Cradling Talent: Where Elite Women’s Lacrosse Players Develop and Migrate

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INTRODUCTION. As a growing sport, the governing body of lacrosse is focused on producing elite athletes while cultivating opportunities for mass participation. However, cultural and physical geographies can support or deter an athlete’s development. Opportunities associated with where one is raised, such as the availability of a sport, access to facilities, or local landscape, vary geographically (Baker & Logan, 2007). Spatial interactions are not only relevant to the production of athletes but also play a role in the demand for an athlete (Andris, 2018). Intercollegiate athletics are an important factor in sports migration as well as production as they impact growth or change of the local sports culture. The distinct geographic and cultural history of lacrosse, especially the development of the women’s game, provides a unique example to examine production of talent and spatial migration patterns of athletes.

PURPOSE. The purpose of this study is to examine spatial and temporal trends of the growth, migration, and dispersion of talent pools in women’s collegiate lacrosse.

METHODS Rosters from universities and colleges that support Division 1 women’s lacrosse were collected for the 2009-10, 2014-15, 2019-20 academic years to avoid multiple counts of an athlete. These publicly available records (N = ~10,000) include the athletic year, position, and hometown of the student-athlete. Schools and hometowns were geolocated. Local indicators of spatial autocorrelation statistics were used to detect hotspots of talent recruitment and data was stratified by position and athletic year. Migration was measured by a proxy of geographic pull power or the summation of the average rank of six metrics: the average Euclidean distance each student-athlete travels from their hometown to their school, the stand deviation of student-athlete distances, the distance between the school and the mean center, locality, hometown variety, probability density function. Both talent and migration measures will be analyzed as spatiotemporal data.

HYPOTHESIS Lacrosse talent is not randomly distributed throughout the United States, and athlete production was higher in the northeast and the mid-Atlantic regions. Hotspots trended westward and slightly southward with time. No differences were observed by position or athletic year. However, geographic pull power of western located schools decreased with time.

SIGNIFICANCE This study aims to illustrate how schools that provide women’s lacrosse drive migration of varying degrees and influence local communities by impacting the growth of the sport. Intercollegiate athletics can impact communities beyond strengthening the local economy (Yiannakis et al., 2013). Although women’s collegiate lacrosse in the west is budding (e.g. University of Southern California’s inaugural year was 2013), the trickledown effect will subsequently influence local youth lacrosse (Schlereth, 2013). In time, community exposure to the sport may increase participation and produce elite talent, altering the location of athlete production hotbeds. This mutually beneficial process is important to understand as exposure to the sport can increase participation opportunities and diversity, especially for girls as women’s collegiate lacrosse is settling in the west faster than men’s (i.e. the western-most men’s college team is at the University of Utah).