

## **Abstract**

The main goal of this thesis is to investigate the relationship between age and performance of NHL players during the observed period 2000/01–2021/22. This relationship is described based on player positions and region of origin, while simultaneously tracking changes over the period under review. The sub-goals include monitoring changes in the age structure of players, investigating the so-called relative age effect and evaluating geographical aspects of the NHL. The results of the analysis indicate that in terms of performance, forwards reach their career peak first and goalkeepers last. The career of forwards has a faster rise, but a slower decline, compared to defenders. Elite players at all positions peak later in their careers than the rest of the NHL, and at the same time, they are able to maintain their best performances for longer. Remarkable changes appeared within the age structure, as the representation of older players decreased during the observed period, and on the contrary, the dominance of young players began to increase. In addition, they young players were supposed to transfer the effect of relative age from the youth categories to the NHL. It probably really exists in the league, but it does not affect the performance and length of the players' careers. Geographical aspects can be observed when examining the place of origin of individual players. Most hockey players came from regions with suitable climatic conditions for playing ice hockey.

## **Keywords**

sports demography, performance, age structure, relative age, ice hockey, NHL