

Applied Sports Economics

Jorge Tovar (jtovar@uniandes.edu.co)

Suggested Syllabus

Spring 2020

This is an applied economics course which explores various aspects of the economics of professional sports. The objective of this course is to provide students with analytics tools to understand economic problems using sports economics as a laboratory. The course uses a wide range of microeconomic theories related to industrial organization, public finance, and labor economics. Given the applied nature of the course, it will also use econometric tools to study relevant empirical applications.

Each week will cover a common relevant topic where a historical and social background is usually developed over the first part of the week to understand the nature of the empirical applications.

The professor will set up the framework for each topic. The readings are required to complement the class lecture. The materials detailed below are the ones that I expect students to read. Some papers need to be read only partially. Videos, magazines, pictures and other content will complement each lecture when necessary.

Students are expected to be familiar with intermediate microeconomics and at least a first course in econometrics.

Evaluation

A short paper, to be completed along the course, is required. The prospectus will be discussed in class in week 7, and the research paper is due in week 14. The paper should be a short application on any topic of sports economics (5 pages, 12 point Times New Roman, 1.5 spacing).

Four problem sets will be handed out during the semester. The provided .csv data set requires the use of some statistics package to solve the questions. Although I use Stata, the solutions are acceptable in any software package.

A midterm and final exam will evaluate the material discussed over the semester.

Contents

Week 1: Introduction

We will study how football became to be, from its inception in 19th century England to the schism of the early twentieth century between what today is known in the United States as Football, Soccer, and Rugby. During this first week, we will study the first scholarly articles on sports economics.

Readings:

- Goldblatt (2006). *The Ball is Round. A Global History of Soccer*. Penguin. Chapter 2 and chapter 3.
- Neal (1964) "The Peculiar Economics of Professional Sports," *Quarterly Journal of Economics* Vol. 78 (1).
- Sloane (1971) "The Economics of Professional Football: The Football Club as a Utility Maximiser," *Scottish Journal of Political Economy* Vol. 18 (2).

Week 2: The economic theory of professional sports leagues

We first review the formation of sports leagues in the United States (baseball, football) and Europe (soccer). We then study the literature that historically set up the framework on how professional sports leagues work. Understanding that North American sports have different characteristics than European soccer we cover both separately.

Readings

- El-Hodiri and Quirk (1971) “An economic model of a professional sports league.” *Journal of Political Economy* Vol. 79 (6).
- Rottenberg (1956). “The Baseball Players’ Labor Market.” *Journal of Political Economy* Vol. 64(3).
- Vrooman (1995) “Theory of the perfect game: competitive balance in monopoly sports leagues.” *Review of Industrial Organization*

Week 3: Competitive Balance, Uncertainty of Outcome and Home Field Advantage

We review the importance of these concepts; study its definition and its applications.

Problem set 1 (due week 4)

Readings

- Cox (2015) “Spectator demand, uncertainty of results
- Krumer and Lechner (2018) “Midweek effect on soccer performance: Evidence from the German Bundesliga.” *Economic Inquiry* Vol. 56 (1)
- Zimbalist (2002) “Competitive Balance in Sports Leagues. An Introduction” *Journal of Sports Economics*

Week 4: More on attendance

For decades, gate receipts were the primary source of revenue for any sports club. Although this has changed over, it remains an essential factor to which teams pay close attention.

Readings

- Buraimo, Tena y de la Piedra (2018) “Attendance demand in developing football market: the case of the Peruvian first division” *European Sport Management Quarterly* doi:10.1080/16184742.2018.1481446
- Buraimo, Forrest, and Simmons (2009) “Insights for clubs from modeling match attendance in football” *Journal of the Operational Research Society* Vol. 60

- Hart, Hutton, and Sharot (1975) “A statistical analysis of association football attendances” *Journal of the Royal Statistical Society* C24.

Week 5: The labor market

Some fundamental theory sets the framework to study the evolution of the labor market in professional sports and empirically explore some of its characteristics.

Readings

- Buraimo, Frick, Hickfang, and Simmons (2015) “The economics of long-term contracts in the footballers’ labour market” *Scottish Journal of Political Economy* Vol. 62 (1)
- Frick (2011) “Performance, salaries and contract length: Empirical evidence from German soccer.” *International Journal of Sport Finance* Vol. 6.
- Kuethe and Motamed (2010) “Returns to stardom: Evidence from U.S. Major League Soccer.” *Journal of Sports Economics* Vol. 11 (5).
- Rosen (1981) “The economics of superstars.” *American Economic Review* Vol. 71 (5)
- Scully (1974) “Pay and performance in Major League Baseball.” *American Economic Review* Vol. 64 (6).

Week 6: Gender and racial discrimination

The history of gender and racial discrimination in soccer goes all the way back to the early 20th Century. We will review such history, analyze the society of the time and review empirical evidence that tests its existence today.

Readings

- Bryson and Chevallier (2015) “Is there a taste for social discrimination amongst employers?” *Labour Economics* Vol. 34

- Gallo, Grund, and Reade. (2013). "Punishing the Foreigner: Implicit Discrimination in the Premier League Based on Oppositional Identity." *Oxford Bulletin of Economics and Statistics*. Vol. 75 (1)
- Fink (2015) "Female athletes, women's sport, and the sport media commercial complex: Have we really "come a long way, baby"?" *Sport Management Review* Vol. 18 (3)
- Silverzahn, R. y Uhlmann, E. 2015. "Many Hands Make Tight Work." *Nature* Vol. 526
- The Lancet. 1922. Report of the Joint Committee on the Physical Education of Girls. August 12, 1922.

Problem set 2 (due week 7)

Week 7: Research paper discussion, and midterm exam

During this week students are expected to have prepared and defend in class their prospectus for the paper due at the end of the semester.

Week 8: Behavioral: Managers

Managers have the role of coordinating and planning much of the production process within a firm. From a particular perspective, this is also true in sports teams. We first review the evolution of managers in sports (mainly in English soccer), and then study their role in team performance.

Readings

- Audas, Dobson, and Goddard (1997) "Team performance and managerial change in the English Football League" *Economic Affairs*
- Detotto, Paolini, and Tena. (2017) "Do managerial skills matter? An analysis of the impact of managerial features on performance for Italian football" *Journal of Operational Research Society*. Vol. 69(2)

- Grusky (1963) “Managerial succession and organization effectiveness” *American Journal of Sociology*. Vol. 69(1)
- Barros, Frick, and Passos (2010) “Coaching for survival: the hazards of head coach careers in the German ‘Bundesliga’” *Applied Economics* Vol. 41

Week 9: Referees

Referees are the *bad* guys in sports. Managers, players, journalists, and fans tend to criticize their work regularly. This week we discuss the historical evolution of the soccer referee, its role in the game and the consequences of the pressure they face every week.

Readings

- Buraimo, Forrest and Simmons (2010) “The 12th man?: refereeing in English and German soccer” *Journal of the Royal Statistical Society Series A* 173.
- Buraimo, Simmons, and Maciaszczyk (2012) “Favoritism and referee bias in European soccer: Evidence from the Spanish League and the UEFA Champions’ League” *Contemporary Economic Policy* Vol. 30(3)
- Garicano, Palacios-Huerta, and Prendergast. (2017) “Favoritism Under Social Pressure” *Review of Economics and Statistics* Vol. 87 (2).
- Pope, B. and Pope, N. (2015) “Own-nationality bias: Evidence from UEFA Champions League Football Referees” Vol. 53 (2)

Week 10: Team Performance and cultural diversity

Globalization has led to increasing national diversity of co-workers in almost every sector of any economy. Sports data is ideal to understand the effect of such trends on the team and individual performance. A specific review of the *Bosman ruling* in European soccer is discussed.

Readings

- Kahane, Longley, and Simmons, R. 2013. "The effects of coworker heterogeneity on firm-level output: assessing the impacts of cultural and language diversity in the National Hockey League." *The Review of Economics and Statistics* 95(1)
- Radoman 2017. "The Bosman Ruling and Its Effect on Productivity and Career Duration of Players" *Journal of Sports Economics*. Vol. 18 (7)
- Tovar. 2018 "Performance, diversity and national identity. Evidence from association football". *Documento CEDE working paper* No. 46..

Problem set 3 (due week 11)

Week 11 Broadcast demand and the impact of television

In its origin, sporting league authorities were suspicious of the effects of broadcasting media over the potential impact on the popularity of the sport. Today, professional sports are inconceivable without it. We review the history of televised sport in the US and UK and study the importance and impact of broadcasting media on the game.

Readings

- Butler, Massey (2018) "Has competition in the market for subscription sports broadcasting benefited consumers?" The case of the English Premier League" *Journal of Sports Economics* <https://doi.org/10.1177/1527002518784121>
- Buraimo, Simmons (2015) "Uncertainty of outcome or star quality?: Television audience demand for English Premier League football" *International Journal of the Economics of Business*. Vol. 22 (3)
- Forrest, Simmons, and Szymanski (2005) "Broadcasting, Attendance and the Inefficiency of Cartels" *Review of Industrial Organization* Vol. 24(3)

Week 12 The economics of a World Cup. The benefits of a franchise

Is it worth hosting a sporting mega-event (FIFA world cup, Olympic Games)? Should cities invest public money to subsidize facilities for professional sports franchises? Although prospective impact studies tend to answer these questions affirmatively, retrospective studies suggest

otherwise. Using historical references, we study and review the answer of the literature to these questions.

Readings

- Baade and Matheson (2004) "The Quest for the Cup: Assessing the Economic Impact of the World Cup" *Regional Studies* Vol. 38 (4)
- Coates and Humphreys (2003) "The effect of professional sports on earnings and employment in the services and retail sectors in US Cities" *Regional Science and Urban Economics* Vol. 33 (2).
- Coates and Matheson (2011) "Mega-events and housing costs: raising the rent while raising the rook" *The Annals of Regional Science* 46 (1)
- Kavetsos and Szymanski (2010) "National well-being and international sports events" *Journal of Economic Psychology* Vol. 31 (2)

Week 13. Sports data and Game Theory. A brief introduction to sports analytics.

Game theory deals with strategic interaction between rational decision-makers. Real life games are complex, tend to have multiple strategies, have incomplete information and, in some cases, pay-offs not explicitly defined. Sports gives rise to some situations where the structure of the game is simply defined. This is particularly true for the penalty kick. The course will end with a brief introduction of the sports analytics revolution and how it differs from the economic analysis of sports data.

- Chiappori, Levitt and Groseclose (2002) "Testing Mixed-Strategy Equilibria When Players Are Heterogeneous: The Case of Penalty Kicks in Soccer." *American Economic Review*, 92 (4)
- Apesteguia, and Palacios-Huerta (2010) "Psychological Pressure in Competitive Environments: Evidence from a Randomized Natural Experiment" *American Economic Review* Vol. 100 (5)

Problem set 4 (due week 14)

Week 14 Paper presentations