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## Relative Age Effects in Men's Collegiate Soccer are Influenced by Nationality, Position, Class, and Success

Kyle S. Beyer, Eoin Hurley, Luke Haile, Brett A. Comstock. Bloomsburg University of Pennsylvania, Bloomsburg, PA

Relative age effects (RAEs) refer to an unequal birth-date distribution within cohort of individuals, typically due to selection bias. RAEs have been shown to exist in sports, specifically youth soccer and elite professional soccer. However, no study has assessed the prevalence of RAEs at the collegiate level. **PURPOSE:** To evaluate the existence of RAEs in Division I Men's collegiate soccer. Additionally, the study assessed the impact of nationality, position, class, and post-season tournament qualification on the prevalence of RAEs. **METHODS:** Birth-dates from Division I Men's collegiate soccer athletes ( $n=4,082$ ) from the 2017-2018 season were categorized into calendar quarters (CQ1: January–March; CQ2: April–June; CQ3: July–September; and CQ4: October–December) and scholastic quarters (SQ1: September–November; SQ2: December–February; SQ3: March–May; and SQ4: June–August). All athlete birth-date distributions were compared with the expected birth-date distributions for the United States. All data were assessed using  $\chi^2$  goodness of fit tests. **RESULTS:** International-born athletes (INT) displayed a significant ( $p<0.001$ ) difference in birth-date distribution when assessed with calendar quarters, with an over-representation in CQ1 ( $31.2\pm 2.8\%$ ) and an under-representation in CQ4 ( $20.0\pm 2.4\%$ ). However, American-born athletes (USA) showed a significant difference ( $p<0.001$ ) in birth-date distribution when assessed with scholastic quarters, with over-representation in SQ1 ( $27.6\pm 1.6\%$ ) and an under-representation in SQ4 ( $23.0\pm 1.5\%$ ). Furthermore, INT showed significant ( $p\leq 0.001$ ) RAEs for midfielders and defenders, while USA showed significant RAEs for midfielders ( $p=0.009$ ) and goalkeepers ( $p=0.004$ ). In terms of class, INT had significant ( $p\leq 0.045$ ) RAEs for all classes, while USA had significant RAEs only for freshmen ( $p=0.001$ ) and sophomores ( $p=0.007$ ). All INT had significant ( $p\leq 0.003$ ) RAEs regardless of tournament qualification; however, USA had significant RAEs only for non-tournament teams ( $p<0.001$ ). **CONCLUSION:** Significant RAEs exist in Division I Men's collegiate soccer; however, the presence of RAEs are influenced by nationality, position, class, and on-field team success. Coaches should be aware of RAEs during the recruitment process to avoid potential selection bias.