Salary Structures and Team Performance: The Case of Wage Inequality in Major League Soccer

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Research based in management and economics has long considered the relationship between organizational performance and the wages of workers (Day, Gordon, & Fink, 2012; Hall, Szymanski, & Zimbalist, 2002, Kahn, 2000; Trevor, Reilly, & Gerhart, 2012), including numerous studies based in various sporting contexts. The general theorization is that workers who receive higher compensation will perform better on the job, and hence increase the productivity of their firm. While research has shown that such a relationship may indeed exist in sport, the understanding of the wage-performance relationship becomes more complicated when the dispersion of salaries is considered (Milgrom & Roberts, 1988). Empirical analysis in economics has found organizations pay equal wages to all of their workers tend to be more productive, as the equality gives incentive to prevent individuals from neglecting their duties (Gupta et al., 2012; Shaw, 2014). At the same time, it is also noted that when salaries are too compressed, it may cause the best performing workers to quit at the highest rate (Shaw, 2015). In the specific context of sport, the literature has found mixed results (Gupta, et al., 2012; Shaw, 2014). Early studies examining golf tournaments and auto racing found greater dispersion (inequality) of wages actually motivated athletes to increase their productivity (Becker & Huselid, 1992; Lazear & Rosen, 1981; Rosen, 1986). Later research by Bloom (1999), Depken (2000), Berri and Jewell (2004), and Mondello and Maxcy (2009) found mixed results regarding the team performance and wage inequality in their examinations of various North American professional sports leagues. More recent research, Trevor et al. (2012) examined the relationship between explained and unexplained pay dispersion among teams in the NHL. Results from their study found that pay variation that could be explained by differences in player input and talent was positively related to hockey team performance. However, unexplained pay variation was not significantly related to team performance.

Considering this previous literature, the present research examines the structure of wages in Major League Soccer (MLS), the top-flight of professional soccer in North America, to analyze how the league’s unique salary rules and structure affects team performance. MLS provides an interesting context through which to consider the relationship between wage inequality and organizational performance in sport. First, MLS has constructed a variety of rules that govern player salaries, including the establishment of a salary cap which restricts the amount teams can play to their entire roster. At the same time, the league also created the Designated Player Rule in 2007 to allow teams to be able to sign marquee players without having to break the salary cap restrictions (Kuethe & Motamed, 2010). Specifically, the creation of this rule in 2007 helped teams like the Los Angeles Galaxy sign English superstar David Beckham for a salary of over $4 million a year, despite the fact that teams were restricted to capping salaries at $2.1 million for their entire roster. From the initial success of this rule, the league has continued to expand the policy to allow teams to increase the number of signings to three Designated Players per team, as long as they are willing to pay a luxury tax for the third player.

The changes in policy have significantly altered the dynamics of Major League Soccer wage equality, and made it so that certain teams willing to spend large sums have managed to acquire players at relatively high costs. This difference in behavior has created a gap between teams in the league in regards to acquiring talent, which is evidenced by the fact that the amount teams have spent on DP’s currently ranges from $175,000 to $18.36 million in 2015. From this, it is now the case that there are some players in the league who make more than the entire roster of other franchises, and in 2015 the top five paid players made 33 percent of the total wages of all players in the league. Thus, with high wage dispersion, MLS provides a distinctive background through which to consider whether this inequality affects the performance of teams. From this, the purpose of the proposed research will specifically examine the organizational performance impact from team’s increased pay dispersion under the changes with the Designated Player Rule.
In order to test the relationship between team performance and wages in Major League Soccer, a panel data set was collected using data from the league and the Players Union. The dependent variable in this research is the win percent (WinPct) of each Major League Soccer franchise at the end of the regular season. The independent variables include salary data collected from the MLS Player’s Union who publishes the yearly base and guaranteed compensation for each player under contract with the league, as well as other variables to control for league and team specific factors. Specifically, the wages for Designated Players, normal players, as well as the distribution of salaries (calculated using standard deviations) is aggregated for each team to measure both wages and wage inequality. The model also includes the percentage of All-Star players to control for the relative level of talent on each team, as well as the age of each franchise and the number of teams in the league. The formal regression equation takes the form of:

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\text{WinPct} = B_0 + B_1 \text{FranchiseAge} + B_2 \text{DPSalary} + B_3 \text{NonDPSalary} + B_4 \text{StdDevSalary} + B_5 \text{AllStarStarter} + B_6 \text{AllStarSub} + B_8 \text{AllStarReserve} + B_9 \text{DesignatedPlayers} + B_{10} \text{NonDesignatedPlayers} + B_{11} \text{Team} + D_{12} \text{YearDummy} + e
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This research will employ a dataset examining MLS salaries from 2007 through 2015. The results will be estimated using an Ordinary Least Squares (OLS) regression, and will include either fixed or random effects based on the outcome of econometric tests. Findings from early specifications of this model indicate no evidence of any relationship between wage inequality and the performance of teams in MLS. Rather, the estimates specify that the number of All-Stars a team has can increase their winning percentage. These variables are similar to those from previous studies of the NBA (Berri & Jewell, 2004) not only in finding that talent levels do affect team performance, but also in that wage inequality does not seem to reduce the productivity of MLS franchises. For the final version of this study, a larger scale dataset will be employed in order to examine whether these results remain consistent.

The present study seeks to makes significant contributions to the literature not only in helping to build the theoretical understanding of wage inequality and team performance in organizations but also the underlying mechanisms and the mediators of pay dispersion. The proposed research also presents several practical implications for managers. First, while some players and pundits may indicate that they are unhappy with the structure and inequality of compensation for players in Major League Soccer, the results indicate that this imbalance does not seem to affect the performance of teams. As MLS and other professional sport leagues continue to consider the importance of wages, distribution of talent, and the performance of teams, understanding how varying policies affect the outcome of games is of great importance. Furthermore, results find that building a team around All-Stars can help to improve overall performance, and highlights the need for teams to try and place emphasis on signing All-Star talent to their rosters. At the same time, it also indicates a potential future problem for MLS in trying to allocate high-level talent fairly to ensure relative balance amongst teams, especially as the league continues to expand and grow in the future.