



# THE UNIVERSITY OF CHICAGO

Department of Statistics

## MASTER'S THESIS PRESENTATION

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Is the Baseball Responsible For the Increased Number of Home  
Runs in Triple-A Leagues?

TUESDAY, May 12, 2020, at 2:00 PM  
ZOOM Meeting

### ABSTRACT

Recently, Major League Baseball (MLB for brevity) is experiencing an increased number of home runs compared to previous years; this is a league-wide change that has increased home run totals for most teams in the MLB, with several team home run records being broken in 2019.

One prominent argument regarding the increase of home runs is that the baseball has been changed to be more aerodynamic compared to previous years and is the reason behind said increase. While there have been other arguments discussing potential reasons, these reasons are generally not as encompassing as the change in baseballs used.

In this thesis, I compare the home runs per plate appearance for Triple-A (AAA) teams primarily on the variable of whether they have been using the same baseballs as the MLB has; this change happened starting from the 2019 season.

When comparing the data of teams in the 2019 season with that of teams in years prior, the result of the analysis for all the teams at once support the argument that the change in baseballs used is indeed responsible for the increase in the number of home runs. However, when comparing the data of each affiliate of the different major league teams individually, not all the affiliates' results support this argument.