Abstract

This thesis examines the impact of weather on high-stakes exam performance using data from a standardized university admission test conducted across thirty-two locations in the Czech Republic and Slovakia. By linking individual test scores with localized weather conditions using the Ordinary Least Squares estimator, the study identified temperature and rain as the main factors influencing cognitive performance. On the other hand, the heterogeneous effect was not confirmed across types of cognitive ability and genders. Moreover, mediation analysis accompanied by bootstrapping method suggested that the impact of weather is primarily direct rather than operating through sleep patterns or commuting time. The findings highlight the relevance of weather even under mild conditions in exam performance and underscore the need to consider such external factors in the future research and educational policy.

Keywords High-stakes exams, exam performance, weather effect, OLS regression, mediation analysis, bootstrapping method

Title The effect of weather on high-stakes exam performance: The case of Czech Republic and Slovakia