Brexit Election Survey Report

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Introduction

This report summarizes findings from the Brexit Election Survey dataset, with visualizations generated using Plotly Express and Python.

Python Code

Below is the Python script used to preprocess the data and generate visualizations:

```python
# Visualization with Plotly Express
import pandas as pd
import plotly.express as px

# Load the dataset
df = pd.read_csv('BES2.csv')

# Add "leave_column" column
df['leave_column'] = df['vote'].apply(lambda x: True if x == 'leave' else (False
    if x == 'stay' else None))

# Add "age_group" column
bins = [0, 29, 60, float('inf')]
labels = ['young', 'mid-life', 'old']
df['age_group'] = pd.cut(df['age'], bins=bins, labels=labels, right=True)

# Visualization: Distribution of Age Groups
fig1 = px.histogram(df, x='age_group', title='Distribution of Age Groups',
    color_discrete_sequence=['#636EFA'])
fig1.write_image('age_group_distribution.png')
fig1.show()

# Visualization: Leave Votes by Age Group
fig2 = px.histogram(df, x='age_group', color='leave_column', barmode='group',
                    title='Leave Votes by Age Group', color_discrete_sequence=['#
                        EF553B', '#00CC96'])
fig2.write_image('leave_votes_by_age_group.png')
fig2.show()

# Visualization: Leave Votes by Education Level
fig3 = px.histogram(df, x='education', color='leave_column', barmode='group',
                    title='Leave Votes by Education Level',
                        color_discrete_sequence=['#EF553B', '#00CC96'])
fig3.write_image('leave_votes_by_education.png')
fig3.show()

print("Visualizations have been generated and saved as images.")
```

Visualizations
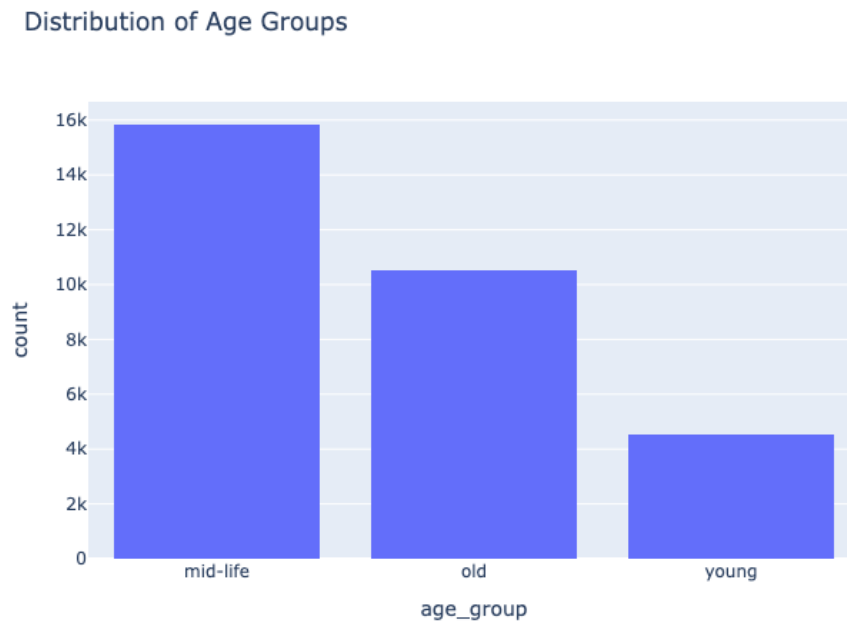
Distribution of Age Groups

Figure 1: Distribution of Age Groups
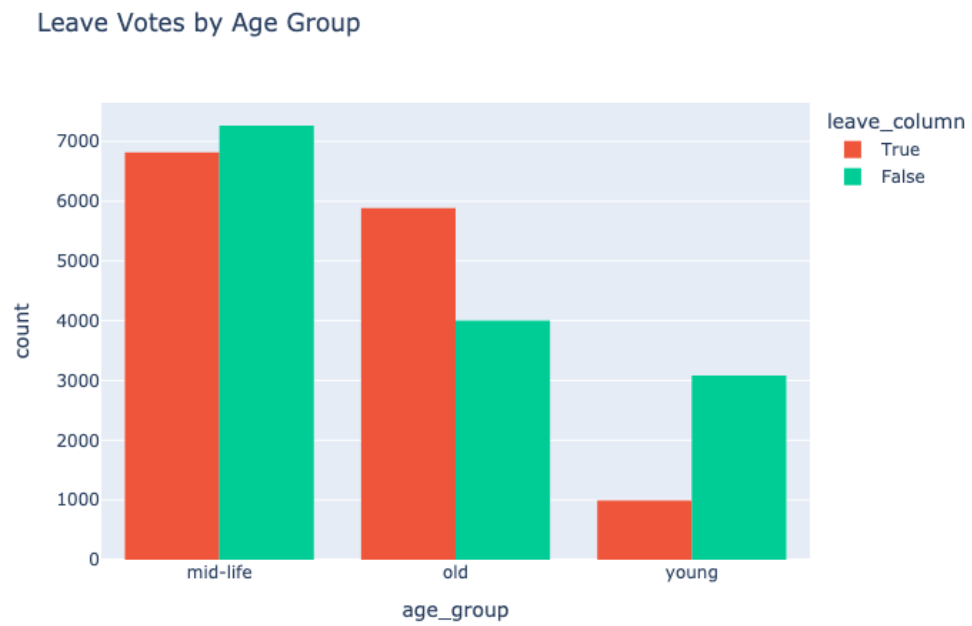
Leave Votes by Age Group
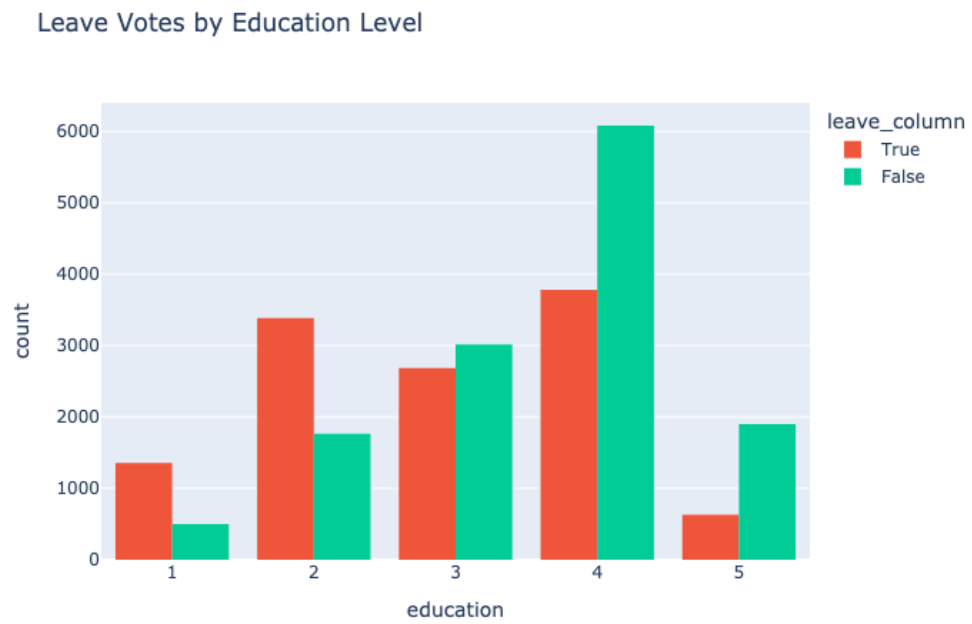

Figure 2: Leave Votes by Age Group

Leave Votes by Education Level

Figure 3: Leave Votes by Education Level