

Correlation for Survey Data

Method: Correlation for Survey Data

Method type: association_analysis

Design: Rank-based association between ordered study-time responses and final grade.

Variables: studytime, G3

Inference scope: H0 for the reported Spearman inference: the population rank correlation is zero.

Formula: $\rho_s = \text{cor}(\text{rank}(\text{studytime}), \text{rank}(\text{G3}))$; τ_b adjusts concordant-discordant pairs for ties.

Source rows: 649

Calculated metrics:

spearman_rho: 0.27471184833561

spearman_p_value: 1.06062403827013e-12

kendall_tau_b: 0.221596167466943

kendall_p_value: 2.51456879331232e-12

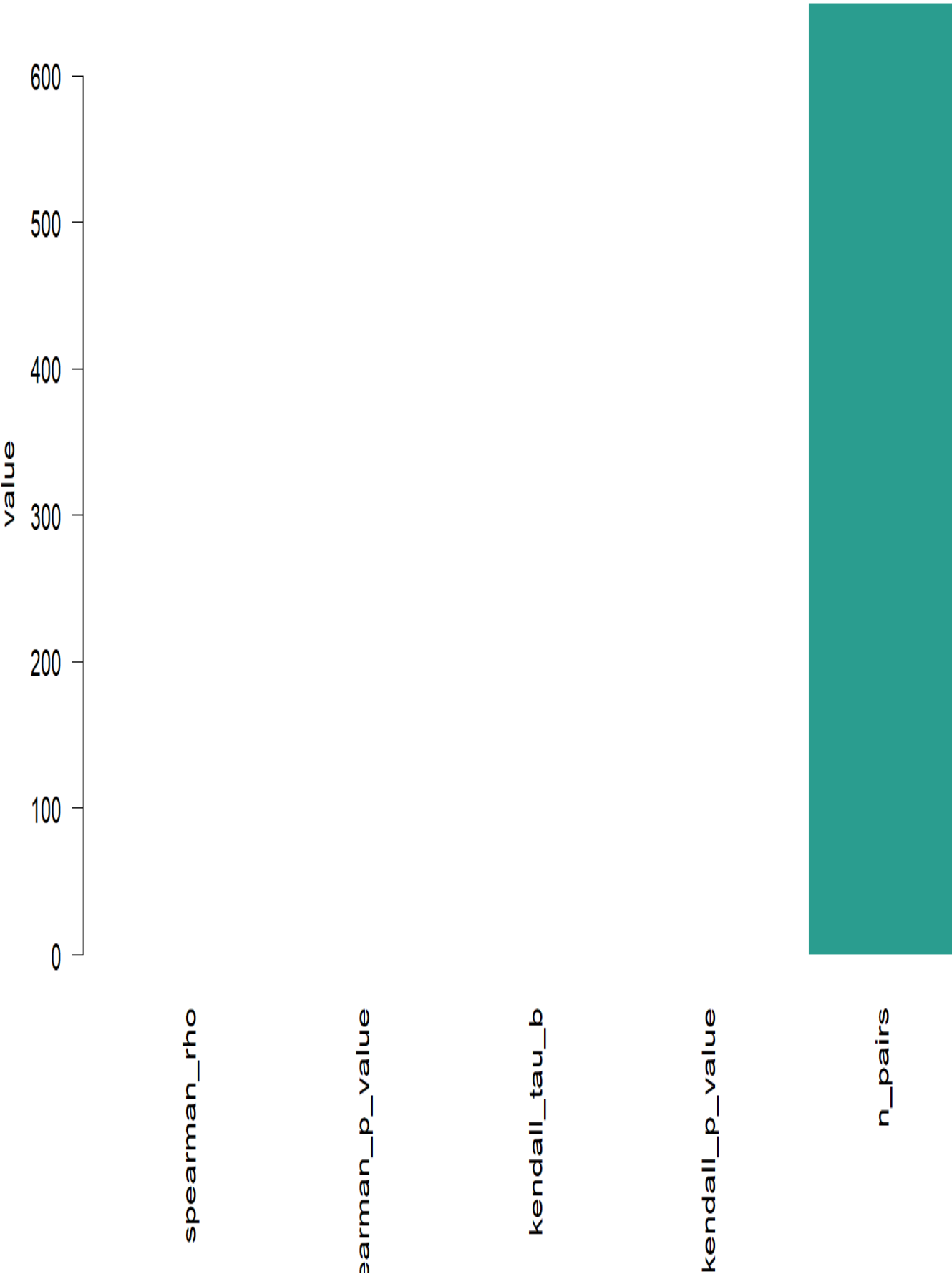
n_pairs: 649

Interpretation:

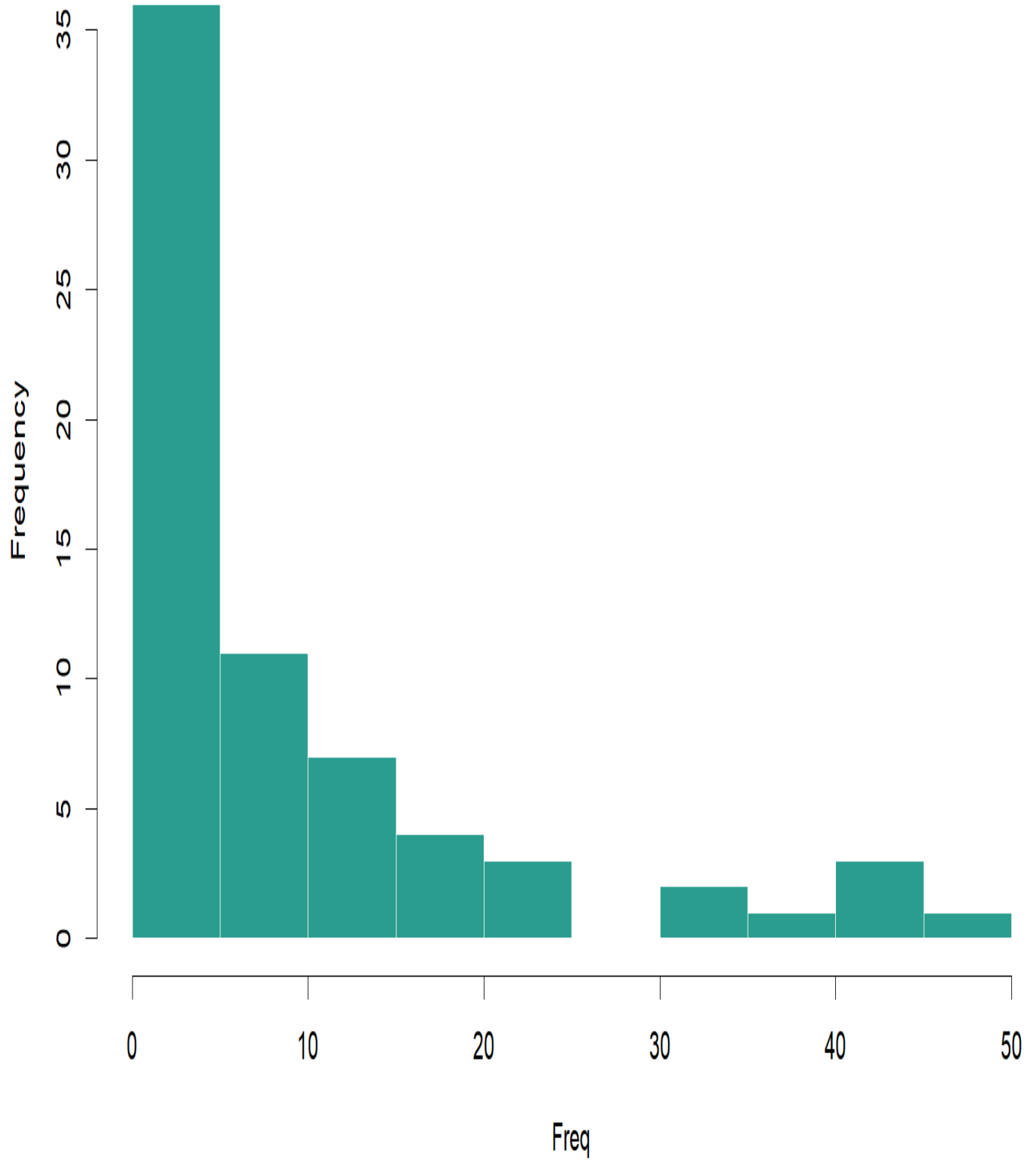
Studytime is treated as ordered, so Spearman is primary.

Spearman rho 0.27471184833561 Kendall tau-b 0.221596167466943

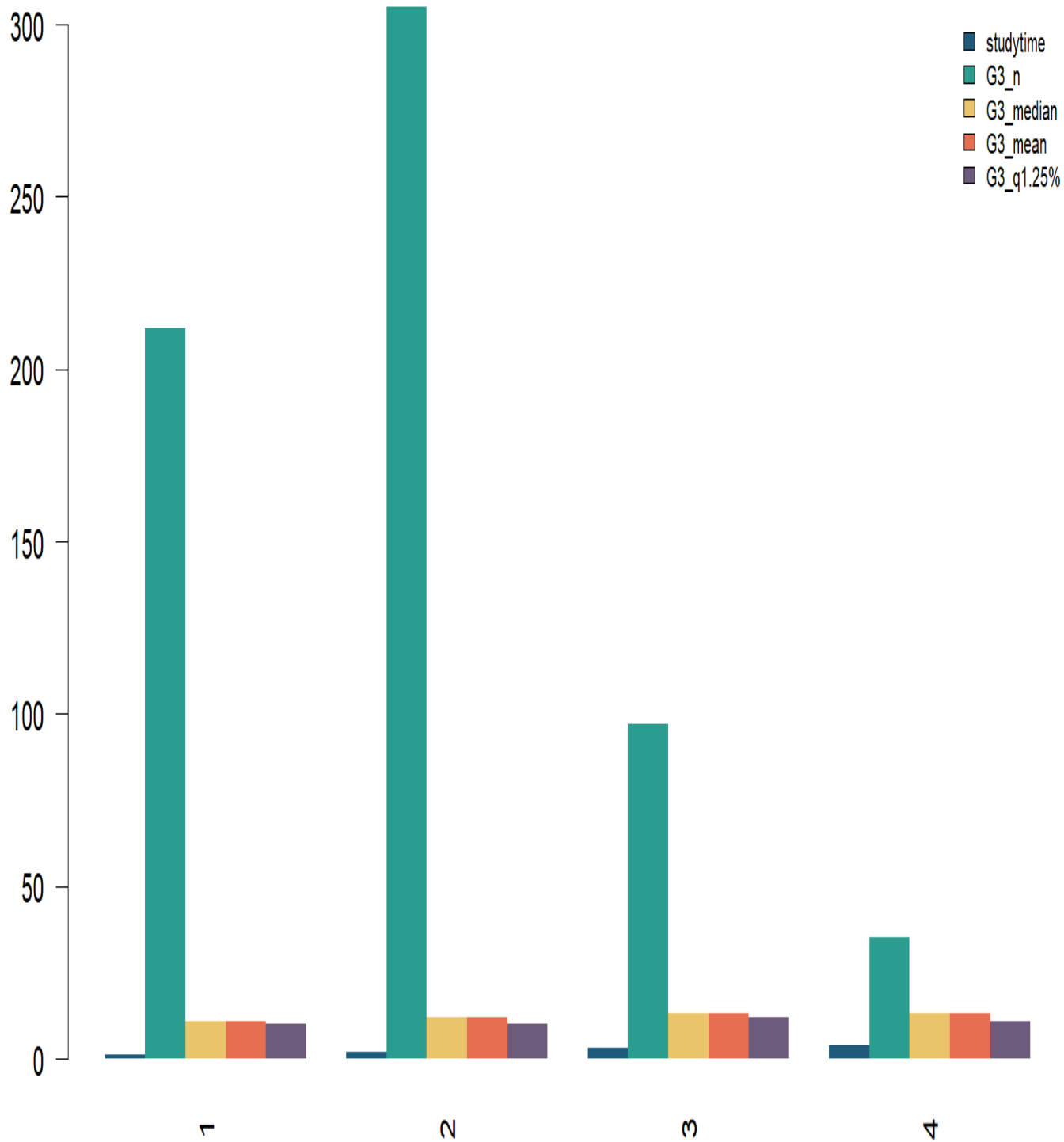
Correlation for Survey Data - primary metrics



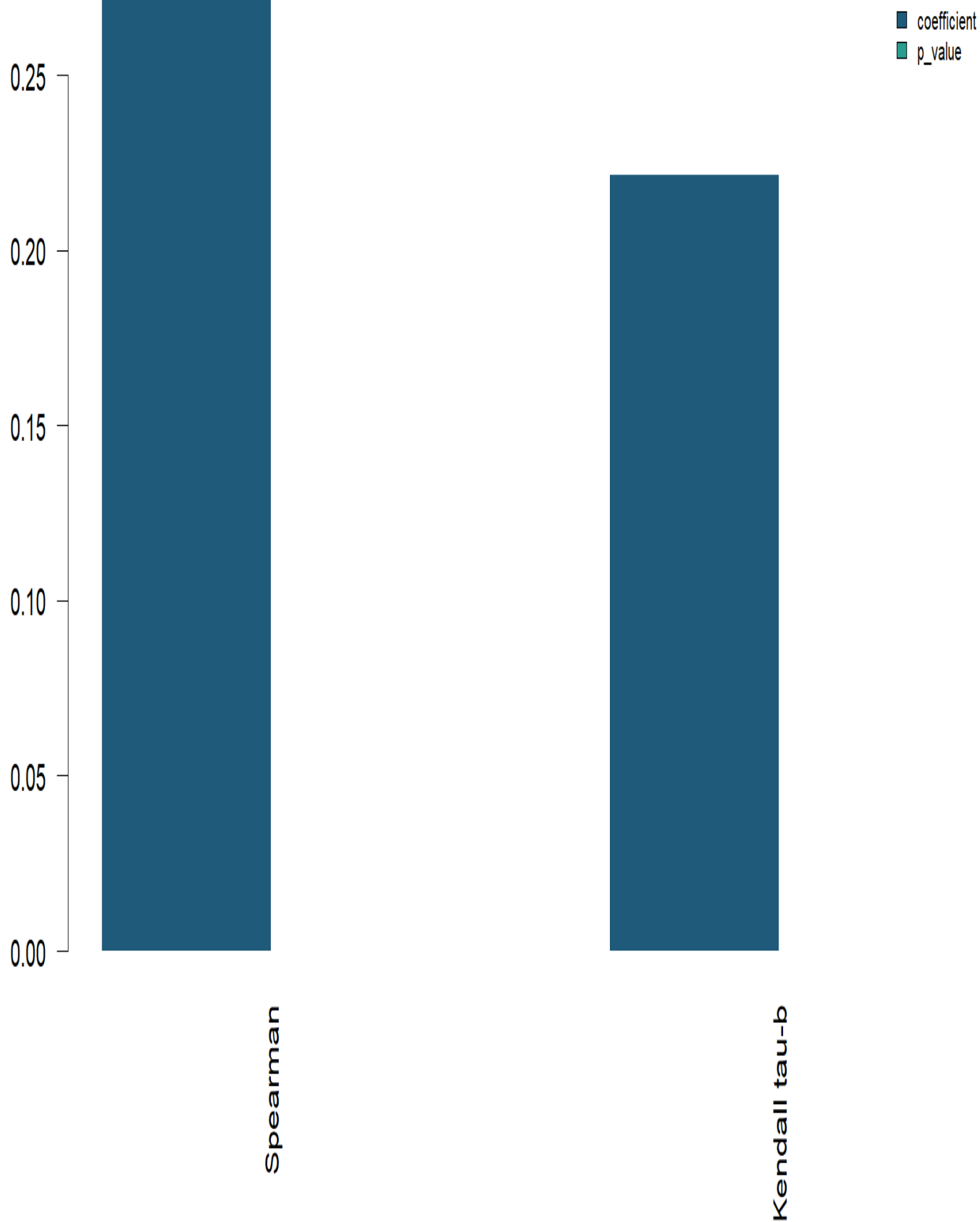
Correlation for Survey Data - ordered pair frequencies



Correlation for Survey Data - studytime group summary



Correlation for Survey Data - rank association summary



Correlation for Survey Data verified results

