

# Bias Detection Report

## Distribution Bias Analysis Report

### Dataset Analyzed

- **Dataset**: Statlog
- **Feature**: Installment rate in percentage of disposable income

### Bias Type

- **Distribution**

### Relevant Feature

- Installment rate in percentage of disposable income

### Bias Level

- Extreme Bias

### Key Findings

- **Relative Risk Tool**: Normalized Bias Score ~3.5 (Moderate Bias)

- **Max/Min Ratio Analysis**: Max/Min Ratio: Infinite (Extreme Bias)

## Detailed Explanation

The analysis reveals a significant imbalance in the distribution of installment rates, with some rates not represented at all, leading to an extreme skewness.

## Recommendations

- Address the imbalance if using the installment rate feature for modeling or decision-making. Consider re-sampling, stratification, or other techniques to mitigate this bias.