

RELATIVE AGE EFFECT

HOW BIRTHDATES SHAPE READINESS LEARNING, AND OPPORTUNITY IN ELITE YOUTH SOCCER.

DEFINING RELATIVE AGE EFFECT

RAE is referring the advantage athletes born earlier in an age-grouping year often have over their peers that are born later in the same year.

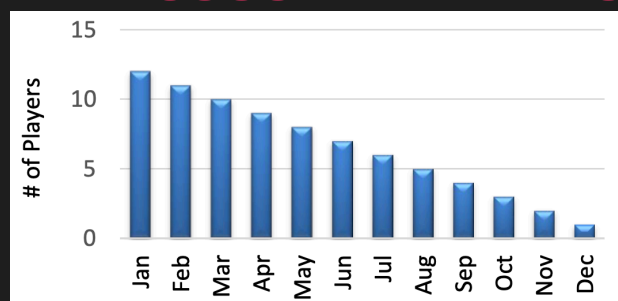
With youth soccer using a fixed cut off date, athletes within the same age group can differ by 12 months creating developmental differences.



WHY RAE MATTERS IN YOUTH SOCCER

RAE has been consistently observed in youth soccer in elite academies, national teams (U15-18), Olympic Development Programs, and elite club pathways.

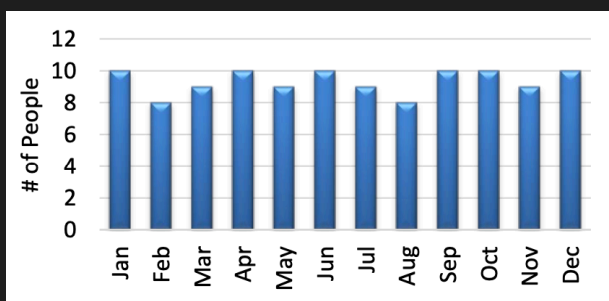
ELITE SOCCER PLAYERS



Images: usyouthsoccer.org



GENERAL POPULATION



Birth month data shows a clear overrepresentation of athletes born in the first quartile and an underrepresentation of those born in the last quartile compared to the general population.

RAE & READINESS

RAE is primarily of differences in growth and biological maturation not talent and ability.

EARLY BORN ATHLETES MAY:

- Be bigger, stronger, and faster during adolescence
- Appear more "game ready"
- Receive more playing time and coaching attention



LATER BORN ATHLETES MAY:

- Be misidentified as less skilled
- Receive fewer repetitions and opportunities
- Be deselected or drop out prematurely

KEY INSIGHT OF RAE:

RAE affects the readiness to compete not necessarily readiness to learn. Technical, tactile and cognitive skills can be developed regardless of physical maturity when positive learning environments are prioritized.

RAE PERSISTS BECAUSE IT IS REINFORCED BY EARLY COMPETITION AND SELECTION SYSTEMS. IT HAS PUT A HEAVY EMPHASIS ON PHYSICAL ATTRIBUTES WHICH IS REWARDING SHORT TERM SUCCESS.



STRATEGIES TO REDUCE RAE IN YOUTH SOCCER

Evidence based approaches include:

- Rotating or adjusting age cut-off dates
- Creating smaller age-band groupings
- Delaying early talent identification and deselection
- Shifting coaching focus from physical dominance to skill learning and development



BOTTOM LINE

Elite youth soccer environments that prioritize long term development over short term performance create more equitable opportunities, retain more athletes, and better support skill learning across all stages of growth.