

# Undergraduate Research Symposium May 19, 2017 Mary Gates Hall

## Online Proceedings

---

### POSTER SESSION 2

Commons West, Easel 42

1:00 PM to 2:30 PM

#### **Evaluating Risks and Rewards of Prospects in Major League Baseball**

*Johnathan Hsu, Senior, Sociology*

*Mentor: Emilio Zagheni, Sociology*

Universal sport analytics was made possible with the emergence of different technology in the past two decades. With existing statistical software and data recording, the performance of players can be quantified by organizations that are seeking to obtain a more scientific analysis of player performance. Specifically, more statistics are made to eliminate biases and better summarize a player's contribution to their team. Major League Baseball and its drafting rules place themselves above other professional sports for analytics because players do not have to sign up for the draft, draft picks and players cannot be traded during the draft, and the lengthiness of its draft. Although individual organizations make efforts to pick suitable selections in the draft, the performance of baseball players is more difficult to predict at the professional level when compared to other sports. Despite the publication of *MoneyBall*, a book by Michael Lewis about methods to make quantifiable player signings, other research on player selection is often sensitive and discoveries are rarely published due to organizations fearing they will give away their competitive edge in the process. For this specific research project, data was gathered through web-scraping Baseball-Reference, a widely used online database for baseball analytics. By using analytical statistics and accounting for other factors, statistical analysis was done on different categories of players. This research identified differences between the predictability of success for pitchers and position players, and observed the impact of age or level of education of the player that is drafted. This study demonstrates how the different characteristics of these players reflect on the predictability of their accumulated value throughout their career. Preliminary results show pitchers' performance as more predictable, perhaps due to the physicality prowess of pitching. This research suggests further work to produce better indicators for prospective players at the Major League level.