

# Bias Detection Report

## Bias Detection Report: Correlation between Race and Income

This report presents the analysis of correlation bias between the 'race' and 'income' features in the dataset. Two methods, Cramér's V and Elift, were employed to assess the correlation.

### Findings from Cramér's V Analysis:

- Cramér's V Value: 0.101
- Bias Level: Level 2 (Minimal Bias)
- Interpretation: There is a minimal correlation bias between race and income, indicating a slight disproportionate representation of racial groups in different income levels.

### Findings from Elift Analysis:

- Maximum Elift Value: 1.196
- Bias Level: Level 1 (No Bias)
- Interpretation: The Elift analysis suggests no significant correlation bias, meaning racial groups are fairly represented across income levels.

### Conclusion:

- Overall, the dataset exhibits minimal bias between race and income. The findings from both methods indicate a slight correlation but not to a degree that would compromise the dataset's usability.

### Recommendations:

- While the dataset can be used with confidence, it's advisable to keep the minimal bias in mind during analysis or decision-making processes.
- Further analysis or data collection could be undertaken to ensure comprehensive fairness across all attributes.