SPORTS ECONOMICS

THIRD EDITION

RODNEY D. FORT

Sports Economics

THIRD EDITION

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PREFACE

Sports Economics is the only text that provides enough content and rigor for a course taken primarily by economics majors.

INTENDED AUDIENCE

This book is intended primarily for upper-division undergraduate classes aimed at a general audience (usually composed of business and sports management majors) or for a specialized seminar for economics majors. It also provides the basics required for a graduate-level treatment of the subject, and the chapter references provide a good starting point for graduate students on any team sport topic. Students using this text should have an understanding of the principles of microeconomics.

These days, the business side of the playing field dominates the sports pages at times. Players, owners, local elected officials, and fans all seem at odds. This is a confusing state of affairs because Americans appear to have a nearly insatiable demand for sports, and there appears to be more than enough money to go around. This book aims to clear up this messy topic by applying a dose of economic thinking to the business of sports. Sports truly are business, and off-field economic decisions determine on-field outcomes.

NEW TO THIS EDITION

Highlights of the third edition include the following:

- The extensive data from the second edition are all updated.
- All dollar comparisons now show both the original nominal amounts and 2009 dollars, adjusted by the consumer price index.
- Extended coverage of the relevant professional research for each chapter.
- New and updated Learning Highlights add significantly to the discussions. And some previous highlights are updated to reflect evolving circumstances. Examples include Performance Enhancement (Chapter 2); Malls, MLB, and Disney (Chapter 10); and Arms Race in College Sports Spending (Chapter 13).

Additional updates for the third edition include the following:

- Chapter 1: Rottenberg's two main ideas—the uncertainty of outcome hypothesis and the invariance principle—are consolidated into a presentation in Chapter 1. This sets the stage from the outset for repeated references to his fundamental contributions throughout the text.

- Chapter 2: A new section on performance enhancement and a new Learning Highlight on the subject.
- Chapter 3: The role of electronic media is introduced for the first time.
- Chapter 4: The more modern case of the Seattle Supersonics replaces the old case of the San Antonio Spurs.
- Chapter 5: For the current economic situation, there is coverage of team and league responses to trying economic times.
- Chapter 6: Extended coverage of (1) local revenue sharing to cover the NBA and NHL and (2) the analysis of cap effectiveness to show how distributional consequences affect league choices.
- Chapter 7: Revised the section on International Issues to include the hot loonie and international talent migration to MLB and other leagues.
- Chapter 9: The logic of the NHL lockout, 2004–2005, is added.
- Chapter 10: The entire subsidy issue is cast in the broader, more well-known context of all benefits and costs—external benefits and external costs receive treatment under those headings explicitly.

Special Features

These features have been developed to facilitate student learning and understanding:

- *Learning Objectives* at the start of each chapter preview key content.
- *Pull Quotes* and *Did You Know?* margin facts help pique and retain student interest.
- *Learning Highlights* present interesting and detailed examples and information relevant to the text material. These are intended to be informative and entertaining, often concerning sports business personalities and economic explanations of their actions.
- *Three levels of end-of-chapter questions:*
  - *Review Questions* are memory joggers that remind students of the important elements of the readings.
  - *Thought Questions* require students to work through the chapter content that requires higher-level thinking.
  - *Advanced Questions* push students to actually apply sports economics rather than just think about it.

For Instructors

Instructors can visit Professor Fort's Web site at http://www.rodneyfort.com/ for additional material and teaching tools related to the text. The Web site offers a feedback section, as well as a variety of resources for professors and students. In the Instructor section, you'll find links to Professor Fort's Sports Economics Data Directory, a set of Sports Economics Projects, and chapter-by-chapter Web Links, Answers to Thought and Advanced Questions from the text, Answers to the Sports Economics Projects, PowerPoint lectures, figures and tables from the text, and a Journal Article Collection. The Student section gives students access to the Sports

Economics Data Directory, as well as to the chapter-by-chapter Web Links, figures and tables from the text, and Journal Article Collection.

The CourseSmart eTextbook for the text is available through www.coursesmart.com. CourseSmart goes beyond traditional expectations, providing instant, online access to the textbooks and course materials you need at a lower cost to students. And, even as students save money, you can save time and hassle with a digital textbook that allows you to search the most relevant content at the very moment you need it. Whether it's evaluating textbooks or creating lecture notes to help students with difficult concepts, CourseSmart can make life a little easier. See how when you visit www.coursesmart.com/instructors.

Acknowledgments

All shortcomings in this book are my fault, but many of the good things about the book came about with the help of others. Almost everything I know about practicing sports economics I learned from Roger Noll and James Quirk. While Simon Rottenberg is the "father" of sports economics, all sports economists should admit that Gerald Scully is the true pioneer. Whether it is demand, team and league behavior, the market for players, or the analysis of sports over time, Scully was nearly always first on the scene. His untimely death during the writing of this revision was a great personal loss, and I will miss him. The book benefited greatly from a number of reviewers. Their thorough comments helped shape this book and (hopefully) future editions. My heartfelt thanks to:

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Even though they don't know it, all of my sports economics students over the last decade contributed fundamentally to this book. As I honed my lectures and approaches, the organization of the book came into being.

Brief Contents

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Chapter

1

Warm-Up: The Business of Sports

Chapter Objectives

After reading this chapter, you should be able to:

- *Explain why there is more to sports than the revenues they generate.*
- *Understand that because sports are actually businesses, standard economic tools can enhance your understanding of sports off the field.*
- *Know why the business side of sports often befuddles fans.*
- *Understand the skepticism that players voice toward owners' claims of poverty.*
- *Explain why owners typically are exasperated at their treatment by players and fans.*

If we do everything right this year and win again, we probably will be able to break even. And I'll tell you this much: I didn't buy this team to break even.

—Minnesota Twins Owner Carl Pohlad
Sporting News, August 24, 1992, p. 10

In 1915, the New York Yankees were purchased for $460,000 ($9.9 million; throughout the text, a dollar value in parentheses represents inflation adjustment to dollars in 2009). Eighty-three years later, in 1998, a bona fide offer of $632 million ($834.2 million) was recorded for the team. Adjusting for inflation, that's a 5.5 percent return *per year* [$9.9(1 + r)^{83} = 834.2$ implies that r, the constant rate of return, is 5.5 percent]. The inflation-adjusted growth rate in the U.S. economy at large is typically about 3 percent annually. Thus, owning the Yankees was 1.8 times as valuable as a diversified investment portfolio.

The Yankees' value serves to introduce the following warm-up on the business of sports. These days, the sports pages look more like the business pages, and judging from media reports, nobody seems happy about it. Players and owners fight over money; owners fight with each other over money; and the fans seem more hardened and cynical every day. To top it all off, a dizzying array of terminology drowns everybody—free agency, luxury taxes, lockouts, salary caps, arbitration, the National Labor Relations Board (NLRB), franchise free agency, local host blackmail, and public–private partnerships, to name just a few. Any sports fan needs more than the analysis offered in the newspaper to make sense of it all. In this chapter, I'll discuss these issues and a few basic ideas to set up the economic analysis of American sports that appears in the rest of the book.

Putting the Business of Sports in Perspective

Analysts differ in their opinions about the place of sports in society. Some argue that America's priorities are out of whack and that our preoccupation with sports is unhealthy. For example, in 1994, the U.S. House of Representatives held hearings on the labor–management tensions that had led to the Major League Baseball (MLB) strike that year. Brookings Institution economist Henry Aaron (believe it or not, there really is an economist with that storied sports name) almost scolded the House of Representatives subcommittee for spending its time on sports. He pointed out a number of facts about the relative **economic importance of sports**: MLB was about a $2 billion ($2.9 billion) industry in terms of total revenue (at that time), and any given sports team typically represented only a fraction of 1 percent of the economic activity in its county. Professor Aaron went on to note that the envelope industry generated about $2.6 billion ($3.8 billion) and the production of cardboard boxes generated $7.6 billion ($11.2 billion) in annual revenues. Surely, he urged the committee, there had to be bigger things to worry about than baseball!

Did You Know?
Total revenues in MLB more than doubled from 1990 at $1.3 billion ($2.2 billion) to 2003 at $4 billion ($4.8 billion), and rose another 38 percent to $6.5 billion ($6.6 billion) by 2008.

Did You Know?
The popular history text *Build Our Nation* covers the Depression in just a couple of paragraphs, whereas it devotes two pages to baseball player Cal Ripken, Jr.

It cannot be denied that the importance of sports exceeds its total revenues. For example, there is no cardboard-box page in the daily paper or on the news each night. Further, the last time I checked, there was no cardboard-box equivalent of a cable network like ESPN devoted to reporting the minutiae of the industry. These news reports make it clear that the level of interest in sports goes beyond just their monetary contribution to team owners, employees, or local governments.

Two of the many keys to understanding the way the sports world works are a little bit of economics and a modicum of common sense. Of course, having applied this approach to sports for over 20 years, I speak from experience. My aim is to show you how the business side of sports affects the game you see at the stadium or in the arena. So let's go ahead and start applying economics and common sense to the world of sports.

SPORTS REALLY ARE BIG BUSINESS

Sports are big business. Legends of owners who don't care about profits or players who play just for the love of the game are overblown. The romanticized Shoeless Joe Jackson character in the film *Field of Dreams* would have us believe he would have played for free. Well, sport was fun (and still is), but the money has never been bad either. And I don't mean the money that Jackson and his teammates allegedly took for throwing the 1919 World Series. *The Sporting News* (October 17, 1994, pp. 38–40) reported that Jackson made $6,000 that year ($75,720). One estimate put the average earnings of farmworkers at $675 ($8,518) and mine workers at $1,283 ($16,191), and $1,148 ($14,488) as the average earnings in manufacturing that year (King, Knauth, and Macauley, 1922). Jackson made over 4.5 times the highest of these alternatives. Of course, star athletes now make hundreds of times the average pay in the United States, but the point here is that earning money from a contest has always been the way in sports. As we'll see in the last chapter, this goes for so-called amateur sports as well.

Interestingly, many sports fans have a hard time understanding that sports really are big business. Some evidence and a little common sense help to drive the point home. Historically, teams that spend the most tend to win the most. So why don't team owners, some of the most successful and wealthy of all Americans, just buy a winning team or invest in winning players? We don't see wealthy owners toss their money around in this way very often. Even when we do, the strategy doesn't always work. Take Wayne Huizenga, who in 1997 invested big money in the Florida Marlins. By all accounts, he bought enough talent that year to win the World Series. In fact, the team did go on to win the World Series, but Huizenga sold off most of the important members of the team the following year. The reason? The city of Miami made it clear that part of the revenue Mr. Huizenga hoped to capture with his world champions, in the form of a new publicly financed stadium, was not going to be delivered. In the end, Huizenga's investment didn't pay off.

Did You Know?
In the first genuine World Series of 1903, the winner's share (Boston Red Sox) was $1,812 ($43,555), whereas the loser's share (Pittsburgh Pirates) was $1,316 ($31,685). The owners made more and didn't share—Pirates owner Barney Dreyfuss kept his share of $6,700 ($161,388).

The stadium issue brings up more evidence that sports really are business. Why don't owners just build their own stadiums rather than pressuring state and local governments to foot the bill? Surely, these extremely wealthy people can afford their own stadiums. For example, Paul Allen, who owns both the National Basketball Association's (NBA) Portland Trailblazers and the National Football League's (NFL) Seattle Seahawks, built and owned (indirectly through another organization) the Trailblazers arena. However, he only exercised his option to buy the Seahawks after public money was put toward a new football stadium in Seattle. Perhaps it had something to do with the fact that an arena can be built at a little less than half the cost of a stadium. That is clearly a bottom-line consideration important to a business decision.

For that matter, why do these eminently rich people even charge admission or sell broadcast and sponsorship rights? Why would they ever lock out players, as happened with the loss of the entire National Hockey League (NHL) season (including the Stanley Cup Finals!) in 2004–2005? In fact, why would the owners negotiate player contracts at all? If sports are not businesses, wealthy owners could just give the players what they wanted, let fans into stadiums for free, and everybody would be happy. Players would be richer, and fans wouldn't suffer any interruption in play. Speaking of players, if sports are not businesses, then why don't they just play for expenses?

The Power 100

The importance of the business aspect of sports can also be seen in the *Sporting News* "Power 100" list. Each year, the magazine lists the 100 most powerful people in sports. Typically, fewer than 10 of these dominant sports personalities actually participate in their sport. The *Sporting News* list is dominated by sports officials (commissioners and league officers in pro sports, conference presidents and bowl officials for college sports, and presidents and organizers for the Olympics). Media moguls and other network officers are a close second. CEO/owners, agents, sponsors, and participants (players and coaches) round out the field. Fewer than half of these power brokers are directly responsible for the actual operation and playing of sports (officials, CEO/owners, and participants).

In fact, in 2006, NBA commissioner David Stern topped the list. The rest of the top ten contained the three other major league sports commissioners (third, fourth, and sixth), the chairman and CEO of NASCAR (fifth), and media moguls. Incidentally, in 1995, Stanford University economist—and my former professor—Roger Noll made the list, ranked number 93. Although my old professor does have a pretty decent baseline jump shot, he didn't make the list because of his athletic prowess. Professor Noll's services are in demand by nearly every players' union in sports, as well as by the U.S. Congress for expert testimony. In fact, his analysis was instrumental in court considerations that eventually resulted in NFL free agency beginning in the 1994 season and during the MLB strike of 1994.

Did You Know?
Typically, fewer than 10 of the 100 most dominant sports personalities actually participate in their sport.

Did You Know?
"Say I'm worth $1.1 billion, and through a series of incredibly moronic moves, I lose $100 million. Oh, gee! What does that leave me?"—Mark Cuban, dot-com billionaire owner of the Dallas Mavericks (*Sports Illustrated*, November 6, 2000, p. 88)

So sports are business, and big business at that. Sometimes owners make statements that appear to contradict this. Even a billionaire owner like Mark Cuban, owner of the NBA Dallas Mavericks, doesn't let his fans in for free, nor is he going to mismanage his personnel (the team did not make the play-offs in the 10 years prior to purchase by Cuban in 2000; they have made the play-offs every year since and made the finals in 2005–2006). He is going to treat his team as an investment. Part of the return may be in terms of his love of sports, but there is an undeniable business aspect to the investment as well. Cuban intends to make money on his team. In the next section, we'll look at the problems that the sports business poses for fans, owners, and players.

Befuddled Fans

Media accounts seem to indicate that the greed and hypocrisy of those involved in the sports business generate a great deal of **fan confusion** and skepticism. These common feelings about the sports business are worth mentioning. A review of the causes of these views provides a nice point of departure for the economic explanations that we will discuss later in the book.

We've all heard sports fans lament that sports are not about the game anymore but all about money. Fans also believe that players and owners are overpaid—a belief that has been remarkably

Table 1.1 Fan Poll Results, 1984 and 1994

	Overpaid	Worth It	No Opinion
1984			
Players	81%	14%	5%
Owners	76%	14%	10%
1994			
Players	73%	18%	3%
Owners	52%	28%	3%

Source: Business Week for 1984 and *Time* for 1994.

consistent over time. Table 1.1 shows the results of two polls conducted about 10 years apart on fans' opinions of player and owner earnings. As you can see from the table, the vast majority of fans agrees that owners and players are overpaid, and players more so than owners. But note that these feelings have eased a little over the years in the table. However, these feelings do still run strong. An ESPN/Seton Hall University Poll in 2009 found that 40.3 percent of respondents still felt that overpaid ballplayers were "The Biggest Problem with Major League Baseball" ("Steroids" came in second with only 22.5 percent). A Rasmussen Reports Survey in 2009 found that 30 percent of respondents thought sports stars should not be allowed to make more than $1 million. It can't be known whether fan survey responses reflect concern that payment issues are spoiling the games or whether such responses just reveal **fan envy**.

Although overpayment may be in the eye of the beholder, there is no doubt that athletes make a lot of money. As you can see in Table 1.2, according to the *Forbes* Top 100 Celebrities list for 2006, top-earning athletes can make tens of millions of dollars annually. Even Yankees third baseman Alex Rodriguez and New England quarterback Tom Brady, tied for 45th on the list by pay, made $29 million in 2006. Compare this with the income of top family practice physicians at the time, about $240,000. At that rate, the average doctor wouldn't earn A-Rod's $29 million for 121 years. A teacher with an average pay at that time of around $49,000 would take 592 years to match A-Rod's pay for just 1 year.

Did You Know?
It would take the average teacher more than 592 years to earn the amount paid to Yankee star Alex Rodriguez for a single season.

Table 1.2 Top-Paid Athletes in *Forbes* Top 100 Celebrities by Pay, 2003

Name	Rank out of 100	Pay In $Millions
Tiger Woods	8	$90.0 ($97.2)
Michael Schumacher	15	$58.0 ($62.6)
Muhammad Ali	18	$55.0 (59.4)
Phil Mickelson	20	$47.0 ($50.8)
Michael Jordan	35	$32.0 ($34.6)
Kobe Bryant	36	$31.0 ($33.5)
Shaquille O'Neal	39	$30.0 ($32.4)
Valentino Rossi	39	$30.0 ($32.4)
Alex Rodriguez	45	$29.0 ($31.3)
Tom Brady	45	$29.0 ($31.3)
5 other male athletes	—	—
Michelle Wie	70	$17.0 ($18.4)

Source: Forbes, 2006 (forbes.com/lists). Pay includes solely entertainment income.

The wealth of owners also befuddles fans. *Forbes* (www.forbes.com/lists/2005) reported in 2005 that Paul Allen, owner of the Portland Trailblazers and Seattle Seahawks, had a net worth near $22.5 billion ($25.2 billion). Indeed, according to *Forbes*, there were more than a dozen billionaire owners in 2003, and many of them owned more than one pro sports team. Few of us can even imagine this type of buying power. On top of it all, these owners make choices that irritate fans. Fans perceive that owners let money get in the way of fielding winning teams. Then the owners have the gall (in the eyes of fans) to hold fans and local governments hostage in negotiations over public subsidies for stadiums and arenas. Some owners have even blamed their fans for lack of support when their subsidy demands are not met. Meanwhile, fans surmise that all of the money comes out of their pockets. The typical view is that greedy players hit up rich owners who bow to their demands and, in turn, raise prices for the fans. A little economic thinking shows that this commonly held path of causality is flat backwards: It just doesn't fit reality (Chapter 7).

Imagine walking into your boss's office and demanding a pay increase that isn't tied to some sort of extra revenue that you have generated for the firm. Good luck! Unless the firm is earning more money and unless some of the increase can be directly tied to your performance, your demand won't be met. The same is true of sports stars. Team revenues continue to grow, providing the basis for such demands in the first place. Nonetheless, fans are befuddled and, at times, angry, and not all of them are taking it lying down. **Fan consumer movements** are detailed in Learning Highlight: Consumer Movements in Sports.

LEARNING HIGHLIGHT
Consumer Movements in Sports

In 1994, MLB fans lost the end of the regular season, both League Championship Series, and the World Series to a players' strike. NBA fans lost the first half of the 1998–1999 season to a lockout by the owners. NHL fans lost the entire first season, including the championship, in the modern history of professional sports in 2004–2005. Understandably, fans were upset. But not all fans are willing to take strikes and lockouts sitting down. A few have begun to organize via the Internet. Here are descriptions of a few of these groups:

> *We the Fans.* They're mad as hell, and they aren't going to take it anymore. Their aim is getting fans united, organized, and "into the game" of sports business. Their view is that fans are the most important part of sports and the sports business (wethefans.com).
>
> *League of Fans.* Founded by Ralph Nader, this sports reform project encourages social and civic responsibility in the sports industry and culture (www.leagueoffans.org).

Unfortunately, as we'll explore in later chapters, forming a successful political organization can be a daunting task. For example, *The Baseball Fans Union* was listed as part of this consumer movement in the last edition of this textbook. It has since disappeared.

Some fans do more than just cheer to support their favorite team. (Getty Images, Inc. Agence France Presse)