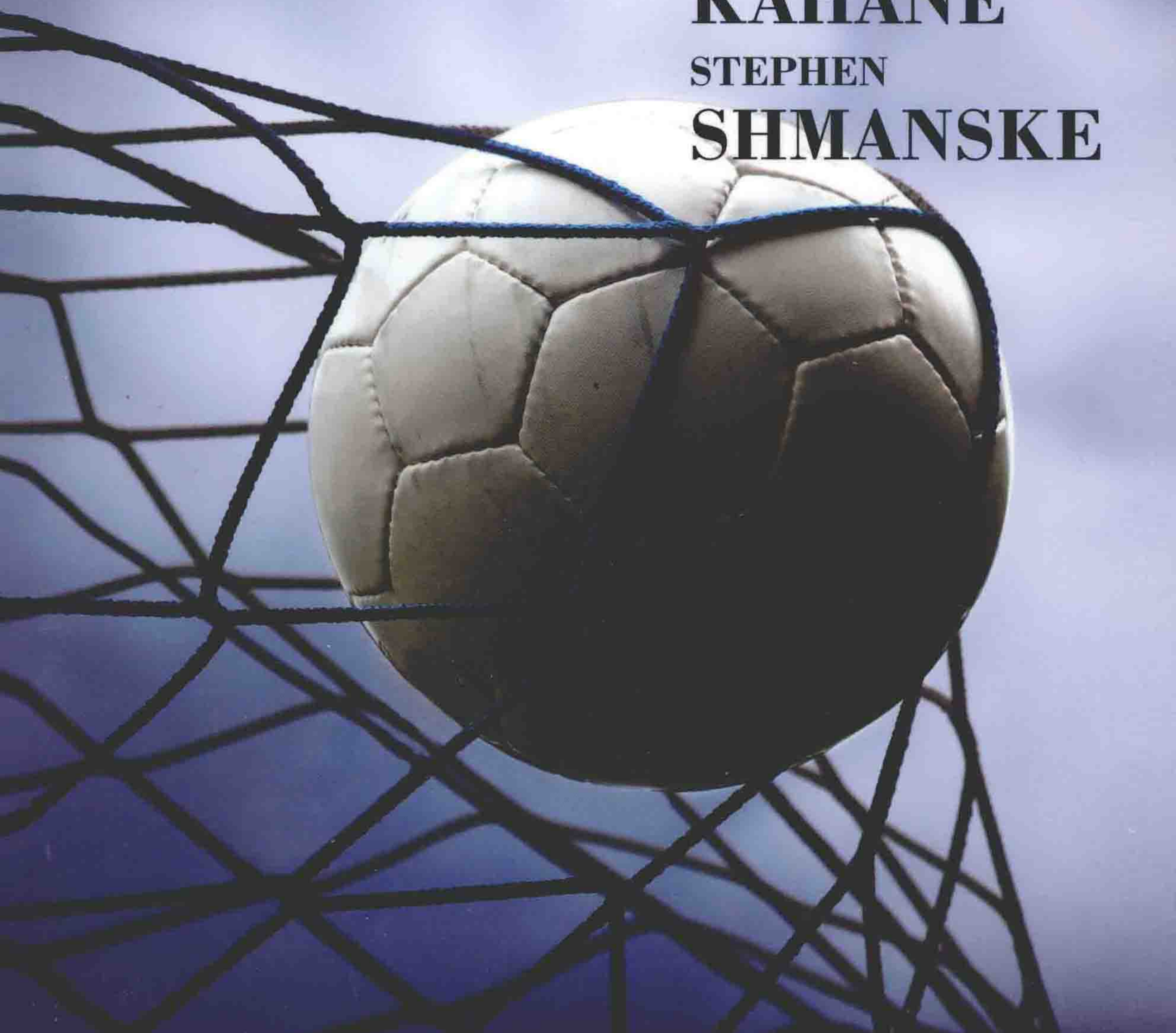
EDITED BY

LEO H.
KAHANE

STEPHEN
SHMANSKE



The Oxford Handbook *of* SPORTS ECONOMICS

VOLUME 1: THE ECONOMICS OF SPORTS

THE OXFORD HANDBOOK OF

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OXFORD
UNIVERSITY PRESS

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Oxford New York
Auckland Cape Town Dar es Salaam Hong Kong Karachi
Kuala Lumpur Madrid Melbourne Mexico City Nairobi
New Delhi Shanghai Taipei Toronto

With offices in
Argentina Austria Brazil Chile Czech Republic France Greece
Guatemala Hungary Italy Japan Poland Portugal Singapore
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Published by Oxford University Press, Inc.
198 Madison Avenue, New York, New York 10016
www.oup.com

Library of Congress Cataloging-in-Publication Data
The Oxford handbook of sports economics / edited by Leo H. Kahane and
Stephen Shmanske.
p. cm.
Includes bibliographical references and index.
ISBN 978-0-19-538777-3 (cloth : alk. paper) 1. Sports—Economic aspects.
I. Kahane, Leo H. II. Shmanske, Stephen, 1954-
GV716.O94 2011
796.06'91—dc22
2010036086

1 3 5 7 9 8 6 4 2
Printed in the United States of America
on acid-free paper

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SPORTS ECONOMICS

VOLUME 1

Consulting Editors

MICHAEL SZENBERG
Lubin School of Business, Pace University

LALL RAMRATTAN
University of California, Berkeley Extension

Contributors

Andrew Abere, Princeton Economics Group, Inc.

Jason Abrevaya, Department of Economics, The University of Texas at Austin

Roger D. Blair, Department of Economics, University of Florida

Peter Bronsteen, Princeton Economics Group, Inc.

Dennis Coates, Department of Economics, University of Maryland, Baltimore County

Peter Dawson, Department of Economics, University of Bath

Craig A. Depken, II, Department of Economics, University of North Carolina, Charlotte

Christian Deutscher, Department of Organizational and Media Economics, University of Paderborn

Kenneth G. Elzinga, Robert C. Taylor Professor of Economics, University of Virginia

Aju J. Fenn, John L. Knight Chair of Free Enterprise, Department of Economics and Business, The Colorado College

Bernd Frick, Department of Organizational and Media Economics, University of Paderborn

Bill Gerrard, Leeds University Business School, Leeds University

Malcolm Getz, Department of Economics, Vanderbilt University

John Goddard, Professor of Financial Economics, Bangor University

Jessica S. Haynes, Department of Economics, University of Florida

Matthew Hood, Department of Finance, University of Southern Mississippi

Ira Horowitz, Information Systems and Operations Management, University of Florida and Information and Decision Systems, San Diego State University

Brad R. Humphreys, Department of Economics, University of Alberta

Stefan Kesenne, Department of Economics, University of Antwerp

Victor A. Matheson, Department of Economics, College of the Holy Cross

Evan Osborne, Department of Economics, Wright State University

Kevin G. Quinn, Department of Economics, St. Norbert College

Duane W. Rockerbie, Department of Economics, University of Lethbridge

John Siegfried, American Economic Association, Vanderbilt University, and University of Adelaide

Rob Simmons, Department of Economics, Lancaster University

Peter J. Sloane, School of Business and Economics, Swansea University

Paul D. Staudohar, Department of Management, California State University, East Bay

Stefan Szymanski, Professor of Economics and Director of Sports, Cass Business School, City University London

Robert D. Tollison, Department of Economics, Clemson University

John Vrooman, Department of Economics, Vanderbilt University

Nicholas M. Watanabe, Department of Recreation, Sport, and Tourism, University of Illinois

G. E. Whittenburg, School of Accountancy, San Diego State University

John O. S. Wilson, Professor of Banking and Finance, University of St. Andrews

Andrew Zimbalist, Robert A. Woods Professor of Economics, Smith College

Preface to Volume One: The Economics of Sports

This is the first volume of a two-volume effort to capture the essence and variety of the quickly growing field of sports economics. In arranging these volumes, we have divided the field into two thematically separate but often overlapping parts called The Economics of Sports (this volume), and Economics Through Sports (in the companion volume). Specifically, in thinking about the field it struck us that many lines of inquiry were essentially economic analyses of certain institutions in sports, like league structure, salary caps, the NCAA, and international labor mobility. Meanwhile, the abundant, high-quality data about salary, performance, competition between teams, and expected and actual outcomes of specific games allows economists to test a variety of propositions that have larger social consequences such as discrimination, antitrust, efficient markets, and managerial efficiency. Admittedly, the separation is not always complete and many of the chapters in these volumes hit on both themes. Nevertheless, the two-volume approach has helped us to organize our thoughts on sports economics and helped us organize the chapters we have received from nearly every important author in the field of sports economics.

Volume 1 is divided into six parts. Part I, the Economics of Leagues and Contest Design, is composed of four chapters that introduce many of the topics that made the economic analysis of sports so fascinating to begin with. In the opening chapter, Stefan Szymanski introduces the idea of the economic design of a sporting contest, explaining how the analysis works in individual sports and in two different styles of league organization, namely, the open, promotion-and-relegation leagues in European football and the closed leagues, as in the North American major leagues in various sports. This one difference in league structure carries myriad implications for a variety of institutions in sports. Szymanski's characteristically clear prose explains how these two organizational structures affect things as varied as: the number of teams; entry into and exit from the league; financial stability; competitive balance; effort expended to win; effort expended to avoid losing; revenue sharing; restrictive labor policies; and public finance of stadiums, thus setting the stage for the remainder of the volume. In the second chapter, Brad Humphries and Nicholas Watanabe take the reader through the important issue of competitive balance in the economics of leagues. They start with Simon Rottenberg's uncertainty of outcome hypothesis, which essentially posits that the value of a game is positively related to the closeness in the playing strengths of the teams involved, that is, competitive balance at the level of the individual game. This hypothesis gets extended to uncertainty with respect to winning the season, making the playoffs, or winning the championship in any one given season. Even further, the analysis gets extended to the frequency with which a team wins multiple championships over a series of seasons. These different forms of uncertainty or balance, can be measured in a variety of ways, each capturing different aspects of the problem. The competitive-balance issue is extremely important in the economics of sports because a variety of league behaviors can be alternatively explained as anticompetitive abuses of monopoly and monopsony power or as benign, total-surplus-enhancing behaviors on the part of leagues attempting to maintain competitive balance in order to provide value to their customers. In the third chapter of this section, Stefan Kesenne furthers the analysis of the competitive balance in a formal model that focuses attention on the nature of the market for talent (that is, free agency versus a reserve system) and the nature of the club owner's objective function (that is win maximization versus profit maximization). The analysis again goes back to a seminal notion from Simon Rottenberg that has become known as the invariance proposition. The invariance proposition is essentially a prestatement of what is later published by Ronald Coase and becomes known as the Coase theorem, namely, that the ownership of productive assets is not relevant to their ultimate allocation because whoever owns an asset has the incentive to employ it in the way that maximizes its value. Thus, competitive balance may be unaffected by a change from a reserve-clause system to a system of free agency. However, if there is a system of revenue sharing that taxes success, or if the owners are not attempting to maximize profit, then subtle differences may exist in the equilibrium distribution of talent. Intuitively, one should expect any differences to be subtle because winning is correlated to increased revenue and because even win maximizers must purchase talent in markets and operate subject to a budget constraint. It takes Kesenne's careful manipulation of a formal model to sort out the variety of effects. In the final chapter of this section, John Vrooman throws a new wrench into the analysis of club objectives, competitive balance, and the invariance proposition. Vrooman considers the differences between competition in the regular season and competition in the playoffs. He argues that there is a closer connection between talent and outcome during the regular season because of the sheer number of contests and more randomness and uncertainty in the playoffs because of the shorter series. Because the rules for making and advancing in the postseason differ between leagues, Vrooman is able to develop testable implications about the movement of players from team to team as they posture for the regular-season-ending race for playoff position. Additionally, there are implications concerning the correlation between regular season success and post season success that can be teased out by reference to the playoff format. All four chapters of this opening section are stellar examples of how economic logic and reasoning can be fruitful in analyzing and understanding institutions and outcomes in the world of sport.

Part II, entitled the Economics of Major League Sports, is divided into five sections covering the sports of baseball, American football, basketball, hockey, and soccer. Two chapters make up the first section, entitled Baseball. Roger Blair and Jessica Haynes present an historical and legal analysis of Major League Baseball's antitrust exemption. Noting that the individual franchises in a league must cooperate off the field on such matters as rules and schedules in order to organize the competition on the field, they suggest that leagues might be granted some latitude that seems to run afoul of a strict interpretation of Section 1 of the Sherman Act. However, baseball has more than just some latitude, it has a blanket exemption due to an anomalous 1922 Supreme Court interpretation that a baseball game is not "commerce among the several States." Blair and Haynes briefly present the theory and background of antitrust law. They go on to describe how the system allowed club owners to exploit players in the labor market. Finally, they show how more recent rulings with respect to bargaining between baseball clubs and the players' union have introduced constraints on the clubs that render the antitrust exemption largely irrelevant. The second chapter in this section, by Paul Staudohar, combines economics, history, and law in an analysis of the baseball players' labor market. He explains how the reserve clause in labor contracts worked to limit the negotiating power of the players, allowing the teams to offer low salaries. Staudohar's analysis goes back as far as 1876, almost 50 years before baseball's antitrust exemption, describing how different leagues and players associations grappled with the issue. Later, through much of the twentieth century, the reserve clause was protected by baseball's antitrust exemption. Staudohar explains how the breakthrough on free agency came about in the 1970s when Andy Messersmith and Dave McNally each played for a year without signing a new contract leading to an arbitrator's binding ruling that the reserve clause became null and void after a year. Staudohar's ability to weave historical facts with descriptions of the personalities involved makes for a delightfully informing analysis of the reserve clause, free agency and their effects on labor mobility.

In the second section of Part II, entitled Basketball, economic analysis is used to explore the institutions of salary caps and luxury taxes and to examine international labor mobility, especially in the context of professional basketball. Dennis Coates and Bernd Frick look at the constraints that leagues impose on teams for payrolls and individual compensation. These issues are peculiar to the sports industry and appear in no other industrial setting. The form that salary caps take is explained. Furthermore, the motivations behind them, from monopsonistic exploitation on the one hand to attempts to equalize the playing strengths of the various teams on the other are critically considered. Evan Osborne examines the issue of international labor mobility. The NBA has seen a burgeoning of talent coming from throughout the world, essentially as would be predicted by economic analysis of trade, arbitrage, and global competition.

Hockey is taken up in the two chapters that make up the third section of Part II. Duane Rockerbie examines violence, specifically fighting, which seems to be condoned in hockey more than in any other sport. Although penalties are assessed for fighting, the expulsions, fines, and suspensions that are typical in other sports are mostly absent in hockey. Rockerbie examines new evidence on the effects of violence on NHL attendance and considers the extent to which fighting is a jointly produced output having its own value over and above its effect on the game outcome. Jason Abrevaya examines rules changes that the NHL has recently employed regarding overtime games. At issue is how aggressively or conservatively the opponents play near the end of tied games and in overtime. Under older rules regimes, teams had incentives to play conservatively, which was not as exciting for fans. Abrevaya uses a probability model to show how team incentives change toward more aggressive play when the rules change, and statistically documents the extent to which hockey players and coaches, the economic actors involved, respond to incentives.

The fourth section of Part II covers American football in three chapters. Kevin Quinn uses economics in the sense of decision making under scarcity and uncertainty to examine several aspects of the game. He looks at field position and strategy and describes how it is possible to put a statistical value, say, in terms of expected points, on field position, on the choice of whether to run or pass, and on what to do on fourth down. Quinn describes previous research and presents results based on the 2007 NFL season. The economics of play calling on fourth down is particularly interesting and presents somewhat of an economic puzzle. According to the statistics, coaches seem to be too conservative with respect to "going for it" on fourth down. One possible explanation is that a coach may err on the side of making the conventional or expected call, even if it is suboptimal, rather than sticking his neck out by going for it on fourth down and possibly putting his job tenure in jeopardy. In the second chapter in this section Ira Horowitz and G. E. Whittenburg explore the links between television revenue growth, television revenue sharing, and competitive balance in professional football. They describe how professional football grew from obscurity (at first teams paid to televise games as a promotional tool) to become the most popular team sport in the United States. Along the way they detail the issues surrounding the television contracts including network competition, blackout rules, and revenue sharing. The authors explain how the teams and the league have an interest in producing competitive games and how the league has implemented rules such as reverse order drafts, salary caps, and revenue sharing that might yield the desired effect. Interestingly, the statistics show that, although competitive balance has increased through time, the independent effect of revenue sharing, while controlling for an upward trend in balance, appears to be in the opposite direction. The final chapter in this section is by Aju Fenn. Fenn reviews the existing historical and economic literature on American football. He explains the origins of football leagues and their evolution into the modern mature National Football League. Beyond this literature describing mergers, expansions, and team relocation, Fenn also characterizes other areas of economic analysis of football, including, competitive balance, race of players and coaches, betting on NFL games, and the cost-benefit analysis of having a local franchise. As is clearly shown by the three chapters in this section and by the numerous citations to related literature, economics is very useful in the analysis of the institutions of American football.

The last section of Part II includes two chapters covering soccer (football). John Goddard, Peter Sloan, and John Wilson examine the Bosman ruling that overturned the retain-and-transfer system (the European equivalent of the American reserve clause) and established free agency for professional soccer players in the European Union. The authors first provide an overview of the development of soccer labor markets and detail how the Bosman ruling provides for player mobility within Europe and relaxes some restrictions on importing talent from outside Europe. Then the authors review the predicted effects of the landmark 1995 ruling and use economic analysis to develop testable implications that they pursue with data from before and after 1995. Among the implications that are tested are: (1) that the ruling will hurt the finances of small market clubs, with effects on player development; (2) that the ruling will lead to higher and more unequal player salaries; (3) that the ruling will lead to longer-term contracts; and (4) that the ruling will harm competitive balance particularly in the top-paying English leagues. The authors get answers to some of their questions and develop new issues to be analyzed in future work. In the second chapter, Bill Gerrard uses a variety of economic models to examine the success of teams in the Football Association (FA) Premier League in England. He argues that the coaching efficiency literature is only part of the story and that the development and mixture of talent in multiple dimensions must also be considered. The chapter gives a nice overview of the managerial efficiency literature and the human capital formation literature. In addition, Gerrard provides a richly detailed account of player development that contrasts the North American system in which player development is mostly left to high schools and colleges to the English system of team-sponsored academies that target youths as young as five years old. The academy system could be the efficient method of developing and maintaining team-specific human capital that some evidence shows leads to a competitive advantage for the team. For all the sports covered in Part II, economic analysis has been fruitful in explaining and describing the industry and in pointing the way to new research questions. These two chapters prove that soccer is no exception.

Part III of Volume 1, the Economics of Other Sports, picks up the analysis of two other professional sports that are not typically analyzed as league competitions, although they could be, namely, golf and automobile racing. Matthew Hood surveys the literature on the labor-supply decision of professional golfers and is able to replicate with new data three important results. Using economic and statistical analysis of ten years of European tour data, Hood shows how the incentives of prize money, the costs of travel, and a golfer's placement in rank-order lists all interact to influence the golfer's labor-supply decision in ways that are not necessarily apparent to observers until viewed through the lens of economics. Once again, Hood's chapter illustrates the theme of this volume, namely, the economic analysis of sports. Andrew Abere, Peter Bronsteen, and Kenneth Elzinga apply their efforts to analyzing NASCAR. Analysis of motor sports is relatively new on the block, even though attendance surpasses or rivals that of other sports. This valuable chapter explains both the history of the sport and the business model of the vertical relationship between the contesting teams, the oversight body, and the racetracks themselves. Additionally, the uncertainty of outcome hypothesis has a counterpart in motor sports that contributes to its growing popularity. The rich discussion of institutional detail will certainly encourage others to continue to economically analyze this popular sport.

Part IV, the Economics of College Sports, consists of four chapters that apply economic analysis to the NCAA and to college athletic departments. Robert Tollison lays the groundwork by describing alternative views of the NCAA, namely, as a benign administrator of rules and promoter of amateurism versus as a cartel. Tollison goes on to explain why economic theory indicates that many of the behaviors and rules of the NCAA are more consistent with the cartel view. In a nutshell, the NCAA helps college athletic departments exercise monopsony power by eliminating the avenue of paying college athletes and helps them exercise monopoly power by jointly negotiating media contracts and setting up revenue sharing formulas. Tollison also offers additional testable implications with respect to the discovery and punishing of potential cheaters on cartel arrangements that limit the competition for talent. In the second chapter, Malcolm Getz and John Siegfried discuss the peculiarly American phenomenon of colleges and universities sponsoring organized athletic competitions against each other. They examine an array of potential pecuniary and nonpecuniary reasons that college athletic departments are as important as they are. The reasons include: direct effects on revenues from staging competitions; indirect effects on revenues from state legislatures and from alumni contributions; and indirect effects on student recruiting costs, on the size of the application pool, and on student quality. A variety of empirical evidence on each of these avenues is presented and discussed. In the third chapter, Craig A. Depken II examines the most prominent NCAA event, namely, the annual "March Madness" NCAA Division I men's college basketball tournament. There are direct monetary benefits to schools and conferences based on success in the tournament. In addition to these, Depken documents the indirect benefits that come from future attendance increases for regular-season games that can be traced to previous success in the tournament. Particular attention is paid to a possible distinction between colleges that are members of the most prestigious conferences and those that are members of minor conferences. In the final chapter of this part, Andrew Zimbalist takes the analysis in a different direction by examining women's sports and gender equity. With rich institutional and historical detail, Zimbalist covers Title IX and its implementation. He shows how women's sports participation has made enormous gains due to Title IX but still has a little way to go. Zimbalist argues that the resources necessary to further expand women's sports programs would be available if there were less waste and fewer inefficiencies in men's sports programs. For example, he argues, theoretically and empirically, that coaches salaries in men's sports are artificially bloated and suggests a policy change to rectify the situation.

Part V of Volume 1, the Economics of Mega Events, covers the economics of special, large events, in particular, the Olympics, the World Cup, and the Super Bowl. When discussing such mega events, interest naturally turns to the resulting economic impact of staging the events, and the authors in this section do not disappoint. Discussions of the shortcomings of the multiplier approach and documentation of the inflated *ex ante* projections of economic growth or economic returns are common to all three chapters in this section. But as testimony to the innovative cleverness of economists working in the sports economics field, each of the chapters develops a different, tangential, inquiry of their targeted mega event. In particular, Peter Dawson, in discussing the Olympics, distinguishes between the tangible economic benefits and intangible benefits, such as increased participation of citizens in sports activities of all types. He challenges future analysts to explore the mechanism between a host country's sponsorship of the Olympics and future active involvement in sports. Alternatively, Rob Simmons and Christian Deutscher examine international-labor-supply issues in the context of World Cup competition, noting that playing in the World Cup boosts salaries of the players in their regular clubs. Finally, Victor Matheson highlights a time series of comparative advertising revenue and ticket prices in secondary markets for the preeminent event in American sports, the NFL's Super Bowl.

Finally, Part VI of this volume, The Economics of Refereeing, examines a necessary part of any sporting competition, namely, the referee. Bernd Frick brings considerable institutional knowledge of the top tier German professional soccer league, the Bundesliga, along with expertise in labor economics to study the careers of German soccer referees. Among other results, statistical evidence from 1960 forward shows how the German institutions reward the better officials with more income over longer careers, a result in line with theory and with the interests of the league. Because soccer leagues in other countries have different contractual relationships with respect to remuneration, this study sets the stage for future research that can compare subtle differences in selection and incentive effects in the markets for referees. The economics of refereeing is a relatively new area of concentration in the economics of sports, one that is sure to grow by leaps and bounds in the coming years.

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