Does a Novelty Effect Exist for Renovated Facilities? A Look at Division I-FBS College Football

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Over the last few decades, numerous new sports stadia were constructed throughout North America for professional sports leagues (Long, 2013). While city leaders provide numerous reasons as to the benefits of the teams/arenas to the city (Rosentraub & Swindell, 2002), taxpayer skepticism has increased regarding the amount of public dollars devoted to a new facility (Brown et al., 2015). Within negotiations regarding a potential new venue for a professional sports team, one argument that is made concerns renovating the existing facility to include modern, fully loaded amenities, which consumers desire and the team owners demand to increase their revenue. While many reasons are provided as to why not to renovate existing facilities (e.g., opportunity costs, increased taxes, and unpaid existing stadia debt), little empirical work exists to examine if similar impacts found for new facilities such as increased real estate value (Agha & Coates, 2015; Huang & Humphreys, 2014) and proximate development within a specific jurisdiction (Crompton, 2014; Harger et al., 2016) occur for renovated facilities.

The purpose of this paper is to explore one such impact for renovated facilities, the novelty effect. The novelty effect is defined as a short-term increase in game attendance that is attributed to the newness of a stadium (Soebbing et al., 2016). Within both major professional (e.g., Coates & Humphreys, 2005; Propheter, 2015; Clapp & Hakes, 2005) and minor league (Gitter & Rhoads, 2014; Soebbing et al., 2016) sport, a novelty effect has been shown to exist in new facilities. However, this effect is short lived as attendance declines over the course of the first five to ten years of a new arena.

In order to examine the presence of a novelty effect in renovated facilities, the proposed research examines attendance at NCAA Division I-FBS college football games from the 1993 season through the 2015 season. Unlike professional teams, colleges cannot threaten to relocate to a different city that it can leverage in order to get a new facility built (Maxcy & Larsen, 2015). Yet renovations of existing campus buildings are vital to institutions of higher education. In particular, different types of renovation serve “as instruments for conveying our common heritage, it seems highly contradictory to the institutions’ basic purpose that buildings, landmarks and memorials of historical and cultural significance would be placed in danger” (Dober, 2008, p. 72). Further, the renovation of campus buildings like football stadia demonstrate the potential for the facility’s future use while simultaneously promoting the heritage a sport venue can provide. Finally, it should be noted “[a] major building rehabilitation is equivalent to a multiple-organ transplant: it is invasive, dangerous, and risky. The ultimate goal is the long-term preservation of the patient” and in the case of sport stadia satisfaction of institutional stakeholders (Lynch, 2003, p. 43).

The sample period yields approximately 2,660 team-season observations. For the proposed research, the dependent variable is the total regular season home team attendance in the observed season. Given the expectation of a numerous sellouts throughout the data set, it is expected that a Tobit model will be estimated. Not correcting for the presence of sell outs using a Tobit model and instead running a standard OLS regression would lead to biased estimates (Gujarati, 2003).

The key variable of interest is renovation. Originally developed by Coates and Humphreys (2015) and later used by Gitter and Rhoads (2014), Propheter (2015), and Soebbing et al. (2016), we first use an indicator variable equal to 1 if the renovation is 10 years old or less. This variable assumes a novelty effect is constant over this time frame for a new stadium. To allow for variation of the renovation variable by year, we create separate indicator variables for each of the first 10 years of the renovation.

We contacted and gained access to the facility documents at all member schools over this time period. In looking at the facility documents, we were able to code renovations by type according to the four distinct types of renovations
developed by Weeks and Gimmer (1995): rehabilitation, restoration preservation, reconstruction. Rehabilitation was defined as the “act or process of making possible a compatible use for a property through repair, alternations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values” (p. 60). Restoration was conceptualized as “accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period (p. 116). Reconstruction was identified as “depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location” (p. 164). Finally, preservation was presented as maintenance and repair of a facility to retain its form or how it evolved over time.

In order to isolate the potential presence of a renovation novelty effect, we include several control variables that are partitioned into several categories. The first category is on-field performance which includes the winning percentage of the team in the previous season and the number of 1st round NFL draft selections. The second group includes off-field team and university characteristics including conference indicator variables, the age of the stadium, whether the school is a private institution, and the presence of a new head coach. The third group includes market characteristics such as university enrollment. All of the control variables are expected to be obtained from a variety of secondary sources including the IPEDS and EADA databases, ESPN.com, and the College Football Data Warehouse.

We believe the results of the proposed research will be important to a variety of research areas. First, the results provide additional information regarding whether professional sports teams and cities should attempt to renovate an existing facility or build a new facility. Should a novelty effect be found in renovated facilities consistent to that of prior research on new sports facilities, it provides additional rationale for pursuing a renovation of an existing facility that might cost less public dollars than a new facility. By partitioning renovations into the specific types as outlined by Weeks and Gimmer (1995), we are able to isolate whether specific renovation types provide a longer potential novelty effect. This information is important for facility managers and other public policy makers in thinking about renovating existing sport and recreation facilities.

The findings are also important to research looking at sports facilities within higher education. Previous literature documents an arms race relating to athletic facility construction and renovation (Hoffer et al., 2015). The results from this study looks at one additional area where impacts from facility construction and renovation can potentially be found. Furthermore, the results speak broadly to university presidents and executives engaging in similar entrepreneurial behavior documented across cities in the US and Canada as it relates to competing for capital through developing and leveraging amenities that become key assets for the university (Begg, 1999; Hannigan, 2005).