

# Developing the Concept of Financial Modernization within a Historical Review of College Football Stadium Construction

Tiffany Demiris<sup>1</sup> and Chad Seifried<sup>2</sup>

<sup>1</sup> St. Bonaventure University

<sup>2</sup> Louisiana State University

The present study examined the financing approaches employed by football-playing institutions in the National Collegiate Athletic Association's (NCAA) Division I Football Bowl Subdivision (FBS) between 1869 to 2025. The goal of the current research aims to contribute to the literature on modernization by presenting a process of financial modernization. Previously, the notion of financial modernization has only been inferred and not explained or theorized. To date, the researchers discovered cost information on roughly 76.4% of the 2,834 new construction or renovation projects produced by the sample. Using a sport-based historical research approach, a 7-stage chronological ideal-type was developed to showcase the evolution of financing practices and to inform the subsequent development of an 8-stage process model of financial modernization. The process model developed for this study was inspired by previous scholarship focused on explaining the modernity of financial systems and shows it to be complementary of both reflective and ecological modernization. The stages of the model illustrate how financing for products, services, or phenomena start with self-funded private interest before new mechanisms are created by external and internal public interest. Institution purse holders and developed institutional fields (e.g., intercollegiate athletics) follow as new financing sources. Collectively, private and public interest develop institutions and institutional fields which collectively create conditions and inspiration for government funded programs before societies of support emerge to establish new financing mechanisms. Lastly, the present study discovered entrepreneurial activities emanating from established phenomena emerge as a final process stage in financial modernization.

## Article history:

**Received:**

August 2025

**Revised:**

October 2025

**Accepted:**

October 2025

**Keywords:** Modernization, Financing, Stadiums, Football

As an organizing concept, modernization initially emerged during the nineteenth century and evolved over time to help western scholars better explain the development of society, capitalism, and their corresponding products and services that surfaced from various economic, political, and social changes (Downs & Seifried, 2019, 2023; Inglehart & Welzel, 2005; Seifried & Novicevic, 2017). Antoine de Condorcet, Henry Maine, Adam Smith, and Ferdinand Tonnies, for instance, all used economic data and historical information to gain a better understanding and explain such changes in the western world (Downs & Seifried, 2019). Similarly, twentieth century scholars like Talcott Parsons, Max Weber, and Louis Wirth advanced modernization as a theoretical construct to suggest “socioeconomic development brings cultural changes that make individual autonomy, gender equality, and democracy increasingly likely, giving rise to a new type of society that promotes human emancipation” (Inglehart & Welzel, 2005, p. 2).

More recent revisions to modernization advocated its utility to predict changes in society and institutional fields globally (Downs & Seifried, 2019, 2021, 2023; Seifried & Novicevic, 2017). As one example, previous sport-based scholarship embraced modernization theory to better understand how sport evolved over time (i.e., rules generation and record-keeping; e.g., Adelman, 1986; Downs & Seifried, 2019; Houlihan & Green, 2009; Howell, 1998) and how it developed as a commodity to boost a country’s reputation (e.g., Hoberman, 1987; Llewellyn, 2012; Lukuslu & Dinssahin, 2013; Sotomayor, 2015; Wang, 2015). Next, modernization served as a theoretical approach to explain the evolution of sports such as British soccer (Bale, 1993), professional football, baseball, hockey, and basketball in the United States (Downs & Seifried, 2021, 2023; Seifried, 2010b; Seifried & Pastore, 2009a, 2009b), and athletic grounds and facilities (Pujadas, 2012; Seifried, 2016; Seifried et al., 2016). The latter often featured projections on future facility construction (e.g., multiplication of amenities and technologies) based on past trends.

During its advancement, modernization scholars markedly developed a typology that categorized modernization as either reflexive or ecological (Downs & Seifried, 2023; Seifried & Novicevic, 2017). Scholars have argued reflexive modernization shows how societies and organizations increasingly sought to limit risk to existing or apparent threats (Giulianotti, 2009). Ecological modernization focuses on the ongoing development of industries to resolve environmental concerns and/or induce or counter biological changes through the use, development, and modification of technology (Johnson & Ali, 2018).

Subsequent use of the term modernization, due to its general understanding, was also applied to various contexts or phenomena. For example, technological modernization emerged as a concept to describe the evolution of and search for new products that offer revolutionary breakthroughs, enhanced efficiency, and improved communications to address or create economic and cultural transformations (Glazyev, 2014; Martynov, 2017). Elsewhere, financial modernization appeared in legislation (e.g., Financial Services Modernization Act, 1999) focused on financing and/or the banking industry. However, the term financial modernization has been misappropriated there and with scholarship that focused on singular financial systems, because they

did not offer a formalized connection to modernization theory and cultural transformations.

Current modernization literature also does not focus with any great emphasis on the modernization of financial approaches (Downs & Seifried, 2019), even though many scholars previously alluded to the notion of financial modernization within general, ecological or reflexive frameworks. Adding to this point, scholars (e.g., Kroszner 2000; Sylla 2002) presented compelling viewpoints about modernity and markers of financial systems but they have not taken the next step and recognized how financing practices modernized in a specific order and may have done so due to specific events, innovations, interests, and needs within a variety of institutional fields and/or society. The present study aims to contribute to the literature on modernization by presenting a process model on financial modernization and arguing, like technological modernization, it can complement both reflexive and ecological modernization.

A challenge to better understand the potential introduction of financial modernization as a distinct phenomenon compels the selection of a theoretical sample that has produced a substantial history of financial development. Notably, both reflexive and ecological modernization are employed by sport-based scholars and have been featured in studies focused on exploring the evolution of sport facilities (Downs & Seifried, 2019). As facility construction and finance options undoubtedly continue to evolve, institutions of higher education and organizations will be tasked with navigating the growing complexity of financing new football stadium construction or renovation projects. The present study examines the financing approaches employed by institutions in the National Collegiate Athletic Association's (NCAA) Division I Football Bowl Subdivision (FBS) from the sport's official birth in 1869 to 2025.

Many individual case studies and other research have been completed on intercollegiate football stadium projects, but no scholarly work has focused specifically on understanding the financing of stadia collectively, changes over time, and contextual factors that facilitated financial advancements. This is interesting because the pressure to keep up with institutional peers, to meet the needs and desires of various stakeholders, attract top talent, and satisfy business and media partners historically required a constant evaluation of facilities and involves decisions about where improvements can be made and how those can be financially supported (Petersen & Judge, 2021). Next, it is clear from the literature that over time, stadium improvements demanded significantly more capital as they became larger and more complex (Greenberg & Gavin, 2021). The increasing cost of sport facilities also involved greater financial risk and thus, it appears institutions of higher education increasingly created multifaceted financing plans that utilized multiple funding streams. In many cases, these financial schemes were also different than those used to finance professional stadium development (e.g., Alakshendra, 2016; Crompton et al., 2003; Long, 2005; Williams & Seifried 2013), which has received more study. In the future, it is certain the financing of stadium projects will continue to evolve as new demands arise and technologies and innovation improves the college football experience for consumers, participants, and other stakeholders. Appropriately, understanding the

process of financial modernization will serve to help identify existing financial approaches and potentially create new ones to realize organizational goals centered on facility construction but also those that support contract development, budgeting, and other activities.

## Theoretical Framework

Past modernization literature regularly shows that as societies and institutional fields continuously change the levels of complexity often increase (Downs & Seifried, 2019; Seifried & Novicevic, 2017). Within this point, specialization (e.g., jobs and institutional fields), standardization, regulation, and commercialization are important features of modernization and a foundational part of this increasing complexity (Seifried, 2010b). Next, modernization occurs through introduced innovations, political structures, evolving court systems, financial structures, and environmental pursuits (Downs & Seifried, 2019; Seifried & Novicevic, 2017). In the West, these innovations and/or structures are a result of the maturation of capitalism and the increasing interaction of community members and interests of the wealthy to not only demonstrate their standing but to build more wealth for themselves and potentially their community (Seifried & Novicevic, 2017). Further, these innovations and structures reflect the emergence of meritocracy and advancing demonstrations of civic pride (Downs & Seifried, 2019).

Noticeably, much of the modernization research over the past couple of decades can be identified as either reflexive or ecological (Seifried & Novicevic, 2017). Many scholars including Lash (1993), Beck (1992), Giddens (1990, 1991), and Durkheim (1997/1893) previously described the concept of reflexive modernization as the sense of a *conscious collective* [emphasis added] rooted to individualism and morality. Regarding the conscious collective, Durkheim (1997/1893) and later Coleman (1990) posited more instances of reflexivity with respect to rational decision-making and actions will be realized as individuals experience increased freedom from conventional structures of society. Giddens (1990, 1991) equated reflexive modernization as marked by the growth of globalization and the deterioration of traditions.

Correspondingly, Gleeson (2000) noted reflexive modernization focuses on monitoring and reducing risk as changing views of crisis, associated with modernity, impact various shared points of view by the public. Within this perspective, Gleeson highlighted the needs of society to navigate the ‘dual crisis’ of pursuing safety and security, associated with potential post-modernism, and balancing the status quo. Beck (1992) spoke similarly on reflexive modernization as applicable to industrialized society and the production and distribution of goods on a nation-state level when contrasting it against the second state called the ‘risk society’ where hazards, dangers, or risks, are distributed. Under this principle, Beck (1992) suggested society increasingly engaged in the ‘insurance principle’ and contingency planning to change the incalculable nature of certain phenomenon related to the welfare state and private entities.

Risk is constructed by society and increases as complexity grows. With respect to sport facility construction, Bale (1993) and Seifried's (2010b) ideal-types on the modernization of stadia, illustrate how institutions began to negate risks associated with unstable wooden sport venues by giving spectators safer, larger, and more amenity-based concrete and steel structures. Man-made wooden facilities could collapse and were more susceptible to fires, both of which could cause significant bodily injury to spectators and create financial losses (e.g., income and lawsuits). By transitioning to concrete structures, universities signaled college football was legitimate and institutions were able to overcome credible risk. Beck (1992) refers to this as "reflexive scientization" where the sciences are "confronted by their own products, defects and secondary problems" and "not only as a source of solutions to problems, but also as a cause of problems" such as domed roofs taking away the impact of weather on contests (p. 155-156).

Ecological modernization has been referred to as "the idea that capitalist-driven scientific and technological advancements cannot only attend to the world's pending environmental crises but even lead to ecological improvement" (Millington et al., 2018, p. 8). Within this frame, Mol (2003) discussed how the environment and biology have long been described as obstacles to overcome and the transition of society can be seen through endeavors to protect and/or control the environment and/or biology. Hajer (1995) and Buttel (2000) similarly connected ecological modernization to environmental policies to identify 'advanced countries' and to predict their proclivities for industrial-ecological advancement. Finally, Buttel (2000) noted processes related to ecological modernization mirror political climates and policies facilitated by the very modernization of the state. Another way to view ecological modernization includes the state incentivizing organizations to take on the responsibilities related to environmental and medical policies, threats, and opportunities, head-on, rather than through government mandates and/or pressure.

While a basic tenet of ecological modernization is a mastery of the environment via technology, Sighinolfi (2019) also states the prevailing theory of ecological modernization introduces a shift toward anticipation and prevention of environmental degradation, a nod to reflexive scientization within the ecological space. Schlosberg and Rinfrest (2008) further highlighted that as organizations seek greater efficiency and regulation and incentives can work in conjunction to improve the environment. Millington et al. (2018) showed the golf industry found ways to incorporate these goals through efforts to embrace the "natural contours of the land" into golf course design and maintenance, as well as finding increasingly efficient ways to manage pests, water usage, and grass growing through technological innovations (p. 11).

Overall, the literature on modernization infers a significant connection to financial systems and presents an opportunity to consider the notion of financial modernization (see Table 1). For instance, the modernization literature highlighted the importance of technology in building construction, which in turn is greatly impacted by financial operations or strategies in a growing complex environment. Next, reducing risk is a theme inherent within both reflexive and ecological modernization. The emergence of investors, development of insurance, and fundraising all appear to be financially

connected to risk. Yet, advancements over time made it possible to assume bigger risks through so many different financial mechanisms and technological innovations. Changes to the economy, political ideologies, and court systems are also applicable to financial systems and the search for new solutions to finance products, services, and events, which can demonstrate how financial modernization is also a distinct form of modernization.

**Table 1**

*Characteristics and Distinctions of Reflexive, Ecological, and Financial Modernization*

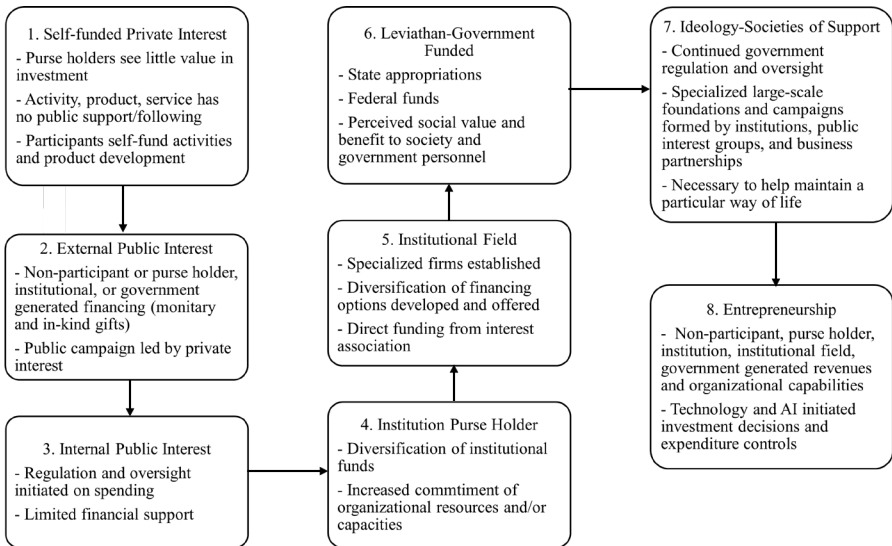
<b>Types</b>	<b>Reflexive</b>	<b>Ecological</b>	<b>Financial</b>
Characteristics	Reduce/Eliminate risk; rooted in individualism; associated with increased freedoms; globalization increasingly more likely and end of traditionalism; critique of science, pursuit of safety and security; advancements in communications	Biological and environmental mastery/ increased ability to control nature; models political climate and policy changes; modification of technology	Emergence of investors; development of insurance; establishment of institutional leaders; seek stability; business partnerships; contract development (first individual and later collective-level) business can become public commodity
Shared Characteristics	Job creation and specialization; standardization regulation; commercialization; technology advancement; political influence; decreased risk; court systems; pursuit of innovation		
Financial Modernization Distinctions	Associated with increased likelihood that risks will be taken; established classes of people (growth of technology, access to education, increased revenues and production, etc.); meritocracy development; interest in efficiency		

### **Financial Modernization**

With respect to the prospects of financial modernization, the present study suggests Kroszner's (2000) work shows potential as source of inspiration to develop a process model (see Figure 1). Within that review, Kroszner identified five categories (i.e., private interest, public interest, ideology, institution, and leviathan) of a financially modern society to explain how governmental interventions and regulations on financing are influenced by changes in economics, society, and politics. Private interest recognizes individuals and organizations as often seeking to help themselves, which can occur sometimes at the expense of others. For instance, private interest groups emerge through shared interest to engage in activities they collectively desire. Further, they may openly lobby against other interest groups and often, in organized ways, may influence policy development, changes, and regulatory efforts. Markedly, Kroszner (2000) argued that studying the way these groups change

in size and strength, as well as the way they are organized, is essential to analyzing the process of financial change. Next, understanding how regulators or purse holders (e.g., schools) respond and view potential rewards from private interest groups is important to review. In the present study, we suggest private interests surface as the starting point for financial modernization. Further, we propose that initial financing begins with the decision to engage in *self-funding* [emphasis added] initially through simple direct actions and later through more complex initiatives or strategies (e.g., refinancing).

**Figure 1.**  
*8-Stage Process for Financial Modernization*



Kroszner (2000) framed public interest as related to the efforts made to protect markets from predatory financial schemes, un/under-educated consumers or participants, and to correct failures in the market. In essence, public interest serves to “maximize social welfare” (Kroszner, 2000, p. 26). Elsewhere, Sylla (2001) similarly noted public interest may include advances in regulation and oversight from external supporters to boost revenues and curb expenditures in debt servicing. The notion of public interest, as used in the present process model, suggests as the size of private interest and expenditures multiply to produce products, events, and services, public interest builds expanding purse holders’ and external parties’ willingness to assume financial responsibilities due to the benefits they accrue. Externally, consumers begin their support through donations (e.g., monetary and in-kind) to support survival of phenomena during development. Internally, purse holders (e.g., schools) are later compelled to establish guidelines to regulate investments and expenditures but not generally active in designing financing plans. Further, they are likely to limit their investment and diversification strategies.

The category of institution-level financing implies policymaking often uses knowledge of “transaction costs and institutional arrangements for decision-making” as developed and influenced by outside entities and burgeoning institutional fields (Kroszner, 2000, p. 28). The present study argues that as individual-level institutions (i.e., purse holders) start committing more funds they possess, they will also increasingly diversify their approaches to finance popular private interests of their members. This type of financing may also include establishing special committees and/or using third-party actors or specialists (e.g., financial firms) to facilitate and/or present recommendations on financing approaches based on available resources. Institutional fields, such as intercollegiate athletics, later surface because of the growing number of institutions supporting similar products and services to examine financial issues and to understand and provide proposals for financial development. Interest associations, like the NCAA and related financial firms, often attempt to assemble, communicate, and promote the incorporation of a growing number of specially designed financial options to support product development and may even offer funds from their collective membership’s pooled resources.

Leviathan involves outside the institution politicians and the government itself as special interest groups and their effort to expand their influence and/or respond to or capitalize on constituent and institutional fields demands and interests. According to Niskanen (1971) and Brennan and Buchanan (1977), when the government seeks to increase or maximize its size and spending, this is the leviathan approach. This practice often comes in the form of emerging government legislation and regulatory decisions within the financial services industry (Kroszner, 2000). The current study suggests that leviathan emerges as the *government* [emphasis added] recognizes the social value of a phenomenon established by public interest, institutions, and institutional fields. Further, growing confidence by politicians and government officials that an institutional field will continue to thrive prompts them to be less fearful that their support with taxpayer monies (e.g., grants and appropriations) will be viewed negatively. Moreover, they see the perceived investment (i.e., design of regulations and financial mechanisms) as beneficial to their own personal reputation and that of the government.

Finally, ideology explains continued governmental interventions (e.g., re/deregulation of financial institutions) and specifically identifies the changing beliefs or politicians and voters who influence policies (Kroszner, 2000). Next, ideology rationalizes the development of specific foundations and specialized campaigns as example *societies of support* [emphasis added] to support a phenomenon that holds a substantial history of support or interest. The thought within ideology is that as time progresses and a product or service becomes part of or a way of life, attitudes change and financial innovations are sought to sustain and enhance operations.

## Method

The present study examined the financing approaches employed by NCAA Division I Football Bowl Subdivision (FBS) institutions ( $n = 134$ ) from 1869 through

2025. To begin the study, we selected Seifried's (2010a, 2017) framework for conducting historical research in sport as a base. Step 1 compels the identification and selection of appropriate primary and secondary sources (Table 2). Primary sources are developed by individuals and groups intimately involved in the phenomena being studied. Examples of primary sources sought and discovered in present study included: financial statements, letters of correspondence, committee meeting minutes, published calls for proposals, and organizational reports (e.g., president annual report to board of regents and athletic department annual reports). Most of these documents were collected via archival visits ( $n = 47$ ) conducted at various institutions. University archivists and special collection finding aids or catalogs also helped identify sources (Demiris & Seifried, 2023).

Secondary sources served to fill in some missing data and context potentially omitted within primary documents. The best secondary sources are generally developed with primary sources and come in the form of scholarly books, journal articles, and newspaper articles, which can also exist as primary sources (Demiris & Seifried, 2023; Seifried, 2010a, 2017). Various databases such as HathiTrust Digital, Nexis-Uni, Google Scholar, JSTOR, newspapers.com, and newspaperarchives.com were used to collect data. Next, school websites and digital collections of each member of the sample were searched. Keyword searches focused primarily on identifying the existence of new construction and major renovation efforts framed by Weeks and Grimmer (1995) as reconstruction, preservation, rehabilitation, and restoration projects that substantially improve a building and/or change its layout. Maintenance costs were not collected. With respect to these types of renovation, previous markers on stadium innovations established by Tutka and Seifried (2020) include changes to turf/grass, scoreboards, seats, grandstands, press boxes, concessions, restrooms, locker rooms, lights, and any major infrastructure activities.

Step 2 requires a source criticism of the collected documents to assess, in essence, their validity and reliability (Decker, 2013; Seifried, 2010a, 2017). External checks occurred by determining authenticity or verification of data through examination of document author credibility, corroboration of information through a timeline, and if information came from archives and digital collections. Internal criticism involved the effort to understand if documents emerged from participants or non-participants and if documents were intended for a specific audience. Collectively, this approach helped avoid selection bias and identify various conditions (e.g., social, political, religious, or economic) that might influence financing decisions.

Step 3 involves the analysis of the data and information collected. The current study used an a modernist epistemological approach and ecological mode to conduct archival research. Within the amodernist approach, we paid "attention to relationships within their evaluation of archived materials to produce their descriptions" (Demiris & Seifried, 2022, p. 195). The ecological mode appeared desirable for financial modernization research because it expects organizations that make up the population of an institutional field will collect specific information and describe it similarly (Demiris & Seifried, 2022).

**Table 2**  
*Sources of Data Table*

<b>Data Type</b>	<b>Amount (All Range from 1869-2025)</b>	<b>Use in Analysis</b>
<b>Primary Data</b>		
<b>Institutional Archives (Physical/Digital)</b>	<b>47/134*</b>	Provide factual data about construction projects, financing types, and amounts
<ul style="list-style-type: none"> <li>• Meeting minutes</li> <li>• Letters of correspondence</li> <li>• Annual reports</li> </ul>		
<b>Government Documents and Reports</b>	<b>82</b>	Provide factual data about enrollments, populations, and regional information
<b>Secondary Data</b>		
<b>History/Scholarly Books</b>	<b>136</b>	Provide an overall history of college football and facilities at specific institutions, the history of college football, or other interpretation of outside factors
<ul style="list-style-type: none"> <li>• Individual institutional histories</li> <li>• Individual sport team histories</li> <li>• General college football history</li> </ul>		Motivations for financing activities
<b>Academic Articles</b>	<b>201</b>	Provide an overall history of college football and facilities at specific institutions, the history of college football, or other interpretation of outside factors, historical contexts, or theoretical information
<ul style="list-style-type: none"> <li>• Individual school construction histories</li> <li>• Specific time period construction histories on colleges</li> </ul>		
<b>Institutional and Industry Stadium Websites</b>	<b>175</b> (current and defunct)	Provide factual data about construction projects, financing types, and amounts
<b>Newspaper Articles</b>	<b>5000+</b>	Provide factual data about construction projects, financing types, and amounts
<ul style="list-style-type: none"> <li>• Regional, National, and Student</li> </ul>		

*Note.* \*Archival visits occurred with the following institutions: Air Force, Alabama, Arizona, Arizona State, Arkansas, Army, Ball State, Baylor, Boise State, Bowling Green, Brigham Young, Cincinnati, Clemson, Colorado, Colorado State, Georgia, Georgia Tech, Illinois, Iowa, Iowa State, Kentucky, Louisiana-Lafayette, Louisiana State, Mississippi State, Navy, New Mexico, North Carolina, Notre Dame, Ohio, Ohio State, Ole Miss, Penn State, Pittsburgh, Rutgers, Southern Methodist, South Carolina, Southern Mississippi, Syracuse, Texas Christian, Temple, Tennessee, Texas A&M, Tulane, Utah, Vanderbilt, Wake Forest, and Wyoming.

A spreadsheet was employed to triangulate and categorize various financing methods. This served to reduce concerns when dissonant data surfaced, and to identify and organize changes in financing eras. Markers of financial modernization in construction or renovation used in the current study included: obligation bonds (external public and government), revenue bonds (self-funding, internal and external public, and institution), monetary gifts (self-funding and external public), in-kind gifts (self-funding and external public), taxes (institution, government, and societies of support), student fees (self-funding and internal public), non-football activities (entrepreneurial), student and faculty labor (self-funding), state appropriations and federal funding (government), athletic department resources and organizational capabilities (institution), alumni and athletic foundations (societies of support), school funds (institutional), fundraising campaigns (institution and societies of support), and grants (government and ideology).

Finally, in Step 4, the current research employed an ideal-type as a heuristic device to facilitate understanding of the various stages in the process model. This ideal-type appears in a chronological order to help better communicate similarities and marked differences between various eras. Work by Crompton et al. (2003) and Tutka and Seifried (2015, 2020) promoted the use of heuristic devices for theorizing efforts and to generalize information emanating from of a multitude of cases, context, and data within a period to illustrate the evolution of a phenomenon (i.e., financial modernization). Major changes in financing and stadium construction activity are used as context for stage changes in the ideal-type.

## Results

The results offer a seven-stage ideal-type on the financial modernization of NCAA Division I-FBS institutions from 1869 to 2025. We found evidence of 2,979 pre-existing, new construction, or renovation projects in the sample. Regarding the renovations, rehabilitation surfaced as the most common construction activity. Reconstruction, preservation, and restoration followed in that order. Beyond additional seating expansions, we discovered information on turf/grass ( $n = 526$ ), scoreboards ( $n = 424$ ), press boxes ( $n = 213$ ), lights ( $n = 165$ ), and restroom and concessions ( $n = 135$ ) in addition to other items. Financing information was discovered on approximately 76.4% of the sample. The total found costs of new construction and renovation projects are roughly \$28.5 billion nominally or \$46.8 billion considering cost inflation. Pre-existing venues ( $n = 145$ ) that required no modification were disregarded in the analysis.

**Table 3**  
*Seven-stage Ideal-type and Top 5 Financing Approaches*

Stage/Years	# of Projects	New Construction and Renovation Costs in 2025 dollars	Top 5 Financing
Stage 1 (1869-1903)	217	New Construction Total \$4,383,870 and Avg. \$128,937 Renovation Total \$7,762,094 and Avg. \$204,266	Student and Faculty Labor (private interest = 61%), In-kind and Monetary Gifts (private and public interest = 24%), Student-led Athletic Associations Fees and Gate Receipts (private interests = 19%), limited school funds (public = 19%), and appropriations (public = 6%)
Stage 2 (1904-1929)	507	New Construction Total \$574,061,215 and Avg. \$5,519,830 Renovation Total \$185,292,798 and Avg. \$1,052,800	Monetary Gifts (public interest = 33%), Athletic Department and Student Fees (private and public interest = 32%), Faculty and Student Labor (private interest = 26%), Diverse School Funds (institutional = 17%), and Fundraising Campaign (institutional and public = 10%)
Stage 3 (1930-1946)	284	New Construction Total \$168,962,253 and Avg. \$4,693,396 Renovation Total \$334,594,880 and Avg. \$12,534,810	Monetary and In-kind Gifts (public interest = 15%), New Deal Programs and Appropriations (leviathan = 37%), Non-student led Athletic Department (institution = 25%), School Funds (private and public interest = 12%), and Alumni Associations (public interest = 4%)
Stage 4 (1947-1969)	438	New Construction Total \$1,296,089,057 and Avg. \$29,456,569 Renovation Total \$1,372,011,538 and Avg. \$4,971,056	Athletic Association/Department (institution = 43%), Gifts (public interest = 17%), Appropriations (leviathan = 12%), Alumni Associations (public interest = 11%), and Bonds (public interest = 11%)
Stage 5 (1970-1984)	324	New Construction Total \$2,166,158,218 and Avg. \$108,307,911 Renovation Total \$2,402,109,748 and Avg. \$9,346,731	Athletic Department (institution = 41%), Gifts (private and public interest = 25%), Athletic Associations (public interest = 20%), Business Partnerships (public interest = 15%), Bonds and Appropriations (public interest and institution = 11%),

Stage 6 (1985-2002)	477	New Construction Total \$427,434,000 and Avg. \$61,062,000 Renovation Total \$7,368,787,417 and Avg. \$18,284,832	Large and Small Gifts (ideology = 39%), Athletic Foundations (public interest = 35%), Athletic Department (Institution = 22%), Suite Rentals (private and public interest = 14%), Bonds (private and public interest = 12%)
Stage 7 (2003-2025)	732	New Construction Total \$7,012,824,730 and Avg. \$350,641,237 Renovation Total \$23,048,585,752 and Avg. \$38,096,836	Gifts (private interest and ideology = 44%), Athletic and Alumni Associations (public interest = 39%), Premium Seating Suites and Stadium Clubs (private interest = 14%), Athletic Department (institution = 19%), and Bonds and Business Partnerships (private and public interest = 12%)

*Note.* Financing methods were often combined to complete various renovations and new constructions.

**Stage 1: Birth of Private and Internal and External Public Financing**

Stage 1 (1869-1903) surfaced through the emergence/development of private interest and groups of students who wanted to play and ultimately watch football on campuses. Initially students took advantage of preexisting campus grounds or available public park spaces within the community to play the sport. In this stage, student-run athletic associations surfaced to collect fees (e.g., pass the hat) and organized the first intercollegiate contests on campus athletic fields or leased neutral sites. Gradual increases in spectatorship prompted students to construct fences (e.g., wood and/or cable with canvas tarps) around the playing area and establish wooden bleacher seating to more effectively manage crowds and collect admission fees. Admission fees served to support the perpetuation of the sport via burgeoning public interest as expenditures such as travel, equipment, and meals increased (Seifried & Demiris, 2021; Seifried et al., 2021).

We discovered not all students were members of student-led athletic associations at this stage and member dues from participants (i.e., private interest group) financed early construction efforts before gifts were solicited from alumni and local businesses to demonstrate building public interest. Students were overwhelmingly more likely at this stage to donate their own money, time, and labor or expertise (e.g., engineering, architecture, landscaping, and construction) to build stands, erect fences, and resurface fields. In-kind gifts such as lumber to build stands and fences from local fans also helped finance construction of the first campus athletic fields as demonstration of private and external public interest.

Initial help from campus administrators and faculty was limited during the early part of this stage. However, we found some faculty offered their own personal funds to help establish football fields due to their interest in the sport. Later, administrators gradually initiated institutional support of football athletic grounds through making available the use of school funds, justifying such investments as aimed at cultivating relationships with alumni (e.g., gifts) and the community, enhancing the campus

spirit, and improving student retention and enrollments. At the University of Kentucky, Arther Miller, a professor of zoology and geology, recruited other faculty and local businesses to donate or invest into developing a new grandstand, the latter with promises of a 10 percent of each game's gate receipts (Seifried & Demiris, 2021).

Grandstand seating improved the experience for patrons and special institutional guests by offering better sightlines, potentially protecting them against poor weather, and space for the press (i.e., writers and photographers) to conduct their business (Tutka & Seifried, 2020). By offering improved seating options to patrons, higher gate receipts emerged that often were reinvested into athletic grounds. By the 1890s, college football attracted coverage from daily newspapers and circulated magazines like *Harper's Weekly* and *Outing* that improved knowledge of the sport and fashioned its players and coaches into celebrities. Markedly, college football games were transformed into major social events to attend full of spectacle through the play, cheering, singing, and displays of color and fashion (Watterson, 2002).

## **Stage 2: The Rise of Institutional Support and Institutional Field-level Financing**

Stage 2 (1904-1929) creates an abrupt change in financing initially with students successfully raising money from targeted alumni or local prominent citizens before World War I to help build the first permanent football stadium. The development of steel and reinforced concrete stadiums started in 1903, and both physically and financially served as a point of demarcation that subsequent stadiums of this era were to be substantially larger and more expensive and thus require more capital than simple wooden athletic grounds in Stage 1. Archbold Stadium emerged at Syracuse University in 1907 because of local philanthropist, John D. Archbold's, willingness to gift \$399,461 (\$13,661,566 in 2025) for the 18,000-seat facility (Searing, 2021). Noticeably, its predecessor (i.e., Old Oval) built in 1895 sat roughly 3,000 spectators on wooden bleachers and a primitive grandstand.

Similar to Stage 1, students and faculty were still found to donate labor and time (i.e., private self-funded interest) but now via formalized campus workdays that were approved by campus administrators (i.e., institution). Workdays provided days off school for stadium work and often involved pledges of money as well from students, faculty, administrators, and a rising class of business partners (i.e., external public interest). Faculty continued to offer their expertise as landscapers, architects, and engineers. At the University of Tennessee, for instance, their students and faculty participated in a work holiday in 1921 to assist the construction of Shields-Watkins Field. Shield-Watkins Field was a concrete \$80,000 venue that seated 3,200, four times more expensive than its predecessor, Wait Field, and nearly twice as big (Seifried et al., 2020).

The timeframe of Stage 2 incorporates the erection of college football stadiums dedicated as memorials to veterans of World War I. Making use of the successful student campaign model targeting alumni, many institutions successfully rallied students, faculty, alumni, and community members beyond businesses to raise

significant amounts of financial capital to build war memorial stadiums (e.g., University of California, Kansas State University, University of Kansas, University of Missouri, Indiana University, University of Illinois, University of Nebraska, University of Minnesota, University of Oklahoma, University of Texas). The associated fundraising campaigns gave individuals a purpose to come together in a demonstration of public interest. Their collective effort created a tangible monument and rallying point around community members and alumni who fought in World War I while at the same time providing a venue for institutions which was valuable a part of their community.

In addition to war memorials, some alumni and community members continued to utilize their extensive wealth to build stadiums (e.g., Auburn University, Georgia Tech University, University of North Carolina, University of Cincinnati, Wake Forest University, University of Tennessee, University of Michigan, Southern Methodist University, Purdue University, and University of Nevada) as a legacy to their family (i.e., private interest) or demonstrate their capacity for philanthropy. Noticeably, alumni were increasingly being called upon to financially support institutional advancement within Stage 2. Highly organized public campaigns and private philanthropy were important and utilized financing types within Stage 2 and sought to embrace individuals from various wealth categories. Based on the size of the donation, incentives promised choice seating for a period (e.g., 5-10 years) in what could be characterized as an early form of a personal seat license. The University of Illinois used such an approach to cultivate pledges from alumni and the public to help finance the construction of Memorial Stadium in 1923 (Seifried & Hernandez, 2025).

Advancement of college football facilities within Stage 2 was boosted by a strong economy in the United States and the transition to professional or non-student led athletic departments. Institutions across the country followed in the footsteps of Northeastern and Midwestern institutions and built new football stadiums and installed new athletic departments on their campuses to signal their modernity and professionalism. College football stadiums, in many places, were viewed as the front porch of the institution and importantly they needed to send a signal of their school's prominence (Ingrassia, 2012). However, professional athletic departments featuring full-time employees recognized the importance of offering amenities (e.g., restrooms and concession/refreshment stands) that addressed spectator and participant expectations for comfort.

Local businesses viewed partnership, not just simple in-kind donations like the previous stage, as a mutually beneficial investment opportunity (Oriard, 2001). For instance, businesses were keen to capitalize on opportunities brought about by homecoming events, which became popular at this time, to rally support for football and other academic programs or buildings on campus (Oriard, 2001). Elsewhere architectural and engineering firms (e.g., Osborn Engineering) developed specifically to focus on sport venue construction which the athletic department contracted. Schools and communities found football as providing tangible (i.e., economic) and

intangible benefits (e.g., enhanced civic or campus pride, psychic income, identity, and loyalty).

### **Stage 3: Government Support as Leviathan Financing**

Stage 3 (1930-1946) emerged when the Great Depression surfaced and continued through World War II as the financial stability of the United States and its citizens became more challenging financially. To attempt to stabilize the economy and organizations, the government implemented several schemes under the New Deal program developed by President Franklin Roosevelt's administration. In Stage 3, the government acted as a special interest group concerned with improving the economy. This was accomplished by investing in grants that allowed citizens to work on construction projects to earn a living and provide for their families. College football stadium projects were attractive because of their longevity and the aforementioned tangible and intangible social benefits they provided.

Within the college football stadium construction landscape, few projects were completed prior to the emergence of New Deal Programs because of a lack of funding and available physical resources at schools. Institutional income dropped with enrollments and state subsidies all but dried up in some locations causing institutional-level decision-makers to implement austerity measures (Ingrassia, 2012). To help quell the unemployment rate, Roosevelt created the Federal Emergency Relief Administration (FERA) in 1933 (Seifried & Demiris, 2022). The Federal Emergency Relief Administration did not improve employment as expected because the program required matching funds from state and local governments, up to three times the federal commitment. Most local governments simply did not have the ability to provide this funding (Seifried & Demiris, 2022).

In terms of college football stadium construction projects, FERA's successor, the Works Progress Administration (WPA), was an extremely important financing innovation and a demonstration of leviathan with respect to financial modernization. The WPA required approved projects to be socially useful and offer employment to both skilled and unskilled labor. The WPA proved successful providing work relief for approximately 8.5 million Americans (Howard, 1943). On average, WPA projects received 80% of funding from the federal government (USWPA, 1936), which allowed universities to invest in stadium construction they could not afford on their own. Again, one of the requirements for WPA funding was the project be considered socially useful (Van West, 1994). Since college football stadiums were structures that brought together thousands of individuals and offered beneficial psychic income and civic pride, such projects ( $n = 79$ ) fit well with the objectives of the WPA (Seifried & Demiris, 2022).

Many stadium projects (e.g., Louisiana State University, University of Kentucky, North Carolina State University, University of Cincinnati, Michigan State University, University of South Carolina, University of Washington) involved upgraded press accommodations and incorporated the rise of radio to serve public interest and institutional needs (Seifried & Demiris, 2022). Schools did not initially

seek to generate revenue from the broadcasting of football games over the radio but primarily used it as an educational exercise for burgeoning communications programs (Oriard, 2000, 2001). However, as radio ownership increased and school income decreased, radio served as an appropriate medium to increase publicity and exposure for institutions while promoting the social benefits and psychic income derived from these games. Improved press boxes and radio accommodations became a symbol of modern facilities and new income from radio rights served to help facilitate and finance facility projects. Additional sources of financing, although not as common as with the New Deal programs, included funds from school funds (i.e. institution), revenues from non-student led athletic departments like radio, gate receipts, and concessions (i.e., internal public interest/institution), and private gifts (i.e., external public interest).

#### **Stage 4: The Development of Ideology and Alumni Society Financing**

Material shortages prompted by a diversion of resources toward World War II explain a lack of projects completed during the end of Stage 3. Still, the lack of construction projects did not mean college football lost enthusiasm from a private, public, or institutional perspective during World War II. Taking a leviathan approach, the government and its military used football to train soldiers and improve morale overseas (Seifried & Katz, 2011). The Office of War Information also produced approximately 7,500 words daily on American football occurring in the U.S. and other regions of the world that support football on camp bases and even bowl games in those communities during occupation (Seifried & Katz, 2015). Collectively, returning troops to the U.S. clamored for football and universities responded by expanding their stadiums.

Stage 4 (1947-1969) emerged resultantly and signaled an economic recovery and growth period in the U.S. which corresponded to a new era of financial modernization. Football continued to grow in importance on college campuses once soldiers returned home from military service since it was a large part of their training and entertainment (Seifried & Katz, 2011). To keep up with this interest, the complexity of college football venues continued in Stage 4 prompting institutions and athletic departments to develop new financial options.

Newly established alumni associations surfaced as a society of support to become an important cornerstone of fundraising by universities to assist campus programs and stadium construction or renovations. As one example, the alumni association of Colorado State University petitioned to the board of regents to help them build a new stadium during this period (Hansen, 1977). Notably, some alumni associations incorporated themselves as charitable organizations tasked with soliciting major gifts and smaller gifts by volume to aid in athletic department operations and capital improvements. These associations, like Baylor University's Stadium Corporation, expanded into utilizing full-time, paid personnel to operate more effectively and grow the capacity of philanthropic gifts from individuals, alumni, community members, businesses, and other important stakeholders (Seifried et al., 2021). This is a shift

away from the smaller, volunteer and student driven organizations of previous stages from a financial modernization perspective.

Additional growth within Stage 4 occurred in the vast use of revenue bonds (i.e., non-guaranteed), which became popular. Prior to World War II, private and government financing served as the main vehicle to construct stadiums (Williams & Seifried, 2013). To develop revenue bonds, institutions solicited funds from financial lending institutions, generally paying a higher interest rate, with non-guaranteed promises of future revenues their facilities could generate. For instance, many revenue bonds relied on promised future gate receipts and other traditional sources of stadium-related income (e.g., parking and concessions). Other sources of revenue discovered in the present study included the rise of dormitory rentals (incorporated into stadiums) and radio rights fees. Advertising and bowl game revenues also served as sources.

Finally, Stage 4 shows the additional and direct lobbying of the government by schools for appropriations to help finance college football stadium construction. Institutions felt empowered to lobby for this additional governmental support because of increased enrollments produced during this stage via the Serviceman Readjustment Act (i.e., G. I. Bill). Institutions needed to expand services, the aforementioned dormitories, and social offerings at an exceptional rate to keep up with the boom in enrollments. Further, venues at this time needed to be upgraded to remain up to date with new developing technologies such as the introduction of television to accommodate an increasing base of remote spectators. Louisiana State University (LSU), for instance, successfully recruited support from state appropriations during the 1950s for the renovation of Tiger Stadium to complete the north end zone expansion with such purposes in mind, in addition to collecting additional revenues from dormitory rentals (Seifried, 2016). Improvements to the economy in jobs and income compelled such upgrades and allowed institutions to signal they were cutting edge and at the forefront of societal trends and advances in technology. These attributes made institutions attractive for investment from business partners, corporate sponsors, and wealthy alumni, in addition to attracting future students and talented athletes (Ingrassia, 2012).

### **Stage 5: Athletic Foundations and Premium Seating Financing**

Stage 5 (1970-1984) introduced the use of premium seating or luxury box leases to generate up-front and increased revenues to fund new stadium construction projects within revenue bonds. Luxury boxes were introduced in professional sports in the late 1960s with the opening of the Houston Astrodome (Titlebaum & Lawrence, 2011). Using the successful professional sport blueprint, colleges across the country began campaigns to sell luxury or skyboxes and other types of suites on multi-year leases to wealthy alumni and businesses to not only generate increased ticket revenue, but to finance the construction of said premium seating and new bleacher areas up-front with little debt service. Again, LSU serves as an example; in 1976, LSU added a second deck to the west side of Tiger Stadium. The \$11.5 million project was financed primarily through luxury box leases (Seifried, 2016).

Revenues bonds emanating from advertising and sponsorship, along with television receipts also noticeably grew over Stage 5, signaling continued public interest/support and a developing ideology. New athletic-only foundation offices emerged as a derivative of alumni associations, which attempted to support revenue bonds by tapping into a much larger landscape of donors than just the established alumni base. Athletic foundation offices surfaced as non-profit organizations with full-time staff members dedicated to raising funds for athletics departments via both annual small gift campaigns and large donations. Their mission mainly aimed to provide scholarships, academic services, operational funds, and construction capital for athletic facilities. Today, athletic foundations exist as permanent fixtures on campus and often engage in work that parallels the athletic department (Hanson & Welty-Peachey, 2022). Athletic foundations also exist as support societies with respect to financing because they reached out to people who saw football and athletics generally as an important part of or way of life to support. In essence, planned gifts became an annual call to alumni and other members of a school's fan nation.

Finally, in a demonstration of leviathan, new governmental tax code changes with respect to charitable donations surfaced to facilitate financial modernization of college football stadiums. In the 1970s, the Excise, Estate, and Gift Tax Act was adjusted to include an amendment on taxing estate gifts. Specifically, large estate gifts, offered for charitable purposes, received attention and ultimately reduced the tax yield for the government by providing more monies of the gift to the recipient (Price, 1972). This change created a whole new strategy for athletic foundations to focus on securing large gifts upon which they could maximize the money received. Resultantly, an increased number of stadium projects could be completed in the future to realize larger more complex venues that serve a variety of stakeholders. The University of South Carolina, for example, led the way for this legislative change when it successfully recruited a gift from the estate of Thomas H. and Martha Brice to renovate what would become Williams-Brice Stadium (Seifried & Bolton, 2017).

## **Stage 6: Expansion of Athletic Foundations and Financing Opportunities**

In Stage 6 (1985-2002), the advent of the aforementioned athletic foundation offices brought about a push for mega-gifts from individuals. In exchange for the enormous gifts only a small percentage of individuals or organizations are able to commit, athletic departments became inclined to name fields and venues after the donors, such as Rohrman Field at Purdue University's Ross-Ade Stadium and Boone Pickens Stadium at Oklahoma State University (Carmin, 2019). Many donors, including corporations, were also motivated to provide funds that not only help renovate the stadium but provide space for offices and academic services to improve the student-athlete experience. Examples include the Wayne Densch Center for Student-Athlete Leadership at the University of Central Florida and the John E. Jaqua Academic Center for Student Athletes at the University of Oregon, which was funded by Nike founder Phil Knight and named for founding Nike board member and Alumnus John E. Jaqua (Bachman, 2010).

Such changes toward athletic foundations led to the complete obsolescence of alumni foundations as a major financing resource. Again, this can be attributed to the fact that institutions relied more heavily on the solicitation of both small and large gifts within athletic foundations as part of a burgeoning ideology. This philosophy also led to a decline in the use of athletic department funds for capital projects as well. While the use of athletic department funds was significantly lower, they were still an important part of the larger portfolio of funding sources required to renovate and/or construct the complex and technologically advanced venues seen today. Suite rentals and revenue bonds also maintained a high presence in the financing portfolios developed by institutions of this era and matured as their numbers greatly multiplied.

### **Stage 7: Expanded Stadium Utility, Entrepreneurship, and Business Partners**

Stage 7 (2003-present) continued the diversification of financing approaches by focusing on supporting non-competition additions to stadiums. Large monetary donations became more of a private interest, similar to gifts provided in Stage 2, to promote an individual or family's legacy. Small gift campaigns (e.g., buy a brick) emerged to provide opportunities for other individuals to declare their support for stadium construction and the institution generally as part of an ideology stage. Yet, the expansion of other sources of revenue also facilitates transition to this era. For instance, concessions expanded to provide more food and beverage options and thus additional price points to boost revenues. Next, premium seating, including newly developed club seating sections, surfaced as important sources of revenue to finance facility construction.

Business partnerships multiplied during this stage of development in addition to the expansion of business activities. As an example of the latter and of new entrepreneurial financing stage, the age of many stadiums and their heritage provided universities the opportunity to start tours of facilities, provide nostalgia sales, and sell or recycle parts of their stadia (e.g., seats, pieces of the field, bleachers, scoreboards, etc.) to generate additional revenue. In some instances, we discovered the pursuit of grants to help with preservation and even environmental ideological concerns. Regarding business relationships, universities increasingly developed entrepreneurial activities within renovated or new facilities such as establishing physical therapy clinics, creating non-gameday concessions or catering sales, and offering premium luxury or club seating space for rental to schedule events (e.g., wedding receptions, reunions, proms, banquets, business meetings, etc.). This also reflected another burgeoning ideology that sport stadiums should do more than sit vacant 40+ weeks a year and instead help service community and/or university needs.

Such efforts to diversify sources of income were necessary due to outside forces. The Tax Cuts and Jobs Act of 2017 repealed the 80-20 charitable deduction rule (Sharma, 2018). Previously, payments for priority seating or access to tickets, as a form of personal seat license at university athletic events, allowed donors to take an 80% charitable deduction on their taxes. Thus, an institution requiring donations ranging from \$500 to \$2,000 per seat could recruit donations by highlighting that

80% of that donation could be deducted on their personal income taxes (i.e., Section 13705 of the Code). During Stage 6 most institutions of higher education at the NCAA Division I FBS level required donors provide an annual financial gift to enjoy the opportunity to purchase season tickets and gain access to stadium clubs. Expectedly, many colleges collectively expected losses to be hundreds of millions of dollars each year. As example estimates made during a ten-year period up through 2016 show donors spent anywhere from \$2.5 to \$2.9 billion on seat licenses (Sharma, 2018). The implementation of the new Tax Cut and Jobs Act prompted many schools (e.g., University of Oklahoma, University of Florida, Southern Methodist University) to request donors potentially prepay their anticipated suite rental or personal seat license to make use of the available tax deduction through 2017. Lastly, it should be noted that donations and gifts remained high due likely to the perceptions that annual giving is a way of life.

## Discussion and Conclusion

The present research endeavor attempted to establish a process for financial modernization using a theoretical sample within an abductive approach that studied the history of financing NCAA Division I FBS institutions from 1869 to 2025. Previous scholarship and legislation produced on modernization (i.e., general, ecological, or reflexive-based) inferred financial modernization but there were not any formal attempts to theorize the concept or its process. The current study argues reflexive and ecological forms of modernization are complemented but also notes their differences with financial modernization since it is associated with the increased likelihood of risk while pursuing stability, the establishment of classes of people, and meritocracy. The 7-stage ideal-type (table 3) helped develop the 8-stage process for financial modernization (figure 1) and provided a substantial list of markers of financial modernization ranging from simple self-funding to diversified financing portfolios for complex phenomena. In this instance, the scope of projects generally shows increased total and renovation costs over time except in eras of austerity (e.g., Stage 3- Depression). Further, the 7-stage ideal-type demonstrates, as Krosner (2000) claimed, groups change in size and strength as private interest transitions to public and later to an institutional field and ideology. More specifically, the ways in which supporters organize efforts to assist financing based on the awards or benefits they receive and their wealth-status is featured (e.g., suites, grandstands, etc.).

The 8-stage process model developed from the aforementioned sample demonstrates financial modernization starts via self-funded private interest (1). The notion of self-funded private interest argues individuals and groups with particular interest in developing products, services, and activities will initially engage in self-funding. Such an approach is necessary since potential purse holders see little value in supervising the product, activity, or service and regulating it due to its low level of publicity or small pockets of public support. In the present study, the private interest or self-funding approaches were initially developed by students and faculty via donated money, labor, and/or expertise.

As interest in a particular product, service, or activity grows, external public interest (2) surfaces as the next step in the financial modernization process. External public interest is associated with a small increase in the diversification of financing options or approaches. Such initiatives are executed as public awareness in the activity reaches and compels outside investors, although limited generally to in-kind gifts and small monetary donations. The current research shows alumni networks and business partnerships are initially cultivated during this stage in the process and used to support mutually beneficial interest in growing the sport of football. Alumni and universities enjoy interaction or engagement opportunities with each other in addition to intangible benefits such as pride, loyalty, and psychic income. Business partners and universities gain brand awareness and image benefits through associations. Internal public interest (3) by purse holders follows external public interest due to pressure placed on institutions by external parties. However, this produces minimal investment and regulation by purse holders to curb spending and boost revenues. Mainly, schools supported external and private interests to make sure the sport can survive, recognizing its utility to help create an attractive campus spirit.

Continued growth of the market related to a product, service, or activity eventually compels the development of institutional-level (4) investment strategies for support. First, there was a substantial increase in institutional funds committed and these were boosted through returns provided by technological innovations (e.g., radio and television) that produced revenues and expanded the reach of schools. In-house committees also served to support the development of particular products, services, or phenomenon. Ultimately, the expansion of participating institutions that support a product or service eventually create an institutional field (5). The present study, for instance, showcased the development of a large institutional field of football-playing institutions that created the need for stadiums to be created. Outside specialists and organizations (e.g., banking, financial lenders, insurance, etc.) surfaced subsequently to support institutional fields. Experts in specialty businesses (e.g., architecture, concessions management, retail, media, etc.) also emerged during this stage to help support the construction of institutional fields (i.e., intercollegiate athletics) and products like stadiums. Membership in an institutional field also creates pathways for communication to learn about available financing mechanisms to support construction. Diversification is enhanced in comparison to previous steps in the process.

The leviathan or governmental step (6) in the process of financial modernization suggests the size and scope of an institutional field has reached a point where the government has now taken interest in supporting products, services, and activities phenomenon produce. When an institutional field reaches a status where it is decided it has perceived social value, governments will create legislation and financial mechanisms to support its survival because doing so likely creates a positive impression on governmental decision-makers as much as it helps society at-large. In the current study, we found evidence of leviathan through the development of the New Deal programs to combat unemployment during the Great Depression.

Although not designed to finance stadium construction interest, the U.S. and state governments saw value in supporting stadium construction through federal funds and state appropriations. Continued use of a product, service, or activity can reach a point where it creates connections to an individual's and/or groups' way of life. In this instance, an ideology and associated societies of support (7) are born, which ignites new approaches to financing the legacies of interest. Government oversight continues to respond to market and technological changes. Specialized foundations and campaigns support generational changes and innovations further represent the transition to ideology. In the current study, specially designed athletic foundations, legislation to support charitable giving, and changing viewpoints that stadiums can offer additional services helped create new lines of funding such as small and large gifts.

Finally, when people believe a phenomenon can offer more than its original purpose and create new revenue opportunities, the present study discovered those phenomena can transition to become entrepreneurial-focused efforts (8). Entrepreneurial activities serve to re-image the use of products and services into financing plans to support their further development. An example discovered in the present work involved recycling of building materials or equipment and nostalgia sales to generate additional revenue. Next, incorporating non-sport-related businesses into stadia helped finance facilities due to their capacity to keep the facility open 40+ weeks a year. Overall, the diversification of financing is maximized at this stage.

### **Practical Recommendations and Future Research**

To begin, potential research should examine and/or apply the developed process model presented in the current study to better understand other subjects that engage in financing. For instance, contract development and budgeting often create the need for financing. In mature institutional fields, it appears to survive, universities must diversify their financing portfolio to encompass a multitude of funding sources and partnerships. Further, when possible, they should look to develop or lobby for legislation that helps them. Second, we learned the source of financing, historically speaking, differs quite a bit in the college context in comparison to the professional sport context (e.g., Alakshendra, 2016; Crompton et al., 2003; Long, 2005; Maxcy & Larson, 2015) but it is clear practices in one often influenced the other at a later date. Gifts, endowments, and appropriations for institutions of higher education often produce "little demand for a return on investment" (Soebbing et al., 2022, p. 117). Thus, much of what was earned by programs "follow something of a vicious circle (or virtuous circle, depending on one's perspective) to maximize revenue, which in turn drives expenses as the returns are spent back on the resources that produce more revenue" (Maxcy & Larson, 2015, p. 79).

With the new era of name, image, and likeness and a soft salary cap for student-athletes now an expectation, universities will face more pressure to generate revenue from their sport facilities. Thus, developing an entrepreneurial mindset appears important. As betting becomes more established, accepted, and better regulated, on-site betting opportunities appear as one fruitful option to help financing interests.

Next, continued entrepreneurship with how institutions make use of their stadium space (e.g., health clinics, catering preparation, entertainment zones, and non-sporting event production/hosting) can generate important revenues on non-gamedays to help finance stadium construction. Embracing the environment and using it as a vehicle for financing also appears fruitful from a financial perspective via grants and increased willingness and expectations from stakeholders that facilities will not just be consumers but contributors to their communities. We expect most universities will act similarly on these items based on employee turnover that occurs amongst schools, ongoing legislative actions, and the aforementioned specialized firms that support interest associations and institutional fields.

Finally, several stages of the present ideal-type on financial modernization align with previous scholarship developed by Tutka and Seifried (2020) on the diffusion of innovations in college football stadium construction. For example, the development and diffusion of luxury suites, television and radio broadcasting in press boxes, and permanent choice seats equally impacts the construction of ideal-type stages in both Tutka and Seifried (2020) and the current study. In light of that work and the present research, it seems prudent that a future investigation could examine the diffusion of various financial practices developed and/or employed by institutions of higher education to finance stadium construction. Presently, there is limited scholarship with respect to the diffusion of innovations in sport from a quantitative perspective (Wanless et al., 2023). A prospective study on the diffusion of innovations of financing practices on college football stadiums offers a prime opportunity to further understand modernization.

## **Limitations**

The present study of course has some limitations to acknowledge. First, archival research was conducted at only 47 institutions in the 134-school sample. Although documents and information were collected on each, it is likely that some information on construction projects and financing mechanisms were not recorded. Next, it is possible this could impact the percentage of financial strategies employed in the various ideal-type stages. Second, we employed an abductive reasoning process to draw conclusions. While supported by various secondary sources, we still relied upon the information we found and contextual conditions impacting college football and the U.S. generally. Again, it is possible the motivations or selection of financing approaches differed more substantially than perceived across the institutional field. Third, archives are susceptible to survivorship bias and may engage in the intentional distortion of record keeping practices to serve organizational directives (Demiris & Seifried, 2023). Still, we are confident our sample of institutions is strong and offers an adequate cross section of institutions across NCAA Division I FBS and from both historically-strong and less historically-accomplished football-playing institutions.

## References

- Adelman, M. L. (1986). *A sport time: New York City and the rise of modern athletics, 1820-1870*. University of Illinois Press.
- Alakshendra, A. (2016). How are we funding professional sports stadiums? An overview. *Managerial Finance*, 42(9), 885-890.
- Bale, J. (1993). *Sport, space, and the city*. Routledge.
- Beck, U. (1992). How modern is modern society?. *Theory, Culture & Society*, 9(2), 163-169.
- Brennan, G., & Buchanan, J. (1977). Towards a tax constitution for leviathan. *Journal of Public Economics*, 8, 255-73.
- Buttel, F. H. (2000). Ecological modernization as social theory. *Geoforum*, 13, 57-65.
- Coleman, J. S. (1990). *Foundations of social theory*. Belknap Press of Harvard University Press.
- Crompton, J. L., Howard, D. R., & Var, T. (2003). Financing major league facilities: Status, evolution, and conflicting forces. *Journal of Sport Management*, 17, 156-184.
- Decker, S. (2013). The silence of the archives: Business history, post-colonialism, and archival ethnography. *Management & Organizational History*, 8, 155-173.
- Demiris, T. E., & Seifried, C. S. (2023). Archival research in sport management: A review for research methods courses. *Sport Management Education Journal*, 18(13), 1-8.
- Demiris, T. E., & Seifried, C. S. (2022). What to know about building theory with archival research: Modes and epistemological orientations. *International Journal of Sport Management*, 23, 191-200.
- Downs, B. J., & Seifried, C. S. (2019). Exploring the use of modernization in sport scholarship: Contributions, proponents, and critics. *International Journal of Sport Management*, 20, 328-353.
- Downs, B. J., & Seifried, C. S. (2021). Modernization and multipurpose arenas: Providing context for tomorrow. *Sport, Business, and Management: An International Journal*, 11(4), 384-404.
- Downs, B. J., & Seifried, C.S. (2023). Modernization and the contemporary sport stadium. *Journal of Applied Sport Management*, 15(4), 14-22.
- Durkheim, E. (1997, [1893]). *The division of labor in society*. Free Press.
- Giddens, A. (1990). *The consequences of modernity*. Polity Press.
- Giddens, A. (1991). *Modernity and self-identity*. Polity Press.
- Giulianotti, R. (2009). Risk and sport: An analysis of sociological theories and research agendas. *Sociology of Sport Journal*, 26(4), 540-556.
- Glazyev, S. (2014). Technological basis of global dynamics and confrontation. *Partnership of Civilizations*, 3(4), 120-142.
- Gleeson, B. (2000). Reflexive modernization: The re-enlightenment of planning? *International Planning Studies*, 5(1), 117-135.
- Greenberg, M. J., & Gavin, M. R. (2021). An opportunity of a lifetime: Opportunity zones and how they can disrupt the sports facility financing equation. *Marquette Sports Law Review*, 32(1), 5-48.

- Hajer, M. (1995). *The politics of environmental discourse*. Oxford University Press.
- Hansen, J. (1977). *Democracy's college in the Centennial State: A history of Colorado State University*. Colorado State University.
- Hanson, A., & Peachey, J. W. (2022). Athletic fundraising: An in-depth analysis of the challenges faced and strategies utilized in the NCAA Division II athletic landscape. *Journal of Intercollegiate Sport*, 15(1), 101-124.
- Hoberman, J. M. (1987). Sport and social change: The transformation of Maoist sport. *Sociology of Sport Journal*, 4, 156-170.
- Houlihan, B., & Green, M. (2009) Modernization and sport: The reform of sport England and UK sport. *Public Administration*, 87(3), 678-698.
- Howell, C. D. (1998). On Metcalfe, Marx, and materialism: Reflections of the writing of sport history in the postmodern age. *Sport History Review*, 29, 96-102.
- Inglehart, R., & Welzel, C. (2005). *Modernization, cultural change, and democracy: The human development sequence*. Cambridge University Press.
- Ingrassia, B. M. (2012). *The rise of the gridiron university*. University of Kansas Press.
- Johnson, J., & Ali, A. E. (2018). Ecological modernization and the 2014 NHL sustainability report. *Sociology of Sport Journal*, 35, 49-57.
- Kroszner, R. (2000). The economics and politics of financial modernization. *Economic Policy Review*, 6(4), 25-37.
- Lash, S. (1993). Reflexive modernization: The aesthetic dimension. *Theory, Culture & Society*, 10(1), 1-23.
- Llewellyn, M. P. (2012). 'The best distance runner the world has ever produced': Hannes Kolehmainen and the modernisation of British athletics. *The International Journal of the History of Sport*, 29, 1016-1034.
- Long, J. G. (2005). Full count: The real cost of public funding for major league sports facilities. *Journal of Sports Economics*, 6(2), 119-143.
- Lukuslu, D., & Dincsaahin, S. (2013). Shaping bodies shaping minds: Selim Sirri Tarcan and the origins of modern physical education in Turkey. *The International Journal of the History of Sport*, 30, 195-209.
- Martynov, A. (2017). Technological modernization is a component of economic transformation, *Finance*, 6(11), 19-25.
- Maxcy, J. G., & Larson, D. J. (2015). Reversal of fortune of glaring misallocation: Is a new football stadium worth the cost to a university? *International Journal of Sport Finance*, 10, 62-86.
- Millington, R., Darnell, S. C., & Millington, B. (2018). Ecological modernization and the Olympics. *Sociology of Sport Journal*, 35, 8-16.
- Niskanen, W. (1971). *Bureaucracy and representative government*. Aldine-Atherton.
- Oriard, M. (2000). *Reading football: How the popular press created an American spectacle*. University of North Carolina Press.
- Oriard, M. (2001). *King football: Sport and spectacle in the golden age of radio and newsreels, movies and magazines, the weekly and the daily press*. University of North Carolina Press.

- Petersen, J. C. & Judge, L. W. (2021). Reframing the collegiate facilities arms race. *Journal of Applied Sport Management*, 13(2), 36-44.
- Price, J. R. (1971). Recent tax legislation: The Excise, Estate and Gift Tax Adjustment Act of 1970. *Washington Law Review*, 47, 237-284.
- Pujadas, X. (2012). Sport, space and the social construction of the modern city. *The International Journal of the History of Sport*, 29(14), 1963-1980.
- Schlosberg, D., and Rinfret, S., (2008). Ecological modernisation, American style. *Environmental Politics*, 17(2), 254-275.
- Searing, R. (2021, September 29). In 1907, Syracuse University opened Archbold Stadium, *The Post-Standard*. <https://www.syracuse.com/living/2021/09/in-1907-syracuse-university-opens-archbold-stadium-called-then-the-greatest-athletic-arena-in-america.html>
- Seifried, C. S. (2010a). Introducing and analyzing historical methodology for sport management studies. *International Journal of Sport Management*, 11, 1-21.
- Seifried, C. S. (2010b). The evolution of professional baseball and football structures in the United States, 1850 to the present. *Sport History Review*, 41, 50-80.
- Seifried, C. (2016). The Development of 'Death Valley' in Louisiana: Modernization and Tiger Stadium, 1924-2013. *Louisiana History: The Journal of the Louisiana Historical Association*, 57(2), 184-219.
- Seifried, C. S. (2017). Peer reviewing historical research for sport management: It's not qualitative research! *International Journal of Sport Management*, 18, 461-487.
- Seifried, C. S., & Bolton, C. (2017). The University of South Carolina football stadia through the founding of Williams-Brice Stadium. *The South Carolina Historical Magazine*, 118(4), 289-316.
- Seifried, C. S., & Demiris, T. (2021). Examining the early history of stadia at the University of Kentucky: From City Park to Stoll Field at McLean Stadium. *Register of the Kentucky Historical Society*, 119(2), 145-179.
- Seifried, C. S., & Demiris, T. (2022). New deal spending and stadia: Constructions utilized by National Collegiate Athletic Association Division I institutions. *Journal of Intercollegiate Sport*, 15(2), 1-26.
- Seifried, C., Demiris, T. E., & Petersen, J. (2021). Baylor University's football stadia: Life before McLane Stadium. *Sport History Review*, 52(1), 70-89.
- Seifried, C. S., Downs, B., Graham, J., & Love, A. (2020). Life before Neyland. *Tennessee Historical Quarterly*, 79(3), 226-257.
- Seifried, C. S., & Hernandez, H. (2025). The University of Illinois and football grounds before Memorial Stadium: Establishing the social anchor. *Journal of the Illinois State Historical Society*, 118(3-4), 122-154.
- Seifried, C. S., & Katz, M. (2011). The creation of domestic and international bowl games from 1942 to 1964: The United States Military and football as a conjoined twin. *Sport History Review*, 42, 153-175.
- Seifried, C. S., & Katz, M. (2015). The United States Armed Forces and their "bowl" games from 1942 to 1967: An example of organizational innovation in action. *Journal of Leadership and Organizational Studies*, 22, 231-247.
- Seifried, C. S., & Novicevic, M. M. (2017). The history of the modernisation construct: Tracing the contributions of business and economic historians. *Journal of*

*Management History*, 23, 51-73.

- Seifried, C. S., & Pastore, D. (2009a). Analyzing the first permanent professional baseball and football structures in the United States: How expansion and renovation turned them into jewel boxes. *Sport History Review*, 40, 167-196.
- Seifried, C. S., & Pastore, D. (2009b). This stadium looks and tastes just like the others: Cookie-cutter-era sports facilities from 1953-1991. *Sport History Review*, 40, 30-56.
- Sharma, A. (2018, January 2). Tax Cut and Jobs Act to cause significant financial disruption to sports and entertainment businesses. *JDSupra*. <https://www.jdsupra.com/legalnews/tax-cut-and-jobs-act-to-cause-29901/>
- Sighinolfi, B. (2019). *Tokyo 2020: Taking the gold in sustainability? Soft power and the theory of ecological modernization*. Lund University Center for East and South-east Asian Studies. <https://lup.lub.lu.se/luur/download?func=download-file&recordOID=8990013&fileOID=8990014>
- Soebbing, B. P., Seifried, C. S., & Tutka, P. (2022). If you rebuild it, will they come? The impact of renovated sports facilities on total revenue and attendance. *Journal of Sport Management*, 37(2), 116-128.
- Sotomayor, A. (2015). "Operation Sport": Puerto Rico's recreational and political consolidation in an age of modernization and decolonization. *Journal of Sport History*, 42, 59-86.
- Sylla, R. (2001). Financial systems and economic modernization: A new historical perspective? In *Economic theory, dynamics and markets* (pp. 495-504). Springer.
- Sylla, R. (2002). Financial systems and economic modernization. *The Journal of Economic History*, 62(2), 277-292.
- Titlebaum, P., & Lawrence, H. (2011). The reinvention of the luxury suite in North America. *Journal of Sponsorship*, 4(2), 124-136.
- Tutka, P. & Seifried, C. S. (2020). An innovation diffusion ideal-type on the history of American college football stadia. *Journal of Issues in Intercollegiate Athletics*, 13, 312-336.
- Tutka, P., & Seifried, C. (2015). The historical ideal-type as a heuristic device for academic storytelling by sport scholars. *Quest*, 67(1), 17-29.
- Wang, Y. (2015). The Far Eastern championship games and the development of East Asian society. *The International Journal of the History of Sport*, 32, 1394-1352.
- Wanless, L., Seifried, C., & Kellison, T. (2023). Renewable energy source diffusion in professional sport facilities. *Journal of Sport Management*, 38(1), 40-52.
- Watterson, J. S. (2002). *College football: History, spectacle, controversy*. John Hopkins Press.
- Weeks, K. D., & Grimmer, A. E. (1995). The Secretary of the Interior standards for the treatment of historic properties. National Park Service Heritage Preservation Program. Washington, D.C. [https://www.novoco.com/public-media/documents/standards\\_complete.pdf](https://www.novoco.com/public-media/documents/standards_complete.pdf)
- Williams, D. P., & Seifried, C. (2013). The history of tax code alterations as a financing mechanism for sport venue construction. *Sport History Review*, 44(2), 165-185.