Socioenvironmental factors and the birthplace effect: An exploration of community “sweet spots” in elite level basketball

Jaxson Webb\textsuperscript{1} & Marcus Myers\textsuperscript{1}
Advisor: Dr. Matthew Vierimaa\textsuperscript{2}
Graduate Student Advisor: Ross Budziszewski\textsuperscript{2}

\textsuperscript{1}Utah State University, Department of Psychology
\textsuperscript{2}Utah State University, Department of Kinesiology and Health Science
The Birthplace Effect

- Contextual factors such as one’s birthplace can indirectly influence talent development in sport (MacDonald & Baker, 2013)

- Past research on the birthplace effect have used factors such as city population and density as a proxy measure to determine the likelihood of future sport success (Côté et al., 2006; Hancock, Coutinho, Côté, & Mesquita, 2017; MacDonald et al., 2009)
  - Professional sports had over-representations from small to medium sized cities
  - Density has only been studied in European samples, yielding mixed results
The Birthplace Effect

Vierimaa, Hancock, and Budziszewski (2018)

Investigated city size and population density in United States collegiate/professional basketball

- **City Size**: 250,000-999,999 inhabitants
- **Population Density**: 1,000-4,999 inhabitants/km²

Results show that there is a shift to larger communities relative to past research (Côté et al., 2006)

Authors suggested that the next necessary step was to identify cities that fell within this “sweet spot” and better understand what is unique about them:

- Socioeconomic factors
- Availability of resources
- Basketball culture
Previous research has investigated social and environmental factors’ that impact sport participation:

- **Socioeconomic status** (White & McTeer, 2012)

- **Temperature** (Cappaert et al., 2008; Coris, Ramirez, & Van Durne, 2004)

- **Precipitation** (Wagner, Keusch, Yan, & Clarke, 2019)

- **Availability of resources** (Niclasen, Petzold, & Schnohr, 2012)

- **Basketball culture** (Dagkas & Stathi, 2007)
Purpose

To explore influential socio-environmental factors of identified “sweet spot” cities
Method: Data Collection

- City size and density data was obtained from Vierimaa and colleagues (2018) study to identify “sweet spot” cities
  - **City Size**: 250,000-999,999 inhabitants
  - **Population Density**: 1,000-4,999 inhabitants/km$^2$

- Socio-environmental factors were retrieved via the United States Census Bureau, the National Oceanic and Atmospheric Administration, official city websites, and the YMCA official website.
Method: Data Analysis

- Over 100 cities fell within the density/size “sweet spot”
- 16 cities were randomly selected based upon an extreme over-representation
  - **Example City:** Charlotte, NC \( (n = 73) \)
- 16 cities were used as a comparison group given an under-representation
  - **Example City:** Lincoln, NE \( (n = 3) \)
Method: Data Analysis

- Socio-environmental factors:
  - Median household income
  - Number of YMCA and organized recreation leagues
  - Proximity of professional/collegiate basketball programs
  - Weather

- Independent samples $t$-tests were used to identify differences between the two groups
Results

- YMCA and recreational leagues were significantly higher in over-represented cities: \( t(31) = 8.86, p < .001, d = 1.97 \)

- The representation of collegiate or professional teams in the over-represented were significantly higher than those who were under-represented: \( t(31) = 5.53, p < .001, d = .56 \)

- Median household income and weather were not statistically different between the two groups
Discussion

- Data suggests that over-represented “sweet spot” cities had more available resources (e.g., YMCAs, recreation leagues) to amplify participation (Belza et al., 2014)

- The presence of professional teams may drive interest in both sport participation and fandom

- Psychological Continuum Model (Funk & James, 2001)

- Presence of role models (Balish & Côté, 2013)
The present study identified two socio-environmental factors that are not only statistically significant, but that are also applicable. Future directions can look at how practitioners can act upon some of these factors or provide opportunity to increase the likelihood of success in under-represented areas.
Thank you!

jaxsonwebb3@yahoo.com
marcustmeyers12@aggiemail.usu.edu