

1145-VT-2070      **Benjamin S Lieberman\*** ([benjamin.lieberman2015@gmail.com](mailto:benjamin.lieberman2015@gmail.com)), 7711 Mary Cassatt Drive, Potomac, MD 20854. *Analyzing Voter Behavior in the Lehigh Valley Through Semi-Parametric Regression and Geostatistical Techniques.*

Predicting voter behavior, and voter trends has been a missing piece that has flummoxed mathematicians, and politicians alike. In order to predict voter tendencies, semi-parametric basis splines and logistic regression with spatial information was used. A variogram modeling technique was considered for modeling spatial dependence of voters within the Lehigh Valley, however no significant spatial dependence was apparent. This method relied on spatial data to analyze voter behavior, and explain voter tendencies and trends. Some significant predictors for voting turnout were: Political party, age, gender and location. (Received September 24, 2018)