

## Example 1: Mean Calculation

In the following sample code, the distribution of BMI (`bmi_p`) 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 bmi_p;
BY racehpr2;
RUN;

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

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

<sup>a</sup> 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  $[(80 - 1)/80] = 0.9875$ .

<sup>b</sup> This produces `racehpr2*srsex` grouping.

### SUDAAN:

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

### Stata:

#### **\*Sample design specification step\* <sup>c</sup>**

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

#### **\*Analysis\***

```
svy: mean bmi_p, over(racehpr2)
svy: mean bmi_p, over(srsex racehpr2)
```

<sup>c</sup> In Stata, the sample design specification step should be included before conducting any analysis.