

# Bias Detection Report

## Bias Detection Report: Correlation between Ethnicity and Decile Scores

- 1. Bias Type: Correlation
- 2. Relevant Features: Ethnic\_Code\_Text, DecileScore
- 3. Bias Level Assessment

- HSIC Analysis:

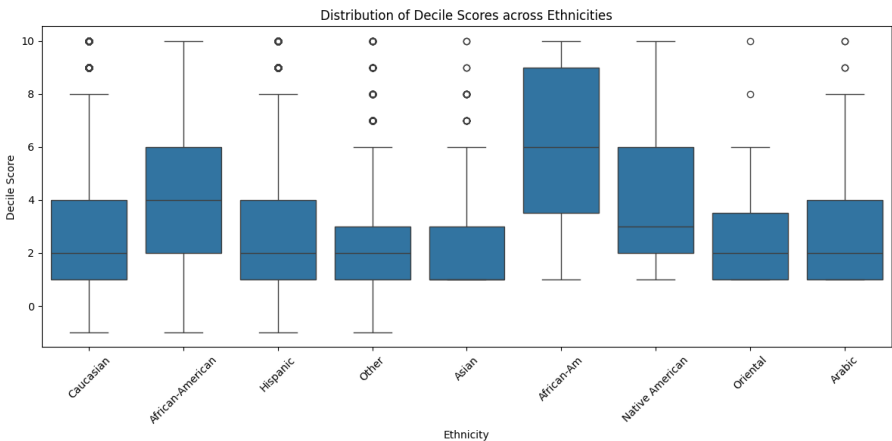
The Hilbert-Schmidt Independence Criterion (HSIC) value indicates the strength of the correlation bias between ethnic groups and decile scores.

- ANOVA Result:

The ANOVA analysis provides statistical evidence of differences in decile scores across different ethnic groups, with the test statistic and p-value highlighting significant disparities.

### 4. Visualization:

The box plot visually demonstrates the distribution of decile scores among ethnic groups, revealing potential bias in score allocation.



## 5. Summary:

The analysis shows a moderate level of correlation bias, suggesting that ethnicity may influence decile scores to some extent. This may impact fairness and suggest the need for careful consideration in applications relying on these scores.