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
```

---

*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 [(# replicate weights - 1)/# 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
```

- In Stata, the sample design specification step should be included before conducting any analysis.
- Stata V.10 and higher cannot accommodate 3 or more variables in the tab command.