The plot below has been drawn by applying **VADER** for sentiment analysis under each category of gender biases. The plot shows the top 10 categories of gender bias that suffer the most polarization (negative and compound scores **after removing stop words and applying contractions**). As per the bar plot, categories like **gender discrimination against men, housewives, and women’s occupations** have been heavily discriminated.

Chart, bar chart

Description automatically generated

The plot below has been drawn by applying **VADER** for sentiment analysis under each category of **region** biases. The plot shows the top 10 categories of region bias that suffer the most polarization (negative and compound scores **after removing stop words and applying contractions**). As per the bar plot, categories like **Shanighainese, Northeasterners, Zheijang and Henan** communities have been heavily discriminated.

Chart

Description automatically generated with medium confidence

The plot below has been drawn by applying **VADER** for sentiment analysis under **all bias categories**. The plot shows the top 10 categories of biases that suffer the most polarization (negative and compound scores **after removing stop words and applying contractions**). As per the bar plot, in categories like **Negro, Shanghainese, Japanese, gender discrimination against men, and racism** communities have been heavily discriminated against in the entire dataset. Clearly, the plot shows biases across all 4 types: race, region, gender, and occupations have been **victimized in different intensities.**

Graphical user interface

Description automatically generated with medium confidence

Below are the plots showing the frequency of different kinds of biases in **Gender** category.

Chart, histogram

Description automatically generated

Below are the plots showing the frequency of different kinds of biases in **Race** category.

Chart, histogram

Description automatically generated

Below are the plots showing the frequency of different kinds of biases in **Occupation** category.

Chart, histogram

Description automatically generated

Below are the plots showing the frequency of different kinds of biases in **Region** category.

Text

Description automatically generated

Below are the plots showing the frequency of different kinds of biases in the **entire dataframe** with all kinds of bias categories.

Chart, histogram

Description automatically generated

Even though the labels aren’t clear because there are too many categories to show, the biases are really high across race and region.

For convenience to understand, I am uploading the following graphs showing the data distribution across different kinds of specific bias categories.

Chart, histogram

Description automatically generated

The above picture shows the distribution for **first 5000 rows** of the dataframe. From the plot above, categories **Trangenders, Disgust Virtuousness, Discrimination against men and Homosexual** men are the greatest.

Chart, histogram

Description automatically generated

The above plot shows the distribution of biases for the **next 5000 rows** and clearly categories **Nursing careers, arts and sciences, worker, worker’s farmers and occupational discrimination** were most polarized.

A picture containing text, measuring stick, screenshot

Description automatically generated

From the histogram plot above showing **next 5000** rows, we see that categories **Negro, Zhuang people, Asian discrimination, Mongols, Complexion and Japanese** were the most frequent.

Chart, histogram, waterfall chart

Description automatically generated

The graph shows discrimination against **racism, Asian discrimination, Japanese, negro, Indian and Complexion** were most dominant.

Chart

Description automatically generated

The graph clearly shows the **last 5000 rows** of the dataframe depict **Northeasterners, Region discrimination, Zhejiang people, Henan people, Shanghainese categories** faced the most bias.

Using **VADER** to detect the intensity of polarization of texts, these are the top 10 bias categories across 4 kinds of biases that suffer the most.

From the picture, clearly, **Ethnic culture-Negro** bias category faces the biggest discrimination.