Lab 2.1

A graph of a number of years

Description automatically generated with medium confidence

A graph of a graph showing the difference between a slugging and a slugging

Description automatically generated

The first graph shows how the Earned Run Average (ERA) has changed over time in two baseball leagues: the American League (AL) and the National League (NL). ERA measures how many runs a pitcher allows, so a lower number is better for the pitchers. The graph shows that before 1973, both leagues had similar ERA trends. However, after 1973, when the AL introduced the Designated Hitter (DH) rule, the AL’s ERA became consistently higher than the NL's. This means pitchers in the AL allowed more runs on average. The red line shows the difference between the leagues' ERAs, and you can see it stays above zero after 1973, meaning AL pitchers have generally had a tougher time since the DH rule was introduced.

The second graph focuses on slugging percentage, which measures how powerful a team's hitters are. Both the AL and NL show similar trends in slugging percentages from the 1950s onward, usually between 0.35 and 0.45, meaning hitters from both leagues had a relatively consistent amount of power over time. After 1973, when the DH rule came into effect in the AL, there wasn't a huge increase in slugging percentage in the AL compared to the NL. The AL does have slightly higher slugging numbers after this point, but the difference is not very large. So, while the DH rule made a noticeable difference in ERA for the AL, it didn’t drastically change how powerful their hitters were compared to the NL.