



METODOLOGIJA NAUČNOG ISTRAŽIVANJA

MERE PREBROJAVANJA

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MASTER AKADEMSKE STUDIJE



MERE PREBROJAVANJA



Frekvenca

6

8

Proporcija

0.43

0.57

Procenat

42.8%

57.2%

Šansa

3:4

4:3



NOTACIJA I FORMULE



Frekvenca (f)

f_1

f_2

Proporcija (p)

f_1 / N

f_2 / N

Verovatnoća

Procenat (P)

$f_1 / N \cdot 100$

$f_2 / N \cdot 100$

Šansa (Š)

$f_1 : f_2$

$f_2 : f_1$

verovatnoća $\neq$ šansa



IZVEŠTAVANJE

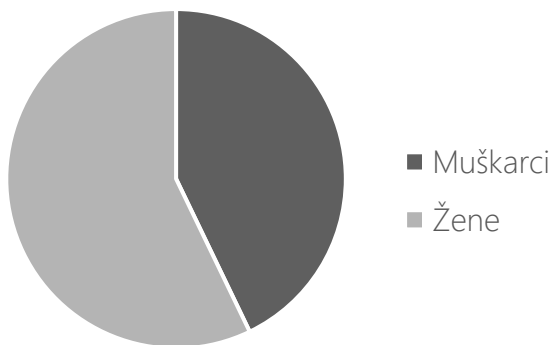
TEKSTUALNO

Istraživanje je sprovedeno nad studentima (N = 14, 57.2% ženskog pola)...

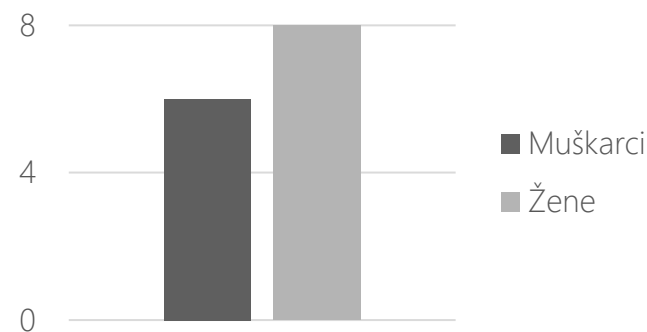
TABELARNO

Pol	f	%
Muškarci	6	42.8
Žene	8	57.2
Ukupno	14	100

GRAFIČKI



Pitasti dijagram
(eng. pie chart)



Stubičasti dijagram
(eng. bar chart)



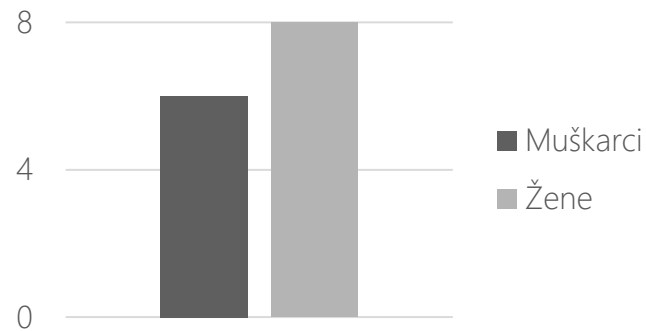
NAPOMENE

Naziv tabele
iznad tabele!

Naziv slike
ispod slike!

Tabela 1. Raspodela ispitanika po polu

Pol	f	%
Muškarci	6	42.8
Žene	8	57.2
Ukupno	14	100



Slika 1. Raspodela ispitanika po polu



VALIDNI PROCENAT

Kategorija	f	Procenat	Validni procenat
Prvi razred	14	15.7%	20.3%
Drugi razred	19	21.3%	27.5%
Treći razred	12	13.5%	17.4%
Četvrti razred	24	26.7%	34.8%
Nedostajući podaci	20	22.5%	

N = 89

N = 69



KUMULATIVNI PROCENAT

Kategorija	f	Procenat	Kumulativni procenat
Prvi razred	14	20.3%	20.3%
Drugi razred	19	27.5%	47.8%
Treći razred	12	17.4%	65.2%
Četvrti razred	24	34.8%	100%
Ukupno	69	100%	



OPIS KATEGORIČKE VARIJABLE

Analyze → Descriptive Statistics → Frequencies

The screenshot displays the IBM SPSS Statistics software interface. The 'Analyze' menu is open, showing a list of statistical analysis options. The 'Descriptive Statistics' submenu is also open, and the 'Frequencies...' option is highlighted. The main data editor window shows a dataset with two columns: 'pol' and 'var'. The 'pol' column contains values 1, 2, and 3, and the 'var' column contains values 1, 2, and 3. The status bar at the bottom indicates 'Visible: 1 of 1 Variables'.

	pol	var
1	1	1
2	1	1
3	1	1
4	1	1
5	1	1
6	1	1
7	1	1
8	1	1
9	2	2
10	2	2
11	2	2
12	2	2
13	2	2
14	2	2
15		
16		
17		
18		
19		
20		
21		
22		
23		



OPIS KATEGORIČKE VARIJABLE

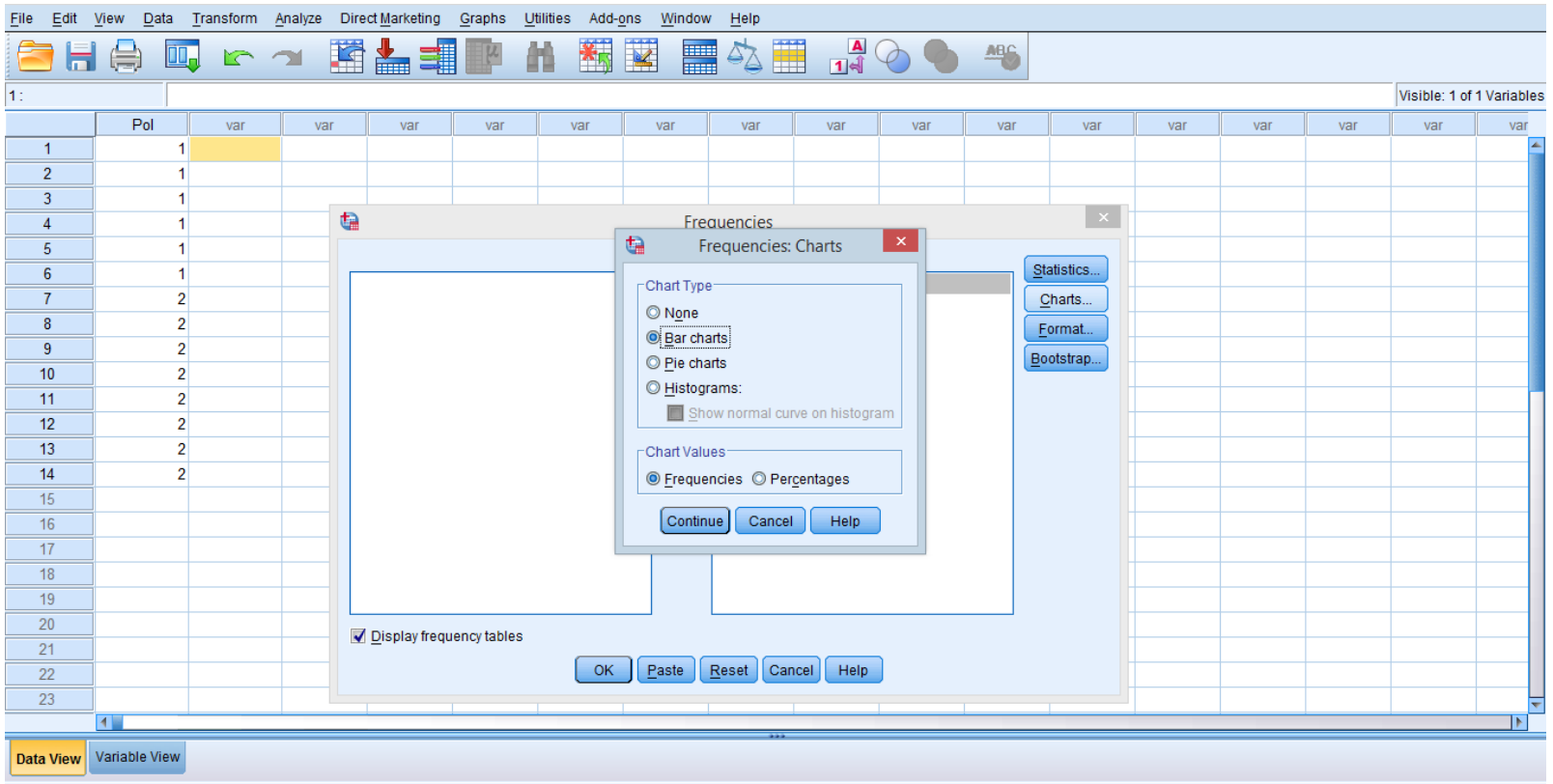
Prebaciti željenu/e varijable u polje **Variable(s)**.

The screenshot shows the SPSS interface with the 'Frequencies' dialog box open. The 'Variable(s)' list contains 'Pol'. The 'Display frequency tables' checkbox is checked. The background data grid shows the following values for the 'Pol' variable:

Case	Pol
1	1
2	1
3	1
4	1
5	1
6	1
7	2
8	2
9	2
10	2
11	2
12	2
13	2
14	2
15	
16	
17	
18	
19	
20	
21	
22	
23	

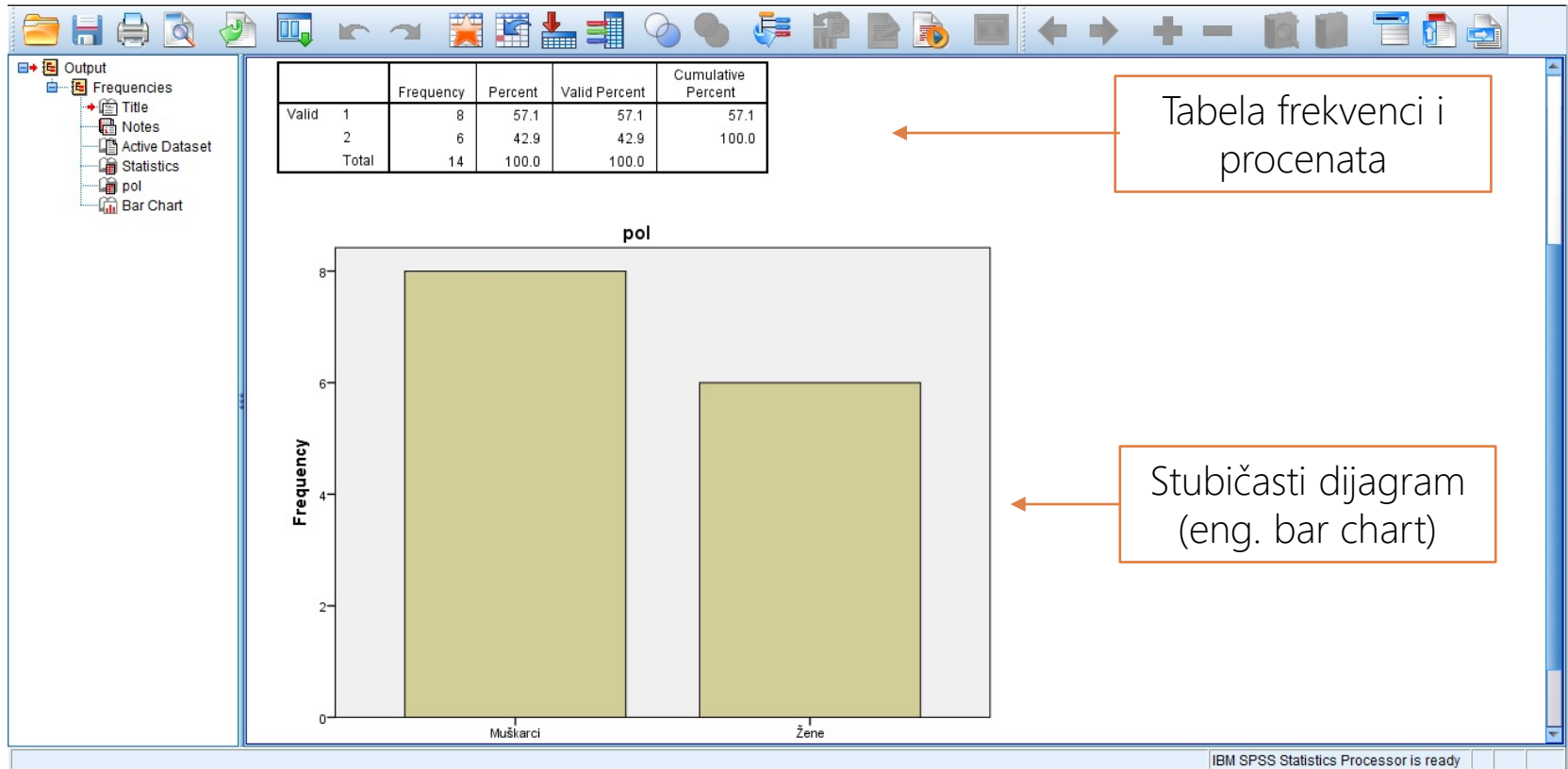


U podmeniju **Charts** odabrali **Bar-chart** ili **Pie Chart**.





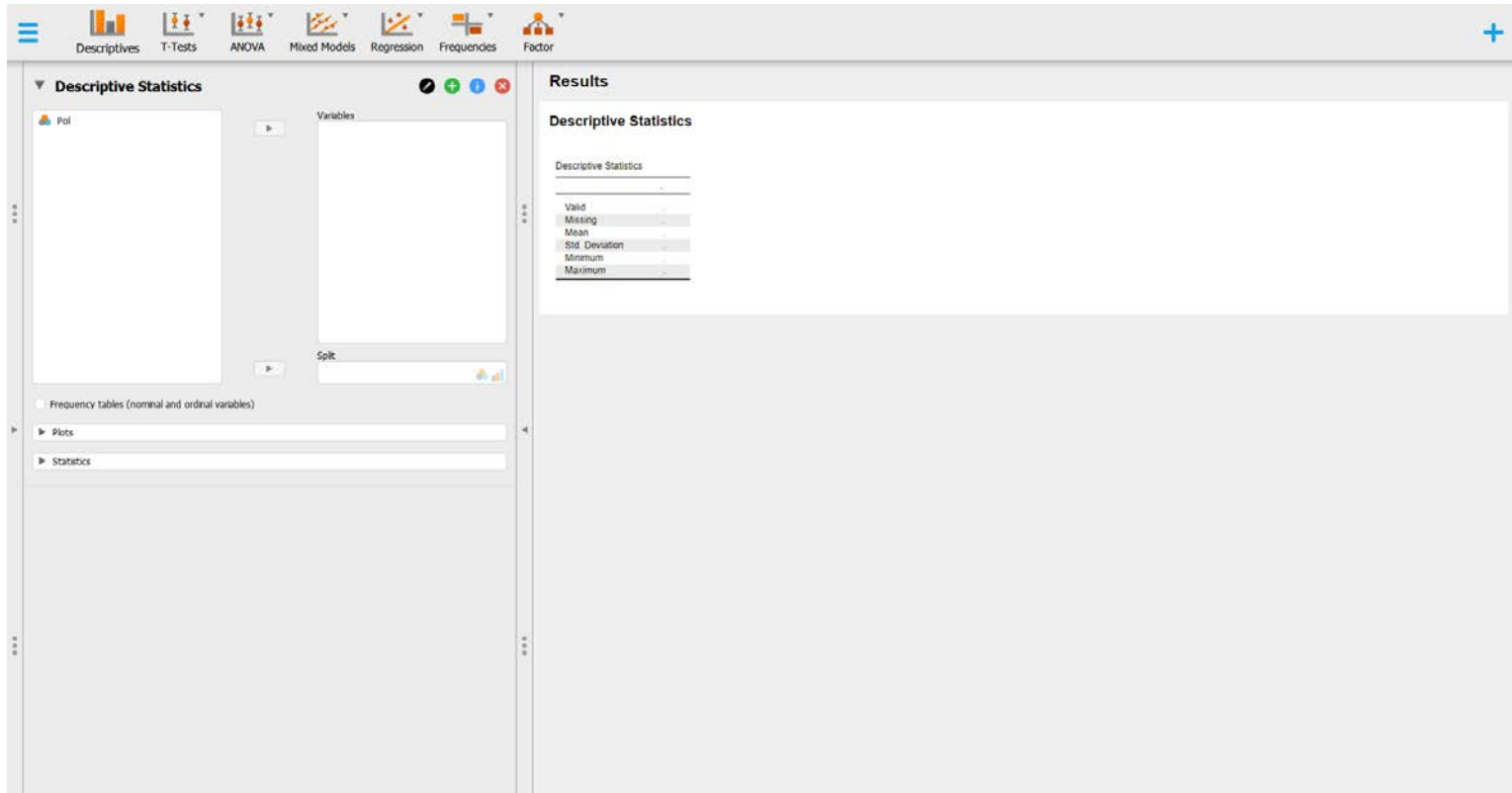
OPIS KATEGORIČKE VARIJABLE





OPIS KATEGORIČKE VARIJABLE

Kliknuti na ikonicu **Descriptives** u toolbaru





OPIS KATEGORIČKE VARIJABLE

Prebaciti željenu/e varijable u polje **Variables**.

Označiti polje **Frequency tables (nominal and ordinal variables)**

The screenshot shows the SPSS software interface. On the left, the 'Descriptive Statistics' dialog box is open. The 'Variables' list contains 'Pol'. The 'Frequency tables (nominal and ordinal variables)' checkbox is checked. Below the dialog box, there are sections for 'Plots' and 'Statistics'. On the right, the 'Results' window displays the output. It includes a 'Descriptive Statistics' table and a 'Frequency Tables' table. An orange arrow points from a text box to the 'Frequency Tables' table.

Descriptive Statistics

Pol	
Valid	14
Missing	0
Mean	1.57
Std. Deviation	0.51
Minimum	1.00
Maximum	2.00

Frequency Tables

Frequencies for Pol

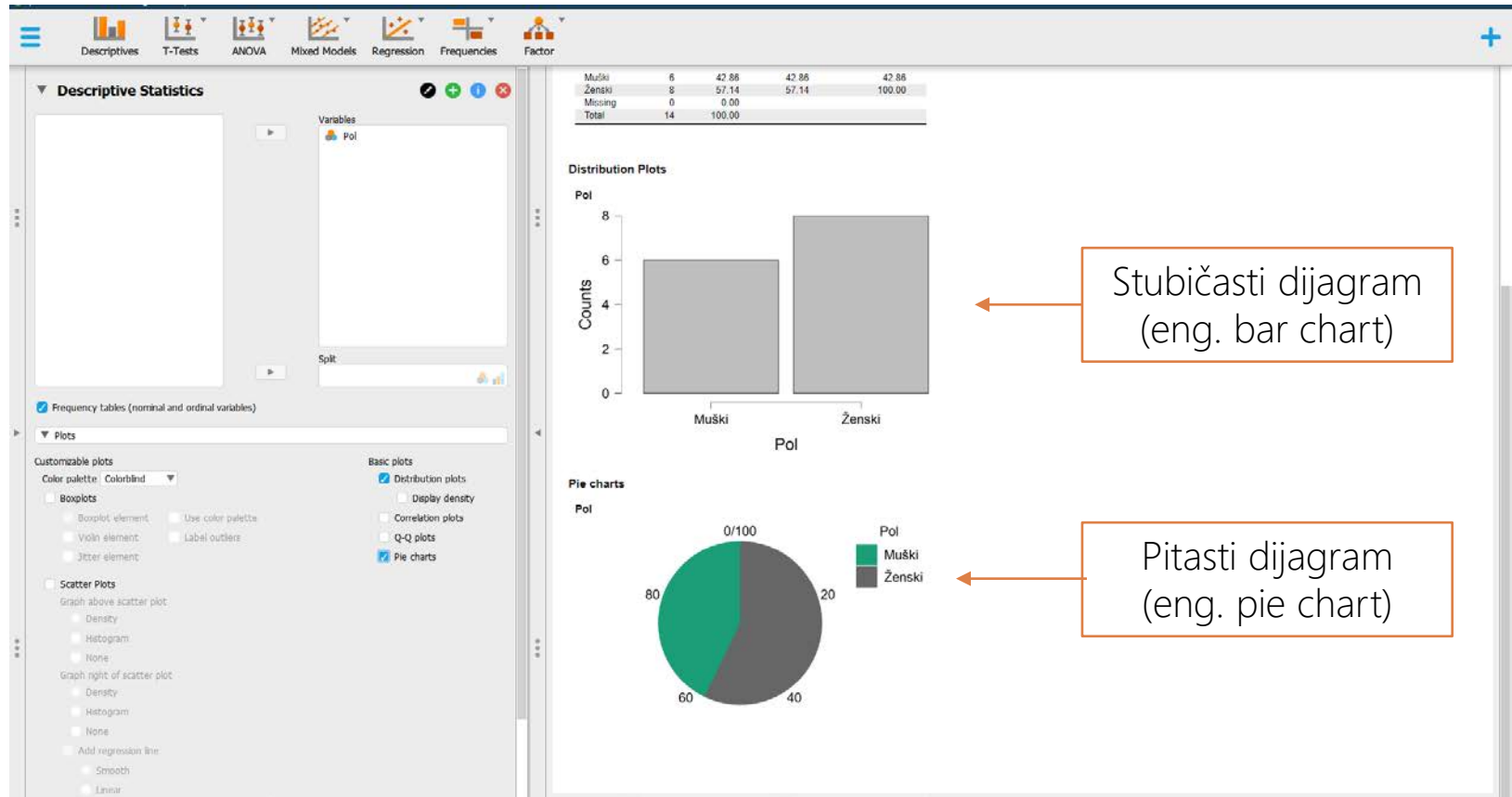
Pol	Frequency	Percent	Valid Percent	Cumulative Percent
Muški	6	42.86	42.86	42.86
Ženski	8	57.14	57.14	100.00
Missing	0	0.00		
Total	14	100.00		

Tabela frekvenci i procenata



OPIS KATEGORIČKE VARIJABLE

U podmeniju **Plots** označiti **Distribution plot** i **Pie charts**



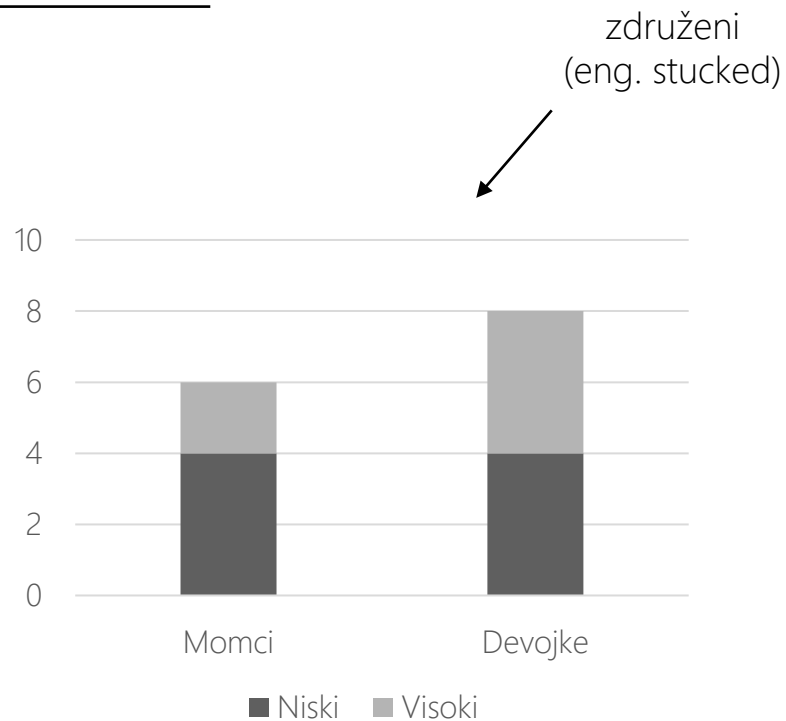
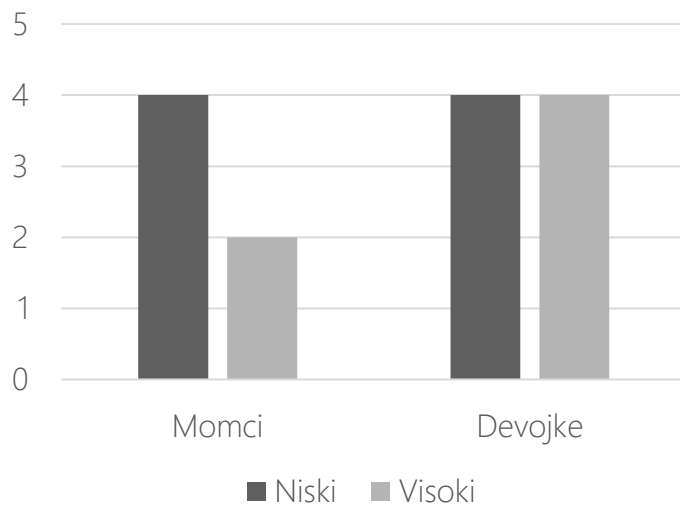


ODNOS DVE KATEGORIČKE VARIABLE

Tabela kontigencije

	Niski	Visoki	Ukupno
Momci	4	2	6
Devojke	4	4	8
Ukupno	8	6	14

Stubičasti dijagrami





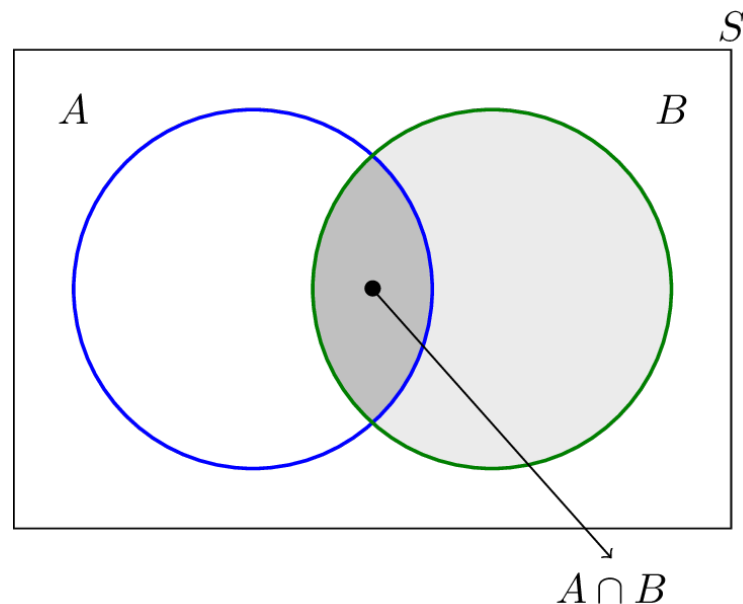
USLOVNA VEROVATNOĆA

$$P(A | B) = \frac{P(A \cap B)}{P(B)}$$

$P(A | B)$ uslovna verovatnoća
(verovatnoća javljanja A pod uslovom javljanja B)

$P(A \cap B)$
verovatnoća zajedničkog javljanja A i B

$P(B)$
verovatnoća javljanja B



	Niski	Visoki	Ukupno
Momci	4	2	6
Devojke	4	4	8
Ukupno	8	6	14



TABELA KONTIGENCIJE

Analyze → Descriptive Statistics → Crosstabs

The screenshot displays the SPSS software interface. The 'Analyze' menu is open, showing a list of statistical analysis options. The 'Descriptive Statistics' submenu is expanded, and the 'Crosstabs...' option is highlighted. The main data window shows a table with two columns: 'Pol' and 'Rasa'. The 'Pol' column contains values 1 and 2, and the 'Rasa' column contains values 1 and 2. The status bar at the bottom indicates 'Data View' and 'Variable View'.

	Pol	Rasa
1	1	1
2	1	1
3	1	1
4	1	1
5	1	1
6	1	1
7	2	1
8	2	1
9	2	1
10	2	1
11	2	1
12	2	1
13	2	1
14	2	1
15	2	1
16	2	1
17	2	1
18	2	1
19	2	1
20	2	1
21	2	1
22	2	1
23	2	1



TABELA KONTIGENCIJE

Prebaciti jednu varijablu u **Row(s)**, drugu u **Column(s)**.

The screenshot shows the SPSS Crosstabs dialog box with 'Pol' in the Row(s) list and 'Rasa' in the Column(s) list. The data view on the left shows a table with 23 rows and 3 columns: '1', 'Pol', and 'Rasa'.

1	Pol	Rasa
1	1	1
2	1	1
3	1	1
4	1	1
5	1	2
6	1	2
7	2	1
8	2	1
9	2	1
10	2	1
11	2	2
12	2	2
13	2	2
14	2	2
15		
16		
17		
18		
19		
20		
21		
22		
23		

The Crosstabs dialog box shows the following settings:

- Row(s): Pol
- Column(s): Rasa
- Layer 1 of 1
- Display clustered bar charts (checked)
- Suppress tables (unchecked)

Buttons: OK, Paste, Reset, Cancel, Help



TABELA KONTIGENCIJE

IBM SPSS Statistics Viewer

File Edit View Data Transform Insert Format Analyze Graphs Utilities Extensions Window Help

output

- Crosstabs
 - Title
 - Notes
 - Case Processing Summary
 - Pol * Rasa Crosstabulation

Crosstabs

Case Processing Summary

	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Pol * Rasa	14	100,0%	0	0,0%	14	100,0%

Pol * Rasa Crosstabulation

Count

		Rasa		Total
		Crvena	Zelena	
Pol	Muški	4	2	6
	Ženski	4	4	8
Total		8	6	14

→

Tabela kontigencije



TABELA KONTIGENCIJE

Frequencies → Contingency Tables

The screenshot shows the SPSS software interface. At the top, there is a toolbar with icons for Descriptives, T-Tests, ANOVA, Mixed Models, Regression, Frequencies, and Factor. The 'Frequencies' icon is highlighted. Below the toolbar, there is a data list with columns for 'Pol' (Gender) and 'Visina' (Height). The data list contains 14 rows of data. To the right of the data list, a dropdown menu is open, showing the 'Classical' and 'Bayesian' sections. The 'Classical' section is expanded, showing 'Binomial Test', 'Multinomial Test', 'Contingency Tables', and 'Log-Linear Regression'. The 'Contingency Tables' option is highlighted.

	Pol	Visina
1	Muški	Niski
2	Muški	Niski
3	Muški	Niski
4	Muški	Niski
5	Muški	Visoki
6	Muški	Visoki
7	Ženski	Niski
8	Ženski	Niski
9	Ženski	Niski
10	Ženski	Niski
11	Ženski	Visoki
12	Ženski	Visoki
13	Ženski	Visoki
14	Ženski	Visoki

- Classical**
 - Binomial Test
 - Multinomial Test
 - Contingency Tables
 - Log-Linear Regression
- Bayesian**
 - Binomial Test
 - A/B Test
 - Multinomial Test
 - Contingency Tables
 - Log-Linear Regression



TABELA KONTIGENCIJE

Prebaciti jednu varijablu u **Row(s)**, drugu u **Column(s)**.

The screenshot shows the SPSS 'Contingency Tables' dialog box on the left and the 'Results' window on the right. In the dialog box, 'Pol' is assigned to Rows and 'Visina' is assigned to Columns. The 'Results' window displays the following contingency table:

Pol	Visina		Total
	Niski	Visoki	
Muški	4	2	6
Ženski	4	4	8
Total	8	6	14

An orange arrow points from a text box to the 'Results' window table.

Tabela
kontigencije