



## An examination of underlying consumer demand and sport pricing using secondary market data

Joris Drayer<sup>a,\*</sup>, Daniel A. Rascher<sup>b,1</sup>, Chad D. McEvoy<sup>c,2</sup>

<sup>a</sup> Temple University, 1810 N. 13th St., 362 Speakman Hall, Philadelphia, PA 19122, USA

<sup>b</sup> University of San Francisco, 241A Kalmanovitz Hall, 2130 Fulton St., San Francisco, CA 94117, USA

<sup>c</sup> Syracuse University, 810 Nottingham Road, Syracuse, NY 13224, USA

### ARTICLE INFO

#### Article history:

Received 12 July 2011

Received in revised form 13 March 2012

Accepted 22 March 2012

#### Keywords:

Consumer demand  
Sport pricing  
Consumer surplus  
Price inefficiency  
Secondary market  
Tickets

### ABSTRACT

The growth of the secondary ticket market has given sport managers a new way to understand consumer demand for tickets. In the secondary market, transaction prices and the number of transactions are highly variable and respond directly to consumer preferences, making it ripe for exploration. Using secondary market data for the NFL provided by a secondary market firm, the purpose of the current study is to understand a variety of traditional sport economics issues such as demand, consumer surplus, and pricing (in)efficiency. Results show that secondary market prices, instead of number of transactions, respond to the factors commonly associated with consumer demand. Further, the data indicate that teams may be able to sell 20,000 additional seats for each game. However, given that teams cannot easily add this number of seats (and may not want to given the NFL's blackout rule), there is approximately \$260,000 in consumer surplus per game that is captured by resellers.

© 2012 Sport Management Association of Australia and New Zealand. Published by Elsevier Ltd. All rights reserved.

## 1. Introduction

An examination of the prevalence of ticket resellers located outside of sporting events and the proliferation of Web-based ticket resellers makes it apparent that either (1) sport organizations frequently under-price tickets to sporting events, (2) some leagues (e.g., the National Football League) require sold out games in order to show a game on television ("blackout" rule), thus prompting NFL teams to price tickets sufficiently low enough to sell out the lowest demand game of the season (assuming uniform pricing for a given seat throughout the season) even if it is substantially below the average profit<sup>3</sup>-maximising price for all games during the season, or (3) that they have different cost functions, revenue functions, or are more risk-averse than resellers (Spindler, 2003; Swofford, 1999).<sup>4</sup> Frequent underpricing of tickets results in the loss of

\* Corresponding author. Tel.: +1 215 204 1943.

E-mail addresses: [jdrayer@temple.edu](mailto:jdrayer@temple.edu) (J. Drayer), [Rascher@usfca.edu](mailto:Rascher@usfca.edu) (D.A. Rascher), [chadmcevoy@hotmail.com](mailto:chadmcevoy@hotmail.com) (C.D. McEvoy).

<sup>1</sup> Tel.: +1 415 422 5637.

<sup>2</sup> Tel.: +1 309 438 2337.

<sup>3</sup> Profit maximising may be more appropriately labeled as "loss minimising" for some sport organisations. We acknowledge further that some organisations, such as European football clubs in open league structures have been shown in the literature to not act in a profit maximising manner, as per the work of authors including Andreff and Szymanski (2007), Késenne (1996), and Szymanski (2003). We contend, nonetheless, that these organisations operate on the business side as "revenue maximisers", thus not affecting the discussion of pricing and the secondary market here.

<sup>4</sup> If an NFL game is not sold out 72 h in advance of the game's start time, it will not be shown on television within the market of the home team. This is commonly known as the "blackout" rule.

thousands, if not millions, of dollars of ticket revenue that could have been realized by the sport organization and is instead captured by the secondary ticket market, which includes all ticket holders who resell their tickets (professional “brokers” as well as casual fans who simply choose not to attend) (Drayer & Shapiro, 2009). In the NFL, however, the apparent underpricing might be efficient in reacting to the “blackout” rule or differences in cost functions, revenue functions, or risk preferences from resellers. Moreover, it does appear that NFL teams are inefficient in one sense given the recent proliferation and acceptance of variable ticket pricing (VTP) and dynamic ticket pricing (DTP) in other sports. A team could charge different prices for each home game recognizing that it could still sell out with higher prices to some premium games.

As long as primary market prices remain inefficient, sellers in the secondary market will continue to profit from games with increased demand. A *SportsBusiness Journal* roundtable discussion highlighted the importance of this issue to sport organizations. Sam Kennedy, Executive Vice President and Chief Sales and Marketing Officer for the Boston Red Sox, stated:

After figuring out digital media, dealing with secondary ticketing is our most critical issue, and the biggest issue facing teams in all sports. We are just blown away by what the secondary market can get for our tickets. We brought in Harvard Business School. They did a regression analysis and showed us where we are leaving tens of millions of dollars on the table every year, and the secondary market is the beneficiary of that (“How Goes Sports?,” 2008, p. 20).

Sal Galatioto, Founder and Chairman of Galatioto Sports Partners, responded similarly:

We’ve done work with both the Jets and Giants, and you’d be amazed how many of those longtime ticket-holders go to a few games and then sell their other games for an enormous profit. That money belongs to the team owners, doesn’t it? The transfer of that wealth away from the people creating it to the middlemen who do nothing is huge (p. 20).

The secondary market has traditionally been controlled by local ticket brokers and resellers, often called scalpers. However, Internet sites such as StubHub, RazorGator, and eBay have all made the exchange of tickets in the secondary market both more legitimate as well as more efficient (Drayer & Martin, 2010). Arthur Fogel, producer of U2’s Vertigo tour, said that “the Internet has created the potential for everybody to be a scalper” (Waddell, 2005, p. 24). This increased efficiency has grown the secondary market into a multi-billion dollar industry (Belson, 2011; De Atley, 2004; Fisher, 2005; Lacy, 2005; Stecklow, 2006).

As a result, sport organizations in the primary market have developed several strategies designed to regain revenue that they feel they are entitled to. These strategies include VTP, DTP, as well as formalized secondary market partnerships with companies such as StubHub or Ticketmaster. In some cases, especially at international mega-events such as the FIFA World Cup or the Olympic Games, the reselling of tickets is illegal. Yet secondary markets do seem to exist anyway because of the economic forces and deep underpricing for certain games/events. Each of these strategies has been implemented in direct response to the growth of the secondary market and the realization the pricing strategies in the primary market appear to be suboptimal. In the NFL (which is under examination in the current paper), in particular, quantity demanded for events appears to be high as indicated by the frequency of sellouts; however, the league and its member teams have not adopted any game-by-game price changes in response to fluctuations in demand. Subsequently, the secondary market for these tickets has become incredibly vibrant which allows teams to gain valuable information about the demand for their tickets (Drayer, Stotlar, & Irwin, 2008). Therefore, the present study seeks to understand a variety of traditional economics issues related to the secondary ticket market, its effects on prices, quantities, consumer surplus, welfare, and excess demand, and is guided by the following research questions.

1. What factors are important in predicting the secondary market price for NFL games?
2. What factors are important in predicting the secondary market demand/quantity of transactions for NFL games?
3. How much do NFL consumers benefit by being able to purchase NFL tickets in the primary market for a price that is less than they would be willing to pay (i.e., consumer surplus)?
4. What is the excess demand for NFL games captured by the secondary market?

The remainder of this article describes the literature related to each of the aforementioned research questions, the theoretical framework for secondary ticketing, the data and methods used to address the research questions, results of each research question, and a discussion of the results, implications, and future research.

## 2. Review of literature

### 2.1. Sport pricing and demand

The strong presence of a secondary ticket market or the presence of empty seats in a stadium may indicate that prices in the primary market are inefficient, blackouts are important to avoid, and/or secondary market sellers increase primary market quantity demanded which cannot be captured by the primary market. Empty seats can also indicate that a facility might be too large given the quantity demanded for the event even though pricing might be optimal. By examining transactions in the secondary market, where price reflects the demand conditions for each game, the authors of this study aim to uncover how NFL teams may be able to more efficiently price their own tickets without lowering attendance or losing valuable revenue to ticket brokers.

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات