

ASDA2 ANALYSIS EXAMPLE REPLICATION SPSS C6

* Full Syntax for Analysis Example Replication C6

GET

```
SAS DATA='P:\ASDA 2\Data sets\nhanes 2011_2012\nhanes1112_sub_8aug2016.sas7bdat'.  
DATASET NAME DataSet2 WINDOW=FRONT.
```

* ANALYSIS EXAMPLE 6.1 PROPORTIONS OF IRREGULAR HEART BEAT US ADULT POPULATION NHANES DATA

* Complex Samples Frequencies.

* Note CSPlan file already created.

CSTABULATE

```
/PLAN file='P:\ASDA 2\Data sets\nhanes 2011_2012\nhanes_csplan.csaplan'  
/TABLES VARIABLES=irregular  
/SUBPOP TABLE=age18p DISPLAY=LAYERED  
/CELLS TABLEPCT  
/STATISTICS SE CIN(95) DEFF  
/MISSING SCOPE=TABLE CLASSMISSING=EXCLUDE.
```

CSDESCRIPTIVES

```
/PLAN file='P:\ASDA 2\Data sets\nhanes 2011_2012\nhanes_csplan.csaplan'  
/SUMMARY VARIABLES=irregular  
/SUBPOP TABLE=age18p DISPLAY=LAYERED  
/MEAN  
/STATISTICS SE DEFF CIN(95)  
/MISSING SCOPE=ANALYSIS CLASSMISSING=EXCLUDE.
```

* ANALYSIS EXAMPLE 6.2 RACE/ETHNICITY PROPORTIONS US ADULT POPULATION NHANES DATA

* Complex Samples Frequencies.

CSTABULATE

```
/PLAN file='P:\ASDA 2\Data sets\nhanes 2011_2012\nhanes_csplan.csaplan'  
/TABLES VARIABLES=RIDRETH1  
/SUBPOP TABLE=age18p DISPLAY=LAYERED  
/CELLS TABLEPCT  
/STATISTICS SE CIN(95) DEFF  
/MISSING SCOPE=TABLE CLASSMISSING=EXCLUDE.
```

* ANALYSIS EXAMPLE 6.3 BLOOD PRESSURE CATEGORY IN THE US ADULT POPULATION: NHANES DATA

* Complex Samples Frequencies.

CSTABULATE

```
/PLAN file='P:\ASDA 2\Data sets\nhanes 2011_2012\nhanes_csplan.csaplan'  
/TABLES VARIABLES=BP_CAT  
/SUBPOP TABLE=AGE18P DISPLAY=LAYERED  
/CELLS TABLEPCT  
/STATISTICS SE CIN(95) DEFF  
/MISSING SCOPE=TABLE CLASSMISSING=EXCLUDE.
```

* Russian Federation Data for Example 6.4

GET

```
SAS DATA='P:\ASDA 2\Data sets\ESS6 Russia\ess6_russia_20aug2016.sas7bdat'.  
DATASET NAME DataSet2 WINDOW=FRONT.
```

* Analysis Preparation Wizard.

CSPLAN ANALYSIS

```
/PLAN FILE='P:\ASDA 2\Data sets\ESS6 Russia\russia_csplan.csaplan'  
/PLANVARS ANALYSISWEIGHT=PSPWGHT  
/SRSESTIMATOR TYPE=WOR  
/PRINT PLAN  
/DESIGN STRATA=stratify CLUSTER=psu  
/ESTIMATOR TYPE=WR.
```

* Analysis Example 6.4 Proportions of Russians by Marital Status

CSTABULATE

```
/PLAN FILE='P:\ASDA 2\Data sets\ESS6 Russia\russia_csplan.csaplan'  
/TABLES VARIABLES=marcat  
/CELLS TABLEPCT  
/STATISTICS SE CIN(95) DEFF
```

```

/MISSING SCOPE=TABLE CLASSMISSING=EXCLUDE.

*ANALYSIS EXAMPLE 6.4 GOODNESS OF FIT IS NOT AVAILABLE IN SPSS V22

* Example 6.5 Pie chart and Bar Chart of Russians by Marital Status.
WEIGHT BY PSPWGHT.
GRAPH
  /PIE=PCT BY marcat
  /TITLE='Pie Chart of Russians Age 15+ by Marital Status'.

GRAPH
  /BAR=PCT BY marcat
  /TITLE='Pie Chart of Russians Age 15+ by Marital Status'.

* get NCSR data.
GET
  SAS DATA='P:\ASDA 2\Data sets\NCSR\ncsr_sub_5apr2017.sas7bdat'.
DATASET NAME DataSet2 WINDOW=FRONT.

* Analysis Preparation Wizard.
CSPLAN ANALYSIS
  /PLAN FILE='P:\ASDA 2\Data sets\NCSR\ncsr_plwt.csaplan'
  /PLANVARS ANALYSISWEIGHT=NCSRWTSH
  /SRSESTIMATOR TYPE=WOR
  /PRINT PLAN
  /DESIGN STRATA=SESTRAT CLUSTER=SECLUSTR
  /ESTIMATOR TYPE=WR.

* Complex Samples Crosstabs.
* Analysis Example 6.6 Total and Row Proportions of Gender by MDE, NCSR data.
* Note: Design Effects appear too large in V22.
CSTABULATE
  /PLAN FILE='P:\ASDA 2\Data sets\NCSR\ncsr_plwt.csaplan'
  /TABLES VARIABLES=SEX BY mde
  /CELLS ROWPCT TABLEPCT
  /STATISTICS SE CIN(95)
  /TEST INDEPENDENCE
  /MISSING SCOPE=TABLE CLASSMISSING=EXCLUDE.
*NOTE: LINEAR DIFFERENCES NOT AVAILABLE IN SPSS V22 DESCRIPTIVE COMMANDS. .

* Analysis Example 6.7 Proportions of MDE by Gender
* Complex Samples Crosstabs.
CSTABULATE
  /PLAN FILE='P:\ASDA 2\Data sets\NCSR\ncsr_plwt.csaplan'
  /TABLES VARIABLES=SEX BY mde
  /CELLS ROWPCT TABLEPCT
  /STATISTICS SE CIN(95)
  /MISSING SCOPE=TABLE CLASSMISSING=EXCLUDE.

* Analysis Example 6.8, Test of Independence of MDE and Gender
CSTABULATE
  /PLAN FILE='P:\ASDA 2\Data sets\NCSR\ncsr_plwt.csaplan'
  /TABLES VARIABLES=SEX BY mde
  /CELLS ROWPCT
  /STATISTICS SE CIN(95)
  /TEST INDEPENDENCE
  /MISSING SCOPE=TABLE CLASSMISSING=EXCLUDE.

* Analysis Example 6.9, Test of Independence of Alcohol Dependence and Education in Subpopulation of those
18-28.
compute age29=0.
  if (age >= 18 & age <=28) age29=1.
execute.

* Analysis Preparation Wizard.
CSPLAN ANALYSIS
  /PLAN FILE='P:\ASDA 2\Data sets\NCSR\ncsr_p2wt_29.csaplan'
  /PLANVARS ANALYSISWEIGHT=NCSRWTLG

```

```

/SRSESTIMATOR TYPE=WOR
/PRINT PLAN
/DESIGN STRATA=age29 SESTRAT CLUSTER=SECLUSTR
/ESTIMATOR TYPE=WR.

CSTABULATE
/PLAN FILE='P:\ASDA 2\Data sets\NCSR\ncsr_p2wt_29.csaplan'
/TABLES VARIABLES=ED4CAT BY ald
/SUBPOP TABLE=age29 DISPLAY=LAYERED
/CELLS ROWPCT
/STATISTICS SE
/TEST INDEPENDENCE
/MISSING SCOPE=TABLE CLASSMISSING=EXCLUDE.

* Analysis Example 6.10, Simple Logistic Regression of MDE and Gender
* Complex Samples Logistic Regression.
CSLOGISTIC mde(LOW) WITH sexm
/PLAN FILE='P:\ASDA 2\Data sets\NCSR\ncsr_plwt.csaplan'
/MODEL sexm
/INTERCEPT INCLUDE=YES SHOW=YES
/STATISTICS EXP SE CINTERVAL TTEST DEFF
/TEST TYPE=ADJCHISQUARE PADJUST=LSD
/MISSING CLASSMISSING=EXCLUDE
/CRITERIA MXITER=100 MXSTEP=5 PCONVERGE=[1e-006 RELATIVE] LCONVERGE=[0] CHKSEP=20 CILEVEL=95
/PRINT SUMMARY VARIABLEINFO SAMPLEINFO.

* Figure 6.8, see above examples using Russian Federation Marital Status Categories

*EXAMPLE 6.11 ASSOCIATION BETWEEN GENDER AND DEPRESSION CONTROLLING FOR AGE CATEGORIES: NCSR DATA NOT
AVAILABLE IN SPSS V22

*Example 6.12 Log-Linear Model is not available in Complex Samples Module in SPSS v22

* Export Output.
OUTPUT EXPORT
/CONTENTS EXPORT=ALL LAYERS=PRINTSETTING MODELVIEWS=PRINTSETTING
/DOC DOCUMENTFILE='P:\ASDA 2\Analysis Example Replication\SPSS\Analysis Example Replication '+
'SPSS C6.doc'
NOTESCAPTIONS=YES WIDETABLES=WRAP PAGEBREAKS=YES
PAGESIZE=INCHES(8.5, 11.0) TOPMARGIN=INCHES(1.0) BOTTOMMARGIN=INCHES(1.0)
LEFTMARGIN=INCHES(.5) RIGHTMARGIN=INCHES(.5).

```

OUTPUT ASDA2 ANALYSIS EXAMPLE REPLICATION SPSS C5

```

GET
  SAS DATA='P:\ASDA 2\Data sets\nhanes 2011_2012\nhanes1112_sub_8aug2016.sas7bdat'.
DATASET NAME DataSet2 WINDOW=FRONT.

* ANALYSIS EXAMPLE 6.1 PROPORTIONS OF IRREGULAR HEART BEAT US ADULT POPULATION NHANES DATA
* Complex Samples Frequencies.
* Note CSPlan file already created.
* Use CSTABULATE.
CSTABULATE
  /PLAN file='P:\ASDA 2\Data sets\nhanes 2011_2012\nhanes_csplan.csaplan'
  /TABLES VARIABLES=irregular
  /SUBPOP TABLE=age18p DISPLAY=LAYERED
  /CELLS TABLEPCT
  /STATISTICS SE CIN(95) DEFF
  /MISSING SCOPE=TABLE CLASSMISSING=EXCLUDE.
  
```

1=yes 0=no

		Estimate	Standard Error	95% Confidence Interval		Design Effect
				Lower	Upper	
% of Total	0	98.7%	0.1%	98.3%	98.9%	1.455
	1	1.3%	0.1%	1.1%	1.7%	1.455
	Total	100.0%	0.0%	100.0%	100.0%	.

Subpopulation Tables

1=yes 0=no

Age >=18: 1=Yes 0=No			Estimate	Standard Error	95% Confidence Interval		Design Effect
					Lower	Upper	
0	% of Total	0	99.6%	0.2%	99.1%	99.8%	1.261
		1	0.4%	0.2%	0.2%	0.9%	1.261
		Total	100.0%	0.0%	100.0%	100.0%	.
1	% of Total	0	98.4%	0.2%	98.0%	98.7%	1.186
		1	1.6%	0.2%	1.3%	2.0%	1.186
		Total	100.0%	0.0%	100.0%	100.0%	.

```

* Use CSDESCRIPTIVES
CSDESCRIPTIVES
/PLAN file='P:\ASDA 2\Data sets\nhanes 2011_2012\nhanes_csplan.csaplan'
/SUMMARY VARIABLES=irregular
/SUBPOP TABLE=age18p DISPLAY=LAYERED
/MEAN
/STATISTICS SE DEFF CIN(95)
/MISSING SCOPE=ANALYSIS CLASSMISSING=EXCLUDE.

```

Complex Samples: Descriptives

Univariate Statistics

	Estimate	Standard Error	95% Confidence Interval		Design Effect
			Lower	Upper	
Mean 1=yes 0=no	.01	.001	.01	.02	1.455

Subpopulation Descriptives

Univariate Statistics

Age >=18: 1=Yes 0=No	Estimate	Standard Error	95% Confidence Interval		Design Effect
			Lower	Upper	
0 Mean 1=yes 0=no	.00	.002	.00	.01	1.261
1 Mean 1=yes 0=no	.02	.002	.01	.02	1.186

* ANALYSIS EXAMPLE 6.2 RACE/ETHNICITY PROPORTIONS US ADULT POPULATION NHANES DATA

* Complex Samples Frequencies.

CSTABULATE

/PLAN file='P:\ASDA 2\Data sets\nhanes 2011_2012\nhanes_csplan.csplan'

/TABLES VARIABLES=RIDRETH1

/SUBPOP TABLE=age18p DISPLAY=LAYERED

/CELLS TABLEPCT

/STATISTICS SE CIN(95) DEFF

/MISSING SCOPE=TABLE CLASSMISSING=EXCLUDE.

Complex Samples: Tables

1=mex 2=oth hisp 3=white 4=black 5=other

		Estimate	Standard Error	95% Confidence Interval		Design Effect
				Lower	Upper	
% of Total	1	9.7%	2.1%	6.1%	15.1%	46.109
	2	7.0%	1.5%	4.4%	11.0%	33.894
	3	62.9%	4.1%	54.0%	71.0%	66.230
	4	12.4%	2.4%	8.2%	18.4%	49.071
	5	8.0%	1.0%	6.1%	10.5%	13.606
	Total		100.0%	0.0%	100.0%	100.0%

Subpopulation Tables

1=mex 2=oth hisp 3=white 4=black 5=other

Age >=18: 1=Yes 0=No			Estimate	Standard Error	95% Confidence Interval		Design Effect
					Lower	Upper	
0	% of Total	1	15.3%	3.2%	9.8%	23.3%	17.528
		2	8.1%	1.7%	5.2%	12.5%	8.731
		3	53.3%	5.0%	42.8%	63.5%	22.453
		4	14.7%	2.8%	9.7%	21.6%	14.314
		5	8.6%	1.1%	6.5%	11.3%	3.802
		Total		100.0%	0.0%	100.0%	100.0%
1	% of Total	1	7.9%	1.7%	5.0%	12.4%	28.842
		2	6.6%	1.5%	4.1%	10.6%	26.373
		3	65.9%	3.9%	57.3%	73.6%	47.584
		4	11.7%	2.3%	7.6%	17.6%	37.302
		5	7.8%	1.1%	5.8%	10.4%	11.705
		Total		100.0%	0.0%	100.0%	100.0%

* ANALYSIS EXAMPLE 6.3 BLOOD PRESSURE CATEGORY IN THE US ADULT POPULATION: NHANES DATA

* Complex Samples Frequencies.

CSTABULATE

/PLAN file='P:\ASDA 2\Data sets\nhanes 2011_2012\nhanes_csplan.csplan'

/TABLES VARIABLES=BP_CAT

/SUBPOP TABLE=AGE18P DISPLAY=LAYERED

/CELLS TABLEPCT

/STATISTICS SE CIN(95) DEFF

/MISSING SCOPE=TABLE CLASSMISSING=EXCLUDE.

Complex Samples: Tables

Blood Pressure: 1=Normal 2=Pre-Hypertension 3=Hypertension Stage 1 4=Hypertension Stage 2

		Estimate	Standard Error	95% Confidence Interval		Design Effect
				Lower	Upper	
% of Total	1	53.9%	1.4%	51.0%	56.7%	5.175
	2	37.7%	1.0%	35.5%	39.9%	3.186
	3	6.8%	0.5%	5.8%	7.9%	2.787
	4	1.7%	0.4%	1.1%	2.7%	5.859
Total		100.0%	0.0%	100.0%	100.0%	.

Subpopulation Tables

Blood Pressure: 1=Normal 2=Pre-Hypertension 3=Hypertension Stage 1 4=Hypertension Stage 2

			Estimate	Standard Error	95% Confidence Interval		Design Effect
					Lower	Upper	
Age >=18: 1=Yes 0=No							
0	% of Total	1	90.4%	1.0%	88.1%	92.2%	1.184
		2	9.5%	1.0%	7.7%	11.7%	1.152
		3	0.1%	0.1%	0.0%	0.4%	.523
		Total	100.0%	0.0%	100.0%	100.0%	.
1	% of Total	1	47.2%	1.6%	44.0%	50.5%	5.767
		2	42.8%	1.2%	40.3%	45.4%	3.530
		3	8.0%	0.6%	6.8%	9.3%	2.748
		4	2.0%	0.4%	1.3%	3.2%	5.848
		Total	100.0%	0.0%	100.0%	100.0%	.

* Russian Federation Data for Example 6.4

GET

SAS DATA='P:\ASDA 2\Data sets\ESS6 Russia\ess6_russia_20aug2016.sas7bdat'.
 DATASET NAME DataSet2 WINDOW=FRONT.

* Analysis Preparation Wizard.

CSPLAN ANALYSIS
 /PLAN FILE='P:\ASDA 2\Data sets\ESS6 Russia\russia_csplan.csaplan'
 /PLANVARS ANALYSISWEIGHT=PSPWGHT
 /SRSESTIMATOR TYPE=WOR
 /PRINT PLAN
 /DESIGN STRATA=stratify CLUSTER=psu
 /ESTIMATOR TYPE=WR.

Complex Samples: Plan

Summary

			Stage 1
Design Variables	Stratification	1	Stratification
	Cluster	1	Primary Sampling Unit
Analysis Information	Estimator Assumption		Sampling with replacement

Plan File: P:\ASDA 2\Data sets\ESS6 Russia\russia_csplan.csaplan

Weight Variable: Post-stratification weight including design weight

SRS Estimator: Sampling without replacement

* Analysis Example 6.4 Proportions of Russians by Marital Status

```

CSTABULATE
/PLAN FILE='P:\ASDA 2\Data sets\ESS6 Russia\russia_csplan.csaplan'
/TABLES VARIABLES=marcat
/CELLS TABLEPCT
/STATISTICS SE CIN(95) DEFF
/MISSING SCOPE=TABLE CLASSMISSING=EXCLUDE.

```

Complex Samples: Tables

Marital Status: 1=Currently Married 2=Previously Married 3=Never Married

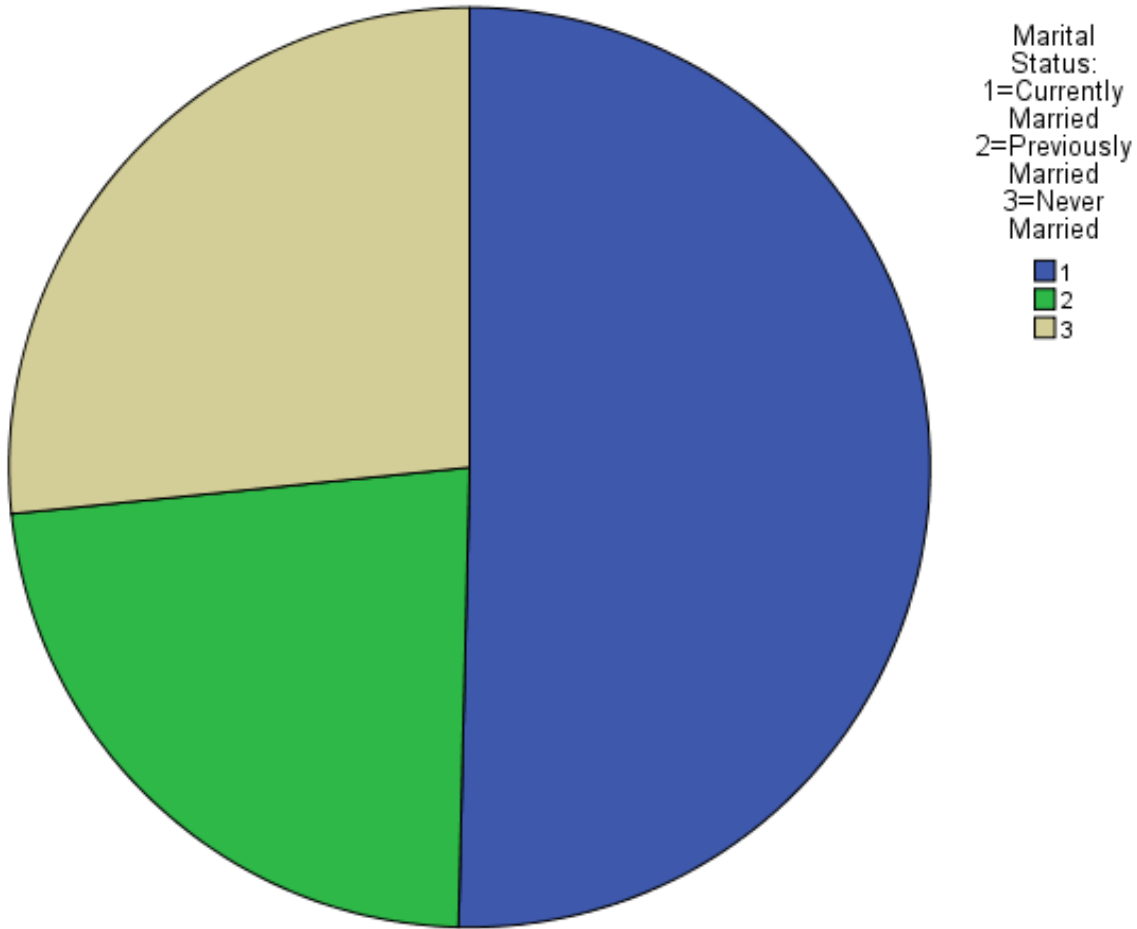
		Estimate	Standard Error	95% Confidence Interval		Design Effect
				Lower	Upper	
% of Total	1	50.4%	1.3%	47.8%	52.9%	442.850
	2	23.0%	1.2%	20.8%	25.4%	501.565
	3	26.6%	1.3%	24.0%	29.3%	613.966
Total		100.0%	0.0%	100.0%	100.0%	.

*ANALYSIS EXAMPLE 6.4: GOODNESS OF FIT IS NOT AVAILABLE IN SPSS V22

* Example 6.5 Pie chart and Bar Chart of Russians by Marital Status.
WEIGHT BY PSPWGHT.
GRAPH
/PIE=PCT BY marcat
/TITLE='Pie Chart of Russians Age 15+ by Marital Status'.

Graph

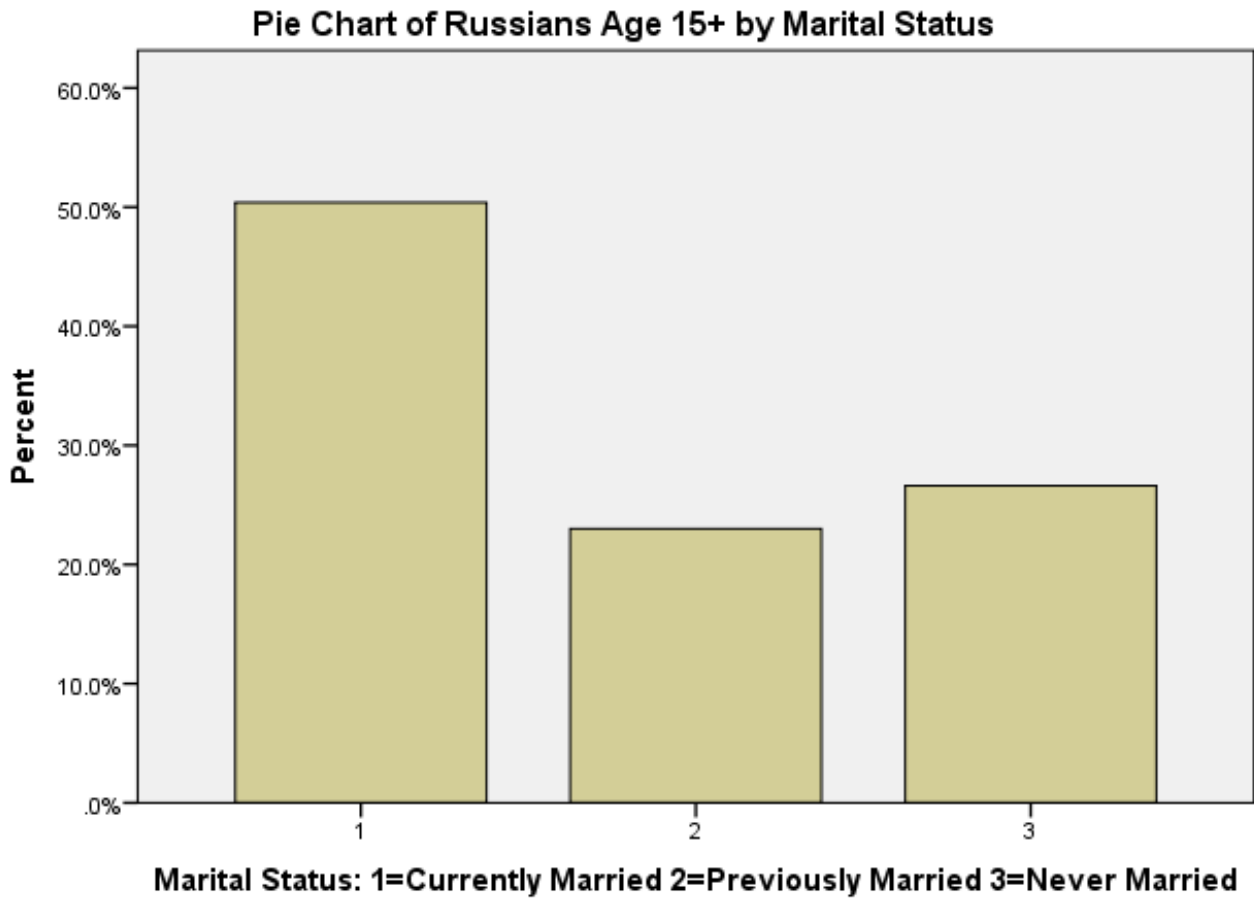
Pie Chart of Russians Age 15+ by Marital Status



Cases weighted by Post-stratification weight including design weight

```
GRAPH  
/BAR=PCT BY marcat  
/TITLE='Pie Chart of Russians Age 15+ by Marital Status'.
```

Graph



Cases weighted by Post-stratification weight including design weight

```

* get NCSR data.
GET
  SAS DATA='P:\ASDA 2\Data sets\NCSR\ncsr_sub_5apr2017.sas7bdat'.
DATASET NAME DataSet2 WINDOW=FRONT.

* Analysis Preparation Wizard.
CSPLAN ANALYSIS
  /PLAN FILE='P:\ASDA 2\Data sets\NCSR\ncsr_plwt.csaplan'
  /PLANVARS ANALYSISWEIGHT=NCSRWTSH
  /SRSESTIMATOR TYPE=WOR
  /PRINT PLAN
  /DESIGN STRATA=SESTRAT CLUSTER=SECLUSTR
  /ESTIMATOR TYPE=WR.

* Analysis Example 6.6 Total and Row Proportions of Gender by MDE, NCSR data.
* Note: Design Effects appear too large in V22.

CSTABULATE
  /PLAN FILE='P:\ASDA 2\Data sets\NCSR\ncsr_plwt.csaplan'
  /TABLES VARIABLES=SEX BY mde
  /CELLS ROWPCT TABLEPCT
  /STATISTICS SE CIN(95)
  /TEST INDEPENDENCE
  /MISSING SCOPE=TABLE CLASSMISSING=EXCLUDE.

```

Complex Samples: Tables

Sex 1=Male 2=Female * Major Depressive Episode 1=Yes 0=No

Sex 1=Male 2=Female			Major Depressive Episode 1=Yes 0=No			
			0	1	Total	
1	% within Sex 1=Male 2=Female	Estimate	84.9%	15.1%	100.0%	
		Standard Error	0.8%	0.8%	0.0%	
		95% Confidence Interval				
			Lower	83.3%	13.6%	100.0%
			Upper	86.4%	16.7%	100.0%
	% of Total	Estimate	40.7%	7.2%	47.9%	
		Standard Error	0.7%	0.3%	0.5%	
95% Confidence Interval						
		Lower	39.3%	6.6%	46.8%	
		Upper	42.1%	7.9%	49.0%	
2	% within Sex 1=Male 2=Female	Estimate	77.1%	22.9%	100.0%	
		Standard Error	0.6%	0.6%	0.0%	
		95% Confidence Interval				
			Lower	75.9%	21.8%	100.0%
			Upper	78.2%	24.1%	100.0%
	% of Total	Estimate	40.2%	12.0%	52.1%	
		Standard Error	0.5%	0.3%	0.5%	
95% Confidence Interval						
		Lower	39.1%	11.4%	51.0%	
		Upper	41.3%	12.6%	53.2%	
Total	% within Sex 1=Male 2=Female	Estimate	80.8%	19.2%	100.0%	
		Standard Error	0.5%	0.5%	0.0%	
		95% Confidence Interval				
			Lower	79.8%	18.2%	100.0%
			Upper	81.8%	20.2%	100.0%
	% of Total	Estimate	80.8%	19.2%	100.0%	
		Standard Error	0.5%	0.5%	0.0%	
95% Confidence Interval						
		Lower	79.8%	18.2%	100.0%	
		Upper	81.8%	20.2%	100.0%	

Tests of Independence

		Chi-Square	Adjusted F	df1	df2	Sig.
Sex 1=Male 2=Female * Major	Pearson	92.150	57.978	1	42	.000
Depressive Episode 1=Yes	Likelihood Ratio	93.106	58.580	1	42	.000
0=No						

The adjusted F is a variant of the second-order Rao-Scott adjusted chi-square statistic. Significance is based on the adjusted F and its degrees of freedom.

*NOTE: LINEAR DIFFERENCES NOT AVAILABLE IN SPSS V22 DESCRIPTIVE COMMANDS. .

* Analysis Example 6.7 Proportions of MDE by Gender
 * Complex Samples Crosstabs.

```
CSTABULATE
/PLAN FILE='P:\ASDA 2\Data sets\NCSR\ncsr_plwt.csaplan'
/TABLES VARIABLES=SEX BY mde
/CELLS ROWPCT TABLEPCT
/STATISTICS SE CIN(95)
/MISSING SCOPE=TABLE CLASSMISSING=EXCLUDE.
```

Complex Samples: Tables

Sex 1=Male 2=Female * Major Depressive Episode 1=Yes 0=No

Sex 1=Male 2=Female			Major Depressive Episode 1=Yes 0=No			
			0	1	Total	
1	% within Sex 1=Male 2=Female	Estimate	84.9%	15.1%	100.0%	
		Standard Error	0.8%	0.8%	0.0%	
		95% Confidence Interval	Lower	83.3%	13.6%	100.0%
			Upper	86.4%	16.7%	100.0%
	% of Total	Estimate	40.7%	7.2%	47.9%	
		Standard Error	0.7%	0.3%	0.5%	
		95% Confidence Interval	Lower	39.3%	6.6%	46.8%
			Upper	42.1%	7.9%	49.0%
2	% within Sex 1=Male 2=Female	Estimate	77.1%	22.9%	100.0%	
		Standard Error	0.6%	0.6%	0.0%	
		95% Confidence Interval	Lower	75.9%	21.8%	100.0%
			Upper	78.2%	24.1%	100.0%
	% of Total	Estimate	40.2%	12.0%	52.1%	
		Standard Error	0.5%	0.3%	0.5%	
		95% Confidence Interval	Lower	39.1%	11.4%	51.0%
			Upper	41.3%	12.6%	53.2%
Total	% within Sex 1=Male 2=Female	Estimate	80.8%	19.2%	100.0%	
		Standard Error	0.5%	0.5%	0.0%	
		95% Confidence Interval	Lower	79.8%	18.2%	100.0%
			Upper	81.8%	20.2%	100.0%
	% of Total	Estimate	80.8%	19.2%	100.0%	
		Standard Error	0.5%	0.5%	0.0%	
		95% Confidence Interval	Lower	79.8%	18.2%	100.0%
			Upper	81.8%	20.2%	100.0%

* Analysis Example 6.8, Test of Independence of MDE and Gender

```
CSTABULATE
/PLAN FILE='P:\ASDA 2\Data sets\NCSR\ncsr_plwt.csaplan'
/TABLES VARIABLES=SEX BY mde
/CELLS ROWPCT
/STATISTICS SE CIN(95)
```

```
/TEST INDEPENDENCE  
/MISSING SCOPE=TABLE CLASSMISSING=EXCLUDE.
```

* Analysis Example 6.9, Test of Independence of Alcohol Dependence and Education in Subpopulation of those 18-28.

```
compute age29=0.  
if (age >= 18 & age =28) age29=1.  
execute.
```

* Analysis Preparation Wizard.

```
CSPLAN ANALYSIS  
/PLAN FILE='P:\ASDA 2\Data sets\NCSR\ncsr_p2wt_29.csaplan'  
/PLANVARS ANALYSISWEIGHT=NCSRWTLG  
/SRSESTIMATOR TYPE=WOR  
/PRINT PLAN  
/DESIGN STRATA=age29 SESTRAT CLUSTER=SECLUSTR  
/ESTIMATOR TYPE=WR.
```

```
CSTABULATE  
/PLAN FILE='P:\ASDA 2\Data sets\NCSR\ncsr_p2wt_29.csaplan'  
/TABLES VARIABLES=ED4CAT BY ald  
/SUBPOP TABLE=age29 DISPLAY=LAYERED  
/CELLS ROWPCT  
/STATISTICS SE  
/TEST INDEPENDENCE  
/MISSING SCOPE=TABLE CLASSMISSING=EXCLUDE.
```

Complex Samples: Tables

Education 1=0-11 2=12 3=13-15 4=16+ Yrs * Alcohol Dependence 1=Yes 0=No

Education 1=0-11 2=12 3=13-15 4=16+ Yrs			Alcohol Dependence 1=Yes 0=No		
			0	1	Total
1	% within Education 1=0-11 2=12 3=13-15 4=16+ Yrs	Estimate	93.3%	6.7%	100.0%
		Standard Error	0.9%	0.9%	0.0%
2	% within Education 1=0-11 2=12 3=13-15 4=16+ Yrs	Estimate	94.4%	5.6%	100.0%
		Standard Error	0.6%	0.6%	0.0%
3	% within Education 1=0-11 2=12 3=13-15 4=16+ Yrs	Estimate	94.2%	5.8%	100.0%
		Standard Error	0.5%	0.5%	0.0%
4	% within Education 1=0-11 2=12 3=13-15 4=16+ Yrs	Estimate	96.3%	3.7%	100.0%
		Standard Error	0.5%	0.5%	0.0%
Total	% within Education 1=0-11 2=12 3=13-15 4=16+ Yrs	Estimate	94.6%	5.4%	100.0%
		Standard Error	0.3%	0.3%	0.0%

Tests of Independence

	Chi-Square	Adjusted F	df1	df2	Sig.
Education 1=0-11 2=12 3=13-15 4=16+ Yrs * Alcohol Dependence 1=Yes 0=No	10.793	3.757	2.520	209.145	.017
Pearson					
Likelihood Ratio	11.401	3.968	2.520	209.145	.013

The adjusted F is a variant of the second-order Rao-Scott adjusted chi-square statistic. Significance is based on the adjusted F and its degrees of freedom.

Subpopulation Tables

Education 1=0-11 2=12 3=13-15 4=16+ Yrs * Alcohol Dependence 1=Yes 0=No

age29	Education 1=0-11 2=12 3=13-15 4=16+ Yrs			Alcohol Dependence 1=Yes 0=No		
				0	1	Total
.00	1	% within Education 1=0-11 2=12 3=13-15 4=16+ Yrs	Estimate	94.0%	6.0%	100.0%
			Standard Error	0.8%	0.8%	0.0%
	2	% within Education 1=0-11 2=12 3=13-15 4=16+ Yrs	Estimate	94.2%	5.8%	100.0%
			Standard Error	0.6%	0.6%	0.0%
	3	% within Education 1=0-11 2=12 3=13-15 4=16+ Yrs	Estimate	93.9%	6.1%	100.0%
			Standard Error	0.5%	0.5%	0.0%
4	% within Education 1=0-11 2=12 3=13-15 4=16+ Yrs	Estimate	96.8%	3.2%	100.0%	
		Standard Error	0.5%	0.5%	0.0%	
Total	% within Education 1=0-11 2=12 3=13-15 4=16+ Yrs	Estimate	94.7%	5.3%	100.0%	
		Standard Error	0.3%	0.3%	0.0%	
1.00	1	% within Education 1=0-11 2=12 3=13-15 4=16+ Yrs	Estimate	90.9%	9.1%	100.0%
			Standard Error	2.9%	2.9%	0.0%
	2	% within Education 1=0-11 2=12 3=13-15 4=16+ Yrs	Estimate	95.1%	4.9%	100.0%
			Standard Error	1.3%	1.3%	0.0%
	3	% within Education 1=0-11 2=12 3=13-15 4=16+ Yrs	Estimate	95.1%	4.9%	100.0%
			Standard Error	1.0%	1.0%	0.0%
	4	% within Education 1=0-11 2=12 3=13-15 4=16+ Yrs	Estimate	93.1%	6.9%	100.0%
			Standard Error	1.4%	1.4%	0.0%
	Total	% within Education 1=0-11 2=12 3=13-15 4=16+ Yrs	Estimate	94.1%	5.9%	100.0%
			Standard Error	0.9%	0.9%	0.0%

Tests of Independence

age29			Chi-Square	Adjusted F	df1	df2	Sig.
.00	Education 1=0-11 2=12	Pearson	13.192	5.315	2.472	103.824	.004
	3=13-15 4=16+ Yrs * Alcohol Dependence 1=Yes 0=No	Likelihood Ratio	14.614	5.888	2.472	103.824	.002
1.00	Education 1=0-11 2=12	Pearson	6.096	1.659	2.742	112.432	.184
	3=13-15 4=16+ Yrs * Alcohol Dependence 1=Yes 0=No	Likelihood Ratio	5.654	1.539	2.742	112.432	.212

The adjusted F is a variant of the second-order Rao-Scott adjusted chi-square statistic. Significance is based on the adjusted F and its degrees of freedom.

* Analysis Example 6.10, Simple Logistic Regression of MDE and Gender
 * Complex Samples Logistic Regression.

```
CSLOGISTIC mde(LOW) WITH sexm
/PLAN FILE='P:\ASDA 2\Data sets\NCSR\ncsr_plwt.csaplan'
/MODEL sexm
/INTERCEPT INCLUDE=YES SHOW=YES
/STATISTICS EXP SE CINTERVAL TTEST DEFF
/TEST TYPE=ADJCHISQUARE PADJUST=LSD
/MISSING CLASSMISSING=EXCLUDE
/CRITERIA MXITER=100 MXSTEP=5 PCONVERGE=[1e-006 RELATIVE] LCONVERGE=[0] CHKSEP=20 CILEVEL=95
/PRINT SUMMARY VARIABLEINFO SAMPLEINFO.
```

Complex Samples: Logistic Regression

Sample Design Information

		N
Unweighted Cases	Valid	9282
	Invalid	0
	Total	9282
Population Size		9282.000
Stage 1	Strata	42
	Units	84
Sampling Design Degrees of Freedom		42

Categorical Variable Information

		Weighted Count	Weighted Percent
Major Depressive Episode 1=Yes	0 ^b	7502.536	80.8%
0=No ^a	1	1779.464	19.2%
Population Size		9282.000	100.0%

- a. Dependent Variable
- b. Reference Category

Covariate Information

	Mean
Male 1=Yes 0=No	.48

Pseudo R Squares

Cox and Snell	.010
Nagelkerke	.016
McFadden	.010

Dependent Variable: Major Depressive Episode 1=Yes 0=No
 (reference category = 0)
 Model: (Intercept), sexm

Tests of Model Effects

Source	df	Adjusted Wald Chi-Square	Sig.
(Corrected Model)	1.000	57.277	.000
(Intercept)	1.000	1439.096	.000
sexm	1.000	57.277	.000

Dependent Variable: Major Depressive Episode 1=Yes 0=No (reference category = 0)
 Model: (Intercept), sexm

Parameter Estimates

Major Depressive Episode 1=Yes 0=No		Std. Error	95% Confidence Interval		Hypothesis Test		
Parameter	Lower		Upper	t	df	Sig.	
1	(Intercept)	.032	-1.277	-1.148	-37.935	42.000	.000
	sexm	.068	-.654	-.379	-7.568	42.000	.000

Parameter Estimates

Major Depressive Episode 1=Yes 0=No		Design Effect	Exp(B)	95% Confidence Interval for Exp(B)	
Parameter	Lower			Upper	
1	(Intercept)	53300095.988	.298	.279	.317
	sexm	97046518.710	.597	.520	.685

Dependent Variable: Major Depressive Episode 1=Yes 0=No (reference category = 0)
 Model: (Intercept), sexm

* Figure 6.8, see above examples using Russian Federation Marital Status Categories

*EXAMPLE 6.11 ASSOCIATION BETWEEN GENDER AND DEPRESSION CONTROLLING FOR AGE CATEGORIES: NCSR DATA NOT AVAILABLE IN SPSS V22

*Example 6.12 Log-Linear Model is not available in Complex Samples Module in SPSS v22

* Export Output.

OUTPUT EXPORT

/CONTENTS EXPORT=ALL LAYERS=PRINTSETTING MODELVIEWS=PRINTSETTING

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'SPSS C6.doc'

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