Bias Detection Report

Title: Detection Report for Education Dataset

Introduction:

This report presents the results of the bias detection analysis for the education dataset.

Methods:

The analysis used the numerical_distribution_skewness tool to calculate the skewness of 'education-num' and the categorical_numerical_correlation_cohens_d tool to calculate the Cohen's d effect size between 'sex' and 'education-num'.

Results:

The skewness of 'education-num' is 0.067.

The Cohen's d effect size between 'sex' and 'education-num' is 0.224.

Discussion:

The results indicate that the 'education-num' feature shows a moderate level of bias. The skewness of 'education-num' is close to zero, indicating that the distribution is nearly symmetric. The Cohen's d effect size between 'sex' and 'education-num' is small, indicating that there is a small difference in the means of 'education-num' between the two sexes.

Conclusion:

The 'education-num' feature shows a moderate level of bias, with a skewness of 0.067 and a Cohen's d effect size of 0.224. This suggests that the distribution of 'education-num' is nearly symmetric, but there is a small difference in the means of 'education-num' between the two sexes.

Recommendations:

Based on the results, it is recommended to consider the bias in the 'education-num' feature when using the dataset for analysis or modeling.