

Tobit Regression Report

Outcome: G3

Predictors: G1, G2, studytime, failures, absences, age, Medu, Fedu

Lower censoring point: 0.0

N: 649

Censored cases: 15

Log-likelihood: -1075.302084

Likelihood-ratio chi-square: 1217.571307

Likelihood-ratio p-value: 1.531559472e-257

AIC: 2170.604168

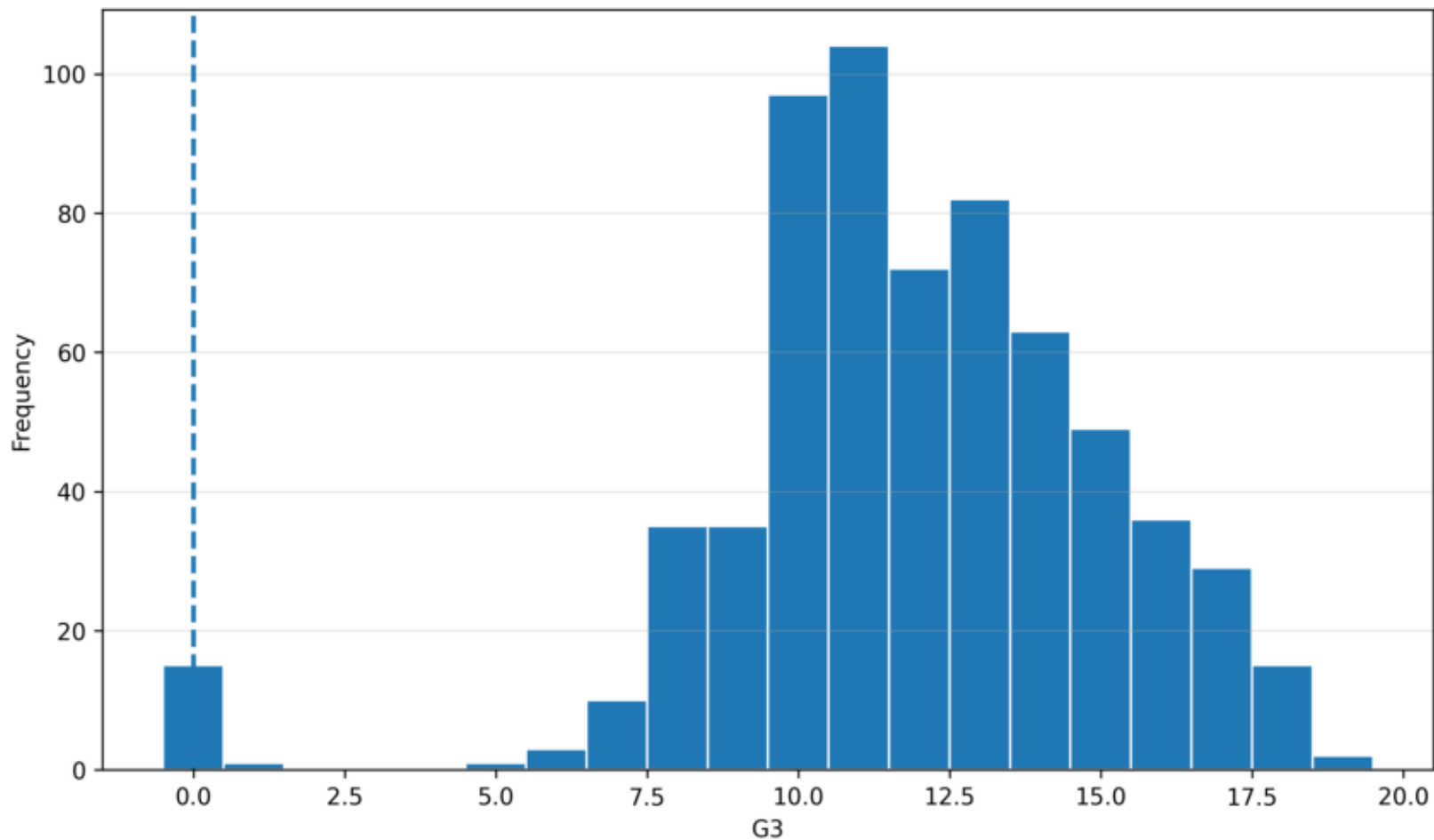
BIC: 2215.358495

Sigma: 1.271972

The model accounts for lower-censored outcome observations.

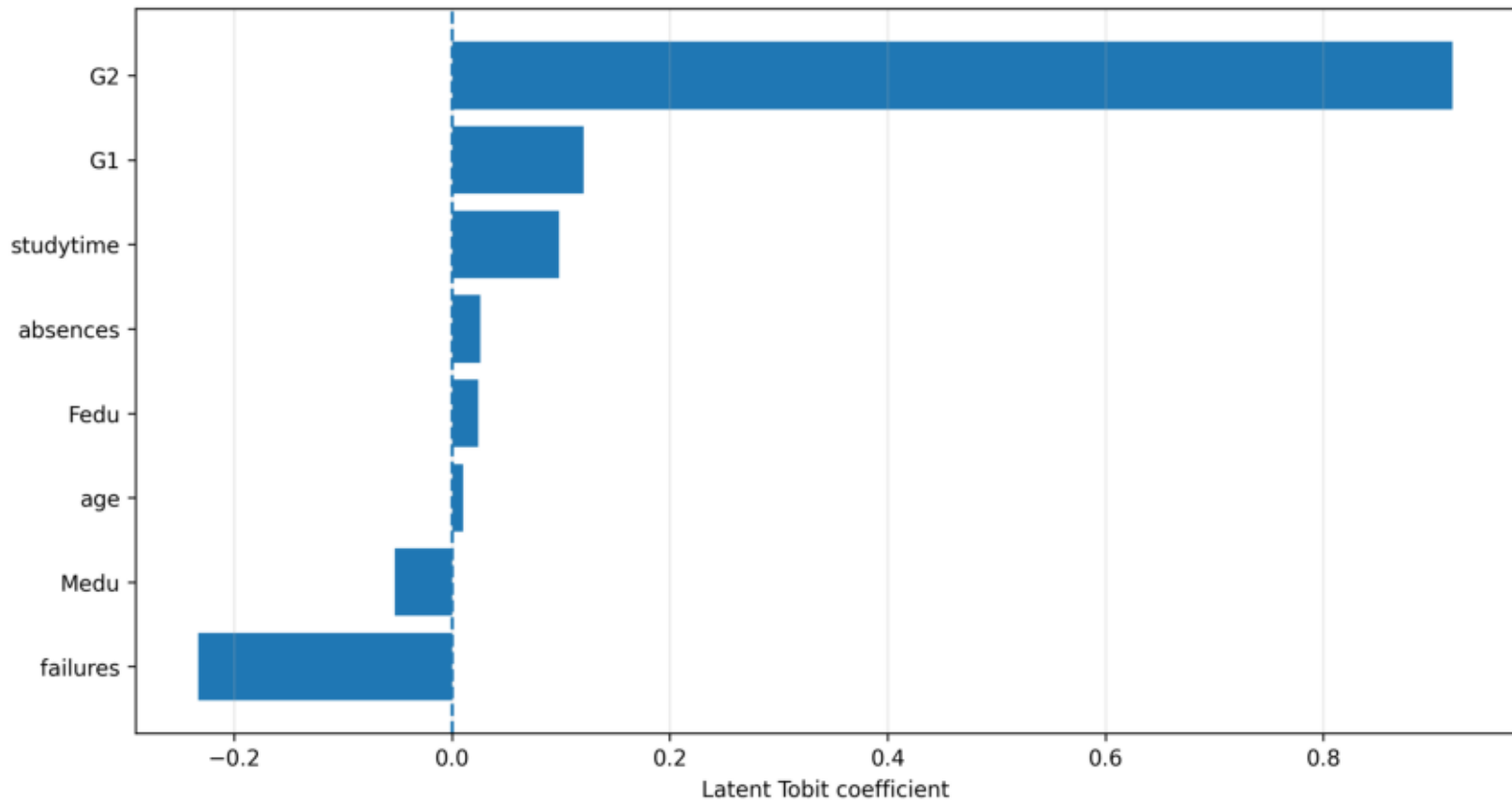
Observed Outcome and Censoring Point

The dashed line marks the lower censoring boundary.



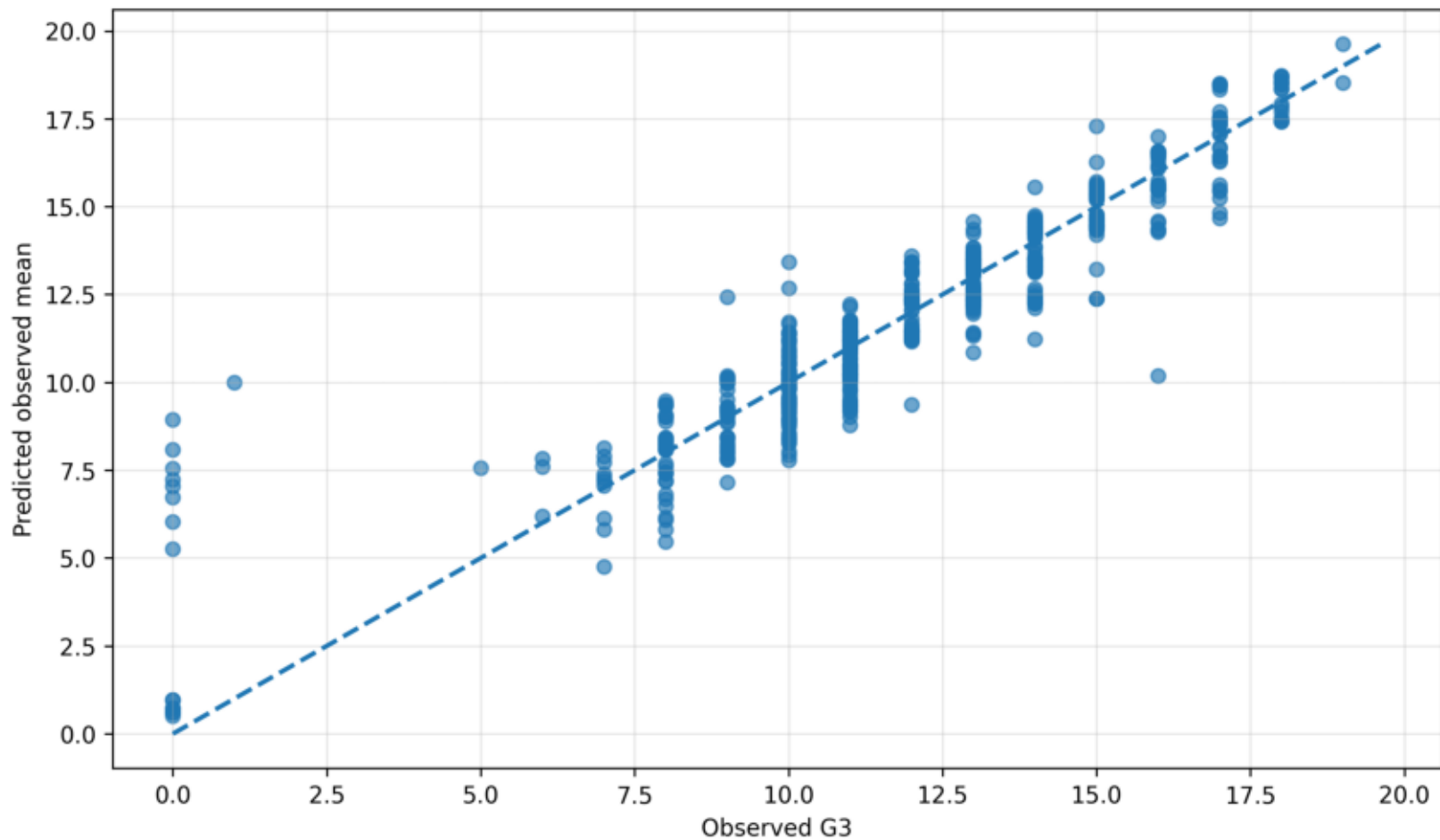
Tobit Regression Coefficients

Error bars show 95% confidence intervals.



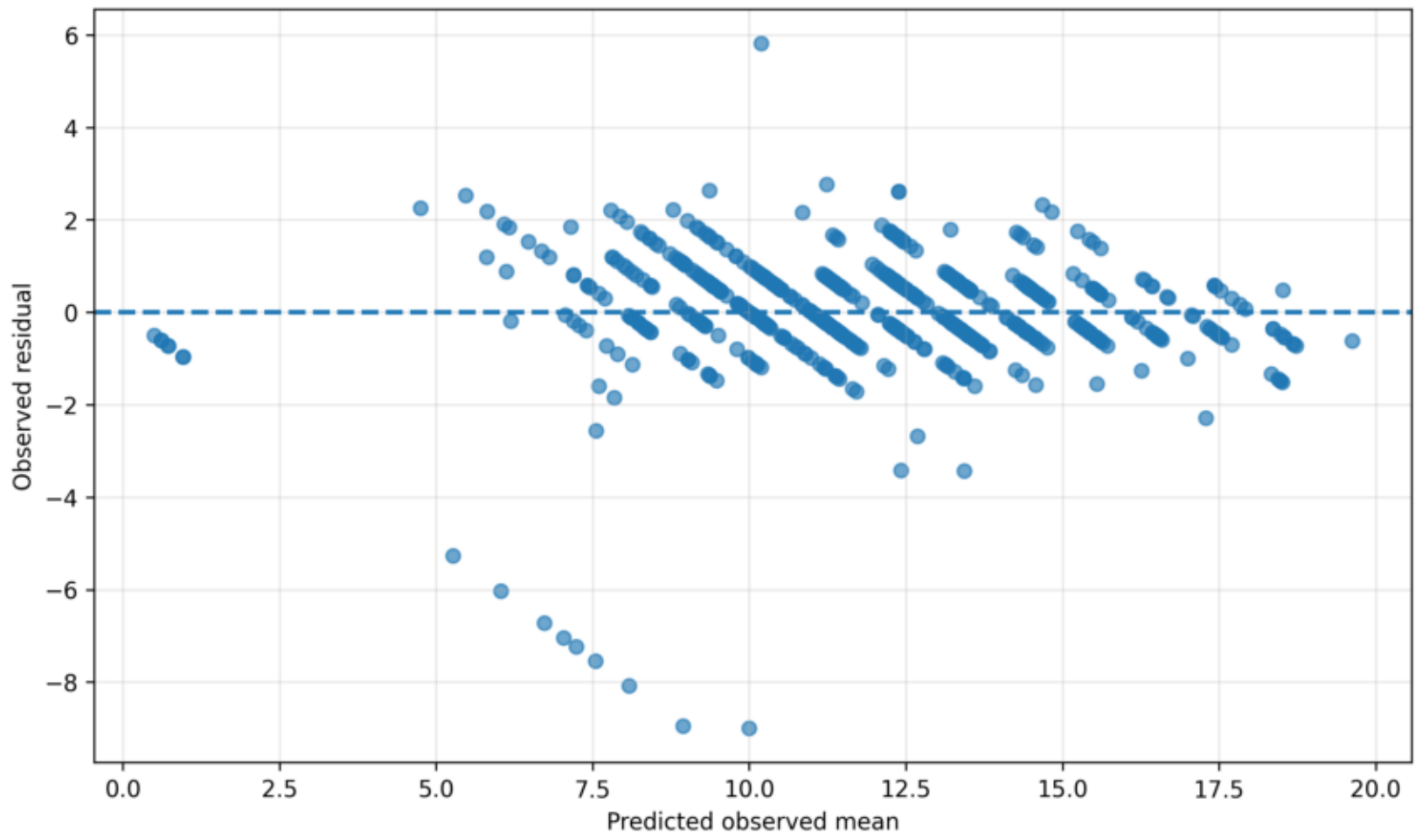
Observed versus Tobit Predicted Values

Predictions incorporate the lower-censoring mechanism.



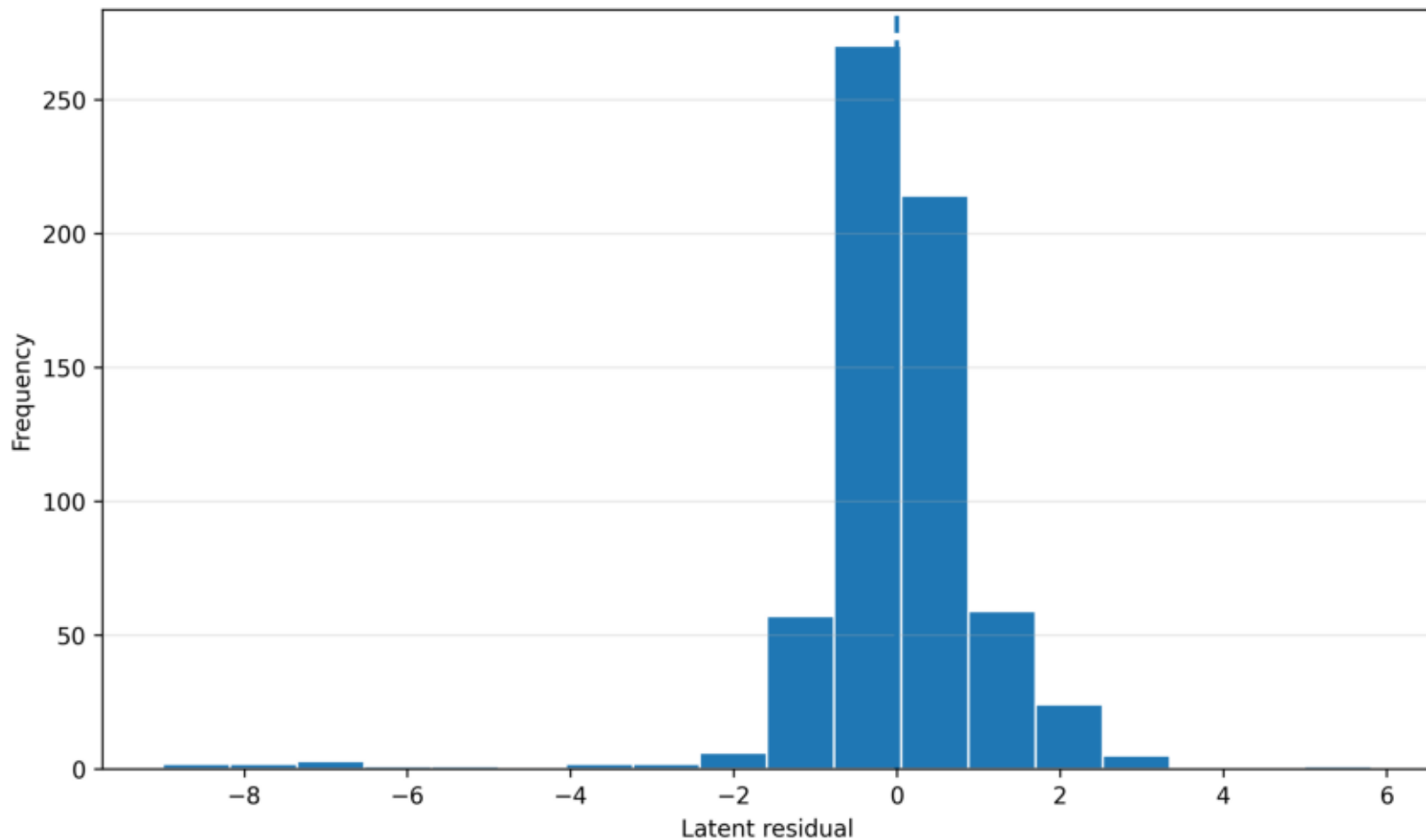
Observed Residuals versus Predicted Values

A random band around zero supports model adequacy.



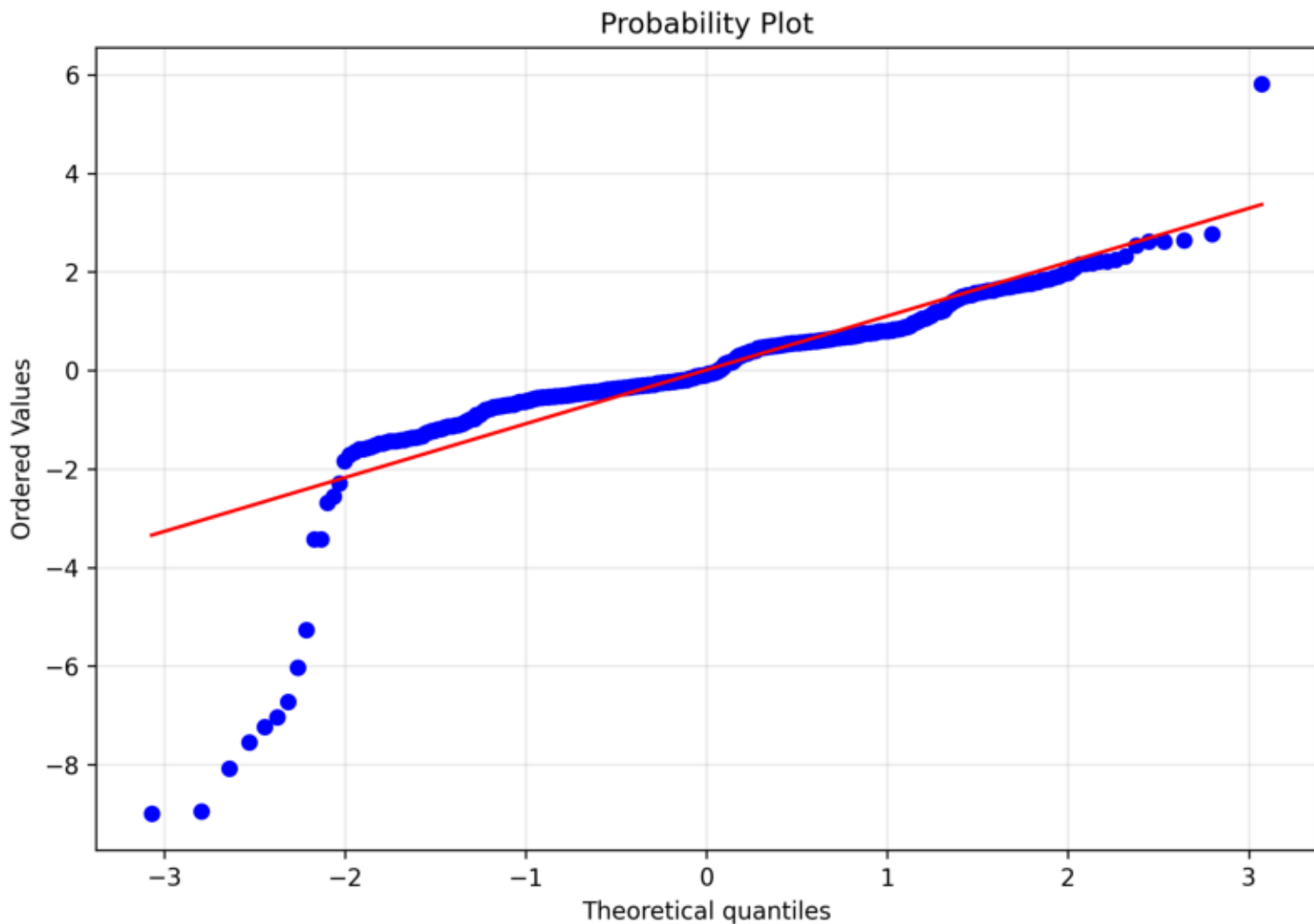
Latent Residual Distribution

The Tobit model assumes normally distributed latent errors.



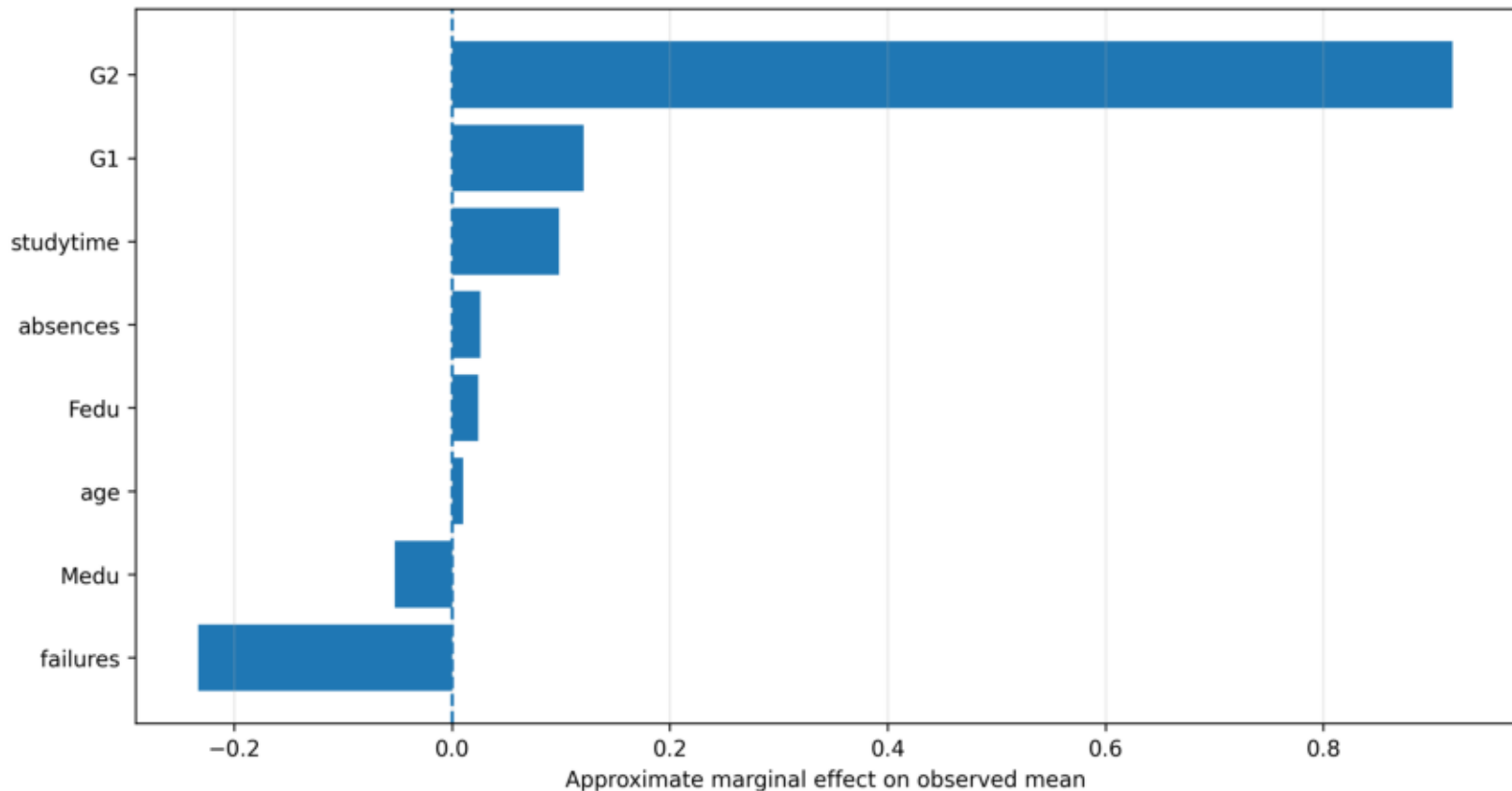
Q-Q Plot of Latent Residuals

Points near the line support approximate normality.



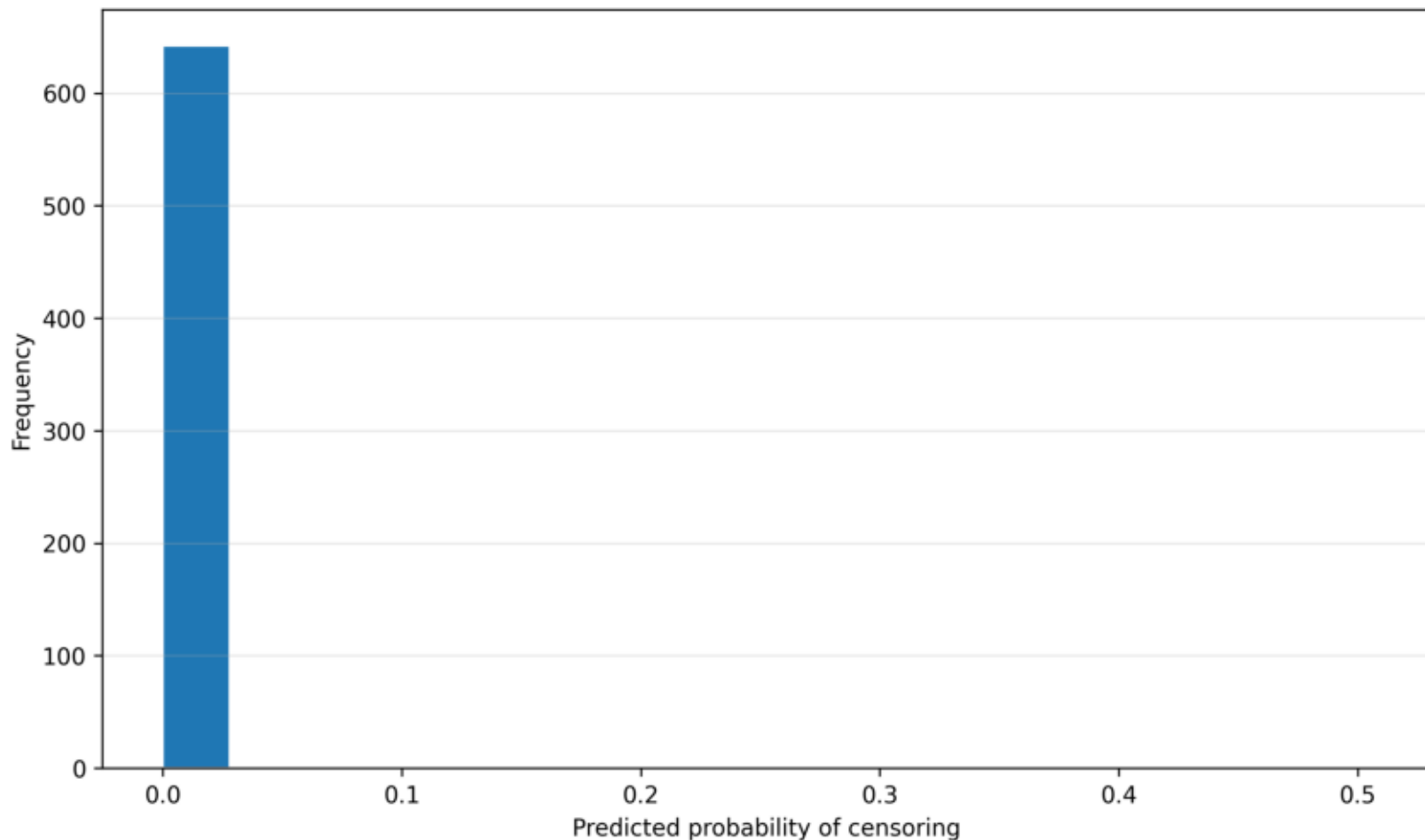
Approximate Tobit Marginal Effects

Effects are evaluated at the predictor means.



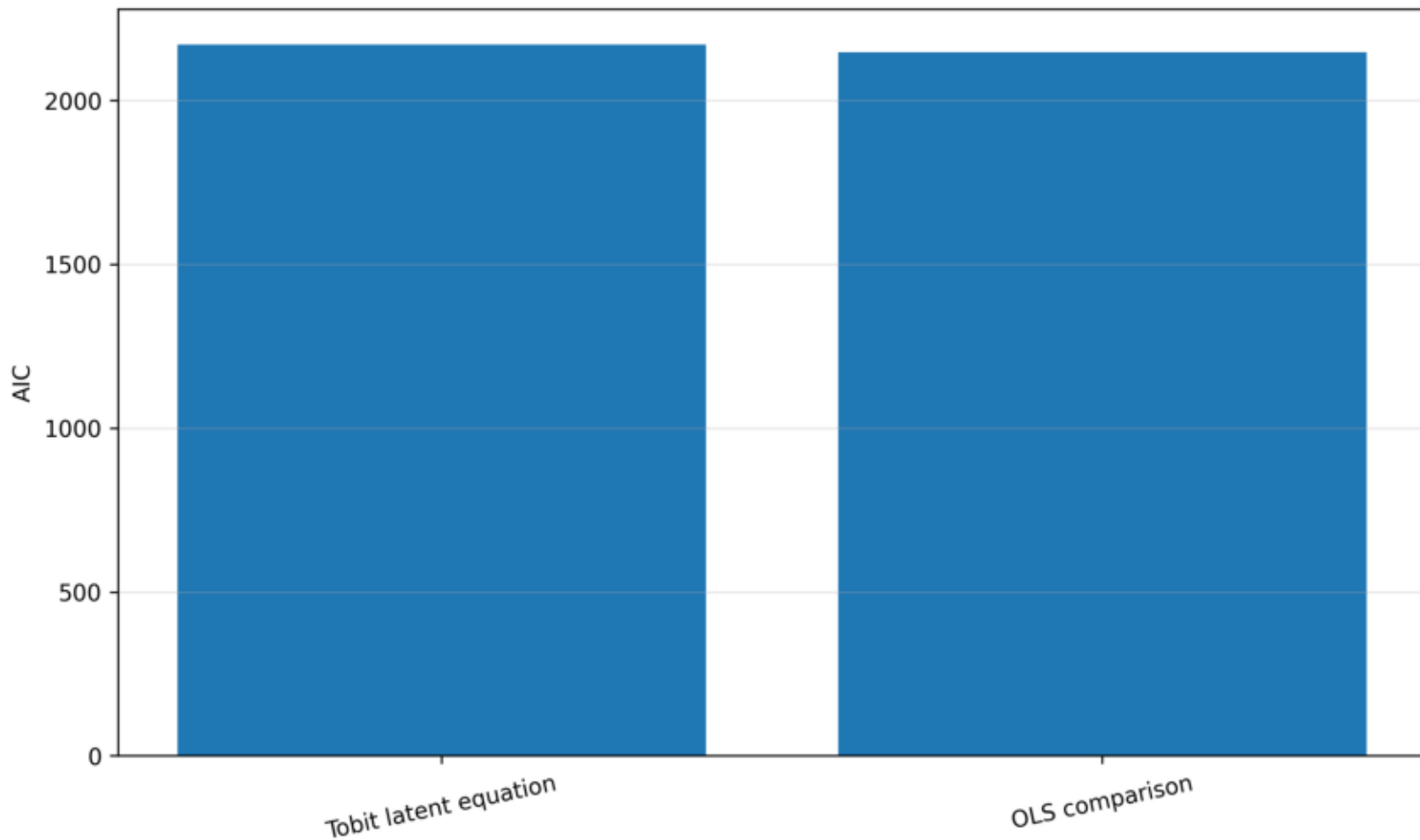
Predicted Censoring Probabilities

Higher values indicate greater probability of falling at the lower limit.



Tobit versus OLS Information Criterion

Lower AIC indicates a better fit-complexity balance within each likelihood framework.



Tobit Regression Summary

The model estimates a latent normal regression with left censoring.

Statistic	Value
Outcome	G3
Predictors	G1, G2, studytime, failures, absences, age, Medu, Fedu
Lower censor	0.00
N	649
Censored cases	15
Sigma	1.271972
Log-likelihood	-1075.302084