

Mortality Differences by Handedness:
Survival Analysis for a Right-Truncated Sample of Baseball Players *

Harry H. Panjer

Abstract

Previous studies have suggested that left-handers exhibit significant excess mortality; their life expectancy is said to be up to nine years shorter than that of right-handers. The methodologies used in such studies have been criticized for not controlling for variables that can significantly bias the results. We study mortality differences for professional baseball players by examining the times of, and ages of, death of more than 6,000 players who died before 1990. Various cohorts are studied separately to recognize time-varying factors such as changes in the overall level of mortality and the changing handedness mix. The methodology uses the reverse time hazard function and recognizes that the individual observations are drawn from right-truncated populations.

Mortality levels are compared at all ages over 20. No significant mortality differences can be detected for any subgroup in the study, although small (but not highly statistically significant) differences can be observed when all cohorts are combined. This difference appears to be due to changes in the handedness mixture over time.

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