Andrew B Perry* (aperry@springfieldcollege.edu). Potential Referee Bias Inferred from Statistical Anomalies in Sports Play By Play Data.

Substantial information about the results of individual plays is now available from professional baseball, basketball, and football leagues. By publishing the data, the leagues benefit from increased interest in their respective sports. However, uncomfortable truths can be uncovered in the data. For example, basketball referees call fewer violations on the home team during clutch situations. These abnormalities are statistically significant and it’s hard to explain them except as unconscious (or conscious) referee bias. Another oddity is football penalties. They are not called with uniform frequency throughout the games as one might expect. This presentation will consider the above discoveries as well as other statistical curiosities related to officiating in baseball, basketball, and football. (Received September 18, 2018)