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* Stata Analysis Examples Replication for ASDA 2nd Edition
* Berglund April 2017
* Chapter 6

* Example 6.1: Estimating the Proportion of the U.S. Adult Population with an Irregular Heart Beat.
use "P:\ASDA 2\Data sets\nhanes 2011_2012\nhanes1112_sub_8aug2016.dta", clear
rename *, lower
svyset sdmvpsu [pweight = wtmecl2yr], strata(sdmvstra) vce(linearized) singleunit(missing)
svy, subpop(age18p): tab irregular, se ci col deff
svy, subpop(age18p): proportion irregular
svy, subpop(age18p): mean irregular

* Example 6.2: Estimating the Proportion of U.S. Adults by Race and Ethnicity using NHANES data.
svy, subpop(age18p): prop ridreth1
estat effects

* Example 6.3: Estimating the Proportions of U.S. Adults by Blood Pressure Category using the 2011-
2012 NHANES Data.
svy, subpop(age18p): tab bp_cat, obs se ci col
svy, subpop(age18p): tab bp_cat, deff

* Example 6.4: A Goodness of Fit Test for Proportions of Russians age 15+ by Marital Status.
use "P:\ASDA 2\Data sets\ESS6 Russia\ess6_russia_20aug2016.dta", clear
rename *, lower
recode marcat (1=.5) (2=.25) (3=.25), generate (pi)

svyset psu [pweight=pspwght], strata(stratify) vce(linearized) singleunit(missing)
mgof marcat = pi, svy
svy: tab marcat

* Example 6.5: Pie Charts and Vertical Bar Charts of the Estimated Proportions of Russians age 15+
by Marital Status.
tabulate marcat, generate(marcat)
label var marcat1 "Married"
label var marcat2 "Previously Married"
label var marcat3 "Never Married"

* Pie Chart (one long command).
graph pie marcat1 marcat2 marcat3 [pweight=pspwght], plabel(_all percent, ///
format(%9.1f)) scheme(s2mono) legend (label(1 "Married") label(2 "Previously Married") label(3
"Never Married"))

* Vertical Bar Chart (one long command).
graph bar (mean) marcat1 marcat2 marcat3 [pweight=pspwght], percentages ///
bar(1,color(gs12)) bar(2,color(gs4)) bar(3,color(gs8)) blabel(bar, format(%5.1f)) ///
bargap(7) scheme(s2mono) legend (label(1 "Married") label(2 "Previously Married") label(3 "Never
Married")) ytitle ("Percentage")

* Example 6.6: Estimation of Total and Row Proportions for the Crosstabulation of Gender and
Lifetime Major Depression Status (Source: NCS-R).
use "P:\ASDA 2\Data sets\ncsr\ncsr_sub_13nov2015.dta", clear
rename *, lower
svyset seclustr [pweight = ncsrwts], strata(sestrat)
svy: tab sex mde, se ci deff
svy: tab sex mde, row se ci deff

* Example 6.7: Comparing the Proportions of U.S. Adult Men and Women with Lifetime Major
Depression.
svyset seclustr [pweight=ncsrwts], strata(sestrat) vce(linearized) singleunit(missing)
svy: proportion mde, over(sex)
lincom [_prop_2]1 - [_prop_2]2

* Example 6.8: Testing the Independence of MDE and Gender in U.S. Adults Using the NCS-R data.
svy: tab sex mde, se ci deff

* Example 6.9: Testing the Independence of Alcohol Dependence and Education Level in Young Adults
(Ages 18-28) using the NCS-R data.

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svyset seclustr [pweight = ncsrwtlg], strata(sestrat)
svy, subpop(if 18 <= age & age < 29): tab ed4cat ald, row se ci deff
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\* Example 6.10: Simple Logistic Regression to Estimate the NCS-R Male/Female Odds Ratio for Lifetime Major Depressive Episode.

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svyset seclustr [pweight = ncsrwtsh], strata(sestrat)
svy: logistic mde sexm
```

\* Example 6.11: Using the NCS-R Data to Estimate and Test the Association between Gender and Depression in the U.S. Adult Population when controlling for Age.

\* NOTE: this is done using SUDAAN in book as Stata does not offer a svy version of this test

\* Example 6.12: A Simple Log-linear Model to Test the Association between Lifetime Major Depression Episode and Sex.

\* NOTE: done in IVEware and R in book since Stata does not offer a svy version of Log-Linear models