

Two Way ANCOVA Report

Outcome: G3

Covariate: G1

Factor A: school

Factor B: sex

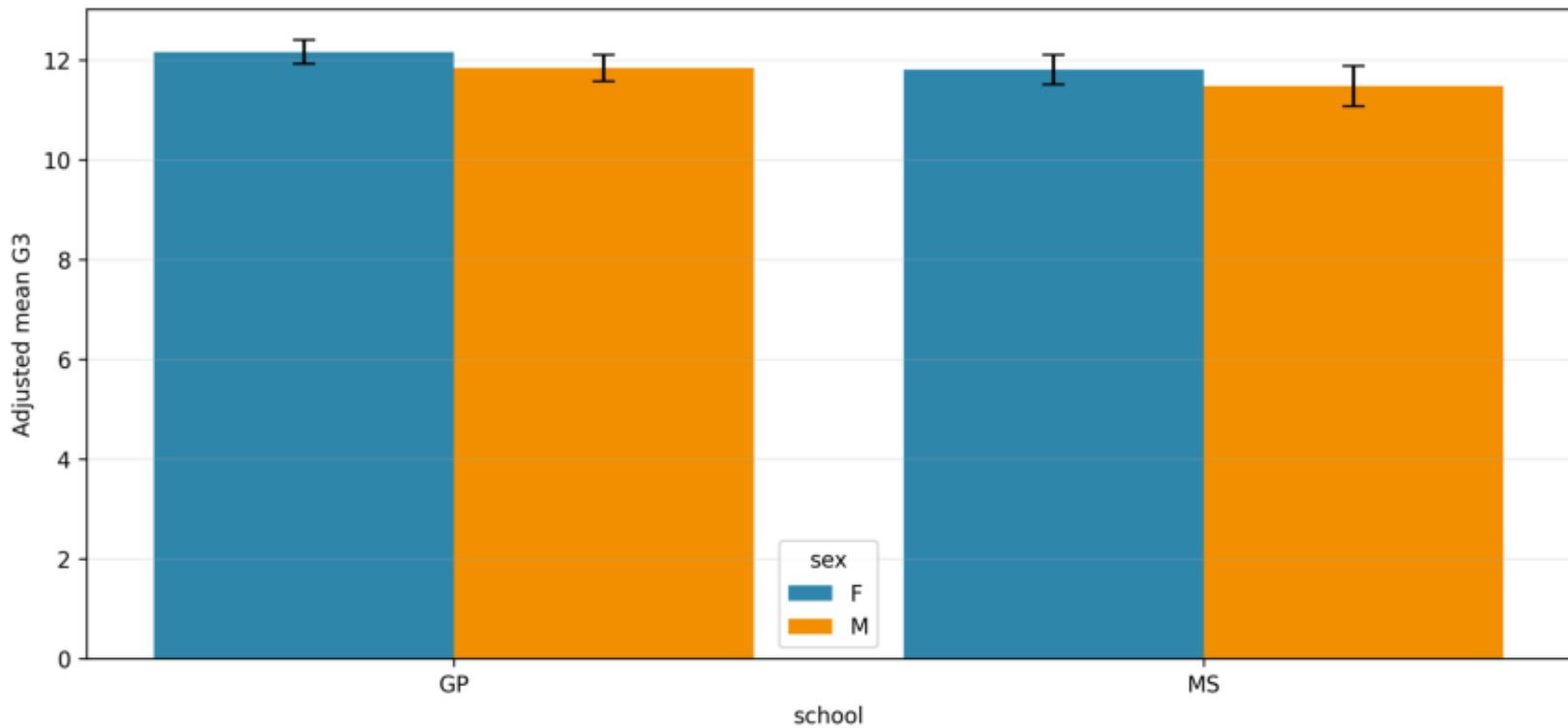
Model: $G3 \sim G1 + \text{school} * \text{sex}$

Largest partial eta squared: $G1 = 0.650844$

Effect label: Large

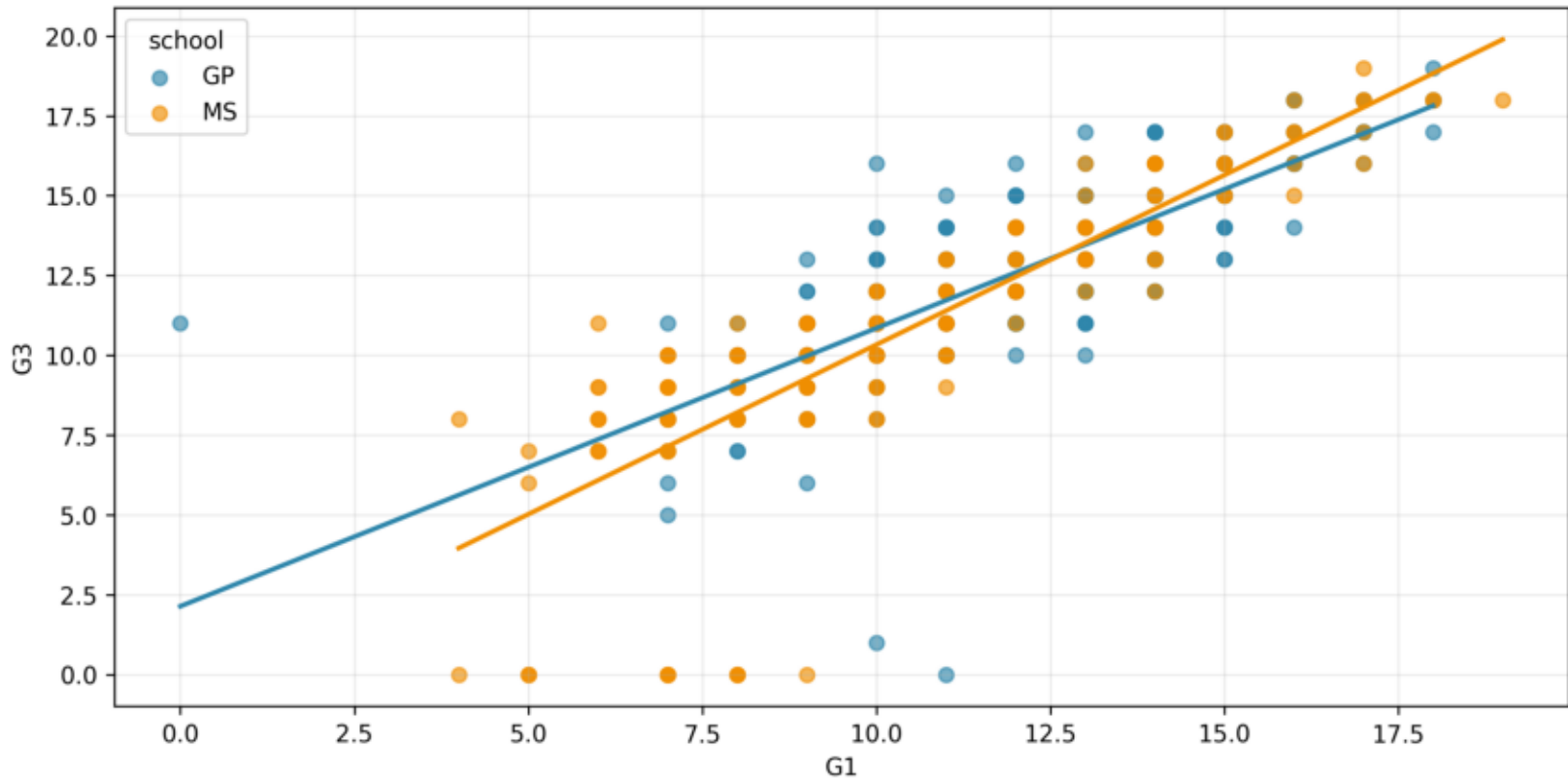
Two Way ANCOVA: Adjusted Means

Means adjusted at average G1; bars include 95% confidence intervals.



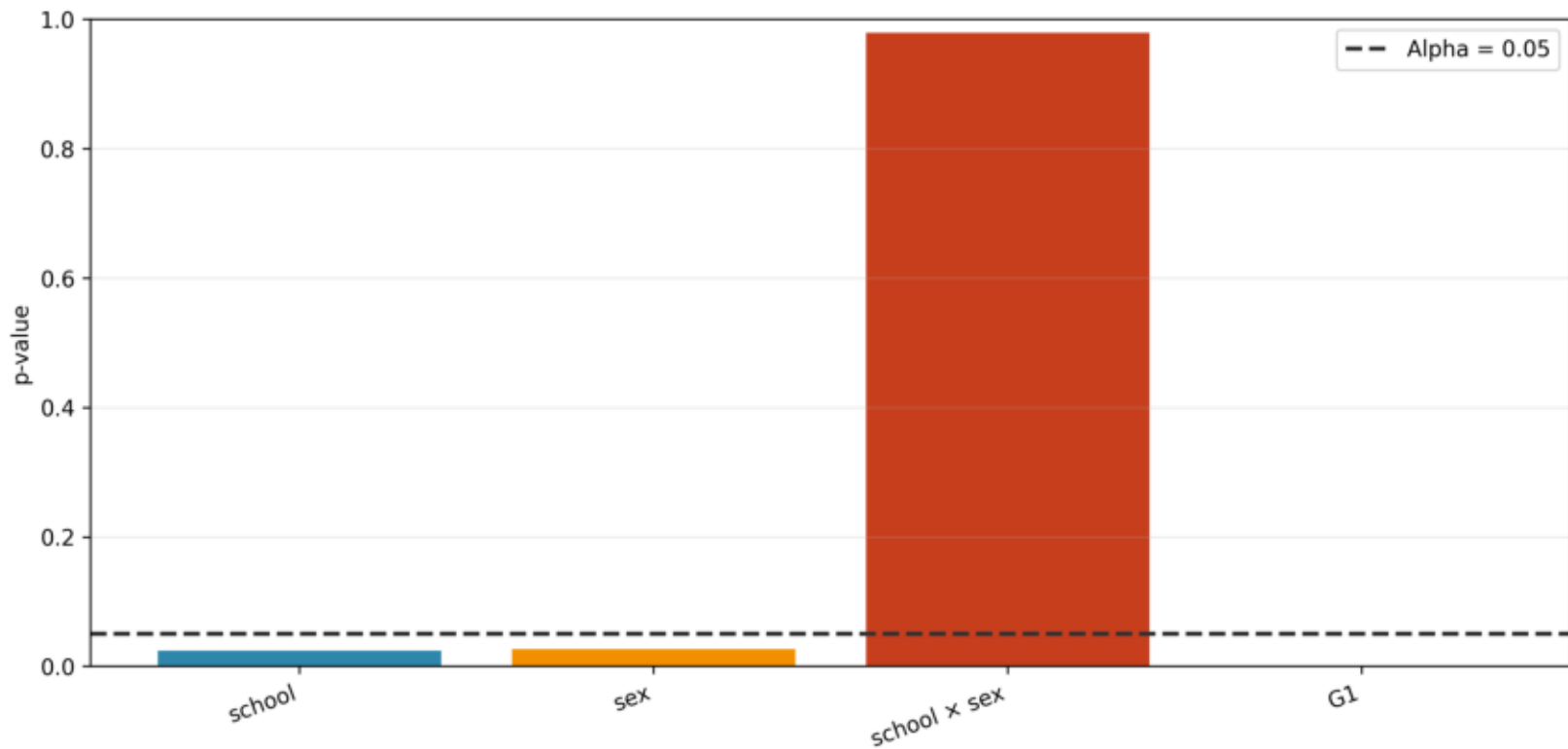
ANCOVA Covariate Relationship

Scatterplot checks how G1 relates to G3 across school groups.



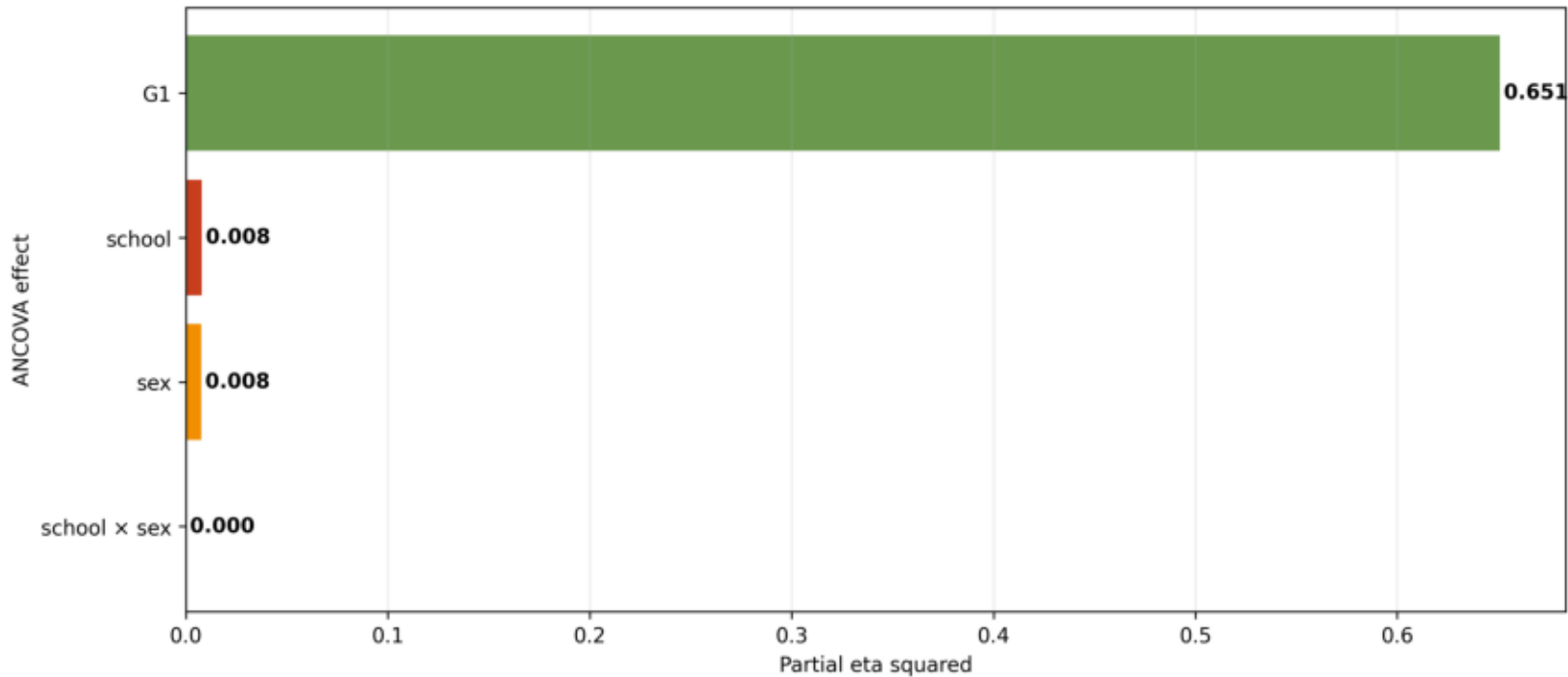
Two Way ANCOVA: Effect p-values

Effects below alpha are statistically significant after covariate adjustment.



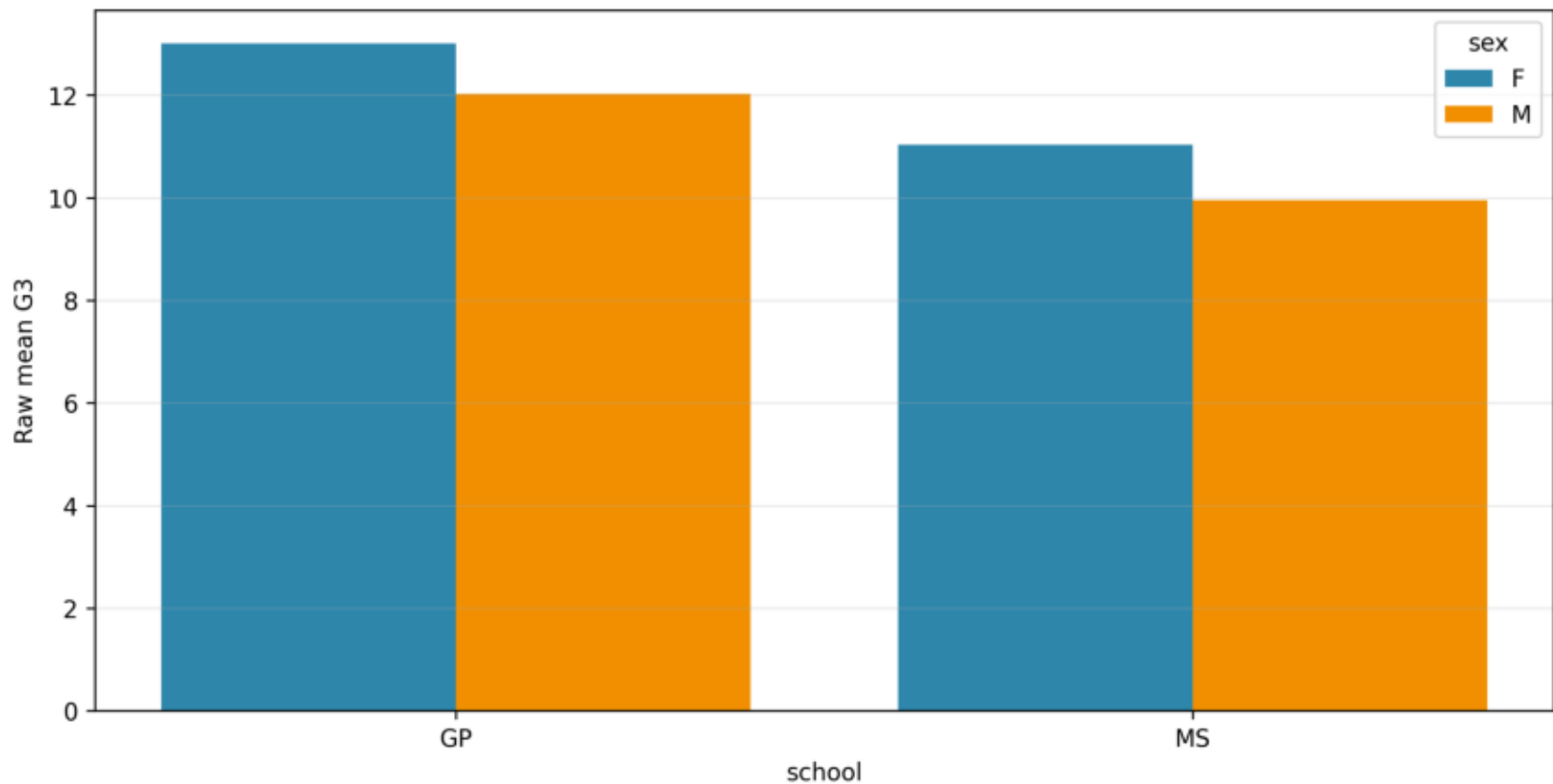
Two Way ANCOVA: Partial Eta Squared

Partial eta squared shows effect size after controlling for model error.



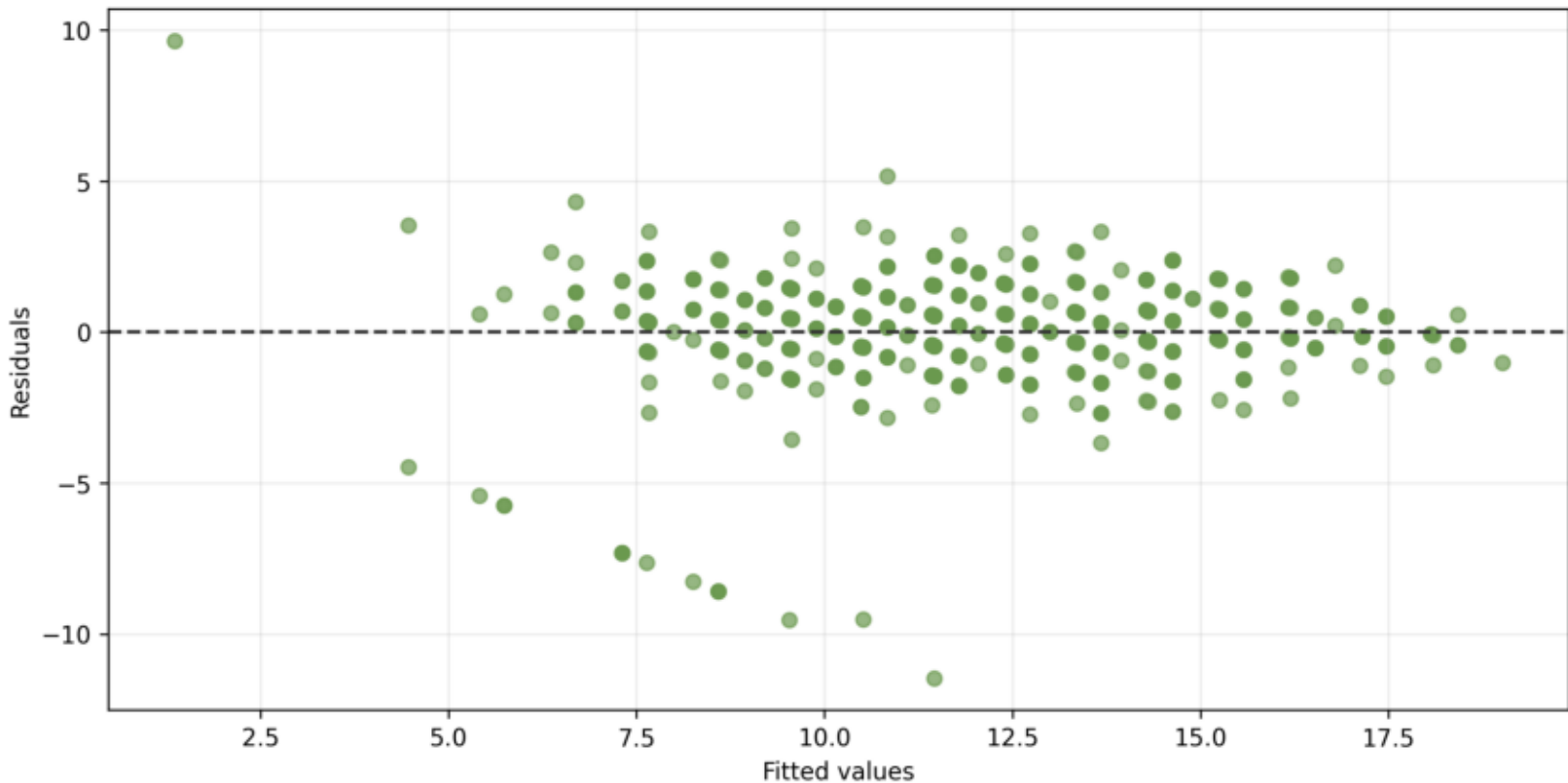
Raw Cell Means Before Covariate Adjustment

Compare this chart with adjusted means to see the influence of the covariate.



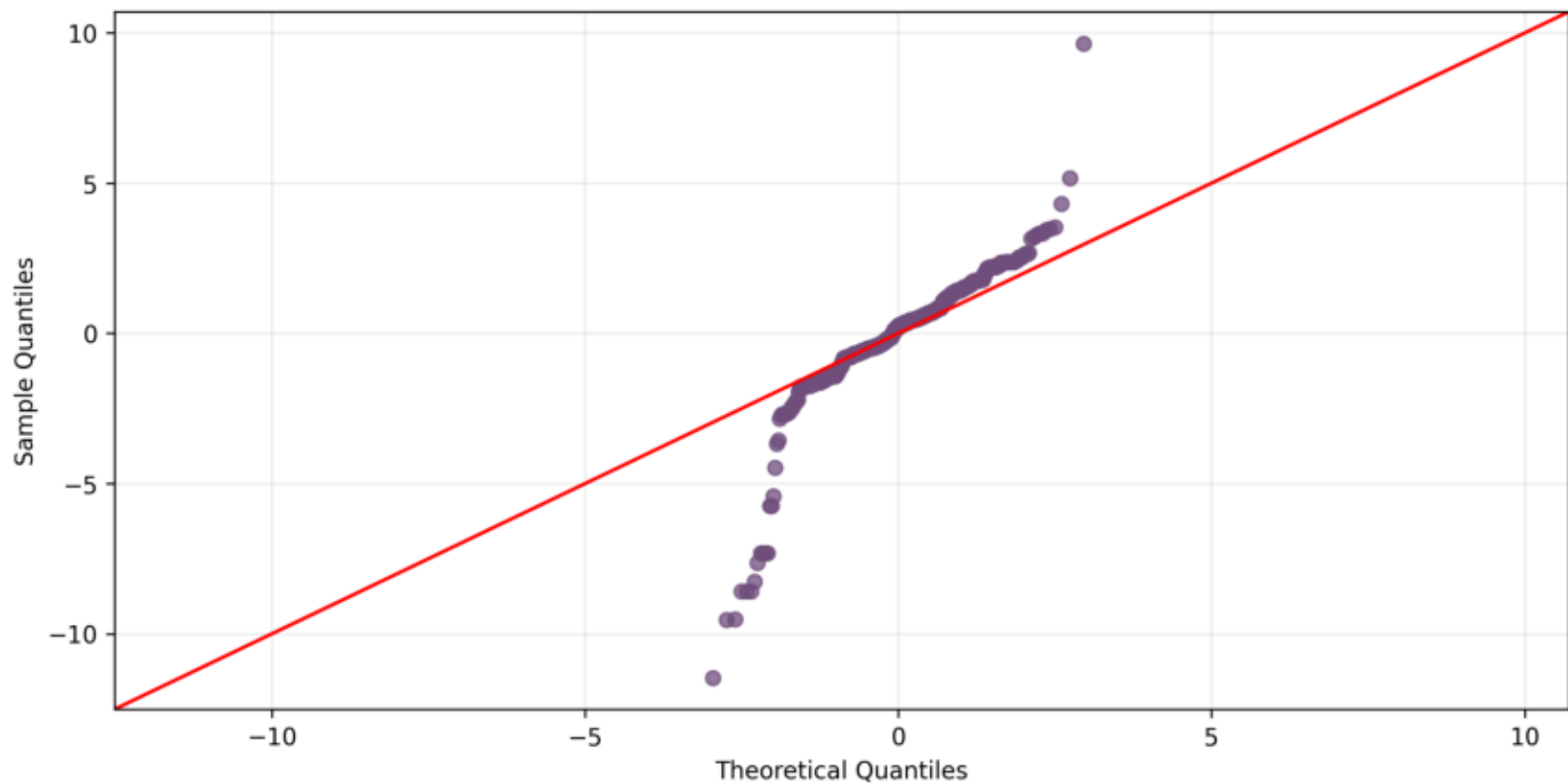
ANCOVA Residuals vs Fitted Values

A random pattern around zero supports the linear model assumptions.



ANCOVA Q-Q Plot of Residuals

Points close to the line support approximate residual normality.



Two Way ANCOVA Summary Table

ANCOVA effects are interpreted after controlling for the covariate.

Effect	df	SS	F	p	partial eta ²	Decision
school	1	16.87	5.136	0.02377	0.007912	Reject H0
sex	1	16.19	4.93	0.02674	0.007598	Reject H0
school x sex	1	0.002236	0.0006807	0.9792	1.057e-06	Fail to reject H0
G1	1	3942	1200	2.77e-149	0.6508	Reject H0