Economic vs. sporting reward – An analysis of the distributions of prize money and world cup points in winter sports

Contact details
Name author(s): Hippolyt Kempf & Christian Belz
Institution(s) or organisation(s): Swiss Federal Institute of Sport
City and country: Magglingen, Switzerland
Email address for correspondence: hippolyt.kempf@baspo.admin.ch; christian.belz@baspo.admin.ch

Aim of paper and research questions
Money is a driving force in today’s sport. Top performances are rewarded with prize money. Even in winter sports, athletes can make a small fortune: the top-earning spot in the prize money list of the season 2008/09 is held by Austrian Ski Jumper Gregor Schlierenzauer with CHF 524'500.-. Besides economic honours, Gregor’s performances brought him the overall World Cup in Ski Jumping as sporting reward. With big money to be made in winter sports, we want to find out whether economic rewards affect sporting competition.

Literature review
This problem is well known in team sports where we find a long tradition of focusing the effects of money, redistribution of money and competitive balance in this industry (e.g. Jones, 1969; Fort & Quirk, 1995). In individual sports, however, we hardly find any research due to lack of data.

Research design and proposed data analysis
We therefore look at the distribution of prize money among the competitors by calculating the Gini coefficient. In a next step, we do the same for the distribution of the World Cup points. After that, we compare the respective Gini coefficients and try to identify any implication on sporting competition. Using the FIS World Cup in Ski Jumping and Nordic Combined as examples, we examine the past eight seasons to determine whether there are differences in the distribution of prize money and World Cup points, respectively. Preliminary results show that in either sport, both prize money and World Cup points are distributed very unevenly. Considering that prize money makes up only part of the total income of successful athletes, it is safe to say that both Ski Jumping and Nordic Combined are typical forms of Winner-Take-All markets. Interestingly, we do not observe any changes of either distribution over time. However, there is a significant gap between the sporting and the economic reward, with prize money being distributed more unevenly. The determination of a potential influence on sporting competition will need further research.

References