



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Emil J. Barkovich	Project Number S1302
Project Title What Really Makes a Hitter's Ballpark? An Analysis of the Effect of Field Area on Baseball Offensive Statistics	
Abstract Objectives/Goals This project was designed to look for a correlation between the area of the fair and foul territory and individual offensive statistics (specifically hits, batting average, singles, doubles, triples, home runs, and slugging percentage) produced in major league ballparks. Methods/Materials Because square footage values are not readily available, satellite photos were used and the areas were determined using Adobe Photoshop. However, due to difficulties in finding accurate satellite photos, (fields obscured by shadows and domes, out-of-date photos, and out-of-proportion photos) only 22 out of the 30 major league ballparks could be measured. Results Singles and triples had a strong positive correlation with fair territory; small negative correlations were found with doubles and home runs. Foul territory had significant negative correlations with batting average, hits, and doubles and a significant positive correlation with triples. Conclusions/Discussion Overall, the study found offensive statistics are affected by field area, but not as strongly as suspected.	
Summary Statement How differing field areas affect baseball offensive statistics	
Help Received I received computer help from my brothers and help from my father concerning methods of statistical analysis.	