**Baseball: Team Wins versus Payroll Spending**

The article at the following url ( <https://www.fangraphs.com/blogs/the-battle-between-payroll-and-parity/> ) is about the correlation between payroll spending and wins in Major League Baseball. The author begins by noting that the correlation between payroll spending and wins between 1990 and 2017 was extremely variable from year to year, with a correlation coefficient (not specified, but I assume Pearson’s r) that varies from 0.2 to 0.6 for each year. The article was written to address a comment by Major League Baseball Commissioner Rob Manfred that there is little correlation between spending and wins. The first graph was of the correlation on a yearly basis between wins and payroll. The next chart was a scatterplot of team wins versus payroll in the complete 2017 season. Again, little correlation was seen.

The author then sums wins over 4 seasons and compares to payroll. The r coefficient is 0.56 – a slightly higher value than one might expect from the r-versus-year first chart. Then in the last graph the author plots franchise value versus wins and tries to draw some conclusions that higher value leads to more wins.

Criticisms: The initial charts are informative, but the author wants to make the point that payroll is more important than the r value trend chart shows, so he chooses a 4 season aggregation of wins versus payroll that shows a modest r value of 0.56. Variable data can be cherry picked (or just be the result of bad luck when analyzing without a bias) when a range of data is chosen. A better chart to test his hypothesis might be a rolling 4 year average of correlation between payroll and wins.

The last two charts compare franchise value to wins. This can be a misleading chart – teams that win more can be more valuable because they win. More fans come out to see winning teams, more merchandise gets sold, broadcast rights can bring higher prices. Additionally, the value of teams can be related to the size of their local markets – the NY Yankees have a tremendous advantage of the Kansas City Royals, for example. So, the charts of franchise value versus wins take the analysis out of the specified goal of examining the correlation between wins and payroll size.

Some other metrics to consider might be – payroll of players on the field versus wins. Baseball has been analyzed in great detail, another chart to consider might be pay versus the wins-above-replacement statistic. This compares a player to all other players at his position and rates how much above (or below) the player is compared to an average MLB player. This could indicate broadly how wise MLB team executives are at paying for players that help them win more than “average.”

The article begins well, demonstrating that a cursory look shows little correlation between wins and payroll – but the more detailed analyses do not do a good job of demonstrating that there is (or isn’t) a correlation.