

## **Sports demography: Demographic analysis applied to populations of athletes**

### **Abstract**

The diploma thesis deals with description and application of demographic methods in sports, namely athletics. Analysis is applied to data corresponding with the length of the TOP sports career rather than length of life of the individual. This means the calculation of life tables showing the length of the TOP careers of men and women in various disciplines, increase of the TOP careers of men and women, and the rest of the TOP careers of men and women by age at the best performance. After this part, the survival analysis follows. Survival analysis is a set of statistical methods for examination of the time duration to the occurrence of the studied (observed) events, which in this case will capture the best performance in the TOP career or termination of TOP career. All calculations are performed in the SAS software.

**Keywords:** Sports Demography, Athletics, Life Tables, Survival Analysis, SAS, Czech Republic