Bias Detection Report

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Dataset Analyzed: Student Performance

Features Examined: Family Support (`famsup`) and Academic Performance (`G3`)

Bias Type: Correlation between categorical and numerical features.

Relevant Feature(s):

- Family Support: `famsup`

- Academic Performance: `G3`

Detection Methods Used:

1. Cohen's d Effect Size

2. Max Absolute Mean Value

3. Hilbert-Schmidt Independence Criterion (HSIC)

Results:

- **Cohen's d Effect Size**: 0.080 (No Bias)

- **Max Absolute Mean**: 0.049 (No Bias)

- **HSIC Value**: 9.765e-08 (No Bias)

Bias Level: Level 1 (No Bias)

Conclusions: The analysis indicates no significant correlation bias between family support and academic performance in this dataset. These results suggest that the dataset is suitable for further analysis without concerns about bias in these specific features.