

Understanding Trump Voters

Americans voted in record numbers in the 2020 United States presidential election. The highest voter turnout since 1980 was fueled by broad ideological differences, partisan preferences, and anger towards the incumbent. Political groups are individuals who are actively involved in politics, and often form committees to privately raise money to fund political campaigns. It is imperative that these groups understand where to focus their efforts to increase participation among supporters. To accurately determine what kind of people voted for Trump in 2020, we turn to the American National Election Studies (ANES). The academically-run ANES designs nationally representative cross-sectional surveys of voters in the United States. If a political group approached us to inform them about Trump voters, we would use available data to operationalize metrics and identify frequency, distributions and correlations of variables to provide evidence for our conclusions.

Data and Methods

Initially, we were presented with a file that contains more than 8000 voter records across more than 50 columns

We inspected the file for missing values and observed that out of the more than 8000 records, there were 1550 records that had fully populated values

Because the focus of our analysis is on Trump voters, we conditionally formatted 'whovoted' column for 2 (Trump voters)

With this approach, we are left with 642 voter records specific to Trump

After finally cleaning up our data, we performed exploratory data analysis. Our results are represented in the Descriptive Statistics section

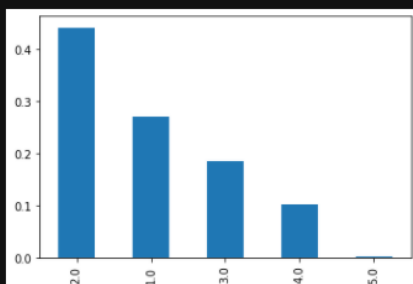
Descriptive Statistics

```
[17]: trump.interest_politics.value_counts(normalize=True)

[17]: 2.0    0.440810
      1.0    0.269470
      3.0    0.185358
      4.0    0.102804
      5.0    0.001558
      Name: interest_politics, dtype: float64

[18]: trump.interest_politics.value_counts(normalize=True).plot(kind='bar')

[18]: <AxesSubplot:>
```



About 70% of Trump voters pay attention to politics and elections Most of the Time and All of the time

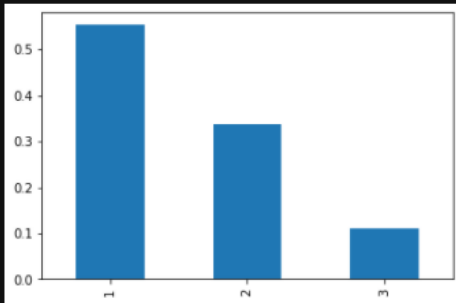
About 70% of Trump voters pay attention to politics and elections Most of the Time and All of the time

```
[19]: trump.interest_campaign.value_counts(normalize=True)
```

```
[19]: 1    0.552960  
      2    0.336449  
      3    0.110592  
      Name: interest_campaign, dtype: float64
```

```
[20]: trump.interest_campaign.value_counts(normalize=True).plot(kind='bar')
```

```
[20]: <AxesSubplot:>
```



More than 88% of Trump voters are somewhat or very much interested in following campaigns

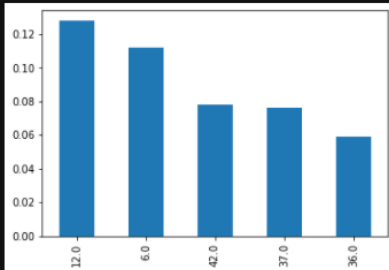
More than 88% of Trump voters are somewhat or very much interested in following campaigns

```
[21]: trump.state_reg.value_counts(normalize=True).sort_values(ascending=False).head(5)
```

```
[21]: 12.0    0.127726  
      6.0    0.112150  
      42.0   0.077882  
      37.0   0.076324  
      36.0   0.059190  
      Name: state_reg, dtype: float64
```

```
[22]: trump.state_reg.value_counts(normalize=True).sort_values(ascending=False).head(5).plot(kind='bar')
```

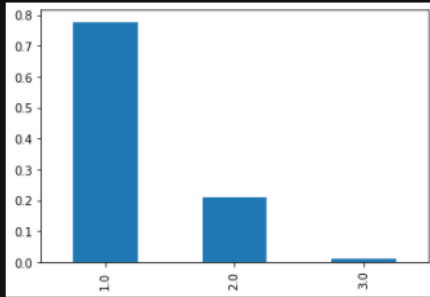
```
[22]: <AxesSubplot:>
```



This graph shows the top five states with Trump voters (not as percentage of population). Florida = 12.8%, California = 11.2%, Pennsylvania = 7.8%, N. Carolina = 7.6% and New York = 5.9%

```
[24]: trump.gov_waste.value_counts(normalize=True).sort_values(ascending=False).plot(kind='bar')
```

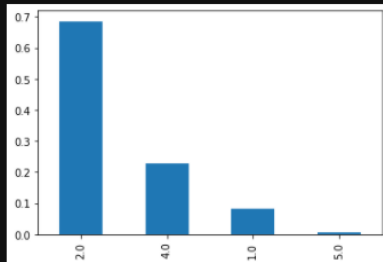
```
[24]: <AxesSubplot:>
```



Almost all of Republican voters (~99%) of Republican voters believe that the government wastes tax dollars

```
[26]: trump.party_reg.value_counts(normalize=True).sort_values(ascending=False).plot(kind='bar')
```

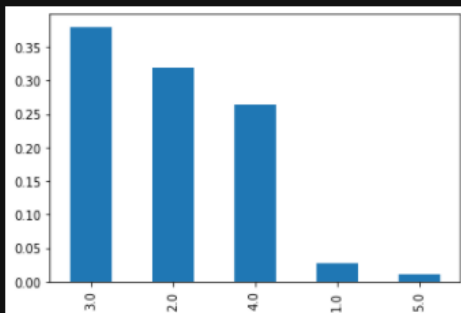
```
[26]: <AxesSubplot:>
```



While about 68% of registered Republicans voted for Trump, interestingly, 32% of Trump voters were either Democrats, Independents or from another party or write-in candidate

```
[28]: trump.gov_corrup.value_counts(normalize=True).sort_values(ascending=False).plot(kind='bar')
```

```
[28]: <AxesSubplot:>
```



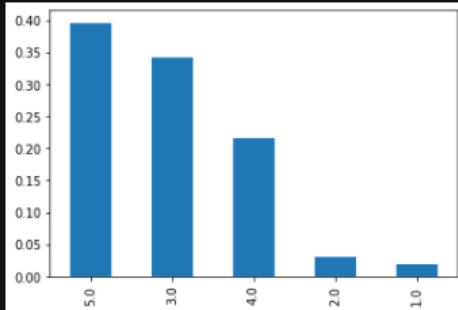
About 70% of Trump voters believe that the government is corrupt

```
[31]: trump.better_covid.value_counts(normalize=True).sort_values(ascending=False)
```

```
[31]: 5.0    0.395639  
      3.0    0.341121  
      4.0    0.214953  
      2.0    0.029595  
      1.0    0.018692  
      Name: better_covid, dtype: float64
```

```
[32]: trump.better_covid.value_counts(normalize=True).sort_values(ascending=False).plot(kind='bar')
```

```
[32]: <AxesSubplot:>
```



Only 40% of Trump voters believe that the Republican party will do a better job at tackling Covid

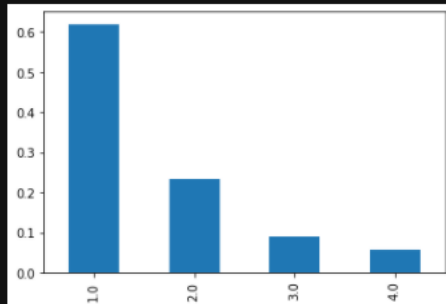
```
[33]: trump.fav_deathpen.value_counts(normalize=True).sort_values(ascending=False)
```

```
[33]: trump.fav_deathpen.value_counts(normalize=True).sort_values(ascending=False)
```

```
[33]: 1.0    0.619938  
      2.0    0.233645  
      3.0    0.090343  
      4.0    0.056075  
      Name: fav_deathpen, dtype: float64
```

```
[34]: trump.fav_deathpen.value_counts(normalize=True).sort_values(ascending=False).plot(kind='bar')
```

```
[34]: <AxesSubplot:>
```



62% of Trump voters strongly favor the death penalty

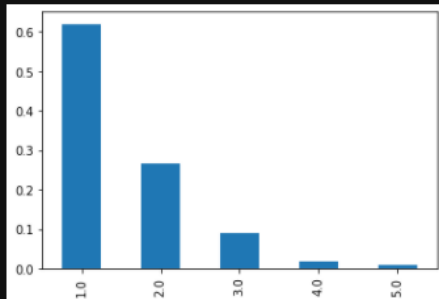
```
[35]: trump.trust_media.value_counts(normalize=True).sort_values(ascending=False)
```

```
[35]: trump.trust_media.value_counts(normalize=True).sort_values(ascending=False)
```

```
[35]: 1.0    0.619938
      2.0    0.264798
      3.0    0.088785
      4.0    0.018692
      5.0    0.007788
      Name: trust_media, dtype: float64
```

```
[36]: trump.trust_media.value_counts(normalize=True).sort_values(ascending=False).plot(kind='bar')
```

```
[36]: <AxesSubplot:>
```

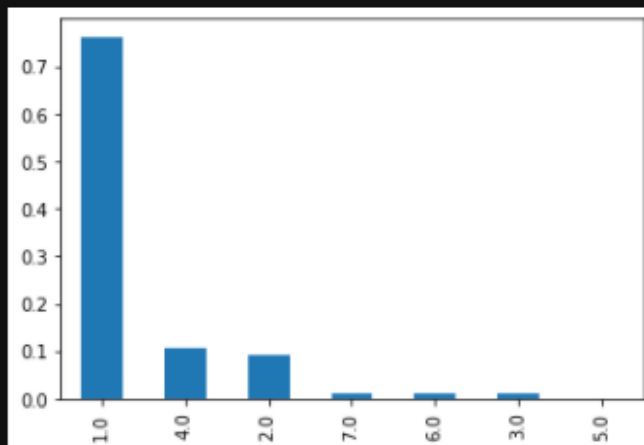


About 88% of Trump voters have little or no trust in the media

```
[37]: 1.0    0.761682
      4.0    0.107477
      2.0    0.093458
      7.0    0.012461
      6.0    0.012461
      3.0    0.010903
      5.0    0.001558
      Name: fav_senacquittal, dtype: float64
```

```
[38]: trump.fav_senacquittal.value_counts(normalize=True).sort_values(ascending=False).plot(kind='bar')
```

```
[38]: <AxesSubplot:>
```



76% of Trump voters strongly favored his acquittal by the senate

Regression Analysis

```
[54]: # Fit data into the model
      model.fit(x, y)

[54]: LinearRegression(copy_X=True, fit_intercept=True, n_jobs=None, normalize=False)

[55]: # with statsmodels
      constant = sm.add_constant(x) # adding a constant

      model = sm.OLS(y, x).fit()
      predictions = model.predict(x)

[57]: model.summary()
```

```
[57]:
```

OLS Regression Results			
Dep. Variable:	whovoted	R-squared (uncentered):	0.999
Model:	OLS	Adj. R-squared (uncentered):	0.999
Method:	Least Squares	F-statistic:	8789.
Date:	Wed, 22 Sep 2021	Prob (F-statistic):	0.00
Time:	21:26:44	Log-Likelihood:	779.88
No. Observations:	642	AIC:	-1456.
Df Residuals:	590	BIC:	-1224.
Df Model:	52		
Covariance Type:	nonrobust		

Interpretation and Discussion

The most important result of our analysis is that our stereotypes about Trump voters are not accurate. We have a lot in common than we know.

Our analysis showed that of all of the issues presented, COVID-related belief tended to be a very important issue of Trump voters. Of all of the respondents, households impacted (not impacted) by COVID is explained by 13% of the y variable.