

Topics in Social Statistics, fall 2010
 SPSS example for OCH Survey data set
 Risto Lehtonen 30 Sept. 2010

```
GET
  FILE='E:\Root\USB\HY\Social Statistics Course 2010\Data\OHC.sav'.
DATASET NAME DataSet1 WINDOW=FRONT.
* Analysis Preparation Wizard.
CSPLAN ANALYSIS
  /PLAN FILE='E:\Root\USB\HY\Social Statistics Course '+
  '2010\Data\OHC.csaplan'
  /PLANVARS ANALYSISWEIGHT=w
  /SRSESTIMATOR TYPE=WOR
  /PRINT PLAN
  /DESIGN STRATA= STRATUM CLUSTER= PSU
  /ESTIMATOR TYPE=WR.
```

Complex Samples: Plan

[DataSet1] E:\Root\USB\HY\Social Statistics Course 2010\Data\OHC.sav

Warnings

This procedure does not check the consistency of the working data file with the plan file. We recommend looking at the output table or the plan file to check consistency before performing selection or analysis.

Summary

			Stage 1
Design Variables	Stratification	1	Stratum identifier
	Cluster	1	PSU
Analysis Information	Estimator Assumption		Sampling with replacement

Plan File: E:\Root\USB\HY\Social Statistics Course 2010\Data\OHC.csaplan
 Weight Variable: w
 SRS Estimator: Sampling without replacement

```
* Complex Samples Logistic Regression.
CSLOGISTIC PSYCH2(LOW) BY SEX WITH AGE PHYS CHRON
  /PLAN FILE = 'E:\Root\USB\HY\Social Statistics Course 2010\Data\OHC.csaplan'
  /MODEL SEX AGE PHYS CHRON SEX*AGE
  /INTERCEPT INCLUDE=YES SHOW=YES
  /STATISTICS PARAMETER EXP SE CINTERVAL TTEST DEFF
  /TEST TYPE=F PADJUST=LSD
  /ODDSRATIOS COVARIATE=[PHYS(1)]
  /ODDSRATIOS COVARIATE=[CHRON(1)]
  /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

[DataSet1] E:\Root\USB\HY\Social Statistics Course 2010\Data\OHC.sav

Warnings

The estimated parameter variance for the simple random sampling design is zero.
 The design effects, adjusted Wald F test, or adjusted Wald Chi-square test cannot be computed.

Sample Design Information

		N
Unweighted Cases	Valid	7841
	Invalid	0
	Total	7841
Population Size		7841,000
Stage 1	Strata	5
	Units	250
Sampling Design Degrees of Freedom		245

Categorical Variable Information

		Weighted Count	Weighted Percent
Psychic strain - dichotomy	0 ^a	3925,000	50,1%
	1	3916,000	49,9%
Gender	1	4485,000	57,2%
	2	3356,000	42,8%
Population Size		7841,000	100,0%

a. Reference Category

b. Dependent Variable

Covariate Information

	Mean
Age in years	37,58
Physical health hazards of work	,35
Chronic morbidity	,29

Pseudo R Squares

Cox and Snell	,033
Nagelkerke	,043
McFadden	,024

Dependent Variable: Psychic strain - dichotomy
 (reference category = 0)

Model: (Intercept), SEX, AGE, PHYS, CHRON, SEX * AG

Tests of Model Effects

Source	df1	df2	Wald F	Sig.
(Corrected Model)	5,000	241,000	40,044	,000
(Intercept)	1,000	245,000	8,591	,004
SEX	1,000	245,000	23,828	,000
AGE	1,000	245,000	,565	,453
PHYS	1,000	245,000	21,521	,000
CHRON	1,000	245,000	96,351	,000
SEX * AGE	1,000	245,000	6,550	,011

Dependent Variable: Psychic strain - dichotomy (reference category = 0)

Model: (Intercept), SEX, AGE, PHYS, CHRON, SEX * AGE

Parameter Estimates

Psychic strain - dichotomy	Parameter	B	Std. Error	95% Confidence Interval		Hypothesis Test			Design Effect	Exp(B)	95% Confidence Interval for Exp(B)	
				Lower	Upper	t	df	Sig.			Lower	Upper
1	(Intercept)	,196	,157	-,113	,506	1,249	245,000	,213	.	1,217	,893	1,659
	[SEX=1]	-,993	,203	-1,393	-,592	-4,881	245,000	,000	.	,371	,248	,553
	[SEX=2]	,000 ^a	.	.	.	.	.	.	.	1,000	.	.
	AGE	-,005	,004	-,013	,003	-1,123	245,000	,262	.	,995	,988	1,003
	PHYS	,276	,060	,159	,394	4,639	245,000	,000	.	1,318	1,172	1,483
	CHRON	,564	,057	,451	,677	9,816	245,000	,000	.	1,758	1,570	1,969
	[SEX=1] * AGE	,013	,005	,003	,023	2,559	245,000	,011	.	1,013	1,003	1,023
	[SEX=2] * AGE	,000 ^a	.	.	.	.	.	.	.	1,000	.	.

Dependent Variable: Psychic strain - dichotomy (reference category = 0)

Model: (Intercept), SEX, AGE, PHYS, CHRON, SEX * AGE

a. Set to zero because this parameter is redundant.

Odds Ratios 1^a

Units of Change	Psychic strain - dichotomy	Odds Ratio	95% Confidence Interval	
			Lower	Upper
Physical health hazards of work	1,000	1	1,318	1,172 1,483

Dependent Variable: Psychic strain - dichotomy (reference category = 0)

Model: (Intercept), SEX, AGE, PHYS, CHRON, SEX * AGE

a. Factors and covariates used in the computation are fixed at the following values: Gender=2; Age in years=37,58; Physical health hazards of work=,35; Chronic morbidity=,29

Odds Ratios 2^a

Units of Change	Psychic strain - dichotomy	Odds Ratio	95% Confidence Interval	
			Lower	Upper
Chronic morbidity	1,000	1	1,758	1,570 1,969

Dependent Variable: Psychic strain - dichotomy (reference category = 0)

Model: (Intercept), SEX, AGE, PHYS, CHRON, SEX * AGE

a. Factors and covariates used in the computation are fixed at the following values: Gender=2; Age in years=37,58; Physical health hazards of work=,35; Chronic morbidity=,29