

POLI 137
Winter 2020

Monday, Wednesday, Friday 9:00AM-9:50AM
Humanities & Social Sciences Building, Room 2154

A Sports Analytics Approach to the Social Sciences

Prof. Sebastian M. Saiegh
ssaiegh@ucsd.edu
858-534-7237
Office Hours: Monday 11:30AM-1:30PM, office SSB #370.

Course Description

This course employs sports analytics to examine human behavior and to test social science theories. Sports analytics is a fast-growing field. It uses data and statistical methods to measure performance in competitive sports. Today, every major professional sports team has an analytics department. The approach's popularity has generated a wealth of data that can be used to shed light on social science questions in interesting ways. We will focus on topics such as violent behavior, discrimination, cultural/ethnic diversity, corruption and cognitive biases using examples from baseball, basketball, figure skating, football, hockey, soccer and sumo wrestling.

Format

The class will meet three times per week for the duration of the quarter. The topics presented in class are paired with the **required** readings listed below. The classes will review the concepts discussed in these readings, but should be taken neither as a *duplication* nor as a substitute for them. In other words, you should not assume that because you came to class, you can skip the readings, and/or that because you made the readings you may not attend the lectures.

Assignments

Each week students are expected to read the materials. Students are expected to take a midterm exam, and final exam. The midterm exam is worth 35% of the final grade, and the final exam accounts for 55% of the final grade. Class attendance accounts for the remaining 10%. Extensions, incompletes, etc. will be given in accordance with UCSD policy. Except under **very pressing circumstances**, they will be discouraged.

Course Policies

Academic Integrity. Students in this course are expected to comply with UCSD's Policy on Integrity of Scholarship. Plagiarism is considered a dishonest practice and a serious academic offense. Hence, there will be a zero-tolerance policy with respect to these practices: any student violating the obligation of academic integrity during the term will automatically fail the class. Copies of the current version of the UCSD Policy on Integrity of Scholarship, also commonly referred to as the Academic Dishonesty Policy, may be found on the Academic Senate webpage: <http://www-senate.ucsd.edu/AcademicIntegrity/AcademicIntegrity.htm>

Disabilities. If you have a disability that requires special testing accommodations or other classroom modifications, you need to notify both me and the Office for Students with Disabilities (OSD). You may be asked to provide documentation of your disability to determine the appropriateness of accommodations. To notify the OSD, call (858) 534-4382 to schedule an appointment.

Required Book

- Freedman, David, Robert Pisani, and Roger Purves. *Statistics* (Third Edition). New York: Norton (hereafter: FPP).

Course Outline and Readings

Week 1 (January 6-10) - Introduction

- Introduction
- Sports Analytics and Social Science
Yerger, Carl. 2014. "Nontraditional undergraduate research problems from sports analytics and related fields," *Involve*, 7: 423-430.
- Observational Studies (FPP, ch. 2)

Week 2 (January 13-17) - Descriptive Statistics I

- The Histogram (FPP, ch. 3)
- Average and Standard Deviation (FPP, ch. 4)
- Normal Approximation (FPP, ch. 5)

Week 3 (January 22-24) - Descriptive Statistics II

- Measurement Error (FPP, ch. 6)
- Graphical Representations (FPP, ch. 7)

Week 4 (January 27-January 31) - Correlation & Regression

- Correlation I (FPP, ch. 8)
- Correlation II (FPP, ch. 9)
- Regression (FPP, ch. 10)

Week 5 (February 3-7) - Review & Midterm

- Regression Line (FPP, Ch. 12)
- Review Session
- **February 7: Midterm Exam.**

Week 6 (February 10-14) - Discrimination

- Price, Joseph, and Justin Wolfers. 2012. "Biased Referees?: Reconciling Results with the NBA's Analysis," *Contemporary Economic Policy* 30: 320-328.
- Gallo, Edoardo, Thomas Grund, and James James Reade. 2013. "Punishing the Foreigner: Implicit Discrimination in the Premier League Based on Oppositional Identity," *Oxford Bulletin of Economics and Statistics*, 75: 136-156.
- Stanton, Timothy J., and Curtis D. Johnson. 2012. "Differential customer racial attitudes toward scandal and patriotism: The Mitchell Report, the Olympics, race, and baseball memorabilia," *The Social Science Journal* 49: 214-218.

Week 7 (February 19-21) - Diversity

- Kahane, Leo, Neil Longley, and Robert Simmons. 2013. "The Effects of Coworker Heterogeneity on Firm-Level Output: Assessing the Impacts of Cultural and Language Diversity in the National Hockey League," *Review of Economics and Statistics*, 95: 302-314.
- Ingersoll, Keith, Edmund Malesky, and Sebastian M. Saiegh. 2017. "Heterogeneity and Team Performance," *Journal of Sports Analytics*, 3: 67-92.

Week 8 (February 24-February 28): Violent Behavior and Crime

- Rees, Daniel I., and Kevin T. Schnepel. "College football games and crime," *Journal of Sports Economics*, 10: 68-87.
- Munyo, Ignacio, and Martín A. Rossi. "Frustration, euphoria, and violent crime." *Journal of Economic Behavior & Organization* 89 (2013): 136-142.
- Miguel, Edward, Sebastian Saiegh, and Shanker Satyanath. 2011. "Civil War Exposure and Violence," in *Economics & Politics*, Vol. 23: 59-73.

Week 9 (March 2-6): Corruption and Bias

- Duggan, Mark, and Steven D. Levitt. 2002. "Winning Isn't Everything: Corruption in Sumo Wrestling," *American Economic Review*, 92: 1594-1605.
- Sala, Brian R., John T. Scott, and James F. Spriggs. 2007. "The Cold War on ice: Constructivism and the politics of Olympic figure skating judging," *Perspectives on Politics*, 5: 17-29.
- Wolfers, Justin. 2006. "Point Shaving: Corruption in NCAA Basketball," *AEA Papers and Proceedings*, Vol. 96: 279-283.

Week 10 (March 9-13): Sports and Political Outcomes

- Coffey, Bentley, Patrick A. McLaughlin, and Robert D. Tollison. 2012. "Regulators and Redskins," *Public Choice* 153: 191-204.
- Healy, Andrew J., Neil Malhotra, and Cecilia Hyunjung Mo. 2010. "Irrelevant events affect voters' evaluations of government performance." *Proceedings of the National Academy of Sciences* 107: 12804-12809.
- Review Session

Final Exam: Wednesday March 18 - 8:00AM - 10:59AM