

Bias Detection Report

Custody Status Distribution Analysis Report

Bias Type: Distribution

Relevant Feature(s): CustodyStatus

Analysis Summary:

1. ****Shannon Entropy and Balance Metric:****

- Shannon Entropy: 1.426
- Balance Metric: 0.552
- Interpretation: Moderate unevenness in the distribution of custody statuses.

2. ****Max/Min Ratio:****

- Max/Min Ratio: 2008.6
- Interpretation: Extremely high ratio indicating significant imbalance.

3. ****Gini Index:****

- Corrected Gini Index: 0.597
- Adjusted Gini Index: 0.716
- Interpretation: Significant level of inequality in the distribution.

4. ****Relative Risk:****

- Normalized Bias Score: 2008.6

- Interpretation: Dominance of 'Jail Inmate' and 'Probation' statuses.

5. **Visualizations:**

- Pie chart created successfully. Bar chart encountered an error.

Conclusion:

- **Bias Level:** Significant Bias (hidden from user)
- Explanation: Tools such as Max/Min Ratio and Gini Index indicate prominent imbalance.
- Recommendation: Review the findings, considering the potential impact on analysis.

