Bias Detection Report

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Dataset: Adult.csv

Features Analyzed: Race and Occupation

Bias Type: Correlation

Analysis Results:

1. **Cramér's V:** 0.0808

   - Interpretation: Very weak association indicating minimal bias.

2. **Elift:** Max Elift value of 11.63

   - Interpretation: Strong association indicating potential bias.

3. **Statistical Parity:** Max Z-value of 0.343

   - Interpretation: Moderate disparity in proportions, suggesting some bias.

4. **Chi-Square Test:**

   - Chi-square statistic: 850.87

   - p-value: 1.61e-142

   - Interpretation: Statistically significant correlation between race and occupation.

Conclusion:

The analysis indicates a strong presence of bias between "race" and "occupation," driven primarily by the Elift and Chi-Square test results. This suggests systemic biases in occupation distribution among racial groups.

Recommendations:

Careful consideration should be given to these biases when using this dataset for analyses or modeling. Further investigation into the causes and potential mitigation strategies may be needed.

Stacked Bar Chart of race vs occupation