Bias Detection Report

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Dataset Analyzed: Adult Income Dataset

Features Examined: Education and Income

Types of Bias Detected: Correlation Bias

Tools and Methods Used:

- Max Absolute N Value

- Hilbert-Schmidt Independence Criterion (HSIC)

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1. Max Absolute N Value Method:

- **Result:** Max Absolute N Value was approximately 1.17.

- **Bias Level:** Level 5 (Extreme Bias)

- **Interpretation:** This indicates a significant correlation bias between education and income.

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2. Hilbert-Schmidt Independence Criterion (HSIC):

- **Result:** HSIC value was approximately 2.01e-12.

- **Bias Level:** Level 1 (No Bias)

- **Interpretation:** This suggests a negligible correlation bias between education and income using HSIC.

Overall Interpretation and Recommendations:

The findings demonstrate significant variance between different methods. Max Absolute N Value indicates an extreme bias, whereas HSIC suggests no bias. It's crucial to consider multiple methods to understand the bias comprehensively and cautiously interpret the results when applying this dataset.