

Example 2: Frequency Calculation

In the following sample code, the percentage of people who currently have asthma (`astcur`) is examined by race (`racehpr2`) and by race and sex (`racehpr2*srsex`).

SAS:

```
PROC SORT DATA = data;
BY racehpr2;
RUN;

PROC SURVEYMEANS DATA = data VARMETHOD=JACKKNIFE;
WEIGHT rakedw0;
REPWEIGHT rakedw1-rakedw80/JKCOEFS=1; a
VAR astcur;
CLASS astcur;
BY racehpr2;
RUN;

PROC SORT DATA = data;
BY racehpr2 srsex;
RUN;

PROC SURVEYMEANS DATA = data VARMETHOD=JACKKNIFE;
WEIGHT rakedw0;
REPWEIGHT rakedw1-rakedw80/JKCOEFS=1; a
VAR astcur;
CLASS astcur;
BY racehpr2 srsex; b
RUN;
```

Alternatively, PROC SURVEYFREQ may be useful especially for variables with more than two categories. One caveat in creating multiple tables in one PROC SURVEYFREQ procedure is that the procedure takes the smallest applicable sample sizes among all variables. Therefore, creating one table per one PROC SURVEYFREQ procedure is recommended:

```
PROC SURVEYFREQ DATA = data VARMETHOD=JACKKNIFE;
WEIGHT rakedw0;
REPWEIGHT rakedw1-rakedw80/JKCOEFS=1; a
TABLES racehpr2*astcur/row;
RUN;

PROC SURVEYFREQ DATA = data VARMETHOD=JACKKNIFE;
WEIGHT rakedw0;
REPWEIGHT rakedw1-rakedw80/JKCOEFS=1; a
TABLES srsex*racehpr2*astcur/row;
RUN;
```

^a Jackknife coefficients are necessary for accurate variance calculations, and jackknife coefficients of 1 in SAS will produce equal variance calculations as those produced in SUDAAN. However, for SAS V.9.2(TS1M0) and earlier, a value of 1 will not be accepted; as a substitute, 0.9999 can be entered. Without this specification, the default value of the jackknife coefficients will be $[(\# \text{ replicate weights} - 1)/\# \text{ replicate weights}]$; for CHIS, this would be $[(80 - 1)/80] = 0.9875$.

^b This produces `racehpr2*srsex` grouping.

Example 2: Frequency Calculation continued.

SUDAAN:

```
PROC CROSSTAB DATA = data FILETYPE=SAS DESIGN=JACKKNIFE;  
WEIGHT rakedw0;  
JACKWGTS rakedw1-rakedw80/ADJJACK=1;  
TABLES racehpr2*astcur srsex*racehpr2*astcur;  
SUBGROUP astcur racehpr2 srsex;  
LEVELS 2 7 2;  
RUN;
```

Stata:

***Sample design specification step*^a**

```
use "DATASET LOCATION"  
svyset [pw=rakedw0], jkrw(rakedw1-rakedw80, multiplier(1)) vce(jack)  
mse
```

***Analysis*^b**

```
svy: tabulate astcur racehpr2, col se ci  
svy, subpop (if srsex==1): tab astcur racehpr2, col se ci  
svy, subpop (if srsex==2): tab astcur racehpr2, col se ci
```

^a In Stata, the sample design specification step should be included before conducting any analysis.

^b Stata V.10 and higher cannot accommodate 3 or more variables in the tab command.