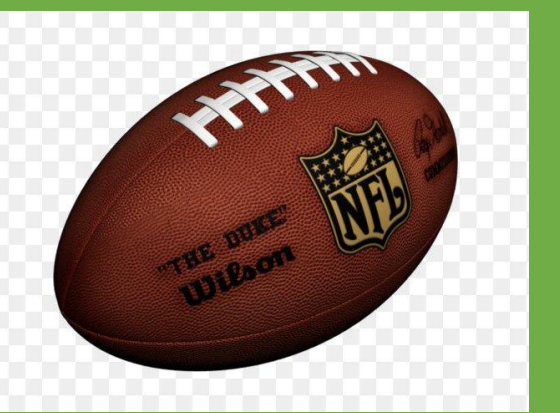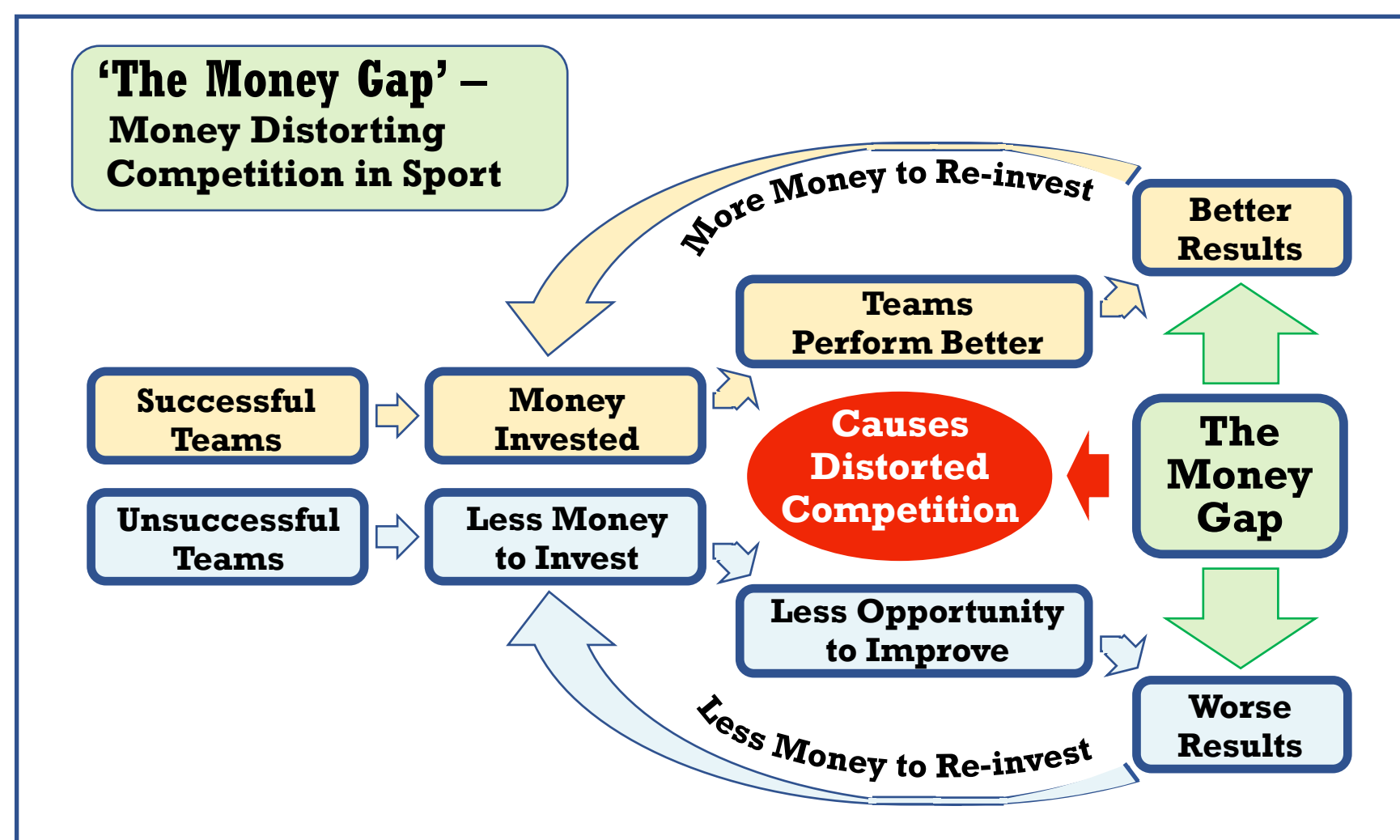# STOPPING MONEY FROM DISTORTING COMPETITION IN PROFESSIONAL SPORTS
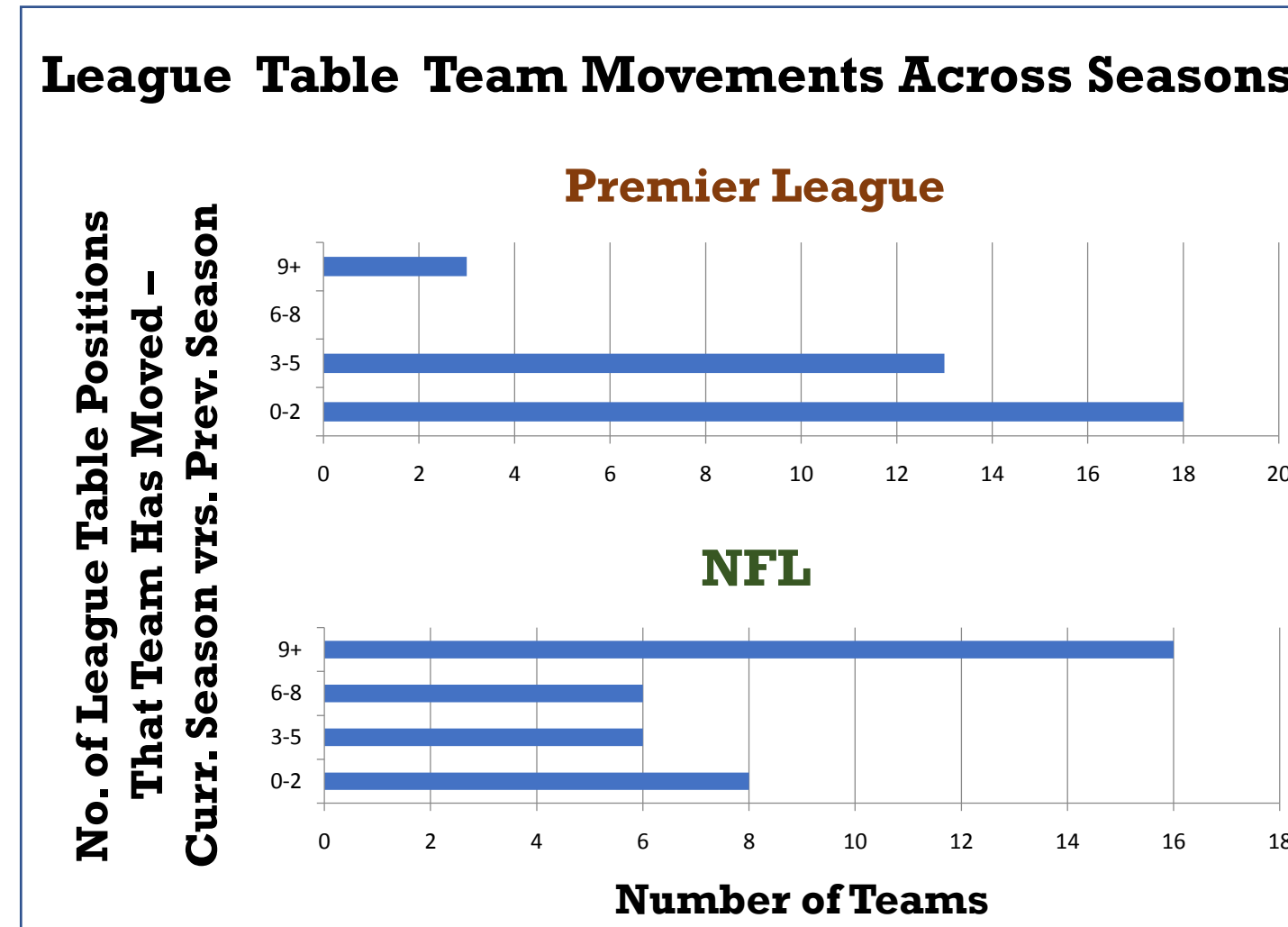
A STATISTICAL ANALYSIS OF THE NFL DRAFT SYSTEM AS AN ALTERNATIVE PARADIGM FOR PROFESSIONAL SPORTS

DEFINING THE PROBLEM

If competition is fair in sport, all teams should have a reasonable chance of success. Money can distort competition in professional sport by giving teams an unfair advantage. This anchors 'rich'/'successful' teams at the top of the league. When competition is distorted, teams don't change their position notably.

'The Money Gap' –
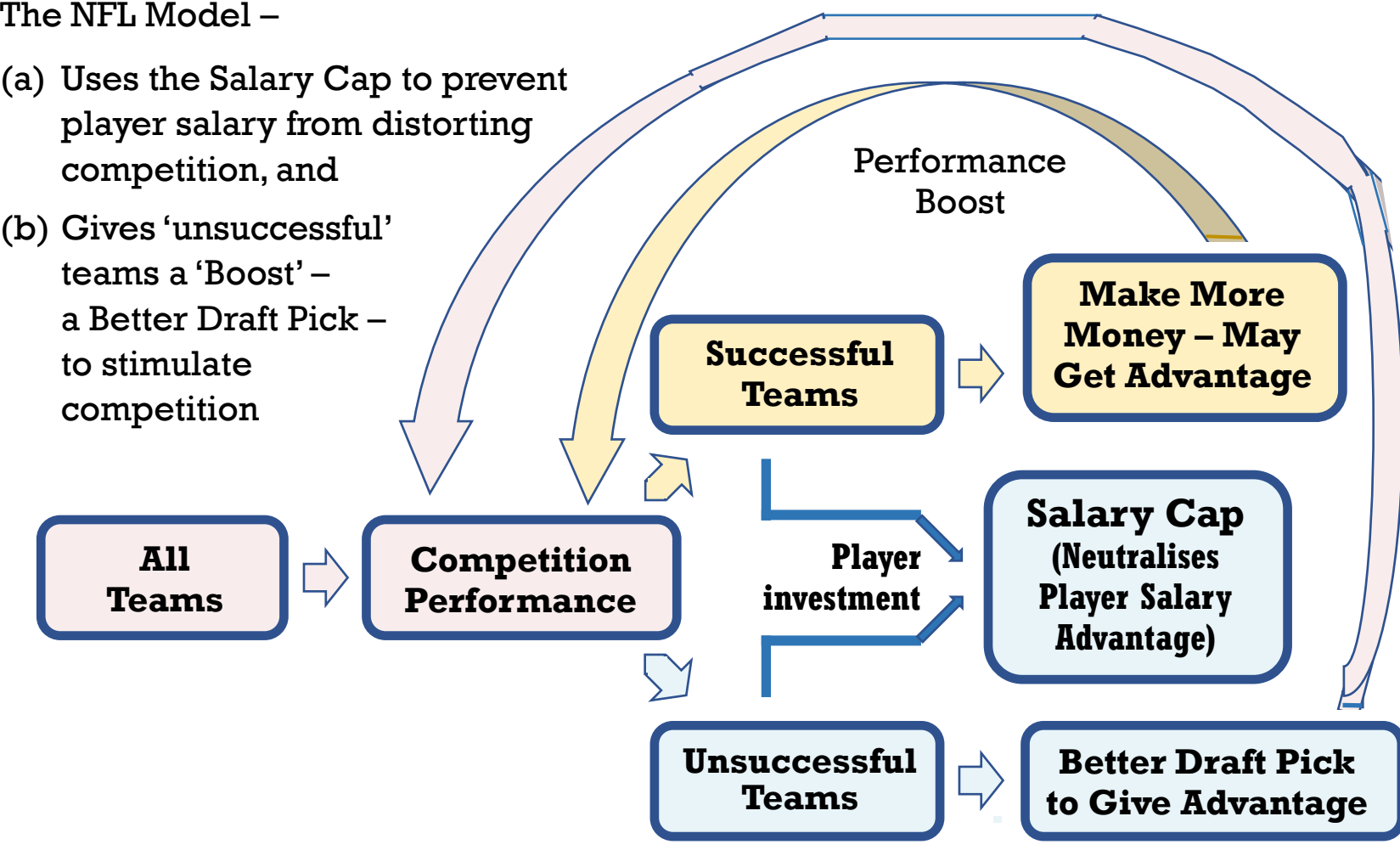**Money Distorting Competition in Sport**

These bar charts use the top 12 teams from the '18/'19 season of the Premier League and NFL as samples. They compare the movement of these teams across four seasons ('15/'16 to '18/'19). We see that there is considerably less movement of team position in the Premier League as compared to the NFL, suggesting something is 'anchoring' teams in the Premier League.

League Table Team Movements Across Seasons

'The Draft Pick' Model –
Draft Pick Neutralising Money Distorting Competition

The NFL Model –

(a) Uses the Salary Cap to prevent player salary from distorting competition, and

(b) Gives 'unsuccessful' teams a 'Boost' – a Better Draft Pick – to stimulate competition

The NFL Model seeks to prevent money from distorting healthy competition in the American Football League. The NFL Salary Cap means that all teams spend an equal amount on player salaries so that this does not distort competition. However, successful teams could use money generated from their success to invest in other things to achieve a performance boost (better coaches, training facilities etc.).

Therefore, the NFL also gives poorer performing teams a boost. They get a better 'Draft Pick' – an earlier choice of college players in recruitment season.

For this model to stimulate healthy competition, getting a good Draft Pick needs to give unsuccessful teams the opportunity to improve their performance in the next season.

This project seeks to validate the NFL System as a model to stimulate healthy competition by assessing whether getting a good Draft Pick gives teams assistance in improving their performance.

RESEARCH DESIGN

This project investigates the relationship between the Draft Pick that an NFL team gets in a season (independent variable) and the improvement in performance that that team achieves in that season (dependent variable). The project seeks to validate the NFL Draft System model as a paradigm to achieve healthy competition in professional sport.

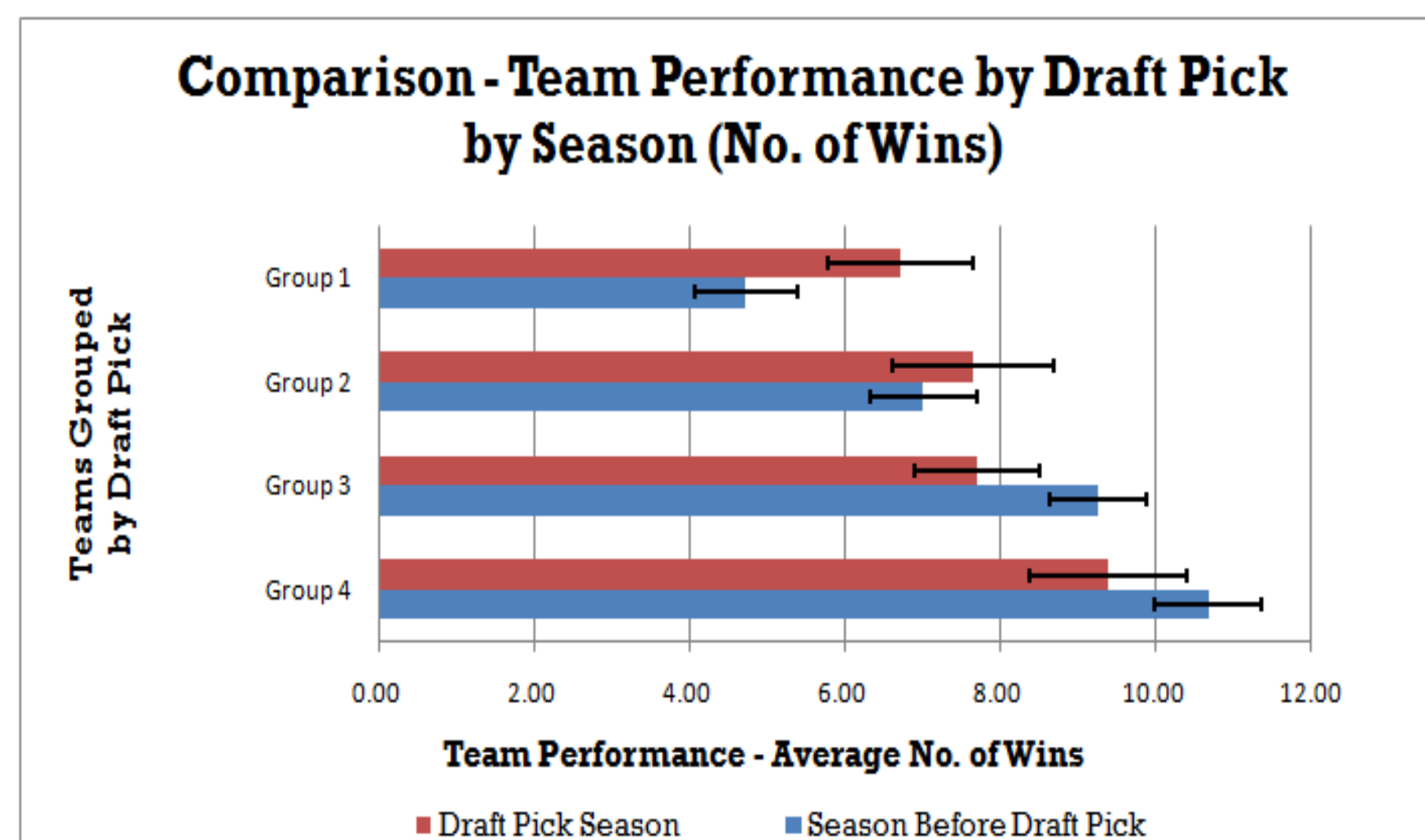*Sample* – NFL Teams for the seasons 2013/2014 to 2017/2018.

Independent Variable – NFL Teams are grouped according to the draft pick they get in a season. Group 1 – Draft Pick 1 to 8; Group 2 – Draft Pick 9 to 16; Group 3 – Draft Pick 17 to 24; Group 4 – Draft Pick 25 to 32.

Dependent Variable – Draft Pick impact on a team's performance and improvement in performance – measured as number of wins achieved – was assessed.
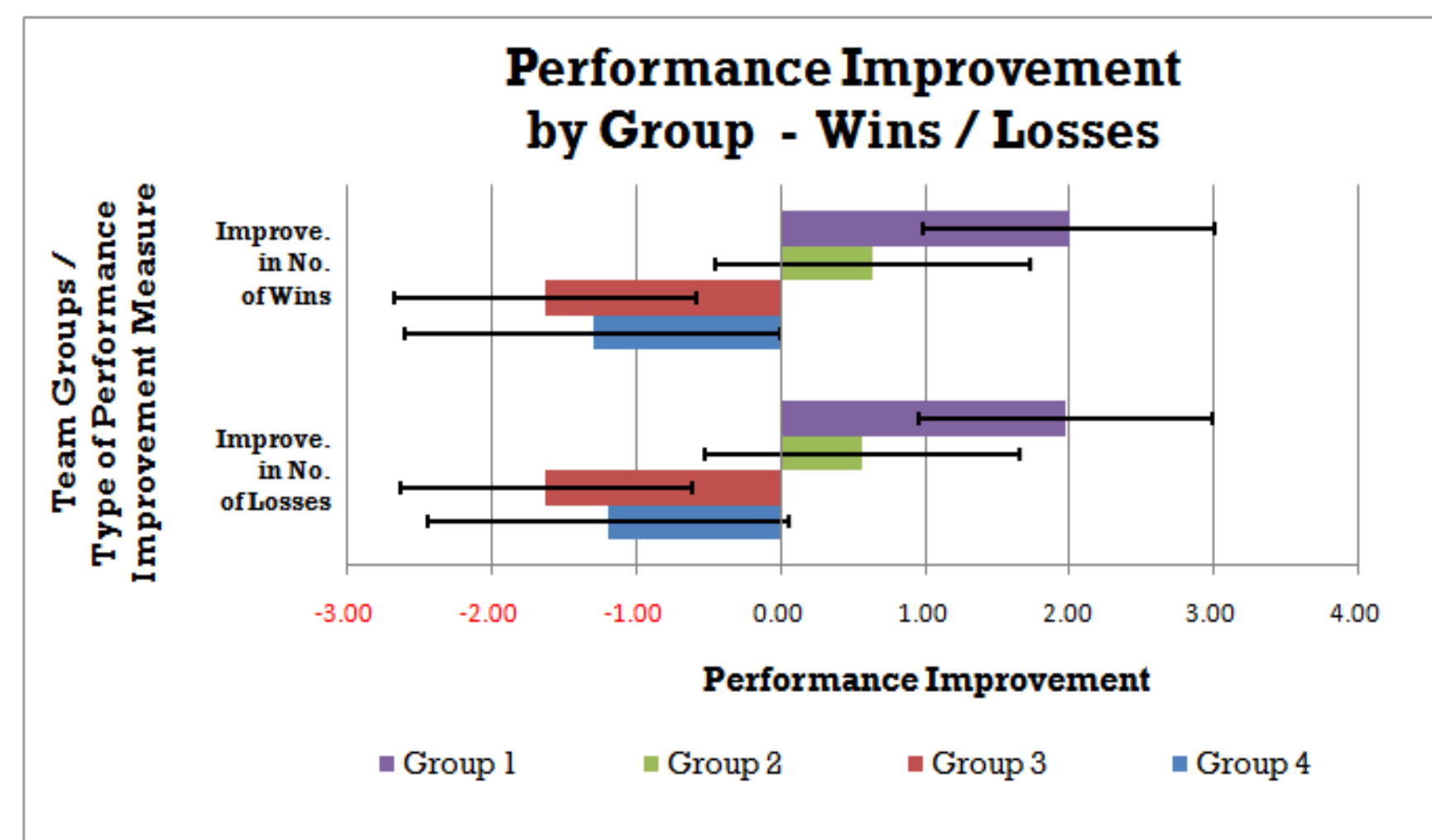
Data Analysis – Differences were assessed by calculating means and 95% confidence intervals. Significant differences were assessed at 95% confidence using t-tests.

RESEARCH FINDINGS

Team performance (no. of wins) was compared for the Draft Pick Season versus the season before. Teams that received a Good Draft Pick (Groups 1 & 2) showed an improvement in performance. Teams with a Bad Draft Pick (Groups 3 & 4) worsened performance. Differences were significant at 95% for Group 1 and Group 3.

Comparison - Team Performance by Draft Pick by Season (No. of Wins)

	Group 1	Group 2	Group 3	Group 4
P-Val.	0.000429	0.258791	0.004235	0.060159

Performance Improvement by Group - Wins / Losses

P-Values – Intergroup T-tests (No. of Wins) –

	Group 2	Group 3	Group 4
Group 1	0.077447	0.000007	0.000237
Group 2		0.005266	0.029064
Group 3			0.756398

Improvement in performance (no. of wins/losses) was measured (means/confidence intervals) and compared (t-test) for groups. Improvements for Groups 1 and 2 (Good Draft Pick) were significantly better at 95% confidence than Groups 3 and 4 (Bad Draft Pick).

CONCLUSIONS

This project compares the Premier League with the NFL. The former has limited controls on how teams can use money to give themselves an advantage. The latter uses a Salary Cap and a Draft Pick Model to stimulate healthy competition. While the project does not definitively prove that money is distorting competition in the Premier League, it shows that teams in the Premier League don't move as much in their league tables. The project surmises that money could be causing this.

The project has validated the NFL Draft Pick Model by showing that getting a Good Draft Pick gives teams a better chance to improve performance – when compared against the previous season and against other teams.

The project reinforces the idea that the NFL Salary Cap and Draft Pick Model could be used by other professional sports to stimulate healthy competition and to prevent money from distorting competition in professional sport.