.1 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 46 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 47 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 48 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 49 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.

NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 50 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 51 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 52 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 53 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 54 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 55 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 56 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 57 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 58 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.1 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 59 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.

NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 60 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 61 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 62 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 63 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 64 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 65 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.

NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 66 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 67 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 68 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.

NOTE: The data set WORK.RATIOS has 69 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 70 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 71 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 72 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 73 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 74 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.

NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 75 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 76 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 77 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 78 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 79 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 80 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.

NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 81 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 82 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 83 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 84 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.

NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 85 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 86 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 87 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 88 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 89 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.

NOTE: The data set WORK.RATIOS has 90 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 91 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 92 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 93 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 94 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.16 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 95 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 96 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 97 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.

NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 98 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 99 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 100 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 101 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.

NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 102 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.1 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 103 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 104 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 105 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 106 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 107 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.

NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 108 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.1 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 109 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 110 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.

NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 111 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 112 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 113 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 114 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 115 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 116 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.

NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 117 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 118 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 119 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 120 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 121 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 122 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 123 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 124 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 125 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 126 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 127 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 128 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 129 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.

NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 130 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 131 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 132 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 133 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 134 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 135 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.

NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 136 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 137 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 138 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 139 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 140 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 141 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 142 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 143 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 144 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 145 observations and 3 variables.

NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 146 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.

NOTE: The data set WORK.RATIOS has 147 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 148 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.

NOTE: 1 observations added.

NOTE: The data set WORK.RATIOS has 149 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 150 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 151 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 152 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.

NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 153 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 154 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 155 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 156 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.11 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 157 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 158 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.

NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 159 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 160 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 161 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 162 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 163 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.2 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 164 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 165 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 166 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 167 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 168 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.

NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.

NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 169 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 170 observations and 3 variables.

NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 171 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.

NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 172 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 173 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 174 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 175 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 176 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 177 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 178 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 179 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 180 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 181 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 182 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 183 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.

NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 184 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 185 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 186 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 187 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.

NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 188 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 189 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 190 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 191 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 192 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 193 observations and 3 variables.

NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.11 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 194 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 195 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 196 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 197 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 198 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.28 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 199 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 200 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 201 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 202 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 203 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.27 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 204 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 205 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 206 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables. ...

NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 207 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 208 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables..

NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 209 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 210 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 211 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 212 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.

NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 213 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 214 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 215 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.

NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 216 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 217 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.1 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 218 observations and 3 variables.

NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 219 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.

NOTE: The data set WORK.RATIOS has 220 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 221 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 222 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 223 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 224 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 225 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.0 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 226 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.11 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.17 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 227 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 228 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 229 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.

NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 230 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 231 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.11 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.

NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 232 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 233 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 234 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.0 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.0 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 235 observations and 3 variables.

NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 16 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.REPNUMS has 5 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.REPLICAT has 235 observations and 18 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.SUMS has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.SUMS to WORK.RATIOS.
NOTE: 1 observations added.
NOTE: The data set WORK.RATIOS has 236 observations and 3 variables.
NOTE: The PROCEDURE APPEND used 0.05 seconds.

NOTE: The data set WORK.ESTIMATE has 236 observations and 19 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set USPS2.QN4 has 236 observations and 17 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.ESTIMATE has 236 observations and 19 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.

NOTE: The data set WORK.STRRATIO has 5 observations and 5 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.ESTIMATE has 236 observations and 20 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Character values have been converted to numeric values at the places given by: (Line):(Column).
341:233 341:53 341:126 341:198 341:26
NOTE: The data set WORK.STRRATIO has 5 observations and 5 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.TOTALS has 1 observations and 4 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.JACKEST has 1 observations and 4 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.ESTIMATE has 236 observations and 21 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.ESTIMATE has 236 observations and 21 variables.
NOTE: The PROCEDURE SORT used 0.11 seconds.

NOTE: The data set WORK.SQDIFF has 5 observations and 5 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: Character values have been converted to numeric values at the places given by: (Line):(Column).

341:33 341:118 341:202 341:33 341:115

NOTE: The data set WORK.SQDIFF has 5 observations and 5 variables.

NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.TOTVAR has 1 observations and 3 variables.
NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

NOTE: The data set WORK.COEFCVAR has 1 observations and 3 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: Appending WORK.COEFCVAR to WORK.FINESTIM.

NOTE: BASE data set does not exist. DATA file is being copied to BASE file.

NOTE: The data set WORK.FINESTIM has 1 observations and 3 variables.

NOTE: The PROCEDURE APPEND used 0.05 seconds.

-----Directory-----

Libref: WORK
Engine: V612
Physical Name: C:\SAS\SASWORK\#TD00653

```
# Name Memtype Indexes
//////////
1 COEFVAR DATA
2 ESTIMATE DATA
3 FINAL DATA
4 FINESTIM DATA
5 JACKEST DATA
6 NUMS DATA
7 RATIO DATA
8 RATIOS DATA
9 REPLICAT DATA
10 REPNUMS DATA
11 SASMACR CATALOG
```

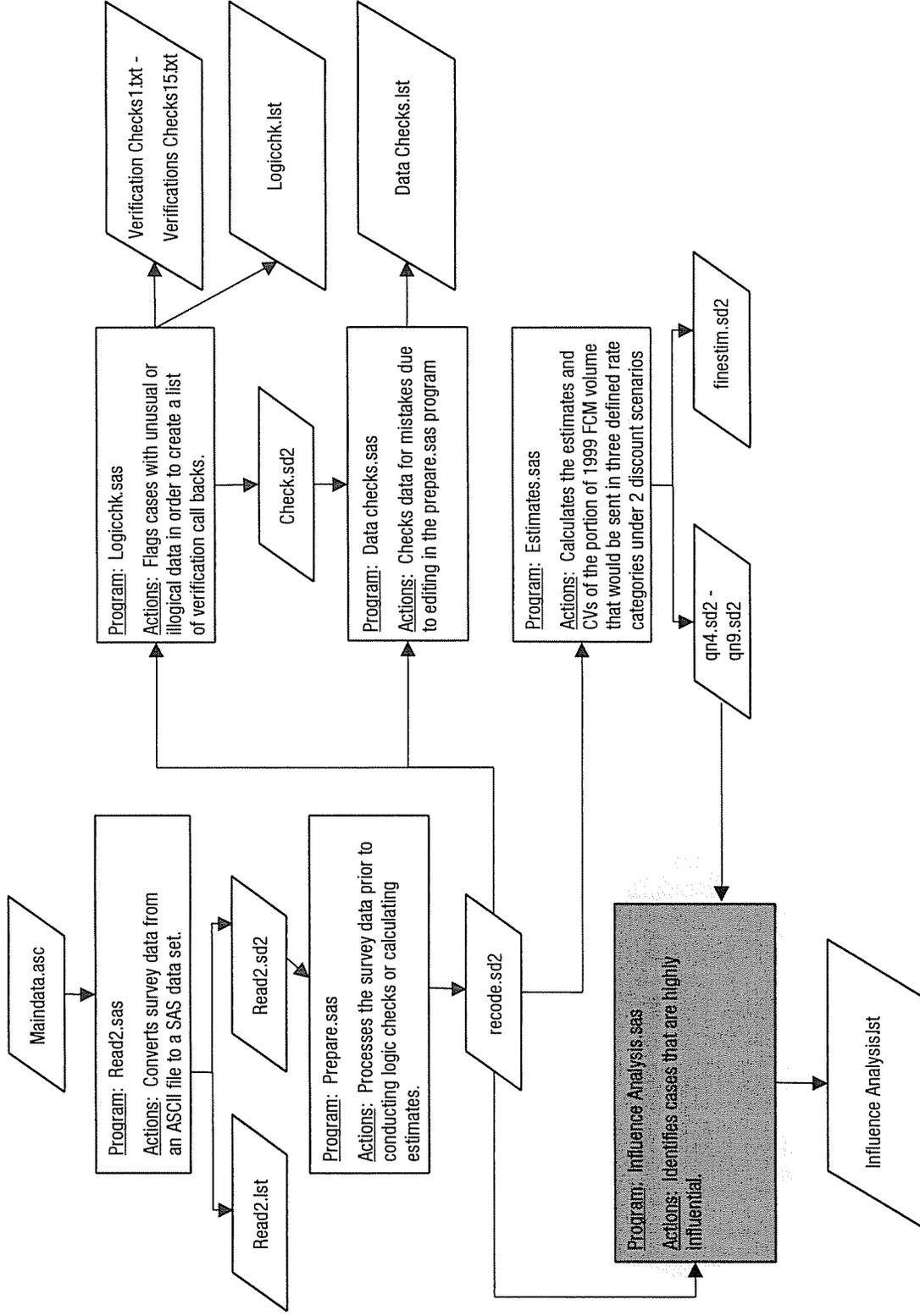
12 SQDIFF DATA
13 STRRATIO DATA
14 SUMS DATA
15 TOTALS DATA
16 TOTVAR DATA

NOTE: Deleting WORK.RATIOS (memtype=DATA).

NOTE: The PROCEDURE DATASETS used 0.17 seconds.

Section VIII: Documentation of Influence Analysis.sas

Flowchart of Survey Questionnaire Estimation Programs



FIRST-CLASS MAIL ESTIMATION PROGRAMS

STUDY: USPS Destination-Entry Discount Study

PROGRAM: Influence Analysis.sas

I. Requirements of Computer Analysis Relied Upon

A. A general description of the program:

1. Objectives of the program: The objective of this program is to identify if there are any highly influential cases impacting the calculation of the estimates in estimates.sas.
2. Processing of tasks performed: This program creates a variable that is the difference between each replicate ratio estimator and the overall ratio estimator as a proportion of the overall ratio. It prints out the observations where the value of this variable is more than 10 percentage points. In addition, univariate analyses are performed on this variable.
3. Methods and procedures employed: The influence variable is calculated by taking the absolute value of the difference between the overall ratio estimator and the replicate ratio estimator for the rate group and discount scenario. This value is then divided by the overall ratio estimator to obtain a proportion. See attached program listing for more details.
4. A listing of the input and output data: See attached pages describing the names and sizes of input and output data.
5. A listing of the source codes: See attached program and documentation.

B. Input Data:

1. Designation of all sources of such data: The input data is the SAS data set of completed interviews, Recode.sd2, from the Prepare.sas program. The input data also includes the six SAS data sets, qn4.sd2-qn9.sd2, from the Estimates.sas program.
2. Explanation of any modifications to data made for use in the program: None.

C. Definitions of all input and output variables or sets of variables: See attached description of input and output data.

D. A description of input and output data file organization: See attached description of input and output data.

E. A machine-readable copy of all databases: The databases used in this program contain confidential information and are not provided.

F. For all source codes, documentation sufficiently comprehensive and detailed to satisfy generally accepted software documentation standards appropriate to the type of program and its intended use in the proceedings: See attached program and documentation.

G. The source program in machine-readable form The databases associated with this program are not provided due to confidentiality. The program can be provided upon request.

Name of Program: influence analysis.sas

- H. All pertinent operating system and programming language manuals:** SAS Language: Reference, SAS Procedures Guide
- I. If requested program is interactive, a representative sample program run, together with any explanation necessary to illustrate the response sequence:** N/A
- J. “Canned” Statistical Packages:** SAS v6.12 for Windows
- K. Special requirements for computer simulations models offered if evidence or relied upon as support for other evidence:** N/A

Program: influence analysis.sas

Inputs:

- (1) Recode.sd2
Description: Recode.sd2 is the cleaned SAS data set of the completed interviews created by the program, Prepare.sas .

Number of observations: 241
Number of variables: 78

- (2) qn4.sd2
Description: A SAS data set containing the variables necessary for estimating the proportion of 1999 volume of nonautomation presort letters, flats, and parcels that would be sent under a 0.4 cent discount.

Number of observations: 236
Number of variables: 17

- (3) qn5.sd2
Description: A SAS data set containing the variables necessary for estimating the proportion of 1999 volume of automation letters and flats that would be sent under a 0.4 cent discount.

Number of observations: 237
Number of variables: 17

- (4) qn6.sd2
Description: A SAS data set containing the variables necessary for estimating the proportion of 1999 volume of cards that would be sent under a 0.4 cent discount.

Number of observations: 238
Number of variables: 17

- (5) qn7.sd2
Description: A SAS data set containing the variables necessary for estimating the proportion of 1999 volume of nonautomation presort letters, flats, and parcels that would be sent under a 1 cent discount.

Number of observations: 236
Number of variables: 17

- (6) qn8.sd2
Description: A SAS data set containing the variables necessary for estimating the proportion of 1999 volume of automation letters and flats that would be sent under a 1 cent discount.

Number of observations: 237
Number of variables: 17

- (7) qn9.sd2
Description: A SAS data set containing the variables necessary for estimating the proportion of 1999 volume of cards that would be sent under a 1 cent discount.

Number of observations: 238
Number of variables: 17

Output:

- (1) Influence analysis.lst
Description: Influence analysis.lst is a SAS list file that shows the results of univariate analyses and all influential observations for each of the six estimates.

Actions of the program:

- Accesses the cleaned survey data, recode.sd2.
- Accesses the data sets, qn4.sd2-qn9.sd2, that contain the replicate ratio estimators and the overall ratio estimators which were calculated in estimates.sas.
- Merges recode.sd2 and qn4.sd2-qn9.sd2.
- Calculates the absolute value of the difference between the overall ratio estimator and the replicate ratio estimator. This value is then divided by the overall ratio estimator to obtain a proportion. The resulting value is stored in a new variable called influen.
- Prints cases where influen is greater than .1.

NOTE: Copyright (c) 1989-1996 by SAS Institute Inc., Cary, NC, USA.
 NOTE: SAS (r) Proprietary Software Release 6.12 TS045
 Licensed to PRICEWATERHOUSECOOPERS LLP. Site 0015509006.

```

1  /*****
2  Project:      USPS Destination-Entry FCM Study
3  Program Name: influence analysis.sas
4  Author:      Rachel Allen
5  Reviewed By: Kelly Thomas
6  Purpose:     To produce SAS output showing univariate results for each estimate
7              Univariate results are used to identify outliers
8  Inputs:      recode.sd2 (cleaned, verified survey data produced by prepare.sas)
9              qn4.sd2 - qn9.sd2 (6 datasets containing results of jackknife replicate ratios;
10             datasets are produced by Estimates.sas)
11  Outputs:     influence analysis.lst
12  *****/
13
14
15  libname usps 's:\logs\common\usps\main study\questionnaire\estimation';
NOTE: Libref USPS was successfully assigned as follows:
      Engine:      V612
      Physical Name: s:\logs\common\usps\main study\questionnaire\estimation
16  libname usps2 's:\logs\common\usps\main study\questionnaire\questionnaire data';
NOTE: Libref USPS2 was successfully assigned as follows:
      Engine:      V612
      Physical Name: s:\logs\common\usps\main study\questionnaire\questionnaire data
17
18
19  %macro influ (var1,var2);
20
21
22  /*****
23  access edited survey data
24  sort by pwcid
25  *****/
26  data all;
27      set usps2.recode;
28  run;
29
30  proc sort data=all;
31      by pwcid;
32  run;
33
34
35  /*****
36  access dataset containing replicate ratios
37  sort by pwcid
38  *****/
39  proc sort data=usps.&var2;
40      by pwcid;
41  run;
42
43
44  /*****
45  merge edited survey data with replicate ratios
46  merge by pwcid
47  create influen variable that is the absolute value of the
48      difference between the overall ratio and the replicate
49      ratio expressed as a proportion of the overall ratio
50  *****/
51  data test;
52      merge usps.&var2 all (keep=pwcid strata &var1 &var2);
53      by pwcid;
54      influen=abs(allratio-repratio)/allratio;
55  run;
56
57
58  /*****

```

```

59 perform univariate procedure on influen variable
60 plot results
61 *****/
62 proc univariate data=test plot;
63     var influen;
64 run;
65
66
67 /******
68 print cases that contribute survey data which, when omitted,
69     create a replicate ratio value that differs from the overall ratio by
70     more than 10 percentage points
71 *****/
72 proc print data=test;
73     where influen>.1;
74 run;
75
76
77 %mend;
78
79
80 /******
81 submit one macro call for each estimate
82 *****/
83 %influ (qn1,qn4);

```

NOTE: The data set WORK.ALL has 241 observations and 78 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: The data set WORK.ALL has 241 observations and 78 variables.
NOTE: The PROCEDURE SORT used 0.1 seconds.

NOTE: The data set USPS.QN4 has 236 observations and 19 variables.
NOTE: The PROCEDURE SORT used 0.22 seconds.

NOTE: Missing values were generated as a result of performing an operation on missing values.
Each place is given by: (Number of times) at (Line):(Column).
5 at 83:253 5 at 83:9 5 at 83:19
NOTE: The data set WORK.TEST has 241 observations and 20 variables.
NOTE: The DATA statement used 0.22 seconds.

NOTE: The PROCEDURE UNIVARIATE printed pages 1-2.
NOTE: The PROCEDURE UNIVARIATE used 0.28 seconds.

NOTE: The PROCEDURE PRINT printed page 3.
NOTE: The PROCEDURE PRINT used 0.11 seconds.

```
84 %influ (qn2,qn5);
```

NOTE: The data set WORK.ALL has 241 observations and 78 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.ALL has 241 observations and 78 variables.
NOTE: The PROCEDURE SORT used 0.11 seconds.

NOTE: The data set USPS.QN5 has 237 observations and 19 variables.
NOTE: The PROCEDURE SORT used 0.39 seconds.

NOTE: Missing values were generated as a result of performing an operation on missing values.
Each place is given by: (Number of times) at (Line):(Column).
4 at 84:250 4 at 84:9 4 at 84:19

NOTE: The data set WORK.TEST has 241 observations and 20 variables.
NOTE: The DATA statement used 0.05 seconds.

NOTE: The PROCEDURE UNIVARIATE printed pages 4-5.
NOTE: The PROCEDURE UNIVARIATE used 0.05 seconds.

NOTE: The PROCEDURE PRINT printed page 6.
NOTE: The PROCEDURE PRINT used 0.0 seconds.

85 %influ (qn3,qn6);

NOTE: The data set WORK.ALL has 241 observations and 78 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.ALL has 241 observations and 78 variables.
NOTE: The PROCEDURE SORT used 0.11 seconds.

NOTE: The data set USPS.QN6 has 238 observations and 19 variables.
NOTE: The PROCEDURE SORT used 0.33 seconds.

NOTE: Missing values were generated as a result of performing an operation on missing values.
Each place is given by: (Number of times) at (Line):(Column).

3 at 85:250 3 at 85:9 3 at 85:19

NOTE: The data set WORK.TEST has 241 observations and 20 variables.
NOTE: The DATA statement used 0.11 seconds.

NOTE: The PROCEDURE UNIVARIATE printed pages 7-8.
NOTE: The PROCEDURE UNIVARIATE used 0.05 seconds.

NOTE: The PROCEDURE PRINT printed page 9.
NOTE: The PROCEDURE PRINT used 0.0 seconds.

86 %influ (qn1,qn7);

NOTE: The data set WORK.ALL has 241 observations and 78 variables.
NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.ALL has 241 observations and 78 variables.
NOTE: The PROCEDURE SORT used 0.11 seconds.

NOTE: The data set USPS.QN7 has 236 observations and 19 variables.
NOTE: The PROCEDURE SORT used 0.33 seconds.

NOTE: Missing values were generated as a result of performing an operation on missing values.

Each place is given by: (Number of times) at (Line):(Column).

5 at 86:250 5 at 86:9 5 at 86:19

NOTE: The data set WORK.TEST has 241 observations and 20 variables.

NOTE: The DATA statement used 0.11 seconds.

NOTE: The PROCEDURE UNIVARIATE printed pages 10-11.

NOTE: The PROCEDURE UNIVARIATE used 0.05 seconds.

NOTE: The PROCEDURE PRINT printed page 12.

NOTE: The PROCEDURE PRINT used 0.0 seconds.

87 %influ (qn2,qn8);

NOTE: The data set WORK.ALL has 241 observations and 78 variables.

NOTE: The DATA statement used 0.16 seconds.

NOTE: The data set WORK.ALL has 241 observations and 78 variables.

NOTE: The PROCEDURE SORT used 0.11 seconds.

NOTE: The data set USPS.QN8 has 237 observations and 19 variables.

NOTE: The PROCEDURE SORT used 0.27 seconds.

NOTE: Missing values were generated as a result of performing an operation on missing values.

Each place is given by: (Number of times) at (Line):(Column).

4 at 87:250 4 at 87:9 4 at 87:19

NOTE: The data set WORK.TEST has 241 observations and 20 variables.

NOTE: The DATA statement used 0.11 seconds.

NOTE: The PROCEDURE UNIVARIATE printed pages 13-14.

NOTE: The PROCEDURE UNIVARIATE used 0.0 seconds.

NOTE: The PROCEDURE PRINT printed page 15.

NOTE: The PROCEDURE PRINT used 0.05 seconds.

88 %influ (qn3,qn9);

NOTE: The data set WORK.ALL has 241 observations and 78 variables.

NOTE: The DATA statement used 0.11 seconds.

NOTE: The data set WORK.ALL has 241 observations and 78 variables.

NOTE: The PROCEDURE SORT used 0.11 seconds.

NOTE: The data set USPS.QN9 has 238 observations and 19 variables.

NOTE: The PROCEDURE SORT used 0.27 seconds.

NOTE: Missing values were generated as a result of performing an operation on missing values.

Each place is given by: (Number of times) at (Line):(Column).

3 at 88:250 3 at 88:9 3 at 88:19

NOTE: The data set WORK.TEST has 241 observations and 20 variables.

NOTE: The DATA statement used 0.17 seconds.

NOTE: The PROCEDURE UNIVARIATE printed pages 16-17.

NOTE: The PROCEDURE UNIVARIATE used 0.0 seconds.

NOTE: The PROCEDURE PRINT printed page 18.

NOTE: The PROCEDURE PRINT used 0.0 seconds.

NOTE: SAS Institute Inc., SAS Campus Drive, Cary, NC USA 27513-2414