

Lab 8: Bivariate Statistics (Part 1)

Bivariate Analysis: three possible combinations

2 qualitative variables - use a crosstabulation and a Chi-square statistic (χ^2).

2 quantitative variables - use a correlation matrix and Pearson's Correlation Coefficient (r).

1 qualitative variable and 1 quantitative variable - use a comparison of means and a t-test.

Crosstabulation and Chi-Square:

SPSS:

Analyze → Descriptive Statistics → Crosstabs

Select PARTYID as the row variable

Select GRASS as the column variable

Make sure "Display Clustered Bar Charts" is NOT checked

Click on statistics → Chi-Square → Continue

Click on Cells → Counts=observed → Percentages=Total and Row → Continue → OK.

Interpretation of Crosstabs

Can you identify and interpret...

- N
- Observed frequency
- Row percent
- Total percent
- Chi-square value
- P-value ($\alpha = 0.05$)