The professional sport product is unique and different from other entertainment products in that teams within a league must compete yet co-exist for the sport to thrive (Neale, 1964). This competition amongst teams within the league reveals itself through the uncertainty of game outcome and, by extension, the competitive balance across the league over one season and over multiple seasons. This uncertainty of game outcome combined with the other entertainment aspects of a live sporting event creates the demand for consumers to purchase a ticket to attend a match.

The price of tickets to sporting event are considered to be a major economic factor in determining fan demand for live sporting events (Borland & Macdonald, 2003). Neoclassical economic theory provides further support for this statement, for it is posited that when the price of a good increase, the demand should naturally decrease. Though the price of tickets to attend a sporting event is clearly of great importance, much of the literature examining attendance to sporting events omits the ticket price variable because of the difficulty to obtain such data (Borland & Macdonald, 2003). Research that does incorporate a ticket price variable usually uses an average ticket price from a secondary data. However, people who attempt to purchase a ticket to sporting or other entertainment events such as a concert or a theatre show know that consumers have many different price levels in which to purchase tickets.

Professional and college sports teams can choose to offer multiple price levels for games for many different reasons. One reason is due to the fact that demand is uncertain at the point when sports teams have to set their ticket prices for the upcoming season (Dana, 2001). Another reason is an attempt for teams to capture some of the consumer surplus associated with attending a live sporting event (Salop & Stiglitz, 1982). A third reason is the fact that each seat or section in a stadium offers the consumer a different view and experience (Courty, 2003).

Another important factor in the demand for sporting events is the unpredictability of the results of each individual game (uncertainty of outcome) and the equal playing strength of the teams within the league (competitive balance) (Forrest & Simmons, 2003). The uncertainty of game outcome and overall league competitive balance is the core part of a league’s product (Mason, 1999). Research in the area of competitive balance has defined competitive balance in many ways and has developed many measures of competitive balance. Three common definitions of competitive balance is the dispersion of wins throughout the season, the concentration of championships or playoff appearances awarded in the league, and the reordering of the league standings. Competitive balance research partitions into two streams, the effect of policy changes on competitive balance and fans sensitivity (changes in attendance) to competitive balance (Fort & Maxcy, 2003).

The purpose of this study is to examine the impact of ticket price dispersion and league wide competitive balance on the demand for Major League Baseball (MLB) regular season team attendance through the seasons 1975-2010. The study uses ticket prices obtained from the MLB media guides. The MLB media guides are published by Major League Baseball prior to each season and contains detailed information on all ticket price levels offered by MLB teams in advance of the season. This data source provides a unique examination regarding the pricing behavior of MLB teams and the resulting consumer demand. Examining data over the previous four decades for Major League Baseball (MLB), it is clear that both the average number of price points offered by MLB teams increases. For example, in 1975 all franchises offered three to five different price levels to consumers. In 2008, the average team had ten different pricing points, with teams such as the Washington Nationals having eighteen price levels from which consumers could select from to purchase tickets to regular season games.

In order to estimate the impact of price dispersion and competitive balance, this research will employ an instrumental variable technique due to the probable correlation of the ticket price dispersion variable with the equation error term in a standard Ordinary Least Squares regression model (Coates & Humphreys, 2007). The measure of price dispersion that this study will use is the standard deviation of the ticket prices offered by each team in a particular season. With the instrumental variable technique, the dependent variable in the first stage regression is ticket price dispersion. This variable is regressed on one or more independent variables (instruments) that affect the standard deviation of the ticket price but are uncorrelated with the error term in the second stage regression. The fitted values of this first stage equation are used as an explanatory variable in the second stage regression (Greene, 2003). The dependent variable in the second stage regression is regular season total attendance for each MLB team in a season. In the second stage regression model, we control for such things as stadium and city characteristics, MLB policies (introduction of the wild card format and revenue sharing), team performance (playoff appearance), expansion and
relocation of franchises, and the competitive balance in the league. The research will employ the three definitions of competitive balance from above and their respective measures: the actual to idealized standard deviation of win percent ratio to examine the dispersion of wins throughout the league in a season, the Herfindahl-Hirschman Index to examine the concentration of playoff appearances, and the Spearman Rank Correlation Coefficient to examine the reordering of league standings. The results generated from running the three different IV regressions will provide a comprehensive viewpoint examining fans sensitivity regarding the three competitive balance definitions as well as determining the effect that price dispersion has on seasonal attendance demand for MLB teams.

The results from this study will help inform sports managers in a number of different areas. First, it examines the ticket pricing strategy implemented by most MLB teams and how multiple price levels effects seasonal attendance demand. If price dispersion does result in an increase in attendance, it provides information to MLB teams that by increasing the number of price points to MLB games could potentially improve attendance. More broadly, it provides information to other areas of sport, recreation, and entertainment regarding consumer demand when businesses offer multiple price levels for a similar good or service. Second, this research provides information to researchers and sports leagues regarding the effect that policy changes such as expansion and relocation have on regular season team attendance. For example, does a team that is relocated from one market to another market results in an attendance increase for a team. This has important implications for owners, league officials, and city officials regarding potential impacts of relocating a franchise.