

Bias Detection Report

Income Distribution Bias Analysis Report

Dataset Analyzed: Adult Dataset

Features Examined: Income

Types of Bias Detected: Distribution Bias

Tools and Methods Used:

- Shannon Entropy and Balance Metric
- Max/Min Ratio Distribution Analysis
- Gini Index
- Relative Risk
- Chi-Square Test (incomplete result)

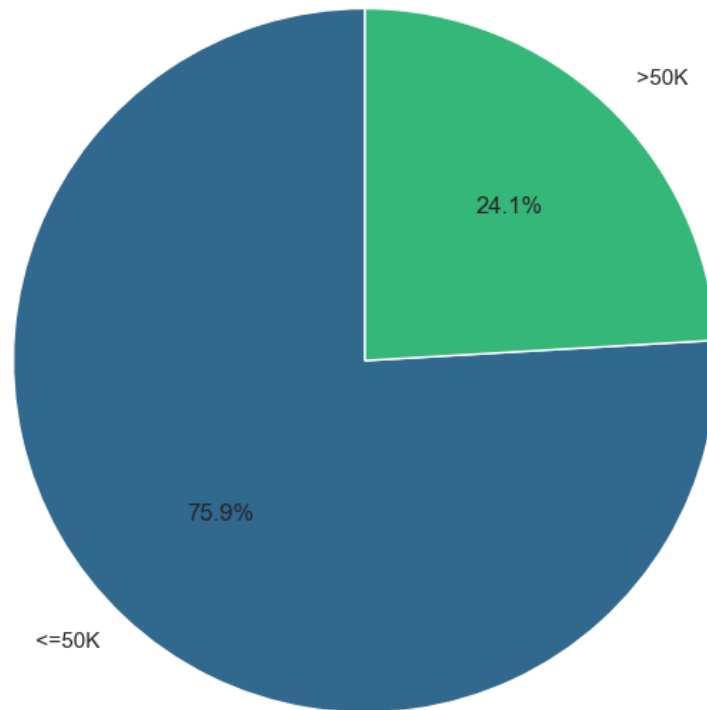
Detailed Results:

- ****Balance****: 0.7964 (Moderate Bias)
- ****Max/Min Ratio****: 3.15 (Moderate Bias)
- ****Adjusted Gini Index****: 0.7313 (Moderate Bias)
- ****Normalized Bias Score****: 3.15 (Moderate Bias)

Visualization:

- A pie chart illustrating the income distribution was successfully created.

Pie Chart of income



Conclusion:

The income distribution in the dataset demonstrates a moderate level of bias across several metrics. This may have implications depending on the context in which the dataset is used. Addressing this bias could be necessary for ensuring fairness or accuracy in subsequent analyses.