



# CHI-SQUARED TEST

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# CHI-SQUARED TEST

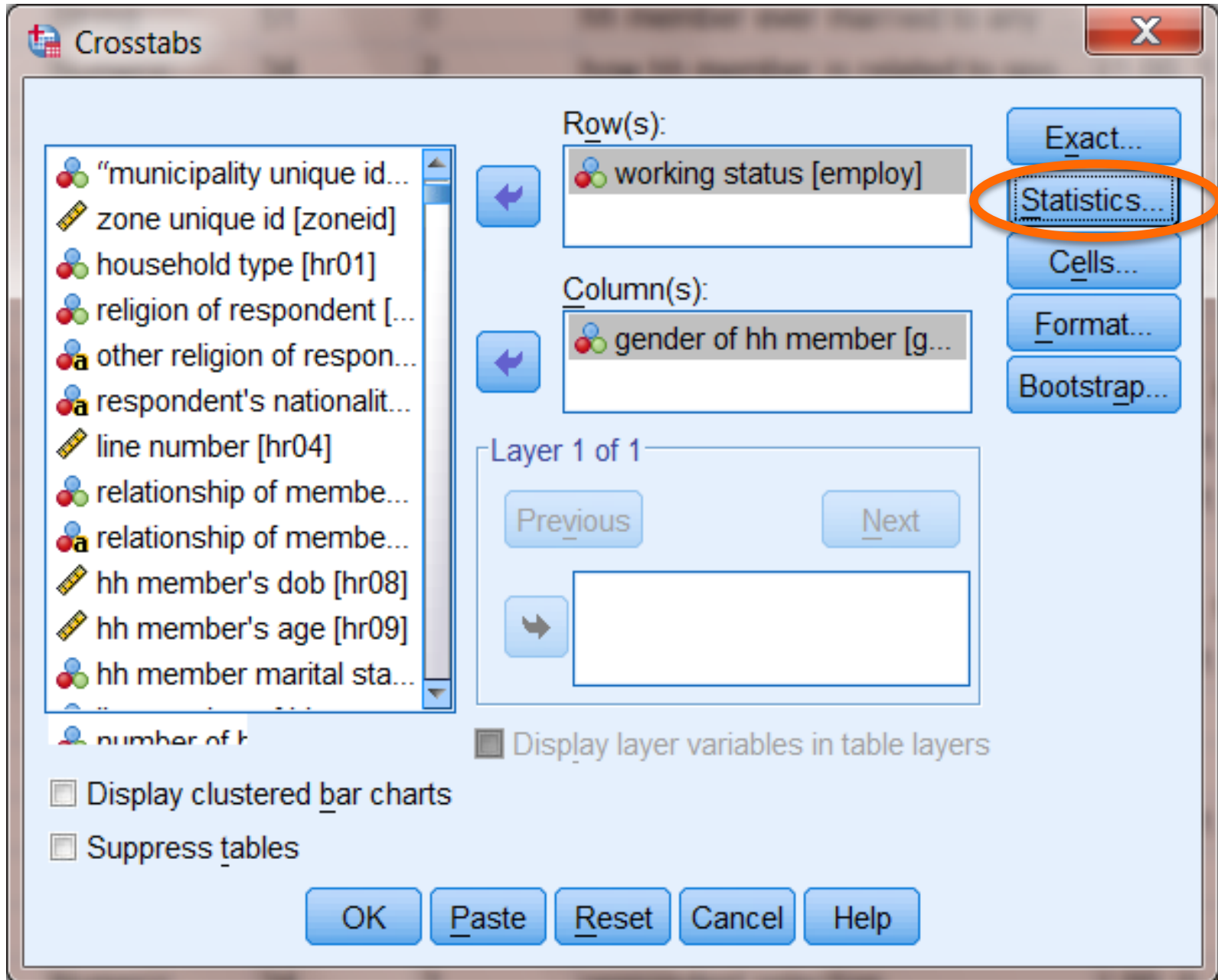
- A Common Test to Identify the Relationship between Two Categorical Variables
- Example
  - Is there relationship between employment and gender?
    - Employment status (working/not working)
    - Gender (man/woman)
  - Is there relationship between education and marital status among women?
    - Education (none/primary/secondary/higher)
    - Marital status (single/married)

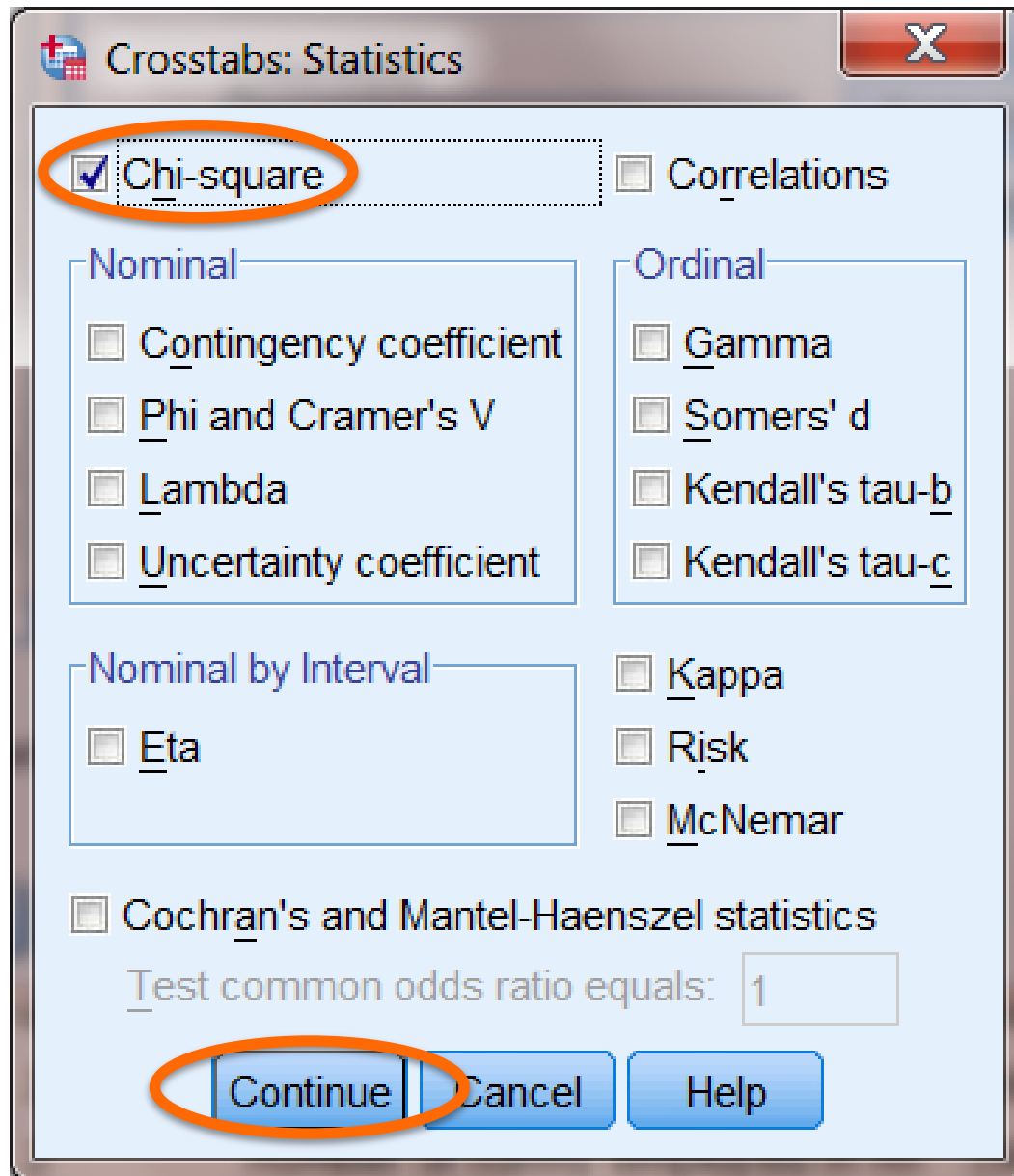
# CHI-SQUARED TEST: SPSS COMMAND

The screenshot shows the IBM SPSS Statistics Data Editor interface. The 'Analyze' menu is open, and the 'Crosstabs...' option is selected. The background shows a list of variables in 'Variable View'.

Name	Type
hr11	Numeric
hr112a	String
hr12	Numeric
hr13	Numeric
hr14	Numeric
hr15a	Numeric
hr15b	Numeric
hr15b6a	String
hr15c	Numeric
hr16	Numeric
hr17	Numeric
hr179a	String
hr18	Numeric
hr19	Numeric
hr199a	String
hr20	String
hr21	Numeric
hr216a	String
hr22	String
survey	Numeric
es011	Numeric
es012	Numeric

The 'Crosstabs...' dialog box is open, showing a list of variables in the background. The 'Values' and 'Missing' columns are visible. The 'Crosstabs...' option is highlighted in the 'Analyze' menu.





\*Output1 [Document1] - IBM SPSS Statistics Viewer

File Edit View Data Transform Insert Format Analyze Direct Market Graph Utilities Add-on Windows Help

gender of hh member \* working status Crosstabulation

			working status		Total
			not working	working	
gender of hh member	1. male	Count	81	143	224
		% within working status	30.3%	55.2%	42.6%
	2. female	Count	186	116	302
		% within working status	69.7%	44.8%	57.4%
Total		Count	267	259	526
		% within working status	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	33.272 <sup>a</sup>	1	.000		
Continuity Correction <sup>b</sup>	32.262	1	.000		
Likelihood Ratio	33.639	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	33.209	1	.000		
N of Valid Cases	526				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 110.30.  
b. Computed only for a 2x2 table

IBM SPSS Statistics Processor is ready

# CHI-SQUARED TEST: EXERCISE

- Relationship between education level and marital status among Qatari women
  - Is educated women less likely to get married?