

ACS Complex Sample Specification for SAS and Stata

by Martin C. Seay¹ and Robert B. Nielsen²

The Successive Difference Replicates (SDR) estimation method is recommended when working with the American Community Survey (ACS) (U.S. Census Bureau, 2010). STATA supports SDR estimation; SAS users must use Jackknife Repeated Replication (JRR). Two sets of replicate weights are provided that correspond to household (WGTP1 - WGTP80) and person (PWGTP1 - PWGTP80) level analyses. Code is provided below for household level analyses and must be augmented accordingly.

SAS:

```
proc survey_____ data=___your_datafile___ varmethod = jackknife;
  *your_secondary_command and your variable(s) or model statement;
  weight      _your_weight_;      * person/family/household weight variable;
  repweights  WGTP1 - WGTP80;    * replicate weights;
run;
```

Of course, change the `proc survey_____` for other procedures. For example:

```
proc surveylogistic data=your_datafile varmethod = jackknife;
  model      DEPENDENT (event='1')= INDEPENDENT;
  weight     _your_weight_;      * person/family/household weight variable;
  repweights WGTP1 - WGTP80;    * replicate weights;
run;
```

Stata: (using the estimation of a mean value as our example)

Replicate weight method using menus

Sampling weight variable is your full sample pweight.
 Successive Difference Replicates (sdr) are WGTP1 - WGTP80.
 Within the procedure, specify "survey data estimation" in SE.

Replicate weight method using code

```
First svyset [pweight=_yourwgt], sdrweight(WGTP1 - WGTP80) vce(sdr)
Then svy: mean _yourvariable_
```

Reference

U.S. Census Bureau. (2010). Chapter 12: Variance estimation. *ACS design and methodology*. Available:
https://www.census.gov/acs/www/Downloads/survey_methodology/acs_design_methodology_ch12.pdf

¹ Assistant Professor, School of Family Studies and Human Services, 318 Justin Hall, Kansas State University, Manhattan, KS. 66506. Email: mseay@ksu.edu

² Associate Professor, Department of Housing and Consumer Economics, University of Georgia, 205 Consumer Research Center, Athens, GA 30602. Email: rnielsen@uga.edu

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