

Bias Detection Report

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Analysis of 'Other debtors / guarantors' Distribution Bias

This report explores potential distribution bias in the 'Other debtors / guarantors' feature of the dataset. The analysis aims to identify any over-representation of certain categories, which may indicate patterns in creditworthiness evaluation.

Methods and Results

1. **Chi-Square Test**:

- **Statistic**: 1482.59
- **Critical Value**: 5.99
- **Significance**: True
- Indicates a significant deviation from the expected distribution.

2. **Kolmogorov-Smirnov Test**:

- **Statistic**: 0.33

- **Significance**: True

- Confirms significant distribution bias.

3. **Jensen-Shannon Divergence**:

- **JSD**: 0.1913

- Indicates moderate divergence from a uniform distribution.

4. **Shannon Entropy & Balance Metric**:

- **Balance**: 0.34

- **Shannon Entropy**: 0.54

- Suggests significant unevenness and low information content.

Overall Bias Level

The analyses indicate an **Extreme Bias** (Level 5) in the 'Other debtors / guarantors' feature distribution, suggesting an over-representation that may reflect patterns in creditworthiness evaluation.

