
Chapter 1: Introduction to Sports Economics

Jugal Marfatia

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What is Sports Economics?

Economics is the study of allocating scarce resources among competing human wants.

It focuses on the behaviour and interactions of economic agents and how economies work. It is also a study of decision making.

Sports economics then is the study of allocating scarce resources among competing wants in the context of sports.

Competitive Balance

What do we mean by competitive balance in sports?

Competitive balance can be referred as how evenly are the teams in the league matched in terms of their skill level. Competitive balance can be measured in many ways.

- how many different teams won a title
- how many different teams reached a certain advanced stage of the playoffs/postseason
- how many teams have been bad/not made the playoffs for a long period of time
- how much correlation there is between a team's record one year and the next

- how often teams finish with winning (or .500+) records
- how closely grouped teams are around the .500 mark in a season

Why is competitive balance a concern for the sports industry?

Can economics be used to explain competitive balance

Why do top NFL teams have a higher winning % than top teams in other sports.

- NFL Ranking: <http://www.espn.com/nfl/standings>
- NBA Ranking: <http://www.espn.com/nba/standings>
- MLB Ranking: <http://www.espn.com/mlb/standings>
- English Premier League: <https://www.premierleague.com/tables>

Possible reasons for difference in competitive balance

Some reasons that can explain the difference in competitive balance. However, there can be other reasons too.

1. NFL has a hard salary cap. MLB has no salary cap and NBA has a soft salary cap.
2. Less uncertainty in NFL drafts as most players are drafted after college.
3. Number of games in a season exposes team weakness including top teams.

What qualifies as a Sport?

The natural question for this course is: what types of sports can economic techniques be applied to?

- Professional vs amateur sport? Professional leagues vs College/ Olympics.
- Team vs individual sport?
- Recreational sports?
- American vs European sports?

For this course we will focus on the most popular sports in America, name Football, Basketball, Baseball, Hockey, Golf and Tennis.

Research in Sports Economics

Various branches of sports economics have sprung up around the areas of expertise of the scholars that have founded the discipline. For example:

- Labor Economist: Study the determinants of player wages and how to value players using data.
- Industrial Organization economists studied issues of competitive balance in various sports.
- Environmental economists have studied the environmental effects on player performance. Example how does pollution effects marathon runners.
- Econometric and statistical techniques are recently being used to improve player performance in every single sport.

Links: Economists NBA: <https://www.youtube.com/watch?v=oUvvhkXyOA>

Links: Data in Football (Soccer) <https://www.youtube.com/watch?v=ILcXH4rwr4>

Resources to learn data science/ sports analytics.

Python and R are the two most popular programming languages in data science. Both are open source and hence free. It can be a very useful skill to learn for the purpose of doing simple data analysis for the final paper for this class; but can also prove to be very useful beyond this class if you want to pursue a career in data science/ sport analytic.

- Python: General and Statistical Programming Language:
 - Download Python: <https://www.anaconda.com/download/>
 - General Tutorial: <https://www.w3schools.com/python/>
 - Data analysis Tutorial: <https://pandas.pydata.org/pandas-docs/stable/10min.html>
- R Statistical Programming Language:
 - Download R-Studio: <https://www.rstudio.com/>
 - General Tutorial: <https://www.tutorialspoint.com/r/index.htm>