The Passage of Youth Sports Concussion Legislation across States: An Institutional, Mixed-method Analysis

Di (Landy) Lu, University of Michigan
Kathryn Heinze (Advisor), University of Michigan

Introduction
Concussion in young people attributable to sports is an important public health issue (Moser & Schatz, 2002). In recent years, new policies, new knowledge, increased media attention, and more government involvement around concussions in youth sport are indicative of institutional change. One of the most significant changes around youth sport-related concussions is the passage of new concussion legislation across states (Adler & Herring, 2011; Ellenbogen, 2014). In 2009, Washington State passed the first concussion legislation in the country: the Zackery Lystedt Law, named after a young athlete who was permanently disabled after sustaining a concussion and returning to the game too soon. Similar concussion legislation passed very quickly across states. By 2014, all 50 states and the District of Columbia in the US passed similar youth sport concussion safety laws. The enactment of the concussion legislation is one of the most significant youth sport safety policy initiatives to date (Adler & Herring, 2011; Chrisman, Schiff, Chung, Herring, & Rivara, 2014). Building on new institutional theory, this research examines the puzzle: What institutional factors influenced the adoption of concussion legislation across states?

In this study, we combine both quantitative and qualitative approaches to investigate the intra- and inter- state level conditions that affect the adoption of the youth sport concussion legislation across states. The early phase of the study suggested that four institutional-related conditions at different levels (intra- and inter- state levels) in the policy adoption process: state norms, disruptive events, state advocacy, and inter-state networks. By examining these four conditions, this study integrates institutional trigger (e.g., disruptive events), cultural (e.g., state norms), social (e.g., inter-state networks), and political (e.g., state advocacy) sources to present a fuller picture on innovation adoption across states.

Theoretical background
Studies in sport management suggest that the adoption of new practices across organizations is driven by institutional forces (Slack & Hinings, 1994; Stevens & Slack, 1998; Babiak & Trendafilova, 2011). For instance, in their seminal work on National Sport Organizations (NSOs) in Canada, Slack and Hinings (1994) found that a changing federal mandate (a type of regulatory pressure) led to the NSO’s adoption of a more bureaucratic structure. In a more recent study, Babiak and Trendafilova (2011) found that many professional sport organizations engaged with new environmental management practices to seek institutional legitimacy. This research tends to utilize a qualitative approach and focuses on how sport organizations might be coerced into adopting new structures (Slack & Hinings, 1994; Vos et al., 2011) or mimic others’ practices in order to achieve legitimacy (Babiak & Trendafilova, 2011; Trendafilova, Babiak, & Heinze, 2013). We know less about the conditions associated with sport policy adoption across states, which likely involve a wider set of institutional factors (Zhang & Keister, 2016). Examining these conditions through a mixed methods approach can shed light on what and how institutional factors influence policy/practice adoption across states. Indeed, scholars have called for more mixed methods studies in sport management research (Washington & Patterson, 2011; Rudd & Johnson, 2010). Considering both foundational and newer institutional factors relevant to sport policy adoption across states, we develop hypotheses around the influence of disruptive events, state norms and advocacy, and inter-state networks.

Methods
In this study, we combined both quantitative and qualitative data to investigate the intra- and inter- state level conditions that affect the adoption of the youth sport concussion legislation across states. We followed two data collection procedures: We first conducted an event history analysis (EHA) and investigated the effects of state norms, disruptive events,
state advocacy, and inter-state networks on the adoption of the concussion legislation. In the quantitative EHA design, we followed three decision rules. First, as is common in the previous research (e.g., Boehmke & Skinner, 2012; Rosenson, 2006), we centered on the 48 contiguous states and excluded Alaska and Hawaii from the analyses because of their isolated geographical location and some missing observations. Under this rule, we got 154 observations, a sample size large enough to make valid inferences. Second, the time period for this study starts in 2009, the year of the first adoption by Washington, and ends in 2014 when the last state Mississippi adopted the concussion law. Because all 50 states had adopted some form of the concussion law by 2014, there is no right censoring issue in this data set. Third, consistent with previous research (Vogus & Davis, 2004; Schneiberg & Soule, 2005), the characteristics of time-varying covariates (e.g., state advocacy, inter-state networks) were lagged 1 year assuming that previous year’s characteristics affect current-year decisions.

In addition to the quantitative data, we collected 12 first-hand interviews with key local actors who had participated in the enactment of the concussion legislation in four early adopter states (e.g., Washington, Oregon). To identify key local actors, we first drew on research articles (e.g., Adler, & Herring, 2011; Ellenbogen, 2014), legislation history (e.g., state Senate and House proceedings), and local news to search for organizations and individuals involved in the passage of the concussion legislation. We then confirmed my initial list with some key advocates by asking them to identify any individuals or organizations that are missing from the list. Key interviewees included leaders of state-level youth sports associations, advocacy groups, professional sport organizations, and concussion researchers from academic institutions. The interviews were conducted between June 2017 and September 2017.

Discussion and Implications
Based on these results, we found that a series of intrastate dynamics with respect to innovative state norms, disruptive events, and state advocacy had a statistically significant impact on policy adoption. Congruent with the quantitative findings, the interview data also provided further support on the role of disruptive events and state advocacy on the adoption of the concussion legislation. This research advances sport management scholarship in several ways. First, this study enriches institutional studies in sport management by shedding light on the institutional triggers, cultural, and political forces that operate in the innovation adoption process. By juxtaposing quantitative and qualitative modes of analysis, this study also contributes to a growing interest in mixed methods research in sport management (Rudd & Johnson, 2010). Further, by unraveling the multilevel conditions underlying the adoption of a new sport policy across states, this study answers the call by Washington and Patterson (2011) to “deeply examine a sport field landscape” (p.10). More broadly, by focusing on the enactment of the youth sport concussion safety legislation, this study augments the larger study around concussion in sport with updated data on relevant policy and institutional developments.