



CALIFORNIA SCIENCE & ENGINEERING FAIR 2019 PROJECT SUMMARY

Name(s) Aviya Afra	Project Number J0401
Project Title Investigating the Correlation between Demographics and Attitudes towards Contemporary Social Movements	
<p style="text-align: center;">Abstract</p> <p>Objectives Opinions about social movements may stem from demographic factors such as race, gender, etc. My hypothesis is that demographic factors will correlate with opinions on social movements such as Black Lives Matter and #MeToo.</p> <p>Methods Survey Monkey was used to implement a survey composed of questions that assessed the responder s demographics and opinions about the #MeToo and Black Lives Matter movements. Demographic factors such as race, gender, socioeconomic background, age, religion, etc were measured. The degree of support for contemporary American social movements was measured. Statistical measures to test for correlation (Chi squared) and to develop a predictive model (Classification and regression tree analysis [CART]) were utilized.</p> <p>Results 223 respondents completed the survey. Using chi squared, no correlation was found between the demographic factors assessed and opinions on the social movements. The following statistically significant correlations were identified: 1. If a respondent believes race discrimination is not occurring in the US, the respondent is more apt to be white than nonwhite (Chi squared $p=0.03$). 2. If a respondent believes race discrimination is not occurring in the US, the respondent is more apt to have not experienced discrimination because of their race (Chi squared $p=0.01$). 3. If a respondent believes race discrimination is not occurring in the US, then the respondent is more apt to believe gender discrimination is not occurring in the US (Chi squared $p=0.0005$). 4. If a respondent believes race discrimination is not occurring in the US, then the respondent is more apt to disapproves of the #MeToo Movement (Chi squared $p=0.0001$). 5. If a respondent believes gender discrimination is not occurring in the US, then the respondent is more apt to have not completed college (Chi squared $p=0.03$). A predictive model was created using CART, in which 90% of the respondents fit into this model [area under the receiver operator curve (AUROC)=0.9016]. The responses to three survey questions predicted the response to Do you feel racial injustice is currently occurring in the United States? This means the model is very predictive.</p> <p>Conclusions No correlation between demographic factors and opinions about social movements were found. A Classification and Regression Tree Analysis was created. Many statistically significant correlations were identified.</p>	
Summary Statement My project investigates the correlation between demographic factors and opinions on social movements such as Black Lives Matter and #MeToo.	
Help Received I would like to thank the people who took the time and effort to complete my survey.	