

Records Example #2

SUDAAN Statements and Results Illustrated

- SORTBY
- OUTPUT
- REPLACE option
- PRINT
- MAXREC option

Input Data Set(s): HANES3S3.SAS7bdat

Example

The following example illustrates the SORTBY functionality available in PROC RECORDS, using NHANES III data.

Solution

Exhibit 1 specifies that the data be sorted by the variable SEQN. The sorted dataset will then be 1) output to a dataset called SRTDHNS3, and 2) the first 25 records will be printed.

Exhibit 1. SAS-Callable SUDAAN Code: Sort By SEQN

```
libname in "\\rtints29\sudaan\data\nhanes3";
libname out "c:\11winbetatest\examples";

PROC RECORDS DATA=in.HANES3S3 FILETYPE=SAS;
  SORTBY SEQN;
  OUTPUT / FILENAME=out.nh3sorted FILETYPE=SAS REPLACE;
  PRINT SEQN SDPSTRA6 SDPPSU6 / MAXREC=25;
  RTITLE "Sorted by SEQN (25 records)";
  RFOOTNOTE "NHANES III, 1988-1994, JULY 1997 DATA RELEASE, ADULTS (17+)";

From the SAS Log File:
  Opened SAS file IN.HANES3S3 for reading.
  Opened SAS data file OUT.NH3SORTED for writing.
  Note: 20050 records written to file OUT.NH3SORTED
```

Exhibit 2. Printed Results: First 25 Records on the Sorted File

```

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Sorted by SEQN (25 records)

by: Observation Number.
-----
Observation
Number          Sequence          Total NHANES          Total NHANES
                  number          III pseudo-          III pseudo-
                                stratum              PSU
-----
1                 3.000          44.000          1.000
2                 4.000          43.000          1.000
3                 9.000          43.000          2.000
4                10.000          6.000           1.000
5                11.000          40.000          2.000
6                19.000          35.000          1.000
7                34.000          13.000          1.000
8                40.000          30.000          1.000
9                44.000          8.000           1.000
10               45.000          22.000          1.000
11               48.000          24.000          1.000
12               49.000          16.000          1.000
13               51.000          28.000          1.000
14               52.000          40.000          1.000
15               53.000          6.000           1.000
16               54.000          9.000           1.000
17               55.000          44.000          2.000
18               56.000          10.000          1.000
19               60.000          35.000          1.000
20               63.000          48.000          2.000
21               67.000          2.000           1.000
22               70.000          9.000           1.000
23               71.000          43.000          1.000
24               72.000          21.000          1.000
25               73.000          29.000          1.000
-----
NHANES III, 1988-1994, JULY 1997 DATA RELEASE, ADULTS (17+)

```

Note that the data above are sorted by the SEQN variable (in ASCENDING order, by default). The MAXREC=25 option on the PRINT statement restricts the printed output to the first 25 observations of the dataset.

The second part of this example sorts the same dataset as above—this time, by the SDPSTRA6 and SDPPSU6 variables (*Exhibit 3*). Again, the first 25 observations are printed (*Exhibit 4*). Since these variables represent the survey design strata and PSUs, respectively, they can be used on the NEST statement in any of SUDAAN’s analytic procedures without further data manipulation. SUDAAN’s SORTBY functionality enables users to perform data manipulation directly within the SUDAAN environment.

Exhibit 3. SAS-Callable SUDAAN Code: Sort by Strata, PSU

```
libname in "\\rtints29\sudaan\data\nhanes3";  
libname out "c:\l1winbetatest\examples";
```

```
PROC RECORDS DATA=in.HANES3S3 FILETYPE=SAS;  
  SORTBY SDPSTRA6 SDPPSU6;  
  OUTPUT / FILENAME=out.nh3sorted FILETYPE=SAS REPLACE;  
  PRINT SEQN SDPSTRA6 SDPPSU6 / MAXREC=25;  
  RTITLE "Sorted by Strata and PSU (25 records)";  
  RFOOTNOTE "NHANES III, 1988-1994, JULY 1997 DATA RELEASE, ADULTS (17+)";
```

From the SAS Log File:

```
  Opened SAS file IN.HANES3S3 for reading.  
  Opened SAS data file OUT.NH3SORTED for writing.  
  Note: 20050 records written to file OUT.NH3SORTED
```

Exhibit 4. Printed Results: First 25 Records of the Sorted File

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Sorted by Strata and PSU (25 records)

by: Observation Number.

Observation Number	Sequence number	Total NHANES III pseudo- stratum	Total NHANES III pseudo- PSU
1	119.000	1.000	1.000
2	380.000	1.000	1.000
3	490.000	1.000	1.000
4	698.000	1.000	1.000
5	755.000	1.000	1.000
6	831.000	1.000	1.000
7	960.000	1.000	1.000
8	1089.000	1.000	1.000
9	1146.000	1.000	1.000
10	1221.000	1.000	1.000
11	1278.000	1.000	1.000
12	1349.000	1.000	1.000
13	1407.000	1.000	1.000
14	1425.000	1.000	1.000
15	1483.000	1.000	1.000
16	1613.000	1.000	1.000
17	1668.000	1.000	1.000
18	1743.000	1.000	1.000
19	1802.000	1.000	1.000
20	1934.000	1.000	1.000
21	2012.000	1.000	1.000
22	2066.000	1.000	1.000
23	2139.000	1.000	1.000
24	2419.000	1.000	1.000
25	2490.000	1.000	1.000

NHANES III, 1988-1994, JULY 1997 DATA RELEASE, ADULTS (17+)