# Bias Detection Report

Introduction: This report aims to detect distribution bias in the 'Credit history' feature of the provided dataset to uncover potential systemic bias in prior credit opportunities.

Methodology: The analysis utilized the Jensen-Shannon Divergence (JSD) to measure the deviation of the 'Credit history' distribution from a uniform distribution. This method was selected due to its effectiveness in quantifying distribution bias.

Results: The calculated Jensen-Shannon Divergence for the 'Credit history' feature is approximately 0.1079, suggesting a moderate bias in distribution.

Bar Chart of Credit history
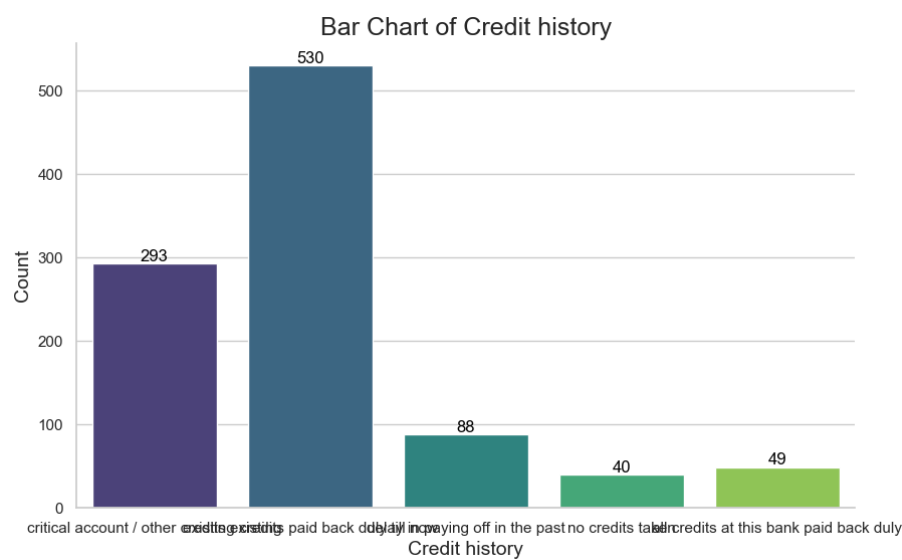
Interpretation: The JSD value of approximately 0.1079 indicates a moderate level of bias. The bar chart visualization corroborates this finding by showing an uneven distribution of credit history categories, potentially reflecting systemic bias in prior credit opportunities.

Conclusion: The findings suggest a moderate distribution bias in the 'Credit history' feature, which may impact assessments of creditworthiness and opportunities. Understanding this bias is crucial for addressing potential inequalities in credit access.

Recommendations: Further analysis of related features and collection of additional data is recommended to deepen understanding of systemic patterns in credit history distribution.