Bias Detection Report

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Dataset Analyzed

- **Path**: `source_files/Statlog.csv`

Feature Examined
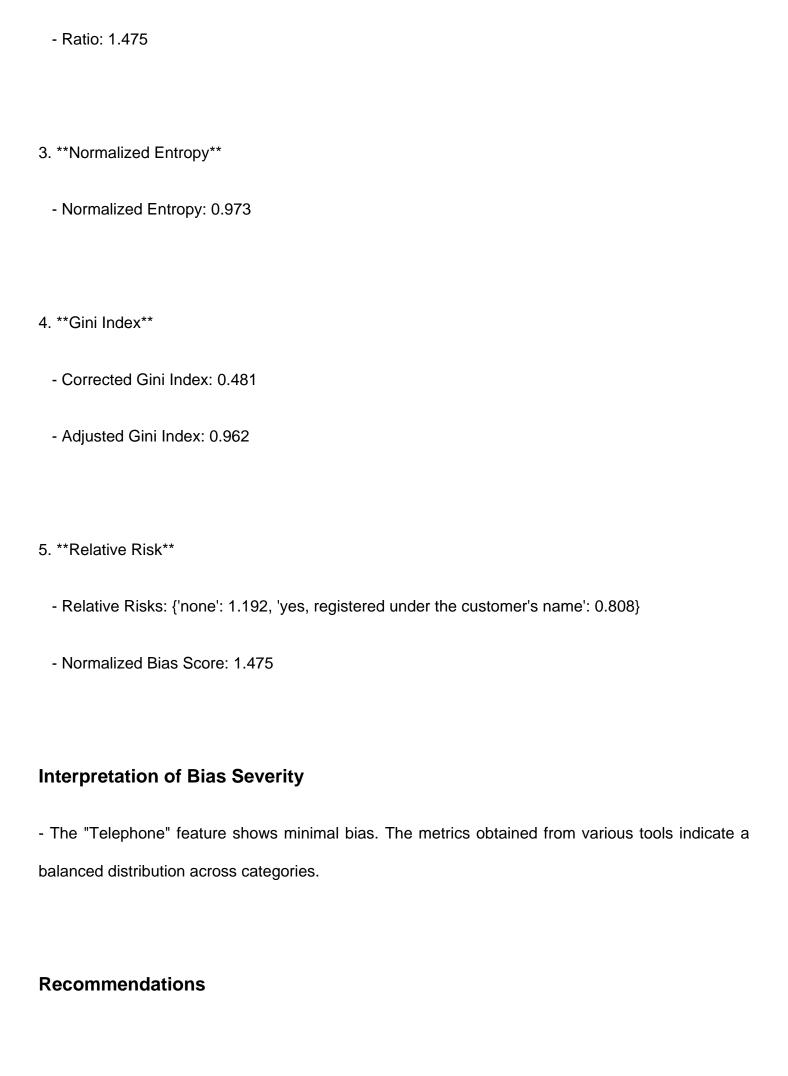
- **Feature**: Telephone

Bias Type

- Distribution

Tools Used and Results

1. **Shannon Entropy & Balance Metric**

   - Shannon Entropy: 0.973

   - Balance: 0.973

2. **Max/Min Ratio**

- Ratio: 1.475

3. **Normalized Entropy**

   - Normalized Entropy: 0.973

4. **Gini Index**

   - Corrected Gini Index: 0.481

   - Adjusted Gini Index: 0.962

5. **Relative Risk**

   - Relative Risks: {'none': 1.192, 'yes, registered under the customer's name': 0.808}

   - Normalized Bias Score: 1.475

Interpretation of Bias Severity

- The "Telephone" feature shows minimal bias. The metrics obtained from various tools indicate a balanced distribution across categories.

Recommendations

- The current distribution of the "Telephone" feature is well-balanced. You can proceed with using the dataset confidently, with minimal attention needed in specific scenarios.

Visualization

- Below is a bar chart visualizing the distribution of the "Telephone" feature.