

```

GET DATA  /TYPE=TXT
/FILE="/Users/jeromy/teaching/org-research-methods/2013/content/02 Correlation and regression/exercises/data/affairs.sav"
/DELCASE=LINE
/DELIMITERS=","
/QUALIFIER=' "'
/ARRANGEMENT=DELIMITED
/FIRSTCASE=2
/IMPORTCASE=ALL
/VARIABLES=
affairs F1.0
gender A6
age F4.1
yearsmarried F5.3
children A3
religiousness F1.0
education F2.0
occupation F1.0
rating F1.0.
CACHE.
EXECUTE.
DATASET NAME DataSet2 WINDOW=FRONT.
DATASET ACTIVATE DataSet1.
DATASET CLOSE DataSet2.
FREQUENCIES VARIABLES=affairs gender age yearsmarried children religiousness education occupation rating
/HISTOGRAM
/ORDER=ANALYSIS.

```

Frequencies

Notes

Output Created		05-AUG-2013 10:46:28
Comments		
Input	Data	/Users/jeromy/teaching/org-research-methods/2013/content/02 Correlation and regression/exercises/data/affairs.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data ...	601
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=affairs gender age yearsmarried children religiousness education occupation rating /HISTOGRAM /ORDER=ANALYSIS.
Resources	Processor Time	00:00:01.74
	Elapsed Time	00:00:02.00

```

[DataSet1] /Users/jeromy/teaching/org-research-methods/2013/content/02 Correlation and regression/exercises/data/affairs.sav

```

Warnings

gender Gender is a string so a histogram cannot be produced.

children Are there children in the marriage? is a string so a histogram cannot be produced.

Statistics

		affairs How often engaged in extramarital sexual intercourse during the past year?	gender Gender	age Age category	yearsmarried Years married	children Are there children in the marriage?	religiousness Religiousness
N	Valid	601	601	601	601	601	601
	Missing	0	0	0	0	0	0

Statistics

		education Years of education	occupation coding occupation according to Hollingshead classification (reverse numbering).	rating self rating of marriage
N	Valid	601	601	601
	Missing	0	0	0

Frequency Table

affairs How often engaged in extramarital sexual intercourse during the past year?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	451	75.0	75.0	75.0
1	34	5.7	5.7	80.7
2	17	2.8	2.8	83.5
3	19	3.2	3.2	86.7
7	42	7.0	7.0	93.7
12	38	6.3	6.3	100.0
Total	601	100.0	100.0	

gender Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid female	315	52.4	52.4	52.4
male	286	47.6	47.6	100.0
Total	601	100.0	100.0	

age Age category

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17.5	6	1.0	1.0	1.0
	22.0	117	19.5	19.5	20.5
	27.0	153	25.5	25.5	45.9
	32.0	115	19.1	19.1	65.1
	37.0	88	14.6	14.6	79.7
	42.0	56	9.3	9.3	89.0
	47.0	23	3.8	3.8	92.8
	52.0	21	3.5	3.5	96.3
	57.0	22	3.7	3.7	100.0
	Total	601	100.0	100.0	

yearsmarried Years married

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.125	11	1.8	1.8	1.8
	.417	10	1.7	1.7	3.5
	.750	31	5.2	5.2	8.7
	1.500	88	14.6	14.6	23.3
	4.000	105	17.5	17.5	40.8
	7.000	82	13.6	13.6	54.4
	10.000	70	11.6	11.6	66.1
	15.000	204	33.9	33.9	100.0
	Total	601	100.0	100.0	

children Are there children in the marriage?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	171	28.5	28.5	28.5
	yes	430	71.5	71.5	100.0
	Total	601	100.0	100.0	

religiousness Religiousness

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 anti	48	8.0	8.0	8.0
	2 not at all	164	27.3	27.3	35.3
	3 slightly	129	21.5	21.5	56.7
	4 somewhat	190	31.6	31.6	88.4
	5 very	70	11.6	11.6	100.0
	Total	601	100.0	100.0	

education Years of education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	9 grade school	7	1.2	1.2	1.2
	12 high school	44	7.3	7.3	8.5
	14 some college	154	25.6	25.6	34.1
	16 college graduate	115	19.1	19.1	53.2
	17 some graduate work	89	14.8	14.8	68.1
	18 master's degree	112	18.6	18.6	86.7
	20 PhD, M.D., or other advanced degree	80	13.3	13.3	100.0
	Total	601	100.0	100.0	

occupation coding occupation according to Hollingshead classification (reverse numbering).

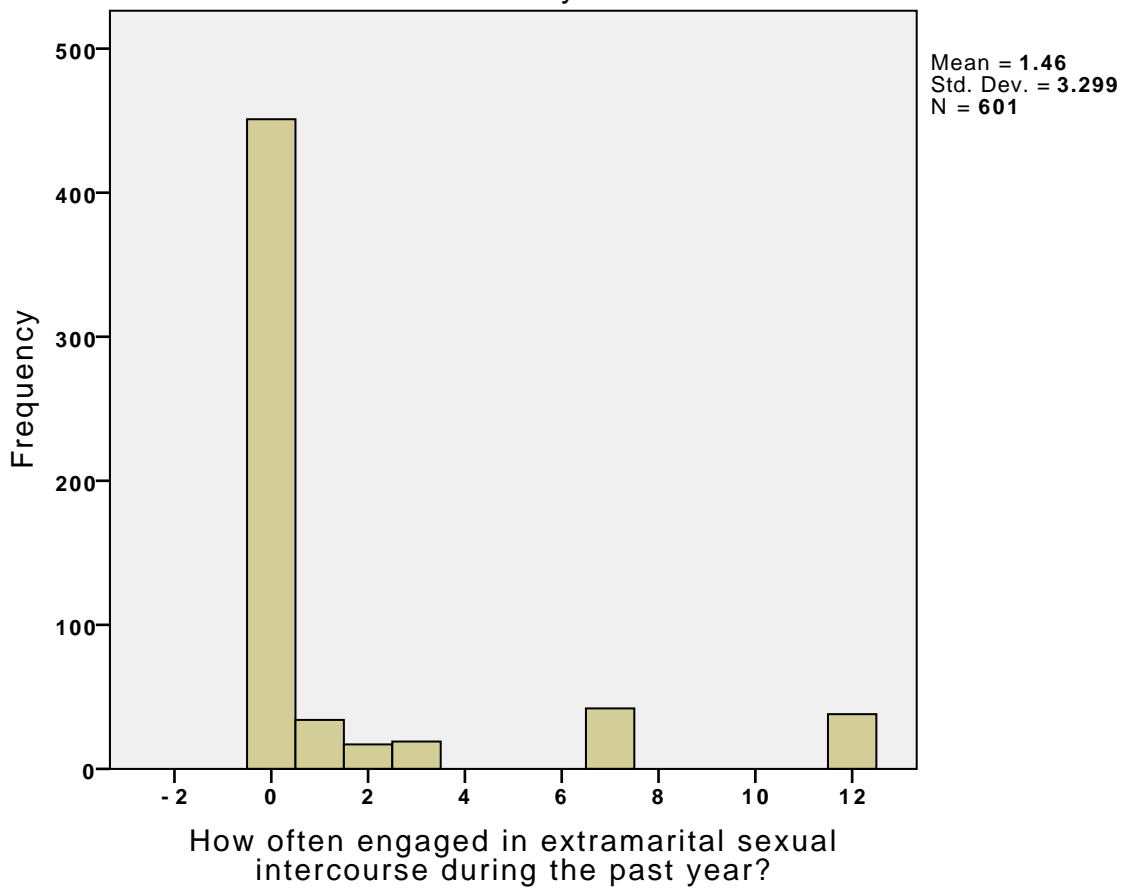
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	113	18.8	18.8	18.8
	2	13	2.2	2.2	21.0
	3	47	7.8	7.8	28.8
	4	68	11.3	11.3	40.1
	5	204	33.9	33.9	74.0
	6	143	23.8	23.8	97.8
	7	13	2.2	2.2	100.0
	Total	601	100.0	100.0	

rating self rating of marriage

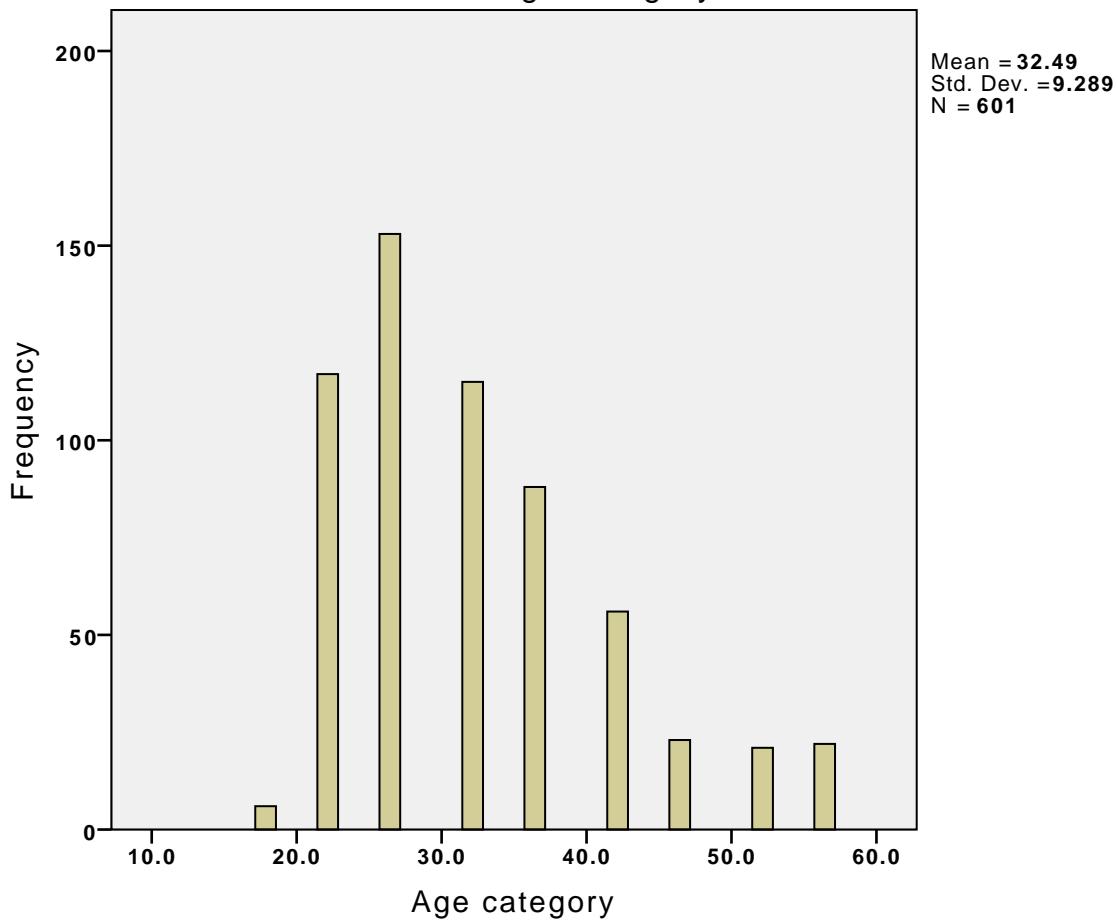
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 very unhappy	16	2.7	2.7	2.7
	2 somewhat unhappy	66	11.0	11.0	13.6
	3 average	93	15.5	15.5	29.1
	4 happier than average	194	32.3	32.3	61.4
	5 very happy	232	38.6	38.6	100.0
	Total	601	100.0	100.0	

Histogram

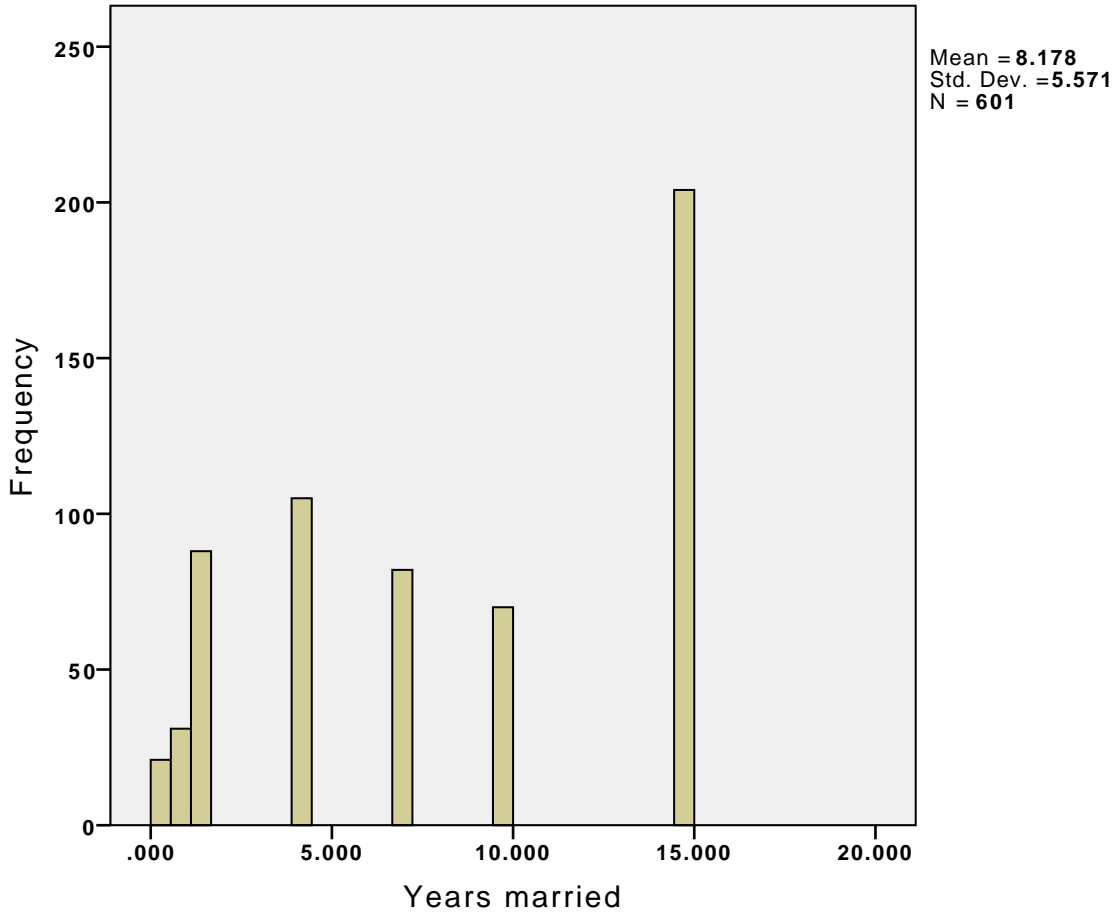
How often engaged in extramarital sexual intercourse during the past year?



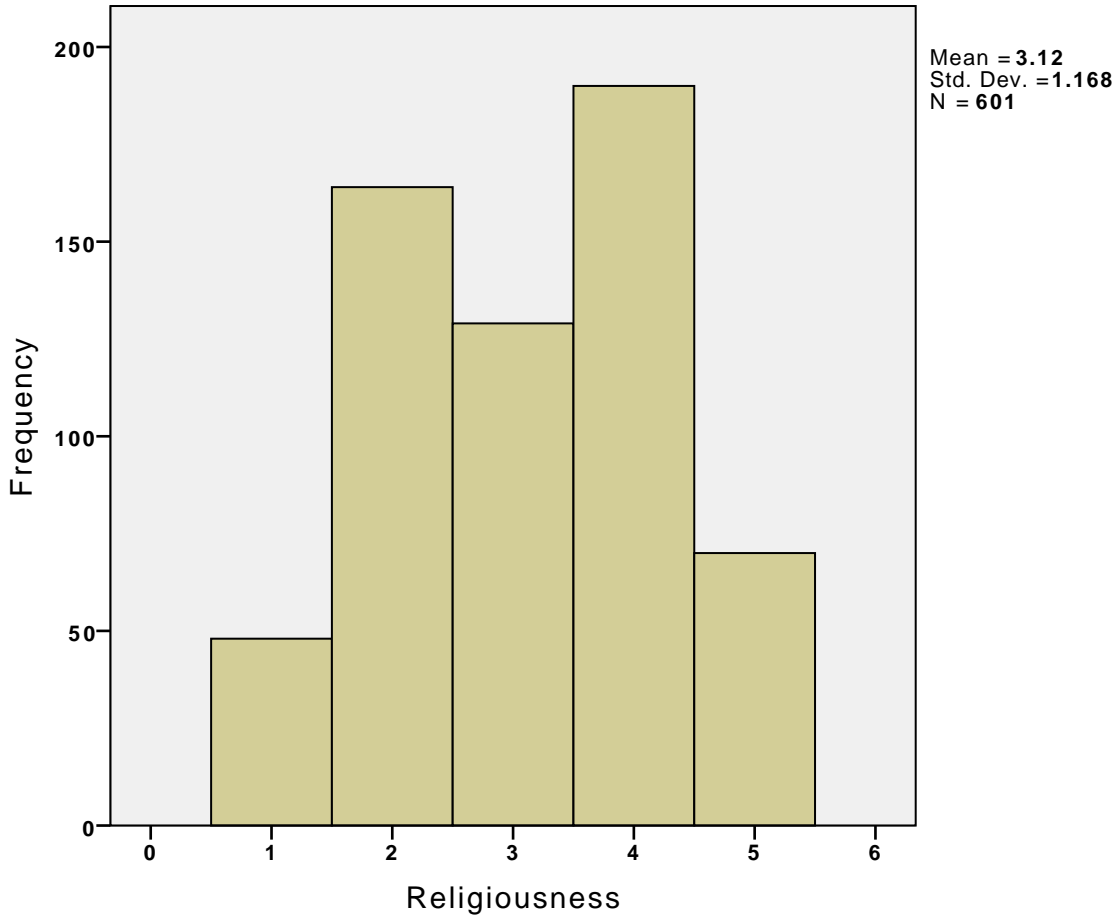
Age category

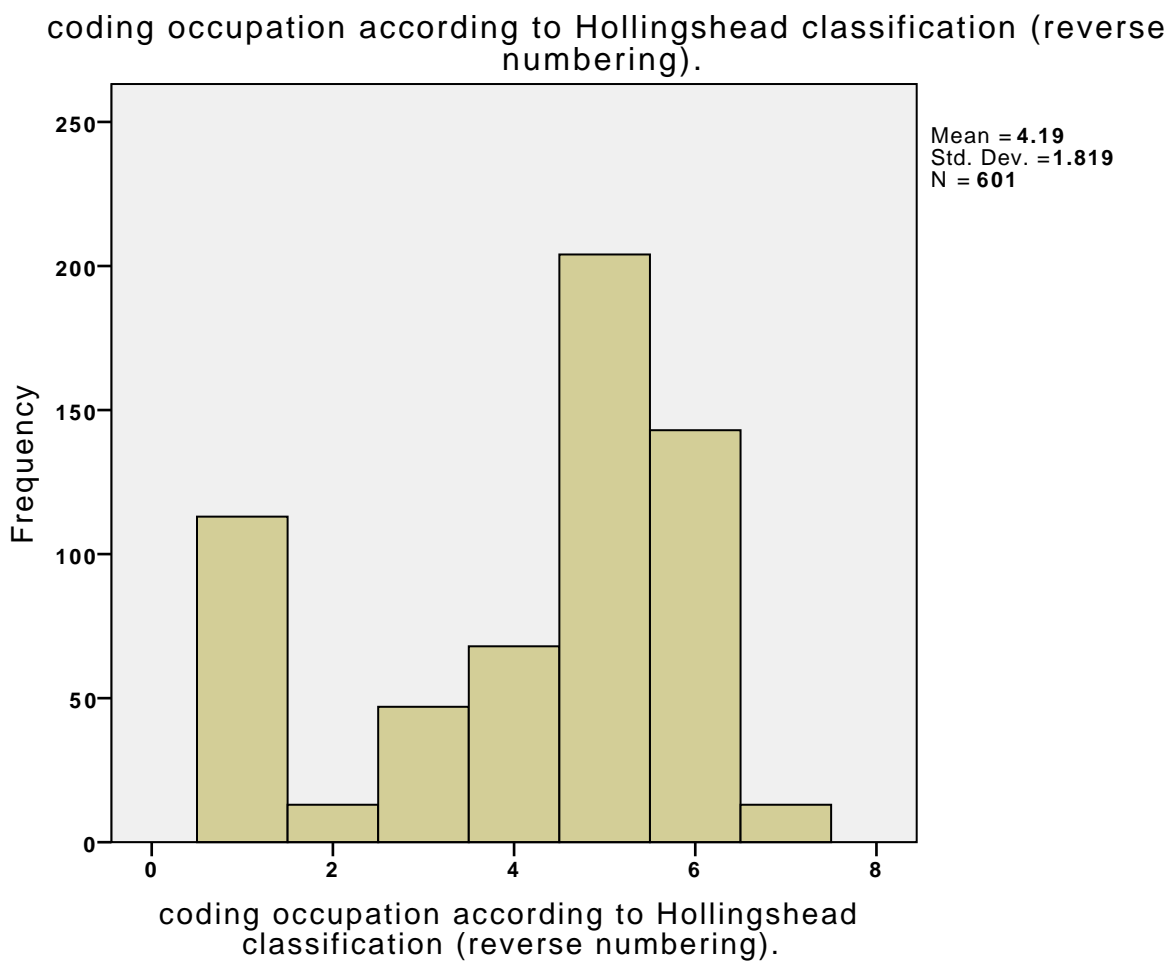
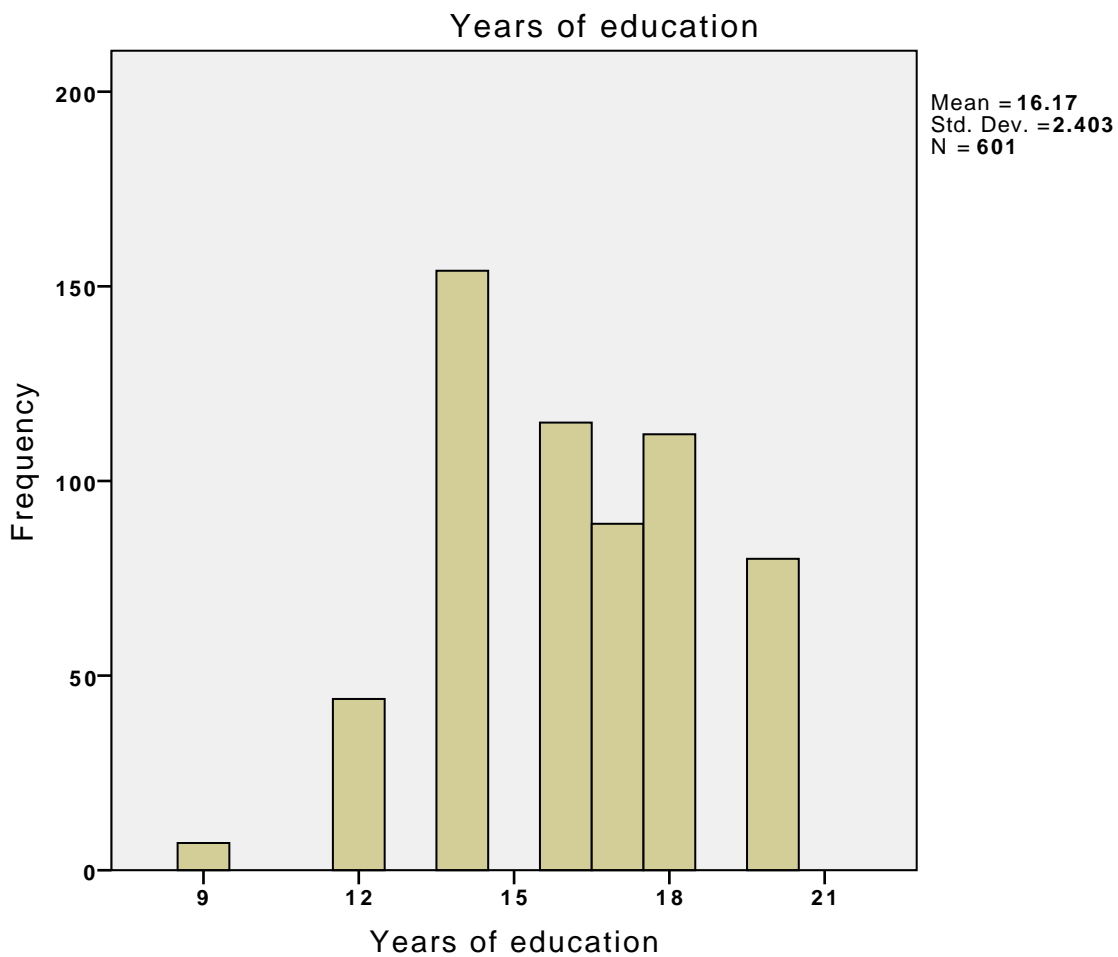


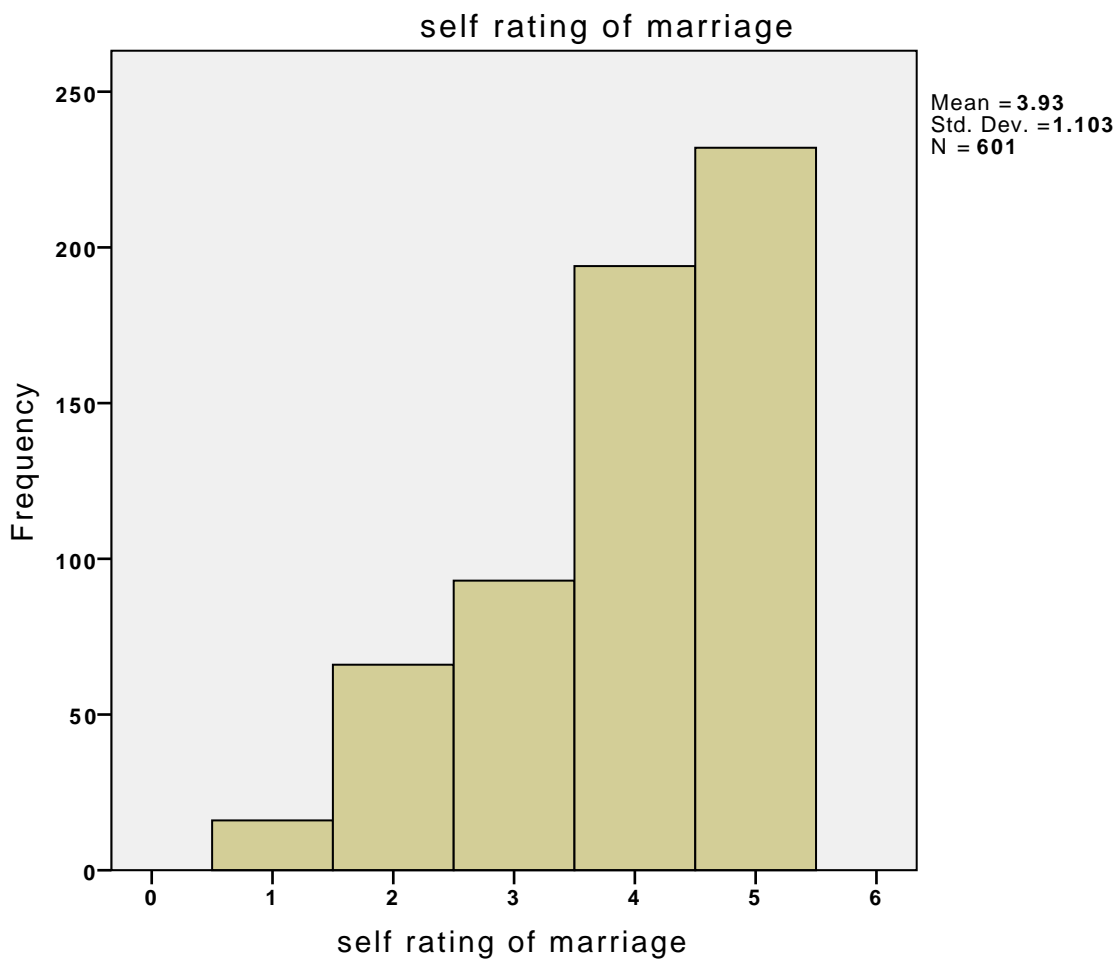
Years married



Religiousness







```
* create new variables.  
RECODE affairs (0=0) (1 thru Highest=1) INTO affairs_yes.  
EXECUTE.  
CROSSTABS /TABLES=affairs BY affairs_yes.
```

Crosstabs

Notes

Output Created	05-AUG-2013 11:09:45	
Comments		
Input	Data	/Users/jeromy/teaching/org-research-methods/2013/content/02 Correlation and regression/exercises/data/affairs.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data ...	601
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax	CROSSTABS /TABLES=affairs BY affairs_yes.	
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.00
	Dimensions Requested	2
	Cells Available	131029

[DataSet1] /Users/jeromy/teaching/org-research-methods/2013/content/02 Correlation and regression/exercises/data/affairs.sav

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
affairs How often engaged in extramarital sexual intercourse during the past year? * affairs_yes	601	100.0%	0	0.0%	601	100.0%

affairs How often engaged in extramarital sexual
intercourse during the past year? * affairs_yes
Crosstabulation

Count

		affairs_yes		Total
		.00	1.00	
affairs How often engaged in extramarital sexual intercourse during the past year?	0	451	0	451
	1	0	34	34
	2	0	17	17
	3	0	19	19
	7	0	42	42
	12	0	38	38
Total		451	150	601

```
RECODE gender ('female'=0) ('male'=1) INTO gender_male.
EXECUTE.
CROSSTABS  /TABLES=gender BY gender_male.
```

Crosstabs

Notes

Output Created		05-AUG-2013 11:15:22
Comments		
Input	Data	/Users/jeromy/teaching/org-research-methods/2013/content/02 Correlation and regression/exercises/data/affairs.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data ...	601
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=gender BY gender_male.
Resources	Processor Time	00:00:00.01
	Elapsed Time	00:00:00.00
	Dimensions Requested	2
	Cells Available	131029

```
[DataSet1] /Users/jeromy/teaching/org-research-methods/2013/content/02 Correlation and regression/exercises/data/affairs.sav
```

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
gender Gender * gender_male	601	100.0%	0	0.0%	601	100.0%

gender Gender * gender_male Crosstabulation

Count

		gender_male		Total
		.00	1.00	
gender Gender	female	315	0	315
	male	0	286	286
Total		315	286	601

```
RECODE children ('yes'=1) ('no'=0) INTO children_yes.
EXECUTE.
CROSSTABS  /TABLES=children BY children_yes.
```

Crosstabs

Notes

Output Created		05-AUG-2013 11:16:51
Comments		
Input	Data	/Users/jeromy/teaching/org-research-methods/2013/content/02 Correlation and regression/exercises/data/affairs.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data ...	601
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=children BY children_yes.
Resources	Processor Time	00:00:00.01
	Elapsed Time	00:00:00.00
	Dimensions Requested	2
	Cells Available	131029

[DataSet1] /Users/jeromy/teaching/org-research-methods/2013/content/02 Correlation and regression/exercises/data/affairs.sav

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
children Are there children in the marriage? * children_yes	601	100.0%	0	0.0%	601	100.0%

children Are there children in the marriage? *
children_yes Crosstabulation

Count

		children_yes		Total
		.00	1.00	
children Are there children in the marriage?	no	171	0	171
	yes	0	430	430
Total		171	430	601

CORRELATIONS

```
/VARIABLES=affairs age yearsmarried religiousness education occupation rating affairs_yes
gender_male children_yes
/PRINT=TWOTAIL SIG
/MISSING=PAIRWISE.
```

Correlations

Notes

Output Created		05-AUG-2013 11:20:23
Comments		
Input	Data	/Users/jeromy/teaching/org-research-methods/2013/content/02 Correlation and regression/exercises/data/affairs.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data ...	601
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		CORRELATIONS /VARIABLES=affairs age yearsmarried religiousness education occupation rating ...
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.00

[DataSet1] /Users/jeromy/teaching/org-research-methods/2013/content/02 Correlation and regression/exercises/data/affairs.sav

Correlations

		affairs How often engaged in extramarital sexual intercourse during the past year?	age Age category	yearsmarried Years married	religiousness Religiousness	education Years of education
affairs How often engaged in extramarital sexual intercourse during the past year?	Pearson Correlation	1	.095	.187	-.145	-.002
	Sig. (2-tailed)		.020	.000	.000	.952
	N	601	601	601	601	601
age Age category	Pearson Correlation	.095	1	.778	.194	.135
	Sig. (2-tailed)	.020		.000	.000	.001
	N	601	601	601	601	601
yearsmarried Years married	Pearson Correlation	.187	.778	1	.218	.040
	Sig. (2-tailed)	.000	.000		.000	.328
	N	601	601	601	601	601
religiousness Religiousness	Pearson Correlation	-.145	.194	.218	1	-.043
	Sig. (2-tailed)	.000	.000	.000		.297
	N	601	601	601	601	601
education Years of education	Pearson Correlation	-.002	.135	.040	-.043	1
	Sig. (2-tailed)	.952	.001	.328	.297	
	N	601	601	601	601	601
occupation coding occupation according to Hollingshead classification (reverse numbering).	Pearson Correlation	.050	.166	.045	-.040	.534
	Sig. (2-tailed)	.225	.000	.275	.331	.000
	N	601	601	601	601	601
rating self rating of marriage	Pearson Correlation	-.280	-.199	-.243	.024	.109
	Sig. (2-tailed)	.000	.000	.000	.552	.007
	N	601	601	601	601	601
affairs_yes	Pearson Correlation	.766	.057	.140	-.130	.019
	Sig. (2-tailed)	.000	.160	.001	.001	.637
	N	601	601	601	601	601
gender_male	Pearson Correlation	.012	.191	.030	.008	.398
	Sig. (2-tailed)	.774	.000	.459	.851	.000
	N	601	601	601	601	601
children_yes	Pearson Correlation	.104	.422	.573	.129	-.007
	Sig. (2-tailed)	.011	.000	.000	.001	.864
	N	601	601	601	601	601

Correlations

		occupation coding occupation according to Hollingshead classification (reverse numbering).	rating self rating of marriage	affairs_yes	gender_male	children_yes
affairs How often engaged in extramarital sexual intercourse during the past year?	Pearson Correlation	.050	-.280	.766	.012	.104
	Sig. (2-tailed)	.225	.000	.000	.774	.011
	N	601	601	601	601	601
age Age category	Pearson Correlation	.166	-.199	.057	.191	.422
	Sig. (2-tailed)	.000	.000	.160	.000	.000
	N	601	601	601	601	601
yearsmarried Years married	Pearson Correlation	.045	-.243	.140	.030	.573
	Sig. (2-tailed)	.275	.000	.001	.459	.000
	N	601	601	601	601	601
religiousness Religiousness	Pearson Correlation	-.040	.024	-.130	.008	.129
	Sig. (2-tailed)	.331	.552	.001	.851	.001
	N	601	601	601	601	601
education Years of education	Pearson Correlation	.534	.109	.019	.398	-.007
	Sig. (2-tailed)	.000	.007	.637	.000	.864
	N	601	601	601	601	601
occupation coding occupation according to Hollingshead classification (reverse numbering).	Pearson Correlation	1	.017	.038	.468	-.093
	Sig. (2-tailed)		.670	.357	.000	.023
	N	601	601	601	601	601
rating self rating of marriage	Pearson Correlation	.017	1	-.254	-.008	-.196
	Sig. (2-tailed)	.670		.000	.854	.000
	N	601	601	601	601	601
affairs_yes	Pearson Correlation	.038	-.254	1	.051	.134
	Sig. (2-tailed)	.357	.000		.212	.001
	N	601	601	601	601	601
gender_male	Pearson Correlation	.468	-.008	.051	1	.069
	Sig. (2-tailed)	.000	.854	.212		.090
	N	601	601	601	601	601
children_yes	Pearson Correlation	-.093	-.196	.134	.069	1
	Sig. (2-tailed)	.023	.000	.001	.090	
	N	601	601	601	601	601

CORRELATIONS

```

/VARIABLES=age yearsmarried religiousness education occupation rating affairs_yes
gender_male children_yes
/PRINT=TWOTAIL SIG
/MISSING=PAIRWISE.

```

Correlations

Notes

Output Created	05-AUG-2013 11:20:43	
Comments		
Input	Data	/Users/jeromy/teaching/org-research-methods/2013/content/02 Correlation and regression/exercises/data/affairs.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data ...	601
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax	CORRELATIONS /VARIABLES=age yearsmarried religiousness education occupation rating ...	
Resources	Processor Time	00:00:00.01
	Elapsed Time	00:00:00.00

[DataSet1] /Users/jeromy/teaching/org-research-methods/2013/content/02 Correlation and regression/exercises/data/affairs.sav

Correlations

Pearson Correlation

	age Age category	yearsmarried Years married	religiousness Religiousness	education Years of education	occupation coding occupation according to Hollingshead classification (reverse numbering).
age Age category	1	.778	.194	.135	.166
yearsmarried Years married	.778	1	.218	.040	.045
religiousness Religiousness	.194	.218	1	-.043	-.040
education Years of education	.135	.040	-.043	1	.534
occupation coding occupation according to Hollingshead classification (reverse numbering).	.166	.045	-.040	.534	1
rating self rating of marriage	-.199	-.243	.024	.109	.017
affairs_yes	.057	.140	-.130	.019	.038
gender_male	.191	.030	.008	.398	.468
children_yes	.422	.573	.129	-.007	-.093

Correlations

Pearson Correlation

	rating self rating of marriage	affairs_yes	gender_male	children_yes
age Age category	-.199	.057	.191	.422
yearsmarried Years married	-.243	.140	.030	.573
religiousness Religiousness	.024	-.130	.008	.129
education Years of education	.109	.019	.398	-.007
occupation coding occupation according to Hollingshead classification (reverse numbering).	.017	.038	.468	-.093
rating self rating of marriage	1	-.254	-.008	-.196
affairs_yes	-.254	1	.051	.134
gender_male	-.008	.051	1	.069
children_yes	-.196	.134	.069	1

```
LOGISTIC REGRESSION VARIABLES affairs_yes
/METHOD=ENTER age yearsmarried religiousness education occupation rating gender_male child
/CLASSPLOT
/PRINT=CI(95)
/CRITERIA=PIN(0.05) POUT(0.10) ITERATE(20) CUT(0.5).
```

```
LOGISTIC REGRESSION VARIABLES affairs_yes
/METHOD=ENTER age yearsmarried religiousness education occupation rating gender_male child
/CLASSPLOT
/PRINT=CI(95)
/CRITERIA=PIN(0.05) POUT(0.10) ITERATE(20) CUT(0.25).
```

```
LOGISTIC REGRESSION VARIABLES affairs_yes
/METHOD=ENTER age yearsmarried religiousness education occupation rating gender_male child
/CLASSPLOT
/PRINT=CI(95)
/CRITERIA=PIN(0.05) POUT(0.10) ITERATE(20) CUT(0.75).
```

Logistic Regression

Notes

Output Created		05-AUG-2013 11:54:59
Comments		
Input	Data	/Users/jeromy/teaching/org-research-methods/2013/content/02 Correlation and regression/exercises/data/affairs.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data ...	601
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing
Syntax		LOGISTIC REGRESSION VARIABLES affairs_yes /METHOD=ENTER age yearsmarried religiousness education occupation rating ...
Resources	Processor Time	00:00:00.01
	Elapsed Time	00:00:00.00

[DataSet1] /Users/jeromy/teaching/org-research-methods/2013/content/02 Correlation and regression/exercises/data/affairs.sav

Case Processing Summary

Unweighted Cases ^a		N	Percent
Selected Cases	Included in Analysis	601	100.0
	Missing Cases	0	.0
	Total	601	100.0
Unselected Cases		0	.0
Total		601	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
.00	0
1.00	1

Block 0: Beginning Block

Classification Table^{a,b}

Observed			Predicted		
			affairs_yes		Percentage Correct
			.00	1.00	
Step 0	affairs_yes	.00	451	0	100.0
		1.00	150	0	.0
Overall Percentage					75.0

a. Constant is included in the model.

b. The cut value is .750

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-1.101	.094	136.407	1	.000	.333

Variables not in the Equation

		Score	df	Sig.
Step 0	Variables			
	age	1.975	1	.160
	yearsmarried	11.830	1	.001
	religiousness	10.171	1	.001
	education	.224	1	.636
	occupation	.852	1	.356
	rating	38.717	1	.000
	gender_male	1.560	1	.212
	children_yes	10.728	1	.001
	Overall Statistics	64.064	8	.000

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	65.867	8	.000
	Block	65.867	8	.000
	Model	65.867	8	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	609.510 ^a	.104	.154

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Classification Table^a

		Predicted		
		affairs_yes		Percentage Correct
		.00	1.00	
Step 1	Observed			
	affairs_yes .00	451	0	100.0
	1.00	150	0	.0
	Overall Percentage			75.0

a. The cut value is .750

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1 ^a	age	-.044	.018	5.881	1	.015	.957	.923	.992
	yearsmarried	.095	.032	8.655	1	.003	1.099	1.032	1.171
	religiousness	-.325	.090	13.089	1	.000	.723	.606	.862
	education	.021	.051	.174	1	.677	1.021	.925	1.128
	occupation	.031	.072	.186	1	.667	1.031	.896	1.187
	rating	-.468	.091	26.555	1	.000	.626	.524	.748
	gender_male	.280	.239	1.374	1	.241	1.324	.828	2.115
	children_yes	.398	.292	1.861	1	.173	1.488	.841	2.635
	Constant	1.377	.888	2.407	1	.121	3.964		

a. Variable(s) entered on step 1: age, yearsmarried, religiousness, education, occupation, rating, gender_male, children_yes.

Observed Groups and Predicted Probabilities

Predicted Probability is of Membership for 1.00
The Cut Value is .75
Symbols: 0 - .00
1 - 1.00
Each Symbol Represents 2 Cases.