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A comparison of library service and community socioeconomic characteristics

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Legitimacy is a key concept within institutional theory, yet it has received little attention within Library and Information Science, particularly in the public library context. This quantitative research study proposes a definition of public library legitimacy, and utilizes structural equation modeling to analyze the relationship between library service variables, community socioeconomic characteristics, and the outcome of public library legitimacy. The population for this study is Kansas public libraries, and secondary data was procured from the 2018 Kansas Public Library Survey & Annual Report and U.S. Census data.

Keywords: Public libraries, legitimacy, structural equation modeling

**MODELING THE FACTORS RELATED TO PUBLIC LIBRARY LEGITIMACY:
A COMPARISON OF LIBRARY SERVICE AND
COMMUNITY SOCIOECONOMIC CHARACTERISTICS**

by

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Chapter 1: Introduction

Public libraries in the United States are highly used and highly regarded. According to the Institute of Museum and Library Services (IMLS) (2014), in 2012 public libraries circulated more than 2.2 billion materials, and there were 1.5 billion in-person visits to public libraries. Revenue for public libraries was a combined \$11.5 billion dollars, and there are more public library branches in the United States than there are McDonald's restaurants. Pew Research Center (2015) found that 78% of Americans believe libraries help promote a love of literacy and reading, and two-thirds of Americans believe that libraries help people discern trustworthy information, and that the closing of their local library would have a significant impact on their community.

Public libraries in the United States are at a crossroads. The rapid pace of technological changes is altering how people access information. With the advent of Google, e-books, and other readily-available and low-cost information sources, many question the relevance of public libraries. Concurrent with the increased question of legitimacy is the issue of decreasing overall library usage and funding (Pew Research Center, 2016). Despite the strong level of perceptual support voiced by the American public, that support does not necessarily translate into material support. Public library funding per capita has declined slightly in recent years (IMLS, 2014). A 2018 report from the Online Computer Library Center (OCLC) and the American Library Association found that a majority of voters use and value their library, yet just more than a quarter of respondents said they would definitely vote in favor of a referendum or bond measure to support the local library. About a third said they would pay more taxes to increase public library funding. This seeming disconnect is not unique to the United States. Aabø and Strand (2004) found 14% of Norwegian citizens who used their public library still assigned a "zero

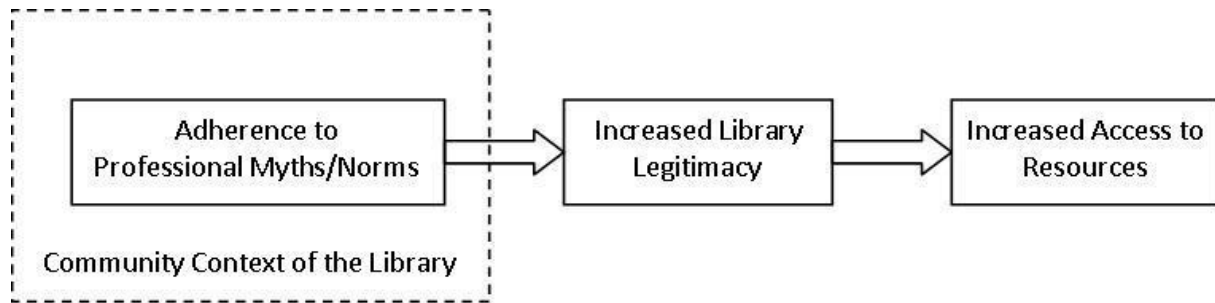
value” for those library services. A recent op-ed piece published by Forbes argued that libraries should be replaced with Amazon bookstores in order to save taxpayers’ money (Ingraham, 2018). President Donald Trump has repeatedly proposed eliminating the entire budget of the Institute of Museum and Library Services (McGlone, 2018). The strong level of perceptual support also does not necessarily translate into library usage, as studies and statistical reports have indicated that circulation per capita and library visits are declining (Pew, 2016; IMLS, 2014). Sin and Vakkari (2015) conducted an empirical survey of more than 1,000 Americans regarding perceived benefits of public library service, and they note that “the demographic groups who reported public libraries were valuable are not always the groups who are frequent public library users” (p. 212).

Clearly, there are differences between the public’s perceived value of library access, willingness to pay for library access, and actual library use. While public libraries continue to elicit overall satisfactory “approval ratings,” public library administrators and advocates fight against budget cuts and reduced public library usage. There is seemingly a disconnect between public libraries as an idealized public good, and public libraries as institutions deserving of material support and relevant to the current needs of their publics. This state of affairs has prompted librarians and other stakeholders to debate how public libraries should respond to these challenges—even what a public library *should* be. Through much of modern history, politicians and citizens alike have questioned the role of libraries repeatedly as technology advances. This is not a new concern, but one that seems more pressing as technology changes at an accelerated pace (Waller, 2008; Wiegand, 2017). At a time when questions about public libraries as institutions are moving to the forefront, however, research of public libraries on the institutional level is fading into the background. Within Library and Information Science (LIS), public library

research often focuses on the user rather than on the library as an organization (Sin, 2011; Wiegand, 2003). Institutional theory, however, offers a robust theoretical framework to consider these organizational-level issues related to the changing societal landscape, resource acquisition, and library usage and support.

Theoretical Framework

Institutional theory examines “the emergence of distinctive forms, processes, strategies, outlooks, and competences as they emerge from patterns of organizational interaction and adaptation” (Hatch, 1997, p. 271). While earlier, more rationalized organizational approaches focused on technical efficiencies and processes, institutional theory explores the cultural, societal, and professional demands on organizations and the ways in which those demands result in institutionalized behaviors and structures that are often divorced from reason and efficiency. These institutionalized behaviors are known as institutional myths (DiMaggio & Powell, 1983). Isomorphism is the adoption of these institutionalized myths and may occur because of coercive pressures, professional pressure, or a desire to mimic others seen as successful. Neo-institutional theory, as articulated by scholars such as DiMaggio and Powell (1983) and Meyer and Rowan (1977), posits that adherence these institutional myths increases legitimacy and acceptance among stakeholders and within society. This legitimacy can, in turn, allow an organization access to more resources and social capital. The community in which the organization is located, however, may moderate the expression of the institutional norms (Greenwood, Oliver, Sahlin, & Suddaby, 2008).

Figure 1*Hypothesized Institutional Theory Relationship*

Note. The public library is situated within a community context, which acts as a filter, moderating the expression of institutional norms.

The definition of legitimacy within institutional theory is nebulous, as differing definitions consider the various components of legitimacy (Suchman, 1995). Maurer (1971) argues that “legitimation is the process whereby an organization justifies to a peer or superordinate system its right to exist, that is, to continue to import, transform, and export energy, material, or information” (p. 371). Applying this definition to a public library, the superordinate system would be governing and funding bodies with authority over the public library, such as a city council that provides municipal funding. The peer system is the community the library is situated in and designed to serve. Terreberry (1971) argues that “legitimacy is mediated by the exchange of other resources. Thus the willingness of firm A to contribute to X, and of agency B to refer personnel to X, and firm C to buy X's product testifies to the legitimacy of X” (p. 608). While a public library is not selling products in a traditional sense, it offers services for use (such as the library building itself, collections, programs, Internet service, reference services, etc.), and the willingness of individuals to utilize those services would be a testimony to legitimacy. In a similar fashion, the willingness of the municipal

government or other funding sources to contribute resources to the library is also an indicator of legitimacy.

These definitions imply an exchange or support of an exchange, which is what Suchman (1995) would refer to as pragmatic legitimacy. This type of definitional operationalization allows for quantifiable measurement of legitimacy and is an appropriate construct for this research study. As it pertains to public libraries, legitimacy should increase through isomorphic adoption of those library service characteristics that are institutionalized and normalized by the profession. This increase in legitimacy should be measurable through increased usage of library services and increased funding, based on Maurer's (1971) and Terreberry's (1971) definitions. Despite the potential for operationalizing legitimacy and considering its relationship to library and community variables, however, the concept of public library legitimacy has received very little attention within LIS, creating a research gap.

Research Problem

Technological advancements and societal shifts create increased uncertainty for public libraries, which in turn leads to expectations that public libraries will change and adapt. Public librarians and decision makers must decide how to adapt, but because public libraries have diverse stakeholders, there can be many different and even competing ideas as to what a public library should be and how library services should be oriented. For example, board members, users, and professional librarians may all have different ideas about the desirable role of a public library, as demonstrated through many studies about roles and perceived benefits of public libraries (e.g. Vakkari & Serola, 2012; Audunson, 2005; Paul, 2019). Many of these ideas are anecdotal rather than empirical in nature, even those propagated by authorities within Library and Information Science (LIS), such as professional associations, library schools, library

agencies and others. This lack of research leaves public librarians, advocates, and scholars without a strong theoretical and empirical base from which to address issues of identity, purpose, and legitimacy.

Similarly, the impact of the socioeconomic makeup of the library community on the expression of library service characteristics deserves empirical examination, as well. Institutional theory notes the importance of considering the larger context in which an organization is situated, which in regards to public libraries would include the community context the library is designed to serve. While existing research considers some demographic characteristics such as age, race, educational level, and financial situation in relation to library usage, funding, and resources, many of these research projects are a-theoretical and siloed. Despite the widespread nature of institutional theory, LIS has failed to capitalize on this theoretical base and utilize the concept of legitimacy to inform current issues related to public library support, usage, and identity. Very little empirical work has been done to define public library legitimacy or investigate the factors that contribute to this legitimacy. Given the uncertain environment in which public libraries are situated, this study will address the need for scholarship that informs public library identity and purpose through the lens of the legitimacy construct.

Research Purpose

Institutional theory offers a theoretical framework for legitimacy research (e.g. Deephouse, 1996; Suchman, 1995) that considers the concept of public library legitimacy and how it relates to characteristics of both public libraries and the communities in which those libraries are situated. The purpose of this study is to examine public library organizational characteristics and community characteristics that theoretically influence public library legitimacy and model these factors to empirically determine whether they are related to public

library legitimacy. According to institutional theory, adhering to professional norms (normative isomorphism) should increase legitimacy among stakeholders (DiMaggio & Powell, 1983). This study further investigates whether adoption of organizational behaviors that are professionally normalized, in this case through repeated measurement as part of a yearly professional survey, will correlate with increased public library legitimacy.

Research Questions & Hypotheses

This study addresses the following research questions:

1. What community socioeconomic characteristics relate to public library legitimacy?
2. What library service characteristics relate to public library legitimacy?
3. Do community socioeconomic characteristics impact the adoption of library service characteristics?
4. Does adoption of library service characteristics positively correlate with legitimacy?
5. Is public library legitimacy better explained by library service characteristics or community socioeconomic characteristics?

The research design is a quantitative, large-end cross-case study involving public libraries in the state of Kansas. Library service characteristics and community characteristics will be quantified and statistically analyzed to test the following hypotheses:

H1: Median age, median household income, minority population percentage, and education level will significantly correlate with public library legitimacy indicators. These traits have been shown within existing empirical LIS literature to correlate to at least one of the chosen public library legitimacy indicators of circulation, visits, and funding (Yang & Shieh, 2019; Carlozzi, 2018; Sin, 2012; Meyer, 2018).

H2: Hours open to the public, hours worked by professional ALA-MLS librarians, collection size, number of computers, and number of programs will significantly correlate with public library legitimacy. These independent library variables are selected from the State Library of Kansas' 2018 Kansas Public Library Survey and Annual Report and represent a professional isomorphic template promoted by library agencies, both at the state and national level, as will be discussed in Chapter 2.

H3: Community socioeconomic characteristics will be significantly correlated with library service characteristics. While it is hypothesized that adherence to professional norms increases legitimacy, the community context should impact the adoption of the isomorphic template (Greenwood, Oliver, Sahlin, & Suddaby, 2008).

H4: Public library legitimacy will be significantly correlated to library service characteristics. These variables are part of the isomorphic template of the Kansas Public Library Survey and Annual Report and, therefore, upheld as institutionalized norms regarding library service. Since adherence to institutionalized norms is hypothesized to increase legitimacy, these variables should correlate to increases in public library legitimacy (DiMaggio & Powell, 1983).

H5: Public library legitimacy can be better predicted by library service characteristics than by community characteristics. This is based on institutional theory's assertion that adherence to professional norms increases public library legitimacy (DiMaggio & Powell, 1983).

Definitions

Public Library. The Institute of Museum and Library Services (IMLS) defines a public library as an entity "established under state laws or regulations to serve a community, district or region" (*Public Libraries in the United States Survey: Fiscal Year 2016*, 2019, p. 3). The organization must have a collection of printed or other library materials, paid staff, a regular

operating system, a facility that houses the collection, and be supported at least in part by public funds. As of 2016, there were 9,057 active public libraries in the United States, with many more library branches and service outlets. For this study, the population will be public libraries within the state of Kansas.

Public Library Legitimacy. Drawing on existing definitions of legitimacy within institutional theory (Maurer, 1971; Terreberry, 1971), for this study, public library legitimacy is defined as the perception of public library stakeholders that the public library is desirable, relevant, and deserving of material support, as revealed through community use and financial support of the public library. Specifically, it is operationally measured through circulation, visits, and municipal funding per capita that the library experiences.

Library Service Characteristics. Library service characteristics are organizational traits, resources and behaviors adopted by public libraries, such as collections, staff, programming, and technology. The decision on how extensively a library adopts a particular trait (i.e.: how large the library collection is) lies within the discretion of the particular library's leadership, although subject to resource limitations. Specific operationalization and selection of these variables will be discussed in Chapter 3.

Socioeconomic Characteristics of the Community. These characteristics are those embodied by the constituents located within a public library's service area. Such characteristics include income, age, education level, and race. Specific operationalization and selection of these variables will be discussed in Chapter 3.

Research Significance

This study examines the factors that influence public library legitimacy to determine whether correlation exists between library service and legitimacy, and whether library service

mediates between community socioeconomic characteristics and public library legitimacy. This research has a number of implications within LIS as well as institutional theory and legitimacy research outside of the field.

Within LIS, this research applies the institutional theory viewpoint to the public library context. While a few examples of institutional theory research within LIS exist (e.g. Kann-Christensen & Pors, 2004; Widdersheim & Koizumi, 2017; Widdersheim 2018) institutional theory and its key concepts of isomorphism and legitimacy have received little attention, despite a number of potentially fruitful and useful research avenues. Legitimacy is clearly an area of concern and one worthy of study within LIS, as libraries are increasingly called on to defend their budgets, personnel, education requirements—even their very existence in a society where information seems freely available due to technological advances. Libraries have long taken legitimacy for granted without fully understanding the factors that influence library legitimacy or the potential ways for libraries to increase perceptions of legitimacy with important stakeholders. In regard to isomorphism, libraries and their leaders experience external pressures from a number of sources, including governing bodies or academic institutions, communities, professional organizations, users, and staff members. In addition, changing technologies such as ebooks, open-source textbooks, smartphones, and Google impact library culture and expectations. The three types of isomorphism delineated by DiMaggio and Powell (1983)—normative coercive, and mimetic—all represent cross-pressures that potentially influence public libraries in the forms of professional pressures, government regulations, and organizational mimicry. Despite the impact these types of isomorphism potentially have on library identity and services, very little research exists on isomorphism in public libraries. Frumkin and Galaskiewicz (2004) found that governmental and non-profit organizations are more susceptible to isomorphic pressures than

other organizations, showing that different types of organizations are impacted differently by external pressures. This demonstrates the need for isomorphism research to be directly applied to libraries and library situations rather than simply borrowing research from other sectors.

From a practical perspective, this research tests an institutionalized template currently advocated by professional librarian organizations to see if a relationship exists between conformity to the template and public library legitimacy. Professional narratives exist within any field, but it is important to continually evaluate and critique those narratives to determine whether they are beneficial to public libraries. Do the normalized, institutionalized markers of library service actually have a practical, measurable impact on library legitimacy? Public libraries are situated between many stakeholders and must adapt to not only technological and social change but also must address the concerns and perceptions of a variety of constituencies, such as users, non-users, government officials, and the professional librarian community. The professional library community has, through consistent measurement of particular service markers, institutionalized those markers as legitimate. The professional library community, however, is only one stakeholder the library must consider. Are the hallmarks of a legitimate library, based on these institutionalized standards, the same hallmarks that the community or government officials consider when determining whether a public library is legitimate? This has implications for public library administrators and advocates as they seek to define—and defend—the work of public libraries in communities across the United States and the world.

Outside of LIS, this study also addresses questions of interest to institutional theory scholars. One important question within neo-institutional theory is whether isomorphism leads to increased legitimacy. This study tests institutional theory's claim that isomorphism legitimates, because library service characteristics should correlate with legitimacy variances and at a higher

rate of correlation than socioeconomic community characteristics (DiMaggio & Powell, 1983). This research will simultaneously consider and delineate the organization and its context, as it considers community variables but as a distinct construct from library characteristics and library legitimacy. Independent variables representing both the professional normative institutional pressures and the community normative institutional pressures will be tested to determine their relationship to the public library's pragmatic legitimacy. In this way, this study will contribute to legitimacy research outside of LIS, as few research studies have empirically defined and tested the legitimacy construct (Haack, et al., 2016; Deephouse, 1996).

Summary

Public libraries are situated within a world where technology is rapidly changing how people interact with information, which has caused increased concerns and questions regarding the relevancy and legitimacy of public libraries. Concurrently, public libraries face funding and usage challenges. Historical shifts in the LIS research community have led to a focus on the library user, rather than the library as an organization. This leaves public library administrators and stakeholders without a robust research base from which to address issues of identity and the library's role within the larger community.

Using neo-institutional theory, notably the work of DiMaggio and Powell (1983), this research study will address a small sliver of this issue by examining the factors that influence public library legitimacy, considering both the institutionalized public library norms for library service and characteristics of the community in which the library is situated. This will test the relevance of the norms established by the professional public library community and also test whether the adoption of those norms is moderated by community characteristics.

In the next chapter, I will review literature about the development and defining characteristics of institutional and neo-institutional theory. I will review how institutional constructs, particularly legitimacy, have been empirically tested within a diverse set of organizational fields and how institutional theory has been integrated into LIS. I will also review how LIS has shifted its focus from the institution to the user and how such a shift has created a notable research gap at a pivotal time for public libraries.

Chapter 2: Literature Review

This chapter examines the theoretical literature related to institutional theory and how IT and its core concepts related to legitimacy have been empirically addressed across disciplines. While most of this research exists outside of Library and Information Science, this review demonstrates the potential of institutional theory for considering both the professional narratives and the community contexts that shape public library service. This chapter also examines the proposed indicators of the study's dependent variable—public library legitimacy—and how both library history and present realities support the selection of library visits, circulation and funding as indicators of the legitimacy construct. The historic isomorphic templates within public librarianship will be examined to demonstrate how library service has been shaped and measured. Existing literature relating these characteristics, community characteristics and public library legitimacy indicators will then be discussed, to set the stage for operationalization and variable selection in this quantitative study. Literature for this review was primarily located in the Library & Information Science Full Text and JSTOR databases, with legitimacy, public library legitimacy, and non-profit legitimacy serving as key search terms as well as individual variable terms (e.g. race, usage, circulation, funding) in conjunction with public libraries..

Studying the Public Library as an Institution

While public libraries struggle through widespread technological and societal changes, Library and Information Science (LIS) researchers have overlooked structural issues related to the library as an institution (such as location and service characteristics) in order to focus on individual characteristics related to information behavior (Sin, 2011). As Wiegand (2003) notes, LIS research tends to focus on “the user in the life of the library,” when the research agenda should also focus on “the library in the life of the user” (p. 372). Issues of public library identity

and the role of public libraries within society cannot be addressed without research utilizing a macro, organizational- and field-level approach that considers all roles of the library within the community as well as the professional and community context in which the library operates. This study will utilize the institutional perspective to acknowledge the library in the life of the user, considering how the traits of the community of the users, library organizational behaviors, and public library legitimacy relate to one another.

Another challenge with public library research in LIS is that public librarianship itself is often caught in a self-defeating research cycle (Blake & Tjoumas, 1990). Those who are interested in public librarianship may find their work relegated to lower-quality journals, since a great deal of academic publishing is tilted toward academic librarianship, and because many practitioners who could benefit from public librarianship research tend to read more general-interest trade publications compared to peer-reviewed journals (Adkins, 2018). This creates barriers for public library researchers in academia who need high-quality publications for tenure consideration, and practitioners in public librarianship have little incentive to publish research without structures such as tenure driving academic production.

The diminished study of libraries has been confirmed through the empirical work of Sugimoto, Li, Russell, Finlay, and Ding (2011), who analyzed more than 3,000 doctoral dissertations completed between 1930 and 2009 at LIS schools in North America. They found that the word library and related terms were diminishing in dissertation use significantly in more recent time periods. In a similar study, Finlay, Sugimoto, Li and Russell (2012) also analyzed LIS dissertation topics from 1930-2009 and confirmed that dissertations including the keyword *librar** (libraries, librarian, librarianship, etc.) and related administrative function keywords (such as circulation and cataloging) declined sharply. They note that in the 1970s at their peak, the

keywords appeared in more than 60% of dissertations; by the 2000-2009 decade, these keywords only appeared in 21.5% of dissertations. The researchers pondered the implications of this shift, noting that if LIS lacks a “connection between education, practice, and research, how can we consider ourselves to be a unified field?” (p. 44). Audunson (2007), when discussing whether LIS should be considered a discipline, profession, or vocation, notes that those who study the law also study the court system, even if they do not plan to work in a courtroom. Within LIS, even though a broader view of information is an important shift within LIS, we cannot neglect to study public libraries as institutions that are central to information transfer, recreation, cultural reading, and community engagement within society.

Overview of Institutional Theory

Institutional theory examines “the emergence of distinctive forms, processes, strategies, outlooks, and competences as they emerge from patterns of organizational interaction and adaptation” (Hatch, 1997, p. 271). In contrast to more rationalized organizational approaches that predated institutional theory and focused on technical efficiencies and processes, institutional theory broadens the organizational view by considering the larger context in which the organization is situated. Institutional theory considers the cultural, societal, and professional demands on organizations, which can result in institutionalized behaviors and structures that are influenced by these larger pressures more than by reason and efficiency concerns. Neo-institutional theory, building heavily on the work of DiMaggio and Powell (1983) and Meyer and Rowen (1977) and others, posits that adherence to these institutionalized norms and values increases legitimacy and acceptance within society. This legitimacy can, in turn, allow an organization access to more resources and social capital. Three key concepts of neo-institutional theory are institutional myths, isomorphism, and legitimacy (DiMaggio & Powell, 1983), as the

three are intrinsically linked. Institutional myths serve as the normative building blocks of professional fields, as organizations adopt those attributes and activities that are socially accepted. Isomorphism is the process through which these myths are diffused throughout the professional field. Institutional theory posits that this isomorphic process of adopting institutional myths increases the legitimacy of the organizations that adopt the institutional myths.

Key concepts. Within institutional theory, institutional myths are “institutionalized products, services, techniques, policies and programs” that organizations adopt because they are rationally defined by the environment and society as acceptable (Meyer & Rowan, 1977, p. 340). These products and policies are adopted independently of their impact on organizational efficiency, and adoption increases the organization’s legitimacy, available resources and chances of survival. These myths may hinder efficiency requirements, and therefore organizations may engage in two interrelated activities. First, they may decouple their institutionalized structures (such as myths, policies, stated goals, etc.) from their measurable, technical activities and outputs. Second, organizations may also employ logic of confidence, maintaining ceremonial displays of conformity while minimizing inspection, both internally and externally. Meyer and Rowan argue that organizations vary by type, with some organizations relying on the successful management of relational networks and others relying on “confidence and stability achieved by isomorphism with institutional rules” (p. 354).

Isomorphism is the process that causes one organization to resemble other organizations within the same environment. DiMaggio and Powell (1983) argue there are three types of isomorphism: coercive, mimetic and normative. Coercive isomorphism “results from both formal and informal pressures exerted on organizations by other organizations upon which they are dependent and by cultural expectations in the society within which organizations function” (p.

150). This pressure may be overt or subtle. While some coercive isomorphism is caused by government regulations or other authoritative actions, it can also result from a perceived need to mimic other organizations in order to secure funding or resources. Mimetic isomorphism is grounded in uncertainty, when an organization chooses to model other organizations because their own goals are ambiguous or because of changing environmental factors. This modeling may be intentional or unintentional; organizations such as trade groups may intentionally disseminate models, employees may transfer ideas when moving between organizations, or organizations may copy another organization's ideas without the original organization being aware of the modeling. DiMaggio and Powell argue that "organizations tend to model themselves after similar organizations in their field that they perceive to be more legitimate or successful" (p. 152). Normative pressures arise as fields become more professionalized. This can result from homogeneity in professional education, which then diffuses individuals into organizations who have been similarly trained and have been exposed to similar models, and from the increasing professional networks and trade associations that encourage diffusion of similar ideas, practices, and policies. While normative isomorphism seeks to imbue the profession with legitimacy, "the professional project is rarely achieved with complete success" because professions are subject to other mimetic and coercive pressures and because professionals must negotiate and compromise with others not in their professional field (DiMaggio & Powell, 1983).

The adoption of institutional myths and adherence to isomorphic templates contribute to an organization's legitimacy. Meyer and Rowan (1977) argue that organizations that mimic socially-accepted practices and procedures increase their organizational legitimacy and their odds of survival, regardless of the efficacy of those practices and procedures on technical aspects

of the organization. This legitimacy may occur even if the institutional myths are separated from measurable outcomes. Robles-López and Canel-Crespo (2017) posit that “the value of being perceived as legitimate might be becoming a crucial resource for the survival of public organizations in contexts of conflict, crises of trust, and resource scarcity” (p. 217).

Limitations of institutional theory. Despite institutional theory’s longstanding usefulness, it also has a number of limitations that must be considered. Peters (2000), while advocating for the role of institutional theory, notes the difficulty in developing a cohesive, unified definition of an institution. He notes additional difficulty in developing quantifiable measures of institutions for the purpose of empirical research. The diversity within institutional theory has, at times, created assumptions and approaches that contradict one another (Scott, 2005). Even in the cohesive elements of institutional theory, critics have accused institutional theory of focusing too much on stability, controls, and constraints, while neglecting sources of change, choice and innovation. Gupta (2004) argues that institutional theory can explain how new organizational designs diffuse but “cannot explain how and why a new organizational design emerges” (p. 394) and its explanations fail to account for realities in different cultural contexts. Hannan and Freeman (1977) argue that institutional theory focuses too heavily on adaptation, arguing that organizations exhibit high levels of inertia and are, therefore, not as inclined to adapt as institutional theory may suggest.

These limitations illustrate the need for researchers to consider underlying assumptions and utilize institutional theory in appropriate contexts, which is why this study utilizes institutional theory in the particular context of the public library. Bruton, et al. (2010) note that institutional theory assumes that people have cognitive limitations and thus make decisions based on heuristics and preconscious behavior. In institutional theory, organizations conform to social

norms, shared cultures, and cognitive scripts. Institutional theory also utilizes a macro-level approach, and as such, cannot account for more individualized elements that impact organizations. While a great deal of research has been done in institutional theory, it is still difficult to operationalize terms such as *homogeneous* and then quantify it on an organizational level. Institutional theory also assumes that organizations become homogenous because of the three isomorphic pressures outlined. Other cross-pressures may exist, however, and such pressures may be based in practical concerns such as resource scarcity or other factors not considered in the seminal, early neo-institutional works such as DiMaggio and Powell (1983) and Meyer and Rowan (1977).

Institutional Theory and Public Library Complexity

Institutional theory acknowledges the types of competing pressures that organizations experience to conform to various isomorphic templates and stakeholder perceptions. Public libraries exhibit a great deal of organizational complexity because they are situated at the intersection of different organizational types and are influenced by—and influence—a significantly diverse group of stakeholders. Public libraries are at the intersection of a number of environmental, isomorphic pressures that may pull in competing directions.

Public libraries are often part of city or county governments; they may be departments of government entities or separate legal entities. The majority of public libraries in the United States are considered sub-units of a municipal government, but most have an autonomous board of trustees that oversees library operations (“When small is all,” 2010). A 1996 report by the National Center for Education Statistics discusses the difficulty of categorizing U.S. public libraries, as some can be considered municipal libraries but legally established as independent non-profits (Owens, 1996). Even those that are separate legal entities may not be fully

independent, because government leaders may appoint members of the library board, control library mill levies, or own library buildings and property. Public libraries are often run by boards of trustees, individuals within the library district who may bring differing views about library services, responsibilities, or policies. Public libraries are also subject to community pressure. Community pressure may be subtle, such as usage numbers and general community reputation, or it can be more overt, such as book challenges. Public libraries also may be influenced by or form partnerships with community groups such as Friends of the Library programs, chambers of commerce, or other organizations operating within the library's district. Libraries also often apply for grant funds from governmental and non-profit agencies, which may bring additional regulatory requirements into play.

Kann-Christensen and Pors (2004) argue that because legitimacy is situational, as changes occur in libraries and societies at large, libraries will experience pressure to conform to these new and changing norms, and that the notion of what comprises library legitimacy will be altered. Yet they note that "if one wants to make a 'better', more legitimate or valuable library, there is no predefined or given way to success" (p. 331), and the pressures to adapt will create conflicts between different stakeholders. Audunson (2005) conducted a study of how Norwegian parliamentarians and library decision-makers view public libraries. Libraries face immense pressure to remain relevant, but Audunson wanted to examine if the ways in which politicians view the library's role align with the librarians' views on how the library should remain relevant. He asked, "What do politicians think about public libraries?", arguing that because politicians control the financial resources of the library, "that is a question of overriding importance" (p. 174). He found that those "bureaucrats responsible for public library issues" saw a broader, democratic role for the public library compared to politicians, and believed that libraries should

be used to empower oppressed and marginalized groups. On the other hand, the elected politicians saw public libraries as an essential public good with a strong role to play in education, the promotion of reading, and cultural promotion. While the politicians, bureaucrats and librarians in the study agreed on some points, the different views of the library's broader societal place are indicative of the types of shareholder complexity that public libraries must contend with.

Overall, non-profit and governmental organizations are more susceptible to isomorphic influences than for-profit enterprises (Haack, McKinley, Schilke, & Zucker, 2016; Frumkin & Galaskiewicz, 2004). As public libraries are situated at the intersection of non-profit and governmental organizational types, it would be expected that public libraries demonstrate isomorphic tendencies. Oliver (1991) hypothesizes that the less dependent an organization is on a particular constituent, the more likely the organization will resist the institutional pressures. In this study, the isomorphic template of library service characteristics is advocated by the professional field. Public libraries are not directly incentivized by the professional community to adhere to certain standards, and the professional field exerts no direct control on public libraries. This scenario would indicate that perhaps public libraries would resist such isomorphic pressure, or at least not actively pursue adoption of those institutionalized myths and norms upheld by the profession. Other hypotheses related to level of uncertainty, level of competition, and interconnectedness of the institutional environment, however, might suggest a different outcome. If librarians are professionally connected, feel little competition from other libraries, and are uncertain about their own future, then institutional templates may be more likely to be adopted (Oliver, 1991). For example, public libraries do not generally occupy the same resource space as other public libraries (Boxenbaum & Jonsson, 2008). While at times multiple, differing libraries

may be geographically proximate and compete somewhat for users, they utilize different municipal funding streams. The primary “competitors” of public libraries are those competing for the time and attention of library users and for the same municipal funding sources. Those competing for library users’ attention may appear in the form of local activities, non-profits, and cultural institutions as well as the essentially global information and entertainment options available via technology. This differs from for-profit enterprises when similar organizations often compete both for resources and customers within the same geographic area (although for-profit enterprises also compete with online competitors marketing similar goods and services). These situational realities indicate the complexity of developing hypotheses related to isomorphic pressures on public librarians.

Institutional theory also considers the importance of community context of an organization. Audunson’s (1996) dissertation work focused on how public libraries cope with change, based on qualitative research in three European libraries. Using institutional theory as the base, Audunson considered environmental factors and factors related to the librarians within the public libraries (professional connections, tenure, etc.) to consider how public libraries, “with a common professional platform which unfolds itself within different cultural and political contexts, behave when important pillars in this common platform are challenged and might have to be changed” (p. 12). He found that environmental factors related to politics and public administration had more impact on change-processes than field-internal standards; examples include a shift to market-centered approaches and decentralization efforts among library systems. He found that “a high level of environmental turbulence seems to weaken the defensive potential represented by field-norms and standards” (p. 183). Institutional norms are an important consideration, however, and he found a tendency toward “transporting established field-norms

into a new context and efforts to define environmental tendencies in ways compatible with established field standards” (p. 184), with changes that seem to be challenging field-norms being justified as a way to protect those standards. An example would be charging fees for services such as videos; while fees run contrary to professional norms of free access, charging fees for “garnish” services has allowed some libraries to offset financial difficulties and improve sustainability while keeping core services, such as books, freely available. However, overall, Audunson found environmental contexts to be the driving force, with field-norms serving as a filter to their adoption.

O’Connor and Fortenbaugh (1999) note the reflexive nature of the relationship between the library and the community, in part because a library’s funding inputs are the community’s output. They also note that often output measurements may have finite limits; for example, without significant growth in a community, will circulation continue to increase? In considering both the community and those who may control library funding and resource access, Johnson, Dowd & Ridgeway (2006) distinguish a distinction between authorization—“the support of higher authorities”—and endorsement—“the support of an actor’s peers and subordinates” (p. 55). Both of these stakeholder perspectives are critical for the public library to maintain—and both may be developing in isolation from the professional librarian community creating standards and other institutionalized templates.

Library Legitimacy

Conceptualization of legitimacy. The definition of legitimacy within institutional theory is nebulous, as many scholars have defined it in various ways, often focusing on different components or facets of the construct (Haack, McKinley, Schilke, & Zucker, 2016; Suchman, 1995). Suchman, in a widely-cited definition of legitimacy, focused on this perceptual aspect in

his definition of legitimacy, which states that “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (p. 574). Perception is difficult to measure, and a person’s articulation of their preferences may not always be reliable or align with behavior. A person who claims to perceive a public library is legitimate but opposes providing resources to a library through municipal funding, and fails to receive resources from the library through usage, arguably does not see a public library as legitimate, irrespective of stated sentiments.

Legitimacy is not a simplistic organizational trait, but rather a complex, dynamic set of perceptions and related actions expressed by a diverse set of stakeholders. While Suchman’s (1995) legitimacy definition is broad and perception-focused, he further delineates a typology of legitimacy that focuses on different aspects of legitimacy: cognitive, moral, and pragmatic. Pragmatic legitimacy is benefits-focused and aligns well with other legitimacy constructs that focus more on resource exchange and practical advantages. For example, Maurer (1971) argues that “legitimation is the process whereby an organization justifies to a peer or superordinate system its right to exist, that is, to continue to import, transform, and export energy, material, or information” (p. 371). Terreberry (1971) argues that “legitimacy is mediated by the exchange of other resources. Thus the willingness of firm A to contribute to X, and of agency B to refer personnel to X, and firm C to buy X’s product testifies to the legitimacy of X” (p. 608). These definitions imply an exchange or support of an exchange—what Suchman would refer to as pragmatic legitimacy. This type of operational definition allows for quantifiable measurement of legitimacy and is an appropriate construct for this research study, which is why this study focuses on definitions of legitimacy that illustrate the pragmatic, resource-based nature of legitimacy.

Deephouse and Suchman (2008) outline a list of potential subjects of legitimation, which is useful to consider that while research can examine the organization or the organizational field, research can also examine other micro-facets of an organization, for example a procedure, an organizational form, services, an authority structure, or a program.

Many scholars have worked to differentiate legitimacy from other, similar constructs. King and Whetten (2008) delineated and integrated the definitions of reputation and legitimacy by viewing the concepts through a social actor lens. Legitimacy is established by meeting the minimum standards of a type of organization, while reputation is established by ranking favorably to ideal standards of the type of organization. While the authors argue that the two concepts have been portrayed as dichotomous in the literature, they focus on the similarities, in that both are linked to “institutionalized social standards that make systematic comparison between organizations possible and meaningful” (p. 193). By using a social-action conceptualization, they link both concepts to organizational identity and argue that an organization’s identity is its self-definition, and is comprised of its distinguishing features, both those that relate to legitimacy (base standards) and those that relate to reputation (differentiation through ideal features or performance). They posit that “through social identity selection, organizations become linked to the crucial social and cognitive mechanisms through which assessments of legitimacy and reputation emerge” (p. 194). King and Whetten argue that a outside-in, top-down assessment of organizational identity can be useful as a contrast to existing bottom-up, situational research.

Contextualization of legitimacy. Legitimacy is a group effort. As Suchman (1995) declared, “legitimacy is dependent on a collective audience, yet independent of particular observers” (p. 574). Community and cultural context is an important consideration within

institutional theory. As Greenwood, Oliver, Sahlin, and Suddaby (2008) note, “Organizations are not only set within a field, they are also located within communities. Only recently has institutional work begun to acknowledge that communities may influence the particular expression of rationalized myths and institutional logics to which organizations have to respond” (p. 30). Researchers must consider not only institutional pressures from the field at large but also whether those pressures are affected by the organization’s specific community. The community may mediate the impact of institutional pressures, and the community itself is also a source of normalized institutionalization because community stakeholders interact with and confer legitimacy to the public library. An organization must be consistent with its local community context (Johnson, Dowd & Ridgeway, 2006) in order to be legitimate. The organizational environment is socially constructed, and research must define both the stakeholders and the entity being evaluated. As Lister (2003) notes, two important questions for legitimacy research are, “legitimate to whom?” and “legitimate for what?” (p. 178). Within legitimacy research, studies have considered stakeholders such as media, government officials, and other defined publics.

Legitimacy research outside of LIS. As noted earlier, legitimacy as a construct within institutional theory has been operationalized and researched in various ways. Vergne (2011) discusses the difficulty in defining and empirically testing the concept of legitimacy, and divides existing legitimacy research into three categories. First is adoption of codes of conduct, second is linkages with regulatory bodies, and third is based on media coverage analysis. Vergne notes the limitations of these approaches and notes two dimensions that existing research fails to address: dimensions of legitimacy vary among stakeholders, and legitimacy measures can fluctuate over time and space. Haack, et al. (2016), in their meta-analysis of existing legitimacy research, argue

that legitimacy perception is complex and multi-faceted, and legitimacy perceptions may vary widely among different stakeholders of the same organizations. Bitektine (2011) analyzed extant legitimacy literature and found nine different typologies used by scholars to differentiate different types of legitimacy. Bitektine articulated 18 specific legitimacy types in organizational studies, which incorporate differences such as evaluating audience, dimensions of the organization, and the mechanism of compliance.

Despite empirical and operational fuzziness, legitimacy research is trending upward. Haack, et al., (2016) systematically reviewed existing literature on legitimacy, taken from top management journals in the prior 30 years, and found that articles related to legitimacy are increasing more quickly than articles about institutionalism as a whole. They also found that legitimacy is often an explanatory concept rather than an empirical attribute, and legitimacy is typically used as an independent variable. Given that institutional theory posits that isomorphism increases legitimacy, this study considers legitimacy as the dependent variable, with conformity to the professional narrative (isomorphism) as an independent variable. One prominent example of this type of legitimacy is Deephouse (1996). Set in the banking industry, he measured legitimacy as a dependent variable and tested whether isomorphism, or adhering to regulatory banking standards, legitimated a bank (Deephouse, 1996). Deephouse measured isomorphism as a state, or the similarity among organizations at a fixed point of time. He utilized an evaluative perspective, considering the evaluations of government regulators and the general public. He used regulatory assessment of capital, and absence of regulatory enforcement actions, as proxies for regulatory endorsement. For public endorsement, he utilized content analysis of local print newspapers and coded articles as endorsing or challenging to the particular bank's legitimacy. For the independent variables, he assigned absolute values of standard deviations to show

conformity to and deviation from accepted bank asset strategies. He also considered independent variables related to organizational characteristics such as age, size, and performance. Using logistic regression data analysis, he found that a positive relationship existed between strategic isomorphism and legitimacy measures, accounting for age, size, and performance. Interestingly, he found low correlation between regulator and media legitimacy, supporting his assertion that “there are different types and sources of legitimacy” (p. 1033).

In a more-recent study, Deephouse (1999) again focused on the banking sector and made a theoretical and empirical argument for what he calls a strategic balance proposition: “moderately differentiated firms have higher performance than either highly conforming or highly differentiated firms” (p. 148). He explicitly states that the proposition applies to for-profit firms, but there are some aspects of this article that are still potentially useful within a non-profit and/or governmental sector such as public libraries. He argues a point of institutional theory, that a strategy is seen as legitimate if it is accepted by the organizational field the entity is situated within; in the case of LIS, there are a number of professional isomorphic templates that will be discussed later, all of which would be appropriate for empirical study. Deephouse also argued that more legitimate entities receive greater resources, which sets the stage for considering increased resources as a quantifiable symbol of legitimacy. Much of this work, however, is built on the concept of competition, which is an overlooked area of study within public libraries and LIS. Beckert (2010), also outside of the LIS realm, added a fourth dimension of isomorphic pressure—competition—which he says DiMaggio & Powell intentionally omitted because they wanted to develop a perspective differentiated from Weber’s explanation of competition as a source of institutional similarities. Beckert argued that competition creates niches in which companies specialize in order to compete and succeed. Within public libraries, some

organizations are adopting new “niche” programs and services, ostensibly as a way to compete with other societal entities, but this type of adaptation is poorly defined and virtually unstudied. Defining competition is necessarily difficult and different within non-profits in general and public libraries specifically, but empirical work in this area could deepen the understanding of how public libraries are situated within the broader societal context and how competition impacts public library legitimacy and identity.

Robles-López and Canel-Crespo (2017) utilized both Suchman’s (1995) typology of legitimacy (procedural, structural, consequential, and personal) with different stakeholder perspectives in their study of the Spanish Ministry for Education, Culture & Sports’ online messaging. They considered perceptions of the media and citizens to measure which type of legitimacy mattered most to each stakeholder group. They found that while procedural legitimacy was the most prominent type of legitimacy in the communication cases analyzed, the print media stakeholders had broader interests in consequential legitimacy and personal legitimacy than were demonstrated by the organization. They also note that media is a propagator of legitimacy in that media judges an entity but also potentially influences the judgment of other stakeholders. This underlines the reflexive nature of legitimacy, in that positive or negative judgments from certain stakeholders can influence others.

Dowling and Pfeffer (1975) focused on the organizational behavior aspect of legitimacy—what organizations do to increase their perceived legitimacy—using several examples including a study-abroad program for high schoolers. Legitimacy, to Dowling and Pfeffer, is the outcome of legitimation activities conducted by the organization as well as the result of outside groups/organizations impacting social norms. Legitimacy is a product of both the entity and its environment. The authors argue that legality and economic exchange/resource allocation often

dovetail with legitimacy but are not synonymous; an entity can make money through an activity such as drug dealing and not be legitimate, and an entity may have a legitimate purpose but not receive resource allocation, such as underfunded health care. While this raises the issue of whether an entity is truly perceived as legitimate if it is not perceived as deserving of resources (such as underfunded health care), it also demonstrates two facets to emphasize in legitimacy research. The first is that stated preferences can differ significantly from revealed preferences, and the second is that different stakeholders can have differing ideas on legitimacy. Underfunded health care may be perceived as very legitimate to people in need of health care, but not perceived as legitimate to those who control the resource allocation.

Barman and MacIndoe (2012) used an institutional approach to examine the “innovation” of outcome measurement (OM) usage in non-profit organizations, with the adoption of OM as the dependent variable. They had a number of hypotheses related to dependent variables, including organizational characteristics (size, age, and industry type); institutional variables (funding sources and partnerships with for-profit organizations); and organizational capacity (administrative, expert, and impersonal). They used logistic regression to test the various hypotheses using a secondary data source—a survey of non-profit organization CEOs. They found that organizational capacity in the administrative (operationalized by written policies/procedures) and technical expertise (operationalized as the presence of an accountant) are both positive predictors of adoption of OM, although impersonal capacity (separation of property and rights of the organization from individuals) was not. What is noteworthy about this study is that the researchers operationalized the variables in very specific, tangible ways. For example, whether an organization received United Way funding as a proxy for coercive

isomorphism. While at times the approach seems too granular, it does demonstrate how concepts within institutional theory can be broken down and studied.

In his 2016 book on cultural legitimation, Larsen (2016) expounded and built on previous qualitative case studies of art and media organizations in Scandinavia and North America to examine the process of legitimacy negotiation in the cultural sphere. He found that non-profit cultural organizations must continually negotiate between their credibility with artists and the art world and their broader civic audiences. Larsen found that “the most important basis for the organization’s legitimacy is how well they manage to communicate with the community in an inclusive manner, prolonging civil solidarity in working toward reaching goals transcending the actual organization” (p. 129). Similarly situated in the cultural realm, Gilpin and Miller (2013) proposed a model of identity brokerage based on a qualitative study of an emerging nonprofit arts organization. This model is built on the premise of fluid and complex organizational boundaries, particularly among nonprofit organizations that the researchers argue rely on relational identity brokerage to grow and achieve legitimacy. The model features the different relationships between different board members and other influential figures within the arts community. The publicly-funded nature of most public libraries creates some differentiation from other non-profits, and the taxpayer dollars and related oversight that often comes with those dollars provide at least a measure of implied and actual structural limitations to the influence of relationships on public library identity. This is not to say that relational aspects are not relevant to LIS; library personnel and board members may be extremely influential in the direction and perception of a public library, particularly in smaller communities.

Johnson, Dowd, and Ridgeway (2006) pulled from the fields of social psychology and organizational studies to consider similarities between the process of legitimation of a social

object (individual or organization). They propose four stages through which the social object gains legitimation: innovation, local validation, diffusion, and general validation. For example, they compare the development of for-profit corporations with non-profit arts organizations to see how they develop and become accepted, or legitimate.

Heugens and Lander (2009) used a meta-analysis approach to test three hypotheses within institutional theory: that the degrees of isomorphic pressure within an organizational field are positively related to the degree of isomorphism; that adoption of isomorphic templates is positively correlated with symbolic performance but negatively correlated to substantive performance; and that organizational field-level factors moderate how the degrees of pressure correlate to degrees of isomorphism in a field. They found that the degrees of pressures are positively related to the degree of isomorphism, but the effect sizes are small and only mimetic pressures had a generalizable relationship; that the adoption of isomorphic templates is positively related to both symbolic and substantive performance; and organizational-level factors do appear to have a moderating influence on the degree of isomorphism exhibited by the organization. This type of approach will also be tested in this study, as this study will test the hypothesis that variances in community socioeconomic characteristics will correspond to variances in the expression of institutionalized public library service characteristics; essentially that community characteristics will moderate the influence of the professional isomorphic template.

Legitimacy research in LIS. Legitimacy research within LIS is scarce. As noted earlier, LIS as a whole has shifted away from institutional research toward user-centered research. Therefore, institutional theory in general and legitimacy research specifically are not prominent themes in LIS. However, enough studies exist to demonstrate the potential relevance of

institutional theory within the public library context and how legitimacy research is a necessary LIS research avenue.

In one prominent empirical study on public library legitimacy, Widdersheim and Koizumi (2017) used a communication systems approach to examine the ways in which the public and private spheres intersect in public libraries and the ways in which those intersections can result in threats to public library legitimacy. Examining a dozen annual reports dating back to 1900 from three public library systems in the United States, the researchers used content analysis to distinguish communication pertaining to the public and private spheres, with each dimension having channels with different signal types. For example, within the public sphere, there is a legitimization channel with signals for the library system to activate public backing but also signals for private actors, such as citizens, to advocate for support. Widdersheim and Koizumi note two instances of illegitimated library systems: those in which the private sphere signals to adapt are not mediated by the public sphere, and those in which private signals are unregulated by public discourse. This research illustrates the complexity of communication channels within public library systems and demonstrates the ways in which legitimacy challenges can arise through distorted communication signaling and filtering. In a similar research vein, Widdersheim (2015) argues that a public sphere framework could assist researchers and librarians in demonstrating the appropriate role and purpose of the public library in maintaining the public sphere. He argues that “repositioning public libraries as public sphere stewards is a helpful way to articulate the value of public librarianship and to uncover what practicing librarians know but can’t explain: the larger social and political impact of what they do” (p. 242).

Rasmussen and Jochumsen (2003) discussed the potential different strategies for public libraries to cope with changing identities and societal landscapes. Using Bourdieu's social field concept, they conducted 32 qualitative interviews with library users and non-users and found that interviewees' first association with the public library was the written word; however, they also associated public libraries with abstract concepts such as free access to information and more practical aspects such as meeting places and cultural events. They examined three markers of the amount of recognition public libraries receive: population perception, recruitment of new professionals, and government appropriations. They found that the libraries' strength comes from its universal appeal and ordinary nature, but this makes the library less visible politically.

Using the lens of institutional theory, Harrison, Burrell, Velasquez, and Shreiner (2017) conducted a phenomenological study of academic libraries' social media posts to determine whether postings were driven by contextualized needs or whether they were driven by normative and mimetic isomorphic pressures to use social media in an effort to increase their organizational legitimacy. By coding social media content and identifying emerging themes, they found a high degree of homogeneity, indicating that libraries may be using social media because of isomorphic pressures instead of as an intentional strategy. They argued that academic libraries should consider creating contextualized social media strategies in an effort to effectively target their social media content to their specific audience. Waller (2008) argues that in a quest for legitimacy, large public libraries are trying to rely too heavily on evolving digital technologies and centering the library's role around such technologies. She notes that through much of modern history, politicians and publics have questioned the role of libraries repeatedly as technology advances; this is not a new concern, but one that seems more pressing as technology changes at an accelerated pace. Ironically, some of the technologies that she discusses as new

and emerging within libraries already feel dated (Second Life, mySpace), which further solidifies her concern that “embracing digital technology is not in itself a viable strategy for ensuring the legitimacy of large public libraries” (p. 381). She also argues that “historically, the user as s/he exists in library policy discourse has tended to differ from the actual user” (p. 379). Focusing solely on particular services, without truly understanding users and without an overall sense of purpose, will imperil the future of public libraries.

Kann-Christensen and Pors (2004) used institutional theory to investigate the cross-pressures public library directors and managers face from various stakeholders, including government officials, library users, and library staff. With Denmark as their geographical background, they found that the existence of specialized funds designed to encourage projects and change processes in libraries (as opposed to simply distributing the funds equally among libraries) indicates that the larger governmental and union cultures value change and organizational development in public libraries and use funding as a way to encourage that change. At times, however, the pressures to adapt will create conflicts between different stakeholders; for example, internet filtering is an area where government views, user views, and professional views may conflict.

This type of cross-pressure is echoed by Barman and MacIndoe (2012), when they argue that the organizational field is not “a solitary and unitary whole” (p. 73), but rather intersects with other fields, which introduces new institutional logics to the existing field. Barman and MacIndoe examined the “innovation” of outcome measurement usage in non-profit organizations, with the adoption of OM as the dependent variable. They had a number of hypotheses related to dependent variables, including organizational characteristics (size, age, and industry type); institutional variables (funding sources and partnerships with for-profit

organizations); and organizational capacity (administrative, expert, and impersonal). They used logistic regression to test the various hypotheses using a secondary data source—a survey of non-profit organization CEOs. They found that organizational capacity in the administrative (operationalized by written policies/procedures) and technical expertise (operationalized as the presence of an accountant) are both positive predictors of adoption of OM, although impersonal capacity (separation of property and rights of the organization from individuals) was not. This article was very interesting in the way they chose to operationalize variables in very specific ways—for example, whether an organization received United Way funding as a variable. While at times the approach seems too granular, it does demonstrate how concepts within institutional theory can be broken down and studied within LIS.

Legitimacy indicators. As a latent construct, legitimacy requires operationalization in order to be measured. As the previous review has shown, legitimacy has been studied in various ways but rarely empirically operationalized and even more rarely set as a dependent variable. Drawing primarily on Deephouse's (1996) study as a methodological basis, this study proposes three indicators of the public library legitimacy construct based on existing library literature: library circulation, library visits, and municipal funding. Given the definition of public library legitimacy as being desirable, relevant, and deserving of resources, these variables can provide a multi-faceted measure of public library legitimacy. As will be discussed below, these three measures capture different but important aspects of legitimacy, with both circulation and visits used as proxies for library usage, and municipal funding used as a non-use measure to capture support not necessarily tied to individuals' direct use of the public library.

Library circulation. The library as the lender of books is the dominant historical role of public libraries as they have been perceived and studied. Drawing on the earlier discussion of

isomorphic templates within the profession, lending of resources—primarily books—dominated early professional discussions. Discussions on how to develop quality, relevant collections and disperse those materials has consistently remained a prominent focus, although the terms of the debate have changed over time. Emerging media types have continued to alter the makeup of library collections; even the Public Library Inquiry of the 1940s devoted staff to studying music and film collections in public libraries. Today’s collection development issues represent the changing societal landscapes; librarians engage in battles with publishers over e-book access, evaluate collections based on emerging understandings of marginalization and power dynamics, and adopt unique collections of fishing poles and cake pans to check out. This change, however, underlies a consistent effort to provide materials for distribution that meet the educational and recreational needs of their users. While e-books and other technologies receive a great deal of attention, and receive increasing percentages of library budgets, it is worth noting that many younger adult Americans are more likely to read books than older adult Americans (LaFrance, 2014), indicating their continued importance in library circulation.

Circulation is an oft-tracked number within LIS, although many practitioner-focused publications utilize descriptive statistical measurements and compare trends over time. Some studies have investigated linkages between circulation and both library service characteristics and community characteristics. Circulation fits within the pragmatic-focused construct of legitimacy; although users are not “buying” materials as suggested by Terreberry’s (1971) definition, it is a similar measurement in that it demonstrates whether the materials are appropriate and relevant to potential users, which can demonstrate legitimacy (or illegitimacy) with the library community.

Library visits. While historically the library's prominent role has been perceived as that of a book lender, public libraries are increasingly being identified as important community spaces. Fifty-one percent of millennials perceive the public library's role as a "quiet, safe place" as very important, compared to 48% who see the role of books and media as very important, despite the fact that they are more likely to read books than older American generations (LaFrance, 2014). Increasingly, the library literature is examining the role of public libraries in bringing community members together and protecting a public sphere of interaction. Wiegand (2017) in advocating for LIS research on the library's role as "place," argues that "my research has demonstrated that generations of users have valued the public library as a place by voluntarily visiting it again and again for multiple reasons, many of which had nothing to do with information access" (p. 41). Most's (2009) doctoral dissertation focused on the importance of the public library in a small community in Florida, noting that "this study has shown that these small town public libraries are very important places in the lives of their users" (p. 253). Public libraries have demonstrably been identified as places for children to play (Smallwood & Birkenfeld, 2018), as technology access points (Lediga & Fombad, 2018), and as locations for informal learning through makerspaces and other creative outlets (Willett, 2016). This role as a community gathering place is also associated with intentional library programming. For example, Johnston and Audunson (2019) conducted case-based research on three cases of language cafes in different Norwegian cities. Building on Habermas' concept of the public sphere, they found that conversation-based programming improves immigrants' ability to gain social capital and gain information and skills necessary for participation in public life. The role of the public library as a lender of materials, and the role as a public gathering place, have been

shown through existing literature to be separate concepts, and as such, both will be considered as indicators in this study's legitimacy model.

Municipal funding. Consideration of non-use measures is important in public library research, given that a large percentage of the value people assign to their public library is motivated by non-use and altruistic motivations. For example, a study by Aabø and Strand (2004) of Norwegian citizens found that 35-38% of the value assigned was based on non-use values, while 14% of those who were library users expressed a "zero value" for the public library services. This supports the claim that library support and library use are different indicators. As such, it is important to incorporate at least one non-use indicator in the legitimacy model, in addition to considering library circulation and library visits.

Municipal funding has long been considered a vital component of successful library service. The historical isomorphic templates have demonstrated the various ways in which the professional narrative has advocated for increased government funding of libraries. While it is possible to consider total operating revenue, that variable could be skewed by large individual donors or fundraising groups, whereas municipal funding demonstrates the community's investment as a whole (Carlozzi, 2018). While municipal funding is often considered as the independent variable, this study situates it as a dependent variable designed to capture a non-use value for the public library. After all, a person can agree to municipal funding of a public library as a public good without being a library user, and vice versa. Municipal funding as a dependent variable is not completely unprecedented. In a previously-mentioned study, Carlozzi (2018) used regression analysis to consider municipal funding as a dependent variable correlated with independent community characteristics variables. He found that education level explained about 80 percent of variation in municipal funding among libraries in Massachusetts, while median

family income was nonsignificant when controlling for education. In his limitations, however, he noted that Massachusetts is a highly-educated state, which may limit the generalizability of the results. Rasmussen and Jochumsen (2003) used government appropriations as an indicator of perception of Danish libraries, finding that library funding has stagnated, while appropriations to other cultural activities has risen substantially. They argued that cultural spending is seen as an investment, and public libraries struggle to demonstrate an economically viable identity amid efforts to create cultural tourist attractions and destinations.

Library Service Characteristics & Isomorphic Templates

As discussed previously, public libraries are influenced and evaluated by a diverse set of stakeholders, and experience pressure to adhere to many differing sets of social norms that may, at times, even conflict (Kann-Christensen & Pors, 2004). Public library identity is continually being defined, altered, and influenced by these competing forces. Public libraries may respond to these coercive, mimetic, and normative pressures by adopting isomorphic templates, or sets of institutionalized beliefs, in order to increase their legitimacy. While not discussed explicitly in existing LIS literature, this review examines how many historical and present-day isomorphic templates have influenced public library service, and many articulated isomorphic templates have been put forth by the professional library community. These templates contribute to the professional narrative about which services and priorities a library should offer in order to be legitimate. While professional narratives are quite numerous and often defy strict definitional distinctions, a number of prominent isomorphic templates can be parsed out of U.S. public library history, illustrating the various ways in which library service has been molded by both prominent librarians and others outside of the profession. These professional narratives function as isomorphic templates, influencing the direction of public librarianship through normalization

of particular practices and behaviors among librarians. By influencing the behavior of librarians, these templates influence the expression of public library service. As noted in the introduction, public libraries are ubiquitous, impacting a significant portion of the U.S. population. Therefore, it stands to reason that these templates have had a significant impact on the United States population as a whole. While many such templates could potentially be parsed from U.S. public library history, this review will cover five: the movement toward best books of the late 1800s and early 1900s; the Public Library Inquiry of the 1940s; public library standards; American Library Association (ALA) professional codes; and public library surveys.

The best books. U.S. librarianship historically has focused on providing access to the “best reading”—a phrase embedded in their 1879 motto to provide “the best reading for the largest number at the least cost” (Wiegand, 1999). This, however, resulted in the obvious issue of attempting to define what best reading meant. In the late 19th and early 20th centuries, best reading meant a focus on informational texts and literature defined as high quality by elite, expert, WASP-y librarians. This translated to efforts such as the “Model Library” unveiled at the 1893 ALA conference, which showcased 5,000 volumes deemed appropriate for small public libraries in the United States. This fixation on non-fiction and literary texts persisted for decades, despite its mismatch with the actual reading habits and preferences of library users. Public libraries in the U.S. tended to experience circulation rates of 75% fiction, despite ALA’s recommendation that only about 15% of the collection be fiction titles. Also ironically, as Wiegand points out, many of the publications distributed to libraries to help them build collections of “best reading” were actually controlled by U.S. book publishers, not librarians, illustrating how professional normative forces can originate from sources outside of the profession itself. The marginalization of fiction titles by the profession waned somewhat after

World War I, as the federal government circulated mass amounts of popular reading material to military personnel, undermining arguments that such reading was detrimental and inappropriate for the masses.

Public Library Inquiry. The Public Library Inquiry was a large-scale effort to measure many facets of American public libraries and librarianship. It was an effort of the American Library Association, carried out by the Social Science Research Council and funded by the Carnegie Corporation at the cost of \$200,000 in mid-20th century dollars (Raber & Maack, 1994). The Inquiry resulted in seven books and five reports covering four different aspects, or themes, of public librarianship: library use and users, mass media and the book industry, library governance and finance, and librarians and library management. As Raber and Maack note, “the purpose of this was not to establish a set of incontrovertible objectives for public librarianship, but rather to set an agenda for professional debate about library objectives. In this it succeeded admirably. The issues raised by the Inquiry have been at the center of professional discourse about public library purpose for the last forty years” (p. 26).

Unlike other professional isomorphic templates, the Inquiry did not result in a particular set of recommendations that have been adopted by the profession. In fact, many of the conclusions were controversial. For example, the Inquiry’s report on *The Library’s Public* by Bernard Berelson found that rather than reaching the masses, public library users tended to be a better-educated, higher-income minority, and public libraries could support their democratic goals by ensuring that opinion leaders could have access to high-quality reading materials that might otherwise be drowned out by the proliferation of mass media. With controversial assertions such as these, many librarians rejected the PLI findings or questioned their methodological approach, limiting the immediate effect of the report on library service

(Wiegand, 1999). The PLI was discussed in-depth at a forum sponsored by the University of Chicago in 1949, and then at seven subsequent regional library conventions, which featured members of the team responsible for carrying out the PLI research (Raber, 1999). This indicates that though it was controversial, it was an important topic given much attention by professional librarians. By significantly impacting the foci of professional discourse, it exerted a significant normative pressure on the profession. It is also noteworthy that most of the researchers were social scientists, not librarians, and the Social Science Research Council and ALA took great strides to establish an objective study detached from “all official or unofficial library controls” (Raber & Maack, 1994, p. 28). This further demonstrates that professional librarian templates are not necessarily those created by librarians; rather, these isomorphic templates are those that are accepted and disseminated by professional librarian power structures.

Public library standards. State public library standards have existed since the late 1800s in the United States. In her analysis of state standards, Houghtaling (2011) found that standards might include requirements related to “planning, facilities, governance, staffing, collection, services, technology, and marketing” (p. 44), but she also found that “there is a lack of homogeneity in standards from state to state” (p. 37). Each state differs by what is included in the standards; some have extensive requirements, some have few, and others have no standards. In some cases, state-level funding is tied to standard adherence. This is in contrast to many other Western countries, which have adopted national standards of library service (Quinn & McCallum, 2011). Historically, the American Library Association did work toward national standards, publishing several versions in the 1920s-1960s (Houghtaling, 2011). These plans emphasized local public library autonomy, but these standards fit in well with broader national efforts (such as the Public Library Inquiry) to improve and professionalize public library service

across the United States. Each publication of standards and recommendations shifted the understanding of what was an adequate level of service. For example, early versions focused on staffing levels and training; book collections; funding levels; and usage. The 1942 version focused on recommendations for per-capita support levels for libraries. The 1950 publication *The Public Library in the United States*, the ALA abandoned the concept of per-capita support as a measurement of adequacy but set a universal level of \$100,000 as the minimum budgetary support necessary to be considered adequate, regardless of library size. After the last national standards were published in 1966, ALA moved away from universal quantitative standards and toward planning and evaluating library services within the local community context (Owen, 1992). This shift also recognized that measures of library service should be based in empirical research, not merely professional opinion.

ALA professional codes. Other prominent examples of isomorphic templates are the information policy recommendations put forth by the American Library Association, such as the The Library Bill of Rights, Freedom to Read Statement, and the Code of Professional Ethics for Librarians. These codes have persisted across decades, a testament to their normative staying power. The Code of Professional Ethics was first adopted in December 1938, and as Hannson (2017) notes, “for the first time, an ethical code was tied to a professional organisation within the library and information sector, something which created new conditions not only for the placement and function of the code, but for the entire discussion on library ethics” (p. 1272). The Library Bill of Rights was adopted in 1939, and expresses the goals of providing free and equitable information access while resisting censorship. The Freedom to Read Statement was adopted in 1953, a response to McCarthyism and pressure from the U.S. Senate to censor books deemed “immoral” (Wiegand, 2015). In the joint statement between the ALA and the American

Book Publishers Council, they declared the ability of people to freely read as essential to a functioning democracy. These documents illustrate a history of library professionals responding to societal issues and attempting not only to guide behavior of professional librarians but also to influence social discourse on information ethics and information policy.

Public library surveys. Another notable isomorphic template, and the one that is the focus of this research project, is the template of the state and national public library surveys. The Public Library Survey (PLS) is administered by the Institute of Museum and Library Services (IMLS), and the survey has been collected annually since 1988 (“Public Libraries Survey,” 2015). State-level data coordinators are appointed by the chief officer of the state library agency to aggregate state data and report it to IMLS. Approximately 9,000 public libraries—accounting for more than 17,000 library service outlets (such as branches and bookmobiles) participate in the 50 states, the District of Columbia, and the outlying areas of American Samoa, Guam, and the Northern Marianas. Data is collected on dozens of library service characteristic variables and usage statistics, including collection size and makeup; staffing; budgets and spending; programs; and technological services. The 2017 fiscal year collection had a response rate of more than 98 percent, although not all respondents completed every variable field (*Public Libraries Survey Fiscal Year 2017 Data File Documentation and User’s Guide*, n.d.). National PLS variables include such diverse information as collection size and composition; circulation of various material types; library visits and reference transactions; program attendance by target audience age; funding amounts; library spending in categories such as capital improvements, staffing, and collections; number of computers and computer use sessions; availability of wi-fi; hours open; hours worked by professional Master of Library Science staff; square footage of the building.

While state surveys can differ somewhat from the national PLS survey and include state-specific variables not reported to IMLS, the state surveys are often quite similar to the national survey.

It is important to acknowledge that an isomorphic template explicated without being explicitly identified as an isomorphic template. State and national library surveys do not explicitly state that the measures included in the survey are those that define a legitimate library, and state standards do not suggest librarians follow them in order to increase their legitimacy among various stakeholders. But the act of including specific measures and outputs in these documents imbues value to them and denotes these measures as important symbols of legitimacy. ALA's Code of Ethics and other recommendations are promulgated to provide a higher, more ethical level of library services, but the overall anticipated result is a more homogenous librarian workforce that adheres to professional norms and increases the legitimacy of public libraries.

Research on Library & Community Variables

Measurement trends in public libraries. Public libraries have a longstanding yet often uneasy tradition of attempting to measure, quantify, and explicate library services and their impacts on the library community and society as a whole. Within LIS, scholars and librarians alike have historically proposed many diverse methods and systems of measurement, often mirroring the trends and shifts within the broader culture of management of administration. For example, when scientific management and its focus on technical efficiency was the preeminent management school in the early 20th century, public library management often adopted its focus on measuring inputs and outputs and utilizing systematic methodologies in all areas of library management (Shaw, 1954). As scientific management faded and newer concepts such as institutionalism emerged, public library management evolved as well. This has been evident in

discussions and debates about appropriate measures of library service, which are not always easy to quantify. For example, Orr (1973) proposed examining the “goodness of library services,” which he argued could potentially be proxied by factors such as usage rates and collection size. In 1999, a librarian named Thomas Hennen developed his own controversial index for naming “the best public libraries in the USA” within different population size categories, with the rankings published in *American Libraries* (Hennen, 1999). While his rating system was often sharply criticized (Scheppke, 1999; Lyons, 2007), the types of variables he used are commonly reported by most libraries and library support institutions, such as state libraries and the Institute of Museum and Library Services. Many quantifiable approaches have failed to consider the impacts of these inputs and outputs, and as communities have continued to make library appropriations, and libraries have allocated those appropriations for services, “the library and information science (LIS) research community has failed to analyze the deeper meanings of these appropriations or to evaluate their significance for library users” (Wiegand, 1999, p. 1).

To more broadly examine the value of public library service, LIS has more recently adopted the quantitative research approach of computing return on investment (ROI). These studies are designed to demonstrate how public library funding inputs are multiplied into positive financial impacts on the community (i.e.: Bureau of Business Research IC Institute, 2013; Schwartz, Binette, Warburton, & Weiss, 2012). In a similar vein, valuation studies often utilize surveys to collect respondents’ stated valuations of public library service, utilizing concepts such as willingness to pay for library service. These studies have also expanded to not only account for value from direct use but also value from non-use, such as when a person values having a public library available for other people to use, often associated with altruistic motives (Aabø & Audunson, 2002). Some of these studies have considered community characteristics such as

urbanness and income and their impact on willingness-to-pay, in addition to library services characteristics (Aabø, 2011; Sin & Vakkari, 2015). In relative recency, many in LIS are advocating for a shift to outcomes-based evaluation. (For example, outcomes-based measurement focuses not on the number of programs for children, but on the impacts those programs have on education, social, and cultural goals for the children.) This shift is not necessarily because previous evaluation methodologies have been tested and found lacking. Rather, this shift seems to mirror trends in society, social sciences, and cultural institutions in general, as complex, qualitative, contextualized research approaches have come to the forefront. In many ways, these trends are quite positive, particularly the emphasis on contextualizing measurements to communities and the understanding of the complexity of measuring non-for-profit, cultural institutions. As Closter (2015) argues, “the evolution of these qualitative philosophies demonstrates a desire to personalize and humanize library services. Instead of physical strengths of the building and collections, attention shifted toward what the library does with its assets and resources. Now that the emphasis rests more closely on the residual benefits to library users, library administrators are positioned to measure and understand whether the benefits are being received positively” (p. 113). Scholarship related to the outcomes *of* the organization, as opposed to outcomes *from* the organization, however, seems to be less talked about. The outcomes of library service on the community are intrinsically linked with outcomes of the organization itself. If we do not properly study outcomes of the organization—in this case, the outcome of organizational legitimacy—then a gap will necessarily exist when trying to understand the impact the organization has on community and societal outcomes. This study addresses the need for research on the organizational outcome of legitimacy, which allows for analysis and understanding of the relationship of this outcome to library organizational behavior

and community factors. Understanding these relationships is crucial for library decision makers and advocates working to best achieve legitimacy within their organizational contexts.

Existing studies on library and community variables. A number of LIS studies have examined particular relationships among library service characteristics, community socioeconomic characteristics, and library usage and funding. Many of these studies are atheoretical and consider only one or two variables in isolation. These studies and their findings are useful in considering potential variables for inclusion in the study. For example, when considering how to operationalize the theoretical idea of community context, existing literature demonstrates how median income, age, race, and education level are justifiably included because of demonstrated significant relationships to legitimacy indicators.

A number of studies have quantitatively examined library circulation and factors that drive circulation and usage of library materials; however, the results are diverse and inconclusive. Most of these studies center on the role of collection and overall expenditures related to circulation figures. American Libraries published the yearly “*Index of American Public Library Circulation*,” but it appears to have been discontinued in the early 2000s. Yearly articles highlighted increases or decreases in library spending and circulation but showed no correlation or statistical analysis (e.g. Wright, 1998; Lesak, 2003; Cree & Yoon, 2006).

The financial component of funding is oft-discussed in the professional narrative, but it is mostly viewed as an independent variable, with some studies finding a correlation between library circulation (i.e.: Wright, 1998, Lesak 2003). For example, Hoffert (2010) reported results of a national survey of public libraries which showed an increase in circulation despite a majority of libraries having flat or decreased book budgets. There was, however, an overall increase in library expenditures, despite collection dollars not increasing. The IMLS did extensive statistical

analysis of public library data for its National Level Data and Trends 2011 report and found that “as investments, such as revenue, staffing, and programs, increased, so did critical use measures, such as visitation and circulation. In the same way, as investments were reduced, mostly in reaction to post-recessionary budgetary reductions, we saw decreases in library use” (IMLS, 2014, p. 13). They argued a direct relationship exists between investment and use. This correlation does not, however, address which proceeds from which: does usage come from more investment, or does more investment proceed from more usage? Kinney (2010) examined the issue of Internet access and public libraries and used a random-effects linear regression model to analyze the effects of Internet access on library usage. He found that having Internet terminals (versus having no Internet terminals) has a significant positive effect on a library’s visits and reference transactions, but the presence of Internet terminals did not have an effect on circulation. An increase in the number of Internet terminals has no significant effect, positive or negative, on visits, reference transactions, or circulation. (p. 105-106).

Many studies have also documented the relationship between various community characteristics and library service aspects such as funding and usage. At times, those relationships illustrated through statistical analysis have been met with skepticism and concern from librarians. The Public Library Inquiry is perhaps the ultimate example of this, in that the Inquiry’s research found that the average library user was likely to be better educated and wealthier than non-users. The inquiry put forth the argument that public library legitimacy could be found by encouraging the democratic process by engaging with and providing high-quality resources to educated and informed citizens (Raber, 1999, p. 54). In large part because of increasing availability of information through the mass media, the PLI researchers suggested librarians focus not on attempting to reach a large audience with popular materials, but rather on

providing high-quality materials to a smaller audience. While it reinforced the pluralistic nature of American society and argued that all citizens could participate in the democratic process, the Inquiry report suggested focusing finite resources on serving “opinion leaders” in society, a concept that was seen by many librarians as elitist and a repudiation of library ideals. In this way, they reaffirmed the professional narrative of the librarian as a gatekeeper of worthwhile knowledge, but questioned the professional narrative of the library as a universal institution. Interestingly, as Maack (1994) notes, the PLI’s recommendation to focus on a smaller, better educated and wealthier constituency actually propelled professional leaders to move in the opposite direction. “Rather than choosing to focus on ‘opinion leaders,’ librarians renewed their commitment to an egalitarian mission and formulated new strategies to help libraries move closer to realizing goals which the Public Library Inquiry had shown to be out of pace with reality” (p. 78).

More current LIS studies have examined the links between various library variables, such as funding and usage, and community variables, such as education level, race, age, and income level. Regarding income level, Carlozzi (2018), in his study of public libraries in Massachusetts, found a strong correlation between municipal funding and circulation, and he found the strongest predictor of a library’s municipal funding was its number of educated residents, defined as the percentage of the population with a bachelor’s degree or higher. Overall, he found that 85% of the variance in municipal funding was explained by community characteristics. Meyer (2018) examined state-wide data for Iowa public libraries and found a positive, subtle correlation between median household income and library circulation. Stabell (2015) looked at 26 public libraries in one Norwegian county to examine the connection between library funding and usage.

He found a positive correlation between library funding and per-capita library usage (which encompassed both visits and circulation).

Related to race as a variable, Sin (2012) examined the factors that influence high school students' public library usage, drawing on three nation-wide datasets. She found that race/ethnicity was correlated with public library usage, and higher service levels in the student's public library contributed to library usage, demonstrating that both library service characteristics and socioeconomic characteristics can impact use of the public library. Age has also been shown as a factor in differing library behavior. Yang and Shieh (2019) examined whether the Pareto principle existed in public library circulation, where 20% of patrons and of collections account for 80% of circulation. They found support for this phenomenon, and noted that age played a role in circulation patterns. While not specifically addressing usage or circulation, Paul's (2019) study on Polish public libraries found that age and financial situation correlated with differing social impact of public libraries, in that older and younger people cited different library benefits, and financial situation impacted particular impacts of public libraries. Similarly, Sin and Vakkari (2015), in their study on perceived outcomes of American public libraries, considered demographic factors such as age impact the perceived benefits of public libraries and found differences based on age, gender, race, and education level.

Addressing the research gap. As noted, these existing studies are useful for considering which variables to include as independent variables representing library characteristics and community characteristics. (The particular variables included will be discussed in-depth in Chapter 3.) Since the studies are primarily a-theoretical, however, and consider only one or two variables, they are limited in their applicability because they do not address the complex nature of public libraries and the likely-simultaneous impact of community and library variables.

Similarly, the concept of public library legitimacy has not been defined and operationalized in a quantitative manner, and as this literature review demonstrates, similar approaches do not exist within LIS literature. In order to begin to address this research gap, this study utilizes the theoretical framework of institutional theory to attempt to model these variable relationships in a way that considers both the library and community contexts, and this study also quantifies the public library legitimacy construct.

Public Libraries: Change in Which Direction?

While some professional isomorphic templates have enjoyed tremendous staying power, the realities of the postmodern, technological world have left many wondering about the long-term survival and relevance of public libraries—both inside and outside the profession. As institutional theory posits, the presence of marked uncertainty contributes to the expression of isomorphic change pressures. Public librarianship in the current environment experiences vast pressure to change, but with little clarity or certainty as to the proper way to adapt to new realities, and little understanding of how those changes or organizational behaviors contribute to public library legitimacy. Rasmussen and Jochumsen (2003) point out the diverse and conflicting predictions about the future of public libraries: “One moment the book is declared dead, the next alive and kicking and while some argue that the library should dissolve its physical presence into cyberspace, others suggest that the library should strengthen its role as a physical space in the local community” (p. 83). In order to know where to go, LIS researchers must understand, through empirical research, the variables that influence public librarianship and the outcome of public library legitimacy.

Library users and non-users see change as necessary for public libraries to adapt to shifting environments influenced by digital development, globalization, multiculturalism, and

political changes, and these changes “need to be anchored in the public’s images if they are to be regarded as legitimate” (Evjen & Audunson, 2009, p. 164). Public libraries are situated between many stakeholders and must adapt to not only technological and social change but also must address the concerns and perceptions of a variety of constituencies, such as users, non-users, government officials, and the professional librarian community. Ramussen and Jochumsen (2003) argue that a focus on information technology is one potential avenue for creating a distinctive library image, with the other two possibilities being an increased focus on quality of collections and creating new images tied inherently with impressive physical spaces. They note that the functional, universal nature of public libraries may make them seem rather ordinary; however, it is precisely this identity that gives libraries their legitimacy and distinguishing character. While the idea of the all-encompassing, universal library does not make public libraries attractive targets of municipal investing, it may be the central foundation of the public library’s success.

Technology offers many new opportunities and challenges to public libraries. Despite early, ominous warnings that Internet use would completely wipe out library users, Aabø (2005) notes that people who use the Internet also use libraries, and “Internet use exists as a complement to and not a substitute for library use” (p. 206). On the other hand, people also see the Internet as more convenient, more updated, and more fun than using a library. Libraries need to reevaluate their roles, not only by providing more Internet and technology access but by embracing all the roles of public libraries, including creating meaningful low-intensive meeting spaces that connect community members; providing training and educational opportunities that bridge technology gaps; and encouraging reading as an enjoyable leisure activity (Wiegand, 2017). While technological innovations are certainly driving discussions about public library legitimacy in the

information age, technology cannot be the sole focus on public library identity. Libraries must incorporate new technologies, but these technologies are necessarily temporal and will continue to adapt, indicating that technology alone cannot be the foundation of library identity or legitimacy (Waller, 2008). As Kajberg (2013) argued, “the library should not abandon its unique capabilities for organising and disseminating information, knowledge, and culture. But these assets and competencies should be put into play in new ways and in new contexts” (p. 295). The fact that these technological revolutions appear to be calling into question the entire foundation of public libraries is not a new phenomenon; however, it is an indication that the foundational scholarship that public library identity is built on is shaky.

Ironically, when an organization is experiencing a legitimacy crisis, how the organization or organizational field responds can further impact legitimacy perceptions. Focusing too heavily on the perceived legitimacy threat can be detrimental, because even if efforts to combat the threat are positively received, it can ultimately open the organization up to additional scrutiny and questioning (Suchman, 1995). Too much focus on the challenge to legitimacy essentially grants legitimacy to that challenge. That is why it is disheartening to see librarians focusing too little energy on understanding the root causes and contributors to public library legitimacy, and instead focus too much energy renaming and rebranding libraries to capitalize on legitimacy from other fields, such as education. One prominent rebranding crusader is Gross (2013), who advocates an approach centered solely on education, including measures such as calling librarians “instructors” and referring to story time as “class.” As a response to uncertainty within the library field, she argues for mimetically employing language that focuses almost exclusively on “education” as the library role. “It occurred to us that schools, colleges, and universities do not need continually to justify their existence and explain their value. Why not? Because

everyone knows who they are, what they do, and why they are important” (p. xiv). Long-term, however, there are potentially serious unanticipated consequences of this type of approach. Gross argues that the vocabulary of public libraries is too vague, and perhaps that criticism is justified. Disregarding the nomenclature of the librarian profession in order to adopt a different professional nomenclature, however, sends the message that there is nothing unique about libraries and librarians, and that these library constructs are not relevant in the modern world. By holding up libraries as exclusively educational institutions, and attempting to copy the language of that sector, this approach reinforces narratives that portray public libraries as irrelevant. Unfortunately, without a strong theoretical understanding of public library legitimacy, these types of approaches will continue to proliferate and further undermine the value of public libraries within society.

Gross is not alone in recommending strategies for change. Browsing through professional library journals and publications, the reader is left with the unwavering conviction that librarians must change, must do more, must move in new directions. A recent editorial in *Public Library Quarterly* posed the question “are you and your fellow library staff members moving with a sense of urgency?” (Matthews, 2018, p. 355). But in which direction should public librarians urgently move? Should they build a makerspace? Redesign the library? Weed the collection to make room for more community gatherings? Reach out to homeless patrons? Stock Narcan at the front desk? Buy more Playaways? The suggestions are plentiful, but the evidence-based concepts are few. Yes, libraries must adapt—just as they always have, and just as every enduring cultural institution in society has. Yet, powerfully worded calls to action not supported by an active, industrious body of public library scholarship are simply feel-good pep talks with no ability to answer the pressing questions facing our field. Adopting innovative approaches is not wrong,

particularly when they address understood needs within a community. Too often, though, practices never advance to the point of evaluation to determine whether these efforts have tangible impacts—and LIS cannot place the burden solely on practitioners to address these types of concerns. Above all, the shifts within both the library professional narratives and the outside socio-economic pressures that influence public libraries indicate the critical need for empirical research into all aspects of public library identity, including public library legitimacy. Kajberg (2013) argued, “a review of selected published sources on the legitimacy of the public library shows that there is a paucity of critical thinking about public libraries and their future” (p. 293). If the “library” in Library and Information Science is abandoned, then public library practitioners and advocates will continue to lack a strong theoretical basis for providing public library services to millions of people around the globe. The ubiquitousness, uniqueness and importance of public library service demands an approach that respects and addresses the public library as an institution.

Situating the Study in the Research Gap

Just as the Public Library Inquiry attempted 70 years ago, the Library and Information Science community must consider the legitimate role of the public library within society. These discussions, however, must be based on understandings of the relationships between different isomorphic templates and different stakeholders and their perceptions and related actions. Professional librarians cannot adequately address a potential legitimacy crisis without an appropriate understanding of public library legitimacy and its correlating factors. The literature review has demonstrated how sparse the body of public library legitimacy research is within LIS, and the onus is on LIS scholars to address this research gap.

Because of the scant amount of existing research, this study is but one approach to a broad research area that is deserving of attention by LIS scholars. For example, while a number of professional library isomorphic templates were discussed, the library service characteristics for this study are being drawn from a state public library survey. This selection was made for several reasons. This isomorphic template is both historical and continuous, as the survey has existed nationally for decades and substantially longer in many states. It is also clearly articulated, with variables delineated and presented in a way that makes it highly appropriate for a quantitative research study. It also is only one of many isomorphic templates that could be studied to examine potential relationships between the template and public library legitimacy.

This proposed research study shares many similarities but also marked differences to other quantitative approaches within LIS. One similarity is that this study utilizes the concept of considering non-use variables by incorporating municipal funding as a dependent variable.

One difference is that while ROI approaches and valuation approaches within LIS attempt to measure the impact of the library on the community, this study will attempt to measure the impact of the library's geographical community and the professional library narrative on the library as an organization. Another difference is that in this study, dependent variable values will not be drawn from stated preferences, as is the case in many valuation approaches. Rather the dependent variables are designed to capture revealed preferences; in other words, it is not how much people say they value their library, but rather how much the library's community members use their library and how much public financial support they provide.

While many studies have examined relationships between various library variables and community variables, few studies have addressed both. This study looks at both the impact of what the library does and who the community is to consider how that relates to public library

legitimacy. This study will also test the hypothesis that the community mediates the expression of the professional isomorphic template, further contextualizing the impact on legitimacy.

This study also adopts an unusual approach to certain variables, but these approaches are supported by the theoretical framework. Virtually no legitimacy research—in any discipline—treats legitimacy as an empirical dependent variable, but this study will do so to test the institutional theory premise that isomorphism increases legitimacy, similar Deephouse's (1996) approach to the banking sector. By providing another example of quantitative legitimacy research, this study can contribute to institutional theory research in other disciplines by demonstrating how the latent construct of legitimacy can be operationalized and quantified by various indicators. This study also considers municipal library funding differently than most LIS research. Most studies considering library funding are a-theoretical, but this study combines institutional theory with non-use studies in LIS to investigate municipal funding as a dependent variable and a measure of non-use legitimation.

Chapter 3: Methodology

Research Questions & Hypotheses

This study addresses the following research questions:

1. What community socioeconomic characteristics relate to public library legitimacy?
2. What library service characteristics relate to public library legitimacy?
3. Do community socioeconomic characteristics impact the adoption of library service characteristics?
4. Does adoption of library service characteristics positively correlate with legitimacy?
5. Is public library legitimacy better explained by library service characteristics or community socioeconomic characteristics?

Library service characteristics and community characteristics will be quantified and statistically analyzed to test the following hypotheses:

H1: Median age, median household income, minority population percentage, and education level will significantly correlate with public library legitimacy indicators. These traits have been shown within existing empirical LIS literature to correlate to at least one of the chosen public library legitimacy indicators of circulation, visits, and funding (Yang & Shieh, 2019; Carlozzi, 2018; Sin, 2012; Meyer, 2018).

H2: Hours open to the public, hours worked by professional ALA-MLS librarians, collection size, number of computers, and number of programs will significantly correlate with public library legitimacy. These independent library variables are selected from the 2018 Kansas Public Library Survey and Annual Report and represent a professional isomorphic template promoted by library agencies, both at the state and national level.

H3: Community socioeconomic characteristics will be significantly correlated with library service characteristics. While it is hypothesized that adherence to professional norms increases legitimacy, the community context should impact the adoption of the isomorphic template (Greenwood, Oliver, Sahlin, & Suddaby, 2008).

H4: Public library legitimacy will be significantly correlated to library service characteristics. These variables are part of the isomorphic template of the Kansas Public Library Survey and Annual Report, and therefore upheld as institutionalized norms regarding library service. Since adherence to institutionalized norms is hypothesized to increase legitimacy, these variables should correlate to increases in public library legitimacy (DiMaggio & Powell, 1983).

H5: Public library legitimacy can be better predicted by library service characteristics than by community characteristics. This is based on institutional theory's assertion that adherence to professional norms increases public library legitimacy (DiMaggio & Powell, 1983).

Research Design

The research approach proceeds from a postpositivist, deductive stance. This study uses a quantitative, large-end cross-case design investigating public libraries in Kansas. The purpose of this study is to examine public library organizational characteristics and community characteristics that theoretically influence public library legitimacy and model these factors to empirically determine whether they are related to public library legitimacy. Utilizing quantitative design of predictive models, this study will combine secondary data to examine one set of exogenous variables (community characteristics) and two sets of endogenous variables (library characteristics, which are theoretically influenced by community characteristics and in turn influence legitimacy; and public library legitimacy, which is influenced by both community and library characteristics).

Public library legitimacy, community characteristics, and library characteristics are all latent constructs represented by multiple indicators. Library legitimacy indicators are municipal funding per capita, circulation per capita, and visits per capita. The community characteristics in this study include race/ethnicity, age, income, and educational attainment in each community. The library service characteristics are hours open to the public, hours worked by an ALA-MLS librarian per capita, total collection per capita, number of Internet computers per 1000 residents, and number of programs per 1000 residents. These variables are discussed in-depth in the variable selection section of this chapter.

Subjects

The population of the research study is public libraries in the state of Kansas. For this study, I chose to utilize only one state as the population because of many regional and state variances in the governing and funding structures of public libraries. Some states have mandatory standards or requirements for funding, which would impact the adoption of isomorphic templates because it would add additional coercive pressures on libraries to focus on particular organizational traits. In the state of Kansas, Public Library Standards are voluntary, with no ties to state aid funding. Within the state of Kansas, most public libraries are also legally autonomous units, as opposed to departments within a city government. Additionally, each state administers its own survey and guides participants in best practices in answering the survey questions. In Kansas, the survey is administered by the State Library of Kansas. By using data from one state, it increases the instrument reliability and data consistency, and reduces potential variance in question interpretation and responses. Kansas also has a very high response rate to the Public Library Survey and Annual Report. For these reasons, it is a good first test case for

building a legitimacy model, which can then be tested against other states and national data as a whole.

According to Kansas State Librarian Eric Norris, Kansas has 325 “units”, or public libraries, listed by the Institute of Museum and Library Services (personal communication, 2020). According to the IMLS definition of a public library, the library must have a collection of printed or other library materials, paid staff, a regular operating system, a facility that houses the collection, and be supported at least in part by public funds. Of the 325, three libraries did not include information in at least one of the measured variables and were omitted from the sample. Additionally, 20 libraries that are county or multi-city organizations were omitted, because they serve multiple communities and cannot be linked to a single set of community characteristics, and one township library could not be linked to community Census data as well. One library that is a cooperative with a public school system was also omitted. This leaves a sample size of 300 libraries for this study.

Wolf, Harrington, Clark and Miller (2013) note that various rules-of-thumb exist to estimate needed sample size for structural equation modeling, with 10-15 cases per variable often considered. In this case, the sample size of 300 would be adequate for this type of analysis. Wolf, et al., note potential problems with considering only these rules-of-thumb, and analysis is needed to determine the appropriateness of the sample size and any additional limitations or concerns that arise.

The public libraries in the state of Kansas are predominantly located in rural areas and small towns; of the 300 libraries in the sample, 272 (90.6%) serve a community with a population of fewer than 10,000 people, which is significantly higher than the national percentage of 57.0% (Institute of Museum and Library Services, 2019). Table 1 shows the

number of public libraries in particular community sizes in Kansas. A 2013 IMLS report on small and rural libraries classified 74.9% of Kansas libraries as “rural,” a reminder that while most Kansas libraries are rural, not all small libraries are rural libraries.

Table 1

Kansas Public Libraries By Population Served

<u>Library Service Level</u>	<u>Population Range</u>	<u>Number of Libraries</u>	<u>Percentage of Sample</u>
Gateway	Fewer than 500	82	27.33%
Linking	500-1,000	55	18.33%
Service Center I	1,001-2,500	82	27.33%
Service Center II	2,501-10,000	53	17.67%
Major Service Center I	10,001-25,000	17	5.67%
Major Service Center II	25,001-100,000	8	2.67%
Major Resource Center	More than 100,000	3	1.00%

Note. These Library Service Level categories are those used by the Standards for Kansas Public Libraries (2016). Data from Kansas Public Library Survey and Annual Report (State Library of Kansas, 2018).

In the state of Kansas, 32.9% of the population have a bachelor’s degree or higher compared to the national statistic of 31.5% (U.S. Census Bureau, “Quick facts: Kansas”, n.d.; U.S. Census Bureau, “Quick facts: United States,” n.d.). The median household income is \$57,422, just under the national median of \$60,293. The state’s population is predominantly white, at 86.4%, compared to the national percentage of 76.5%, and the population per square mile is 34.9, compared to a national average of 87.4, indicative of the rural element of the state.

Instruments

The State Library of Kansas (2018) developed and continues to administer the annual Kansas Public Library Survey and Annual Report (KPLSAR), which solicits information from

public libraries regarding a wide variety of library service characteristics such as yearly circulation, yearly visits, revenues and expenditures, collection additions and withdrawals, programming, staffing, and electronic resources. The 2018 version of the survey is a 13-page document with dozens of potential variables. It has been administered in some fashion since the 1920s, with data from the mid-1960s available online. It is part of the broader Public Library Survey administered by the Institute of Museum & Library Services (IMLS), although states can add additional questions beyond what is reported to IMLS. The national survey has been collected since 1988. Survey data for both the state and national surveys are available online in Excel format at the respective organization's websites. It is important to acknowledge that almost all of the variables collected on the survey are self-reported by the library director or person responsible for completing the survey, and while the survey does include definitional guidance for the different variables, libraries may count variables differently or incorrectly, and this creates the potential for error.

The U.S. Census, conducted every 10 years, counts the number of people in the United States for the purpose of representation in the U.S. House of Representatives as dictated by the Constitution ("About", n.d.). Data is also used for federal grants and other funding distributions, and even since its earliest inception in 1790, the Census has asked additional questions beyond simply counting individuals. The 1790 Census had questions on gender, race, head of household and others' relationship to the head, and the number of any slaves, and some states collected additional data on occupation and number of dwellings in a town or city. The American Community Survey (n.d.) collects data on smaller subsets of the population (yearly for the nation, each state, and larger geographic areas, and less often for smaller geographic areas). This

survey collects confidential information such as age, race, income, veteran status, and other variables.

Both data sources—the U.S. Census Bureau and the Kansas Public Library Survey—collect information in ratio measurements, appropriate for inferential statistical analysis. The U.S. Census Bureau collects socioeconomic data directly from respondents (individuals and businesses), and also collects data from other sources such as federal, state, and local governments, and commercial entities (“About”, n.d.). Data is confidential and no information is published that could identify an individual or businesses. Both the State Library of Kansas and the U.S. Census Bureau are established, reputable government organizations, lending credibility to the data collected in the relevant surveys.

Ethical Considerations

All data used in this study is secondary data, collected by reputable agencies and publicly available on the Internet. Since no human subjects are involved, this study does not require review from the Institutional Review Board. Individual public library names will not be used, as the focus of this study is on building a generalizable model, not investigating specific libraries.

With inferential statistics in general and structural equation modeling specifically, one issue is the reporting of initial models prior to testing. Hoyle (1995) notes the importance of reporting all variables and patterns considered in model building, not only those that are found to be mathematically significant and thus included in the final model. Also, variable consideration, selection, and de-selection will be driven by theoretical considerations and prior literature, not simply mathematical considerations.

Variable Selection

Legitimacy indicators. As discussed in the literature review, legitimacy has rarely been empirically defined as a dependent variable (Haack, et al., 2016), but is often set as an independent variable. Institutional theory, however, indicates that isomorphism should increase legitimacy, which would set legitimacy as an appropriate independent variable. Given that legitimacy is a form of authorization and endorsement that theoretically leads to resource access (Johnson, Dowd & Ridgeway, 2006), it is a variable worthy of attention. As a latent construct not directly observable, it is appropriate to have more than one indicator of the construct, particularly for a structural equation modeling approach (Hoyle, 1995; Civilek, 2018). This study will use data of three indicators of library legitimacy: local funding, circulation, and library visits, collected by the KPLSAR (State Library of Kansas, 2018). As discussed in Chapter 2, these three indicators are designed to capture different facets of public library legitimacy. Circulation is an indicator of the use of library collections, a traditional and still-important role of public libraries. Library visits incorporates the increasing importance of library as place, as community members use the library as a gathering place as well as an access point for services such as Internet access and programs. The local funding variable is an indicator of non-use, incorporating the perception of people within the community who see the library as a valuable resource for the community as a whole, irrespective of personal usage of library resources. The variables and their definitions are found in Table 2.

Table 2*Legitimacy Indicator Variables*

<u>Name</u>	<u>Definition</u>
Circulation Per Capita	Total times materials are borrowed and checked out by individuals or organizations for use outside the library, including renewals, divided by the population of the legal service area. Does not include materials lent to other libraries.
Visits Per Capita	Number of times individuals enter the library for whatever purpose, divided by the population of the library service area
Municipal Funding Per Capita	Tax funds designated by involved taxing entities (city, township, county) and available for the public library to spend, divided by the by the population of the library service area.

Note. Definitions taken from Kansas Public Library Survey and Annual Report (State Library of Kansas, 2018).

All three indicators will be analyzed as a per-capita ratio, to compensate for differing library sizes. The impact of converting the measures to per-capita ratios can be seen in the descriptive statistics. For example, for library visits, the mean and median for the raw number are quite disparate; the mean is 32,032, the median is 8,268, the minimum is 240, and the maximum is 949,600, indicating the impact that larger libraries have on the data. By converting to per-capita ratios, the mean is 8.13, the median is 6.74, the minimum is 0.81 and the maximum is 51.18, creating data that is more meaningful and less skewed. See Table 3 for a comparison of the three indicators in raw scores and per-capita ratios.

Table 3*Descriptive Statistics for Legitimacy Indicators*

<u>Statistic</u>	<u>Visits</u>	<u>Visits Per Capita</u>	<u>Funding</u>	<u>Funding Per Capita</u>	<u>Circulation</u>	<u>Circulation Per Capita</u>
Mean	32,032	8.13	245,101	41.03	44,947	8.52
Median	8,268	6.74	45,943	36.33	8,268	7.18
Minimum	240	0.81	1,550	10.39	309	0.63
Maximum	949,600	51.18	9,467,142	156.36	1,914,426	43.47

Note. n=300. Data from Kansas Public Library Survey and Annual Report (State Library of Kansas, 2018).

Local funding per capita is included as a way to measure non-use, which is an important consideration in public library measurement (Aabø & Strand, 2004). It is an indicator of the amount of local funding that taxpayers and government entities ascribe to the public library, regardless of whether they personally use library services. It also encompasses a broader stakeholder perspective than usage alone, because it encapsulates the community perspective of the relative importance of having a public library, a willingness-to-pay measure. Circulation and library usage per capita indicate the direct relevance of the library service to members of the community, a willingness-to-use measure. These indicators align with the legitimacy definitions indicating the willingness of parties to contribute to an entity and the willingness to buy its products, or in this non-profit case, use its services (Terreberry, 1971). The use of both circulation and library visits is reflective of the increasing shift in the professional narrative toward increasing library services such as programs, trainings and classes, and computer/technology access. While checking out library materials is the traditional concept of library service, the rise of the Internet and the increasing awareness of the library as a community gathering place have created a focus on not simply materials usage but also on library usage in a broader sense.

Library service characteristics. Including each variable from the Kansas Public Library Survey and Annual Report (State Library of Kansas, 2018) in the model is not feasible, particularly when the goal is to hypothesize a macro, institutional level model of public library legitimacy. Building on the existing literature and making allowances for succinctness, several criteria were employed to reduce the number of independent library service variables. First, variables that have not been on the survey for at least 5 years were omitted. This date limitation ensures that survey items have been part of the established professional narrative for a significant

period of time. Second, variables that measure similar concepts or are subcategories of other variables were omitted. For example, only overall collection size will be considered, not each type of collection item (print, ebooks, audio materials, etc.). Similarly, variables such as dollars spent on collections, and number of collection items, were not both added to the model because of the likely high degree of collinearity between the measurements. Third, variables added to the model must be directly influenced by the library/library board. For example, square footage of the library building were omitted because often libraries are housed in buildings owned by city or county municipalities, limiting the ability of the library staff and board to influence that variable directly.

This is not a perfect criteria set, and one could argue that ultimately it all is a function of dollars. But how those dollars are allocated is a pivotal library decision that works to define library identity. Whether public librarians spend their resources on materials, professional librarians, and programs, as advocated by the professional isomorphic template, or whether they purchase purple popsicles to pass out on the street corner, these resource decisions should have measurable, significant impact on the perception of legitimacy among library stakeholders.

The five variables that included in the original model for testing are: public service hours per week; number of hours worked by a professional librarian with a degree from an ALA-accredited Master of Library Science or similar program; total items in the library collection; number of Internet computers; and the number of programs (library-sponsored events) offered per year. All of these variables except hours per week will be considered as a ratio of the population of the library service area. The library service variable definitions can be found in Table 4, and descriptive statistics for these measures can be found in Table 5.

Table 4 <i>Library Service Variables Included in the Study</i>	
<u>Name</u>	<u>Definition</u>
Public service hours per year	Number of hours the library was open to the public
ALA-MLS hours per year	Number of hours worked by librarians with master's degrees from programs of library and informational studies accredited by the American Library Association
Total collection	Sum of all physical, non-serial materials available for circulation by the public, including books, audio and video materials, and other physical items
Internet computers	Desktop, laptop, or tablet computers available to the public that are connected to the Internet
Programs	Events on- or off-site that are sponsored or co-sponsored by the library, counting each instance of a repeating program
<i>Note.</i> Data and definitions for these variables are provided by the Kansas Public Library Survey & Annual Report (State Library of Kansas, 2018).	

Table 5 <i>Descriptive Statistics for Library Service Characteristics</i>					
<u>Statistic</u>	<u>ALA-MLS Hours Per Capita</u>	<u>Hours Open Per Year</u>	<u>Computers Per 1000 Population</u>	<u>Physical Collections Per Capita</u>	<u>Programs Per Capita</u>
Mean	2.32	1931.14	7.25	15.13	99.02
Median	0.00	1768.00	4.41	11.32	56.15
Minimum	0.00	208.00	0.00	1.50	0.00
Maximum	63.29	19,182	83.33	127.43	874.17
<i>Note.</i> n=300. Data from Kansas Public Library Survey and Annual Report (State Library of Kansas, 2018).					

Electronic collections and circulation. It is important to acknowledge that electronic books and resources are becoming integral parts of public library collections. In this study, however, both the circulation and collection variables include only physical items. This is done for logistical reasons related to the survey data available and the difficulty in parsing out electronic figures. In Kansas, the State Library of Kansas provides several services for downloadable e-books, audiobooks, and videos that are available to all Kansas residents. Since these services are not decided on a local level, including data related to these statewide resources

would not align with the locality-centered focus on this study. About 130 public libraries in Kansas have also elected to participate in the Sunflower Consortium through the vendor Overdrive; membership in the consortium provides public library users access to almost 48,000 electronic books, audiobooks, and videos (Kansas Public Library Survey and Annual Report, 2018).

While both collection and circulation numbers for the consortium are available in the survey data, inclusion is problematic for two reasons. First, it shifts the independent variable of collection size away from being a locally-determined variable, because the number of items that are part of the collection depends not only on the particular library but also on the number of other libraries who choose to participate and on the number of items other libraries choose to purchase for the consortium. Second, the high number of materials available in the consortium has the ability to significantly impact the collection-per-capita variable, particularly in smaller libraries. For example, one library in Kansas that participates in the Sunflower Consortium has a population of about 60 and a physical per-capita collection of about 62 items. However, if the consortium collection is figured in, the collection variable jumps to about 830 items per capita, even though it only represents a required investment of \$600, because fees are population-based. (Betsy Davis, personal communication, 2020). In contrast, another larger member library with a population of about 54,000 will see its per-capita collection size increase by less than one item per capita by including the consortium collection, even though that library will have to spend a minimum of \$6,000 per year for membership. Though measures related to electronic resource access are important from a public library administrative standpoint, they have been omitted from this study because these variables are not easily localized and because they have the capability to skew data in non-meaningful directions.

Community socioeconomic characteristics. A total of four community socioeconomic variables will be included in the original model: race, education, age, and income. The three variables of race, education, and income were included because existing literature has demonstrated a correlation between those variables and at least one of the three legitimacy indicators (circulation, visits, and funding). Carlozzi (2018) demonstrated significant correlation between education and income, and municipal library funding, and Sin (2012) found a correlation between race/ethnicity and library usage. While these studies were narrower in focus, they isolate particular community variables which should be considered. Age will also be included in the original model, because of research indicating differences in the reading habits of different-aged Americans and differences in the way younger adult Americans view the library's role as a meeting place compared with older adults (LaFrance, 2014). The data for the socioeconomic variables will be taken from data collected by the U.S. Census bureau. Household income is measured by the median household income in the community. The educational attainment variable is the percentage of adult residents with a bachelor's degree or higher. Race is indicated as the percentage of community residents that are non-white, and age is the average age of individuals in the community. The community variables are defined in Table 6, and descriptive statistics are reported in Table 7.

Table 6 <i>Community Socioeconomic Variables Included in the Study</i>	
<u>Name</u>	<u>Definition</u>
Household income	Combined income of all people 15 years and older living in the household
Educational attainment	Highest degree or level of schooling completed
Race/ethnicity	Self-identified by respondents, with choices being White, Black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander, or Some Other Race; respondents can choose more than one
Age	Completed years as of the census reference date.
<i>Note.</i> Data and definitions for these variables are provided by the U.S. Census Bureau online glossary (Glossary, n.d.)	

Table 7 <i>Descriptive Statistics for Community Socioeconomic Characteristics</i>				
<u>Statistic</u>	<u>Minority Percentage</u>	<u>Education Level</u>	<u>Median Income</u>	<u>Median Age</u>
Mean	6.30	20.12	58,711	40.63
Median	4.65	19.30	57,979	40.10
Minimum	0.00	1.40	27,321	24.80
Maximum	41.50	53.40	102,500	64.80
<i>Note.</i> n=300. Data from Kansas Public Library Survey and Annual Report (State Library of Kansas, 2018).				

It is important to note that this variable set relates to the people who inhabit and comprise the community, and there are other variables related to the community itself that certainly offer potential for additional research. Examples could include the size of the community, its cosmopolitaness/ruralness, and the age of the community. For this study, I focused on the socioeconomic variables of the residents because they are the types of variables found in existing LIS research related to library usage and funding, but a further research approach that examined the characteristics of the town or city itself could prove informative and useful.

Statistical Methods

Structural equation modeling (SEM) is used to test relationships between observed variables and latent constructs and is a useful multivariate statistical tool (Civilek, 2018). It can consider direct and indirect relationships between variables and can account for and minimize measurement error. SEM allows for the consideration of multiple dependent variables as well as multiple sets of independent variables (in this study, two sets). SEM will be utilized to build a predictive model, or path, to test the relationships between two sets of input variables—one set being library service characteristics taken from the Kansas Public Library Survey and Annual Report, and one set being socioeconomic community characteristics taken from U.S. Census data—and the dependent variable, which is public library legitimacy. A path diagram is proposed to indicate the hypothesized relationships between variables (StatSoft, Inc., 2013). Tests of variance and covariance, as well as parameter estimates and standard errors, will be used to develop a model that best fits the data.

Structural equation modeling is well-suited for this study because path analysis will allow for evaluation of the proposed theoretical relationship between the latent constructs of community characteristics, library characteristics, and public library legitimacy (Byrne, 2016). SEM will also allow for evaluation of the indicators used for each of the three latent constructs using exploratory factor analysis. Since virtually no research exists on which variables measure these latent constructs, this study will examine the theoretical path and the factors proposed to represent the constructs. Similarly to the way factor analysis can be used to measure the inter-instrument reliability of survey questions, the models and their standardized path coefficients can provide insight into whether there is consistency among the proposed variables for each construct in this study.

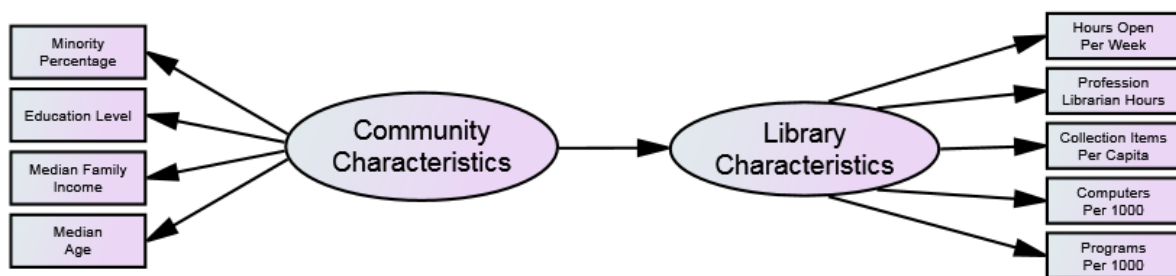
Structural equation modeling allows for the consideration of multiple dependent variable indicators. While multiple regression can be used with an indexed dependent variable, in this study, there is no consistency between the units of measure for the three legitimacy indicators (circulation per capita, visits per capita, and municipal funding per capita). Therefore, indexing the three into one dependent variable would render the dependent variable rather meaningless.

To address the multiple research questions and hypotheses proposed in this study, multiple SEMs will be constructed and tested to explore the relationships between library characteristics and community characteristics, between community characteristics and legitimacy, and between library characteristics and legitimacy.

Model 1. The first hypothesis modeled is that community socioeconomic characteristics will be significantly correlated with library service characteristics. Because the community context (race, education, income and age) should impact the adoption of isomorphic templates (in this case, library service characteristics), this model, shown in Figure 2, will examine the relationship between the two variable sets:

Figure 2

Community Characteristics & Library Characteristics

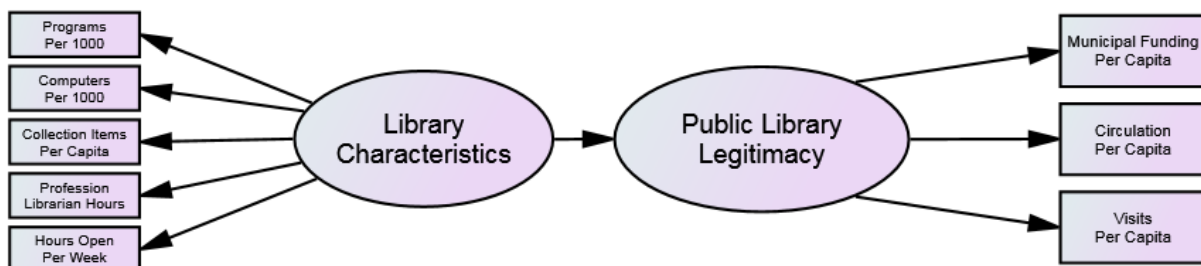


Note. Observed variables are in rectangles, and latent variables are in ovals.

Model 2. This next model tests the hypothesis that public library legitimacy will be significantly correlated to library service characteristics, while also addressing the research question about which service characteristics correlate to legitimacy. The related hypothesis for that question is that hours open to the public, hours worked by professional ALA-MLS librarians, collection size, number of computers, and number of programs will significantly correlate with public library legitimacy. To test this, the specific library service characteristics are set as the independent variables and legitimacy as the dependent latent construct, signified by each significantly correlating with the three indicators of public library legitimacy. Therefore, the SEM to test this hypothesis is shown in Figure 3

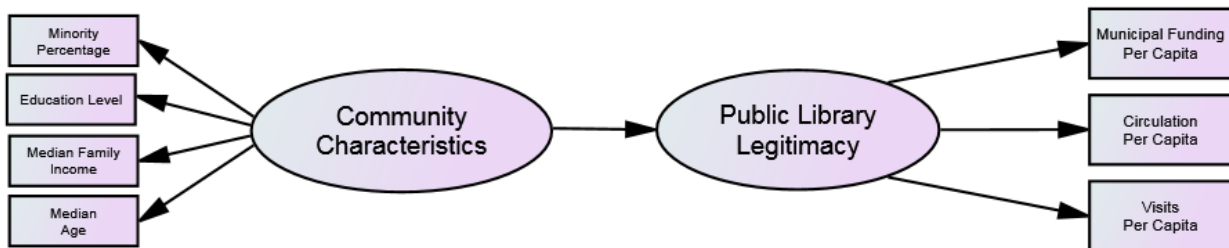
Figure 3

Library Characteristics & Public Library Legitimacy



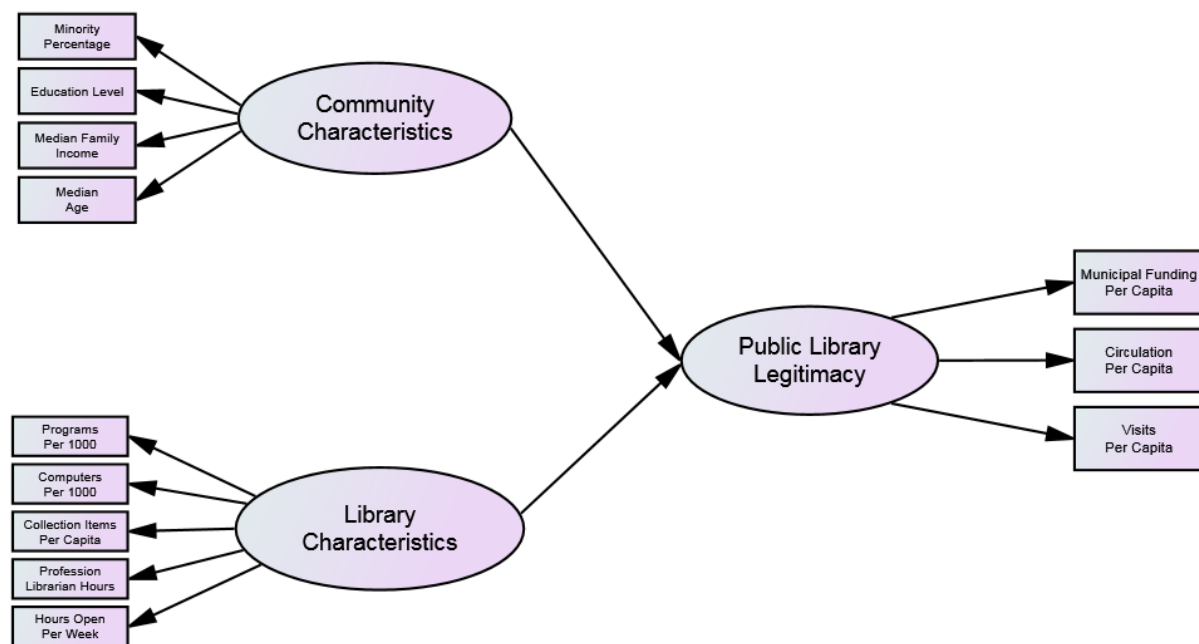
Note. Observed variables are in rectangles, and latent variables are in ovals.

Model 3. The next hypothesis modeled is that community characteristics (indicated as median age, median household income, minority population percentage, and education level) will significantly correlate with public library legitimacy indicators. The model shown in Figure 4 includes the four community characteristics as the latent independent variable and legitimacy as the dependent variable.

Figure 4*Community Characteristics & Public Library Legitimacy*

Note. Observed variables are in rectangles, and latent variables are in ovals.

Model 4. The final model, combined with the previous models, tests the hypothesis that public library legitimacy can be better predicted by library service characteristics than by community characteristics. To test this hypothesis, the models for hypothesis 1, 2 and 3 where library service and community characteristics were separately considered, will be compared with the model shown in Figure 5, where all nine independent variables are included. The comparative path coefficients and multiple squared correlations will be compared to determine the relative correlations of the different latent constructs.

Figure 5*Community Characteristics, Library Characteristics & Public Library Legitimacy*

Note. Observed variables are in rectangles, and latent variables are in ovals.

Potential Research Challenges & Statistical Limitations

A number of potential limitations exist related to the statistical approach for this study. One such limitation is that the constructs of community characteristics, library characteristics, and public library legitimacy are abstract, latent concepts. With any quantitative measure of a latent construct, content validity is a concern, as limitations exist in operationalizing, quantifying, and analyzing such constructs. While existing literature within and outside of LIS has been used to theoretically and logically operationalize the concept of public library legitimacy, the reality is that little existing literature has taken this type of quantitative approach, which leaves a small base from which to build a measurable legitimacy variable. This study is a first step in that direction.

Structural equation modeling has its own set of limitations that must be considered. The primary limitation is that SEM cannot exclusively confirm a model; while a model may be mathematically sound, that soundness is not an exclusive confirmation of the model's "correctness." As such, it is important that models proceed from theoretical and logical considerations.

As with all quantitative studies, generalizability needs to be examined. This study utilizes available library service data from the State Library of Kansas. Because not every library completes the survey, the result is ultimately a convenience sample, albeit a large, dynamic one. This could have implications for the overall generalizability of the study, particularly if there were marked similarities between the libraries that do not complete the survey, but in this sample, only three libraries were omitted because their information was incomplete and the impact on the data should be minimal. This study also uses data from one state. This is consciously done for several reasons. First, because data collection within a state is overseen and advised by one agency (State Library of Kansas), it contributes to overall consistency of the data. Second, across the United States, public libraries are legally established in many ways. Within the state of Kansas, most public libraries are legally autonomous units, as opposed to departments within a city government. Therefore, choosing data from one state allows for more uniform comparison; it does, however, have implications for the generalizability of the research, as strong differences may be related to geographic or other considerations that could be addressed in subsequent studies.

As previously mentioned, with the survey instruments—both the Census and the library survey—there is potential that respondents filled out the information incorrectly. Particularly with the library survey, respondents may "guess" at the number of programs a library held, or

may simply miscalculate or misunderstand the definition. With all self-reported data, the potential exists for input error. The quantitative data also does not differentiate any qualitative measures. For example, every program counts as a program, regardless of content, length, or quality; similarly, every collection item counts, whether it is a new bestseller or a 50-year-old cookbook on trendy Jell-o salads. The latent variable indicators of usage, however, will hopefully capture at least some qualitative responses by the community, since programs that are more desirable should be more highly attended, and collection items that are more appealing should be more highly utilized.

Another potential concern is multicollinearity among the variable sets. Many LIS researchers have considered the relationship between the library's community and service characteristics and its outputs. Carlozzi (2018) combined library data for Massachusetts public libraries with community socioeconomic data to measure factors that impacted library use and funding. In another research project, Sin (2012) found that both socioeconomic characteristics and library service characteristics impact library use. If the community characteristics (particularly related to education and income) and the expression of the institutionalized library service template are highly correlated, then it may be difficult to differentiate between the impact of service characteristics and the impact of community characteristics on library legitimacy.

Summary

This study tests whether institutional theory, combined with existing library research, can lead to a plausible model of public library legitimacy. Structural equation modeling will be utilized to test several models examining the relationships between community socioeconomic characteristics, library service characteristics, and public library legitimacy. It also tests the applicability of an isomorphic template, to demonstrate whether higher adherence to the

professional narrative correlates with higher legitimacy. The expected results of differing applications of institutionalized norms, and increased legitimacy as a result of public library service characteristics, are predicted based on the theoretical framework of neo-institutional theory.

Chapter 4: Results

Model Fit Indicators

As discussed in the previous chapter, multiple statistical models were created in SPSS Amos structural equation modeling software to test the four hypotheses and answer the research questions. These models were evaluated on several statistical indicators of model fit that are generated by the Amos software. Before discussing the results of each specific model, it is helpful to consider the various indicators that can be used to evaluate models.

The overall fit indicator is the chi-square score and its p-value. With structural equation modeling (SEM), the null hypothesis is that the model fits the data well; therefore, a non-significant p-value (greater than .05) is indicative of support for retaining the model. The larger sample sizes used in SEM, however, results in chi-square values that are often significant, and because of the influence of sample size, other fit measures are often preferred with SEM (Byrne, 2016). These fit measures are quite diverse and take into consideration various factors including sample size and number of parameters. Blunch (2013) outlines six categories of fit measures:

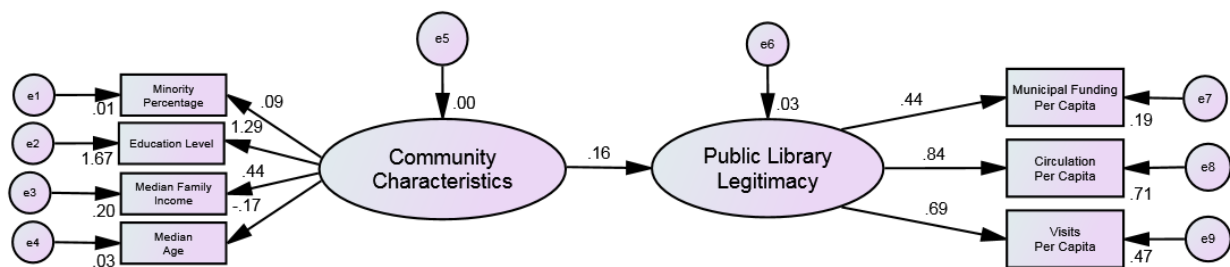
- Absolute fit measures, where models are judged without reference to other models;
- Relative fit measures, which have an explicit basis model from which to judge the fit of various models;
- Parsimony adjusted measures, which statistically punish the addition of additional model parameters;
- Fit measures based on the non-central chi-square distribution, which are based on the assumption that models can only be “approximately correct” and not absolutely correct (p. 117);

- Information theoretic fit measures, which are used to compare several different but realistic models;
- Critical N measure, which is a category of one measure that examines the connection between the significance of chi-square and the sample size.

Altogether, the AMOS software produces more than two dozen model fit statistics for consideration within these categories. An excellent overview of these indices and their formulas is found in Blunch (2013). For this study, I will focus on three statistics, based in part on the recommendations of Blunch (2013) and Byrne (2016). The first statistic is the root mean square error of approximation (RMSEA), which is an indice based on the non-central chi-square distribution. RMSEA takes into account the degrees of freedom, which encourages parsimony within models. Ideal values of RMSEA should be near 0.05 and not surpass 0.10. The second index is the relative fit index RFI, which as its name implies measures relative fit by considering how the proposed model is situated between a saturated model with maximum fit and an independence model with minimum fit. Values should approach 1.00 to demonstrate good fit. The third index is the comparative fit index (CFI), which is similar to RFI and demonstrates how far the proposed model has “travelled” from the perfectly fitting model (Blunch, 2013). Values should again approach 1.00.

Research Question 1

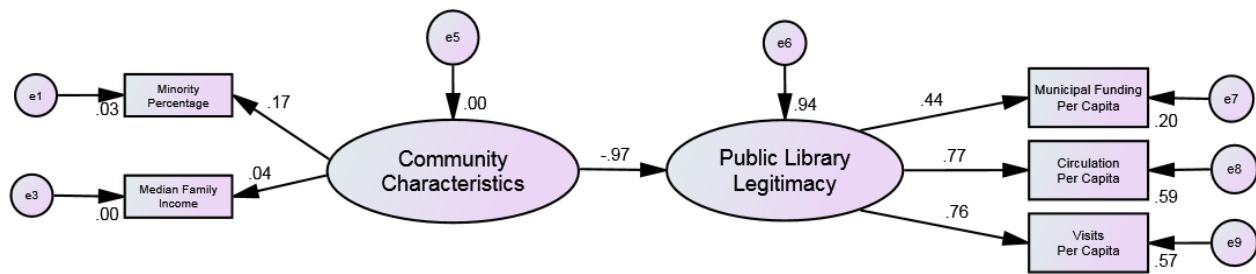
Research question one is *what community socioeconomic characteristics relate to public library legitimacy?* The related hypothesis, based on existing LIS literature, is that median age, median family income, education level, and minority population percentage will correlate with public library legitimacy. The model for this hypothesis is found in Figure 6.

Figure 6*Model for Correlation Between Community Characteristics and Public Library Legitimacy*

Notes: sample size = 300; chi-square = 70.023; degrees of freedom = 13; probability level = 0.000; RMSEA = 0.121;

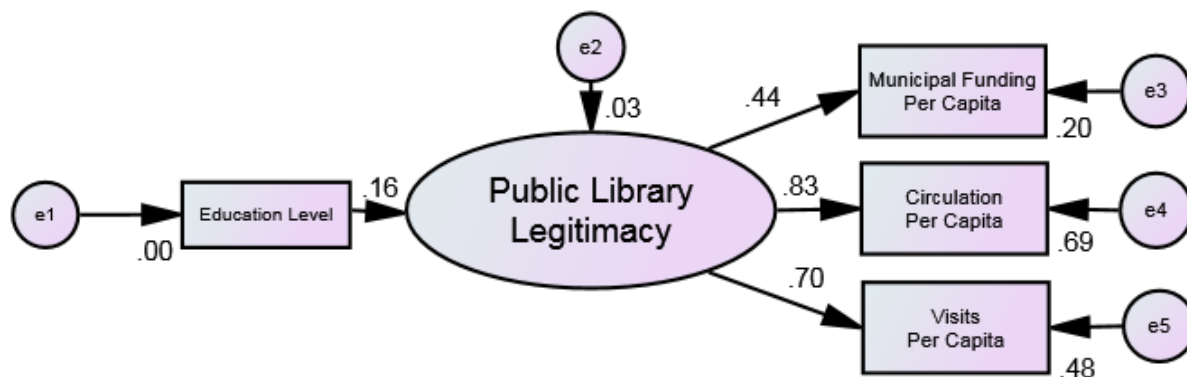
RFI = 0.709; CFI = 0.845

The fit statistics for this model are questionable, and the standardized coefficients indicate two potential issues with the community characteristic indicators. First, the standardized coefficient for the education level is greater than 1; while coefficients can exceed 1 in SEM (Jöreskog, 1999), the presence of a coefficient greater than 1 indicates a potentially high level of multicollinearity among the indicators. Second, while minority percentage, education level and median family income are all positive, median age is negative, indicating that the first three indicators have a positive correlation with the latent construct and age a negative correlation. This indicates that the first three indicators are essentially moving in the statistically opposite direction as age. Therefore, to more granularly investigate this hypothesis, education level and median age can then be removed, as shown in Figure 7.

Figure 7*Modified Model for Correlation Between Community Characteristics and Public Library Legitimacy*

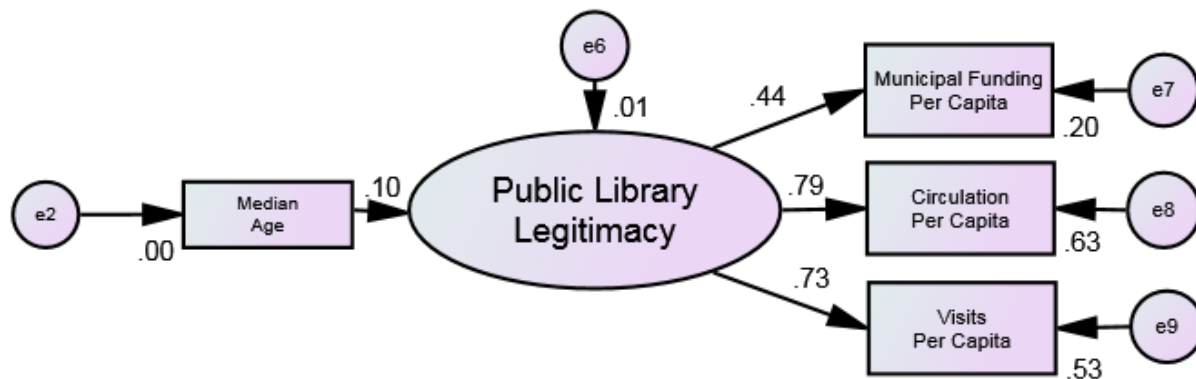
Notes: Education level and median age removed. Sample size = 300; chi-square = 13.444; degrees of freedom = 4; probability level = 0.009; RMSEA = 0.089; RFI = 0.822; CFI = 0.845

The fit statistics for this model are improved over the previous model and are acceptable for examining the correlations within the model. Overall, this model demonstrates a strong, negative relationship between minority percentage and median family income; the -0.97 ($p=.918$) coefficient between the latent constructs indicates that as minority percentage and median family income increase, legitimacy decreases. The two variables that were omitted can be examined independently, with models in Figure 8 and Figure 9. Both models have relatively reasonable fit statistics, but the models demonstrate that these variables have positive but minimal correlation to the legitimacy construct compared to the other two variables, as education level explains 3% of variance, with a path coefficient of 0.16 ($p=0.020$), and age explains 1% of variance, with a path coefficient of 0.10 ($p=0.133$)

Figure 8*Model for Correlation Between Education Level and Public Library Legitimacy*

Notes: sample size = 300; chi-square = 11.748; degrees of freedom = 2; probability level = 0.003; RMSEA = 0.128;

RFI = 0.811; CFI = 0.946

Figure 9*Model for Correlation Between Age and Public Library Legitimacy*

Notes: sample size = 300; chi-square = 5.3988; degrees of freedom = 2; probability level = 0.050; RMSEA = 0.082;

RFI = 0.899; CFI = 0.977

From the analysis of the models in research question 1, percentage of minority population and median family income are the socioeconomic characteristics that most strongly relate to

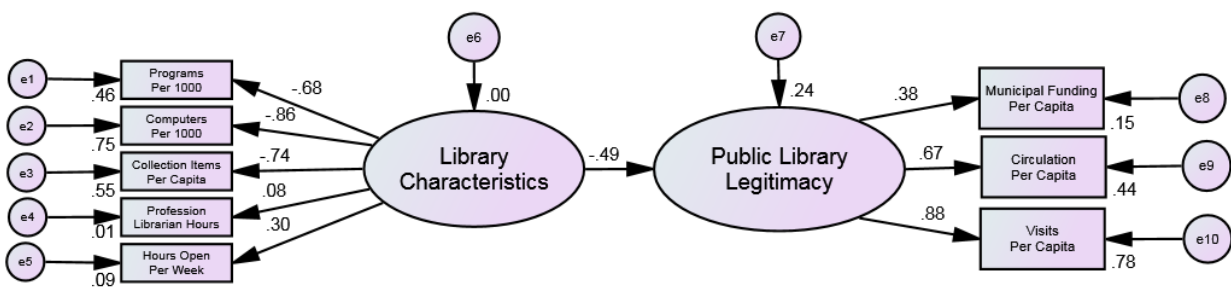
public library legitimacy, and that relationship is negative, or inverse (-0.97). However, the p-value for this coefficient is not significant ($p=.918$). While reasonably-fitted models can be analyzed for age and education level, these models do not explain a significant portion of the variance in legitimacy, indicated by low multiple squared correlations (0.01 and 0.03, respectively).

Research Question 2

Research question two is *what library service characteristics relate to public library legitimacy?* Variables were selected from the 2018 Kansas Public Library Survey and Annual Report as representative of the survey as a professional isomorphic template. The variables included in the model are hours open to the public, hours worked by a professional librarian with an ALS-MLS degree, computers per 1000 population, physical collections per capita, and programs offered per 1000 population. This model is shown in Figure 10.

Figure 10

Model for Correlation Between Library Characteristics and Public Library Legitimacy



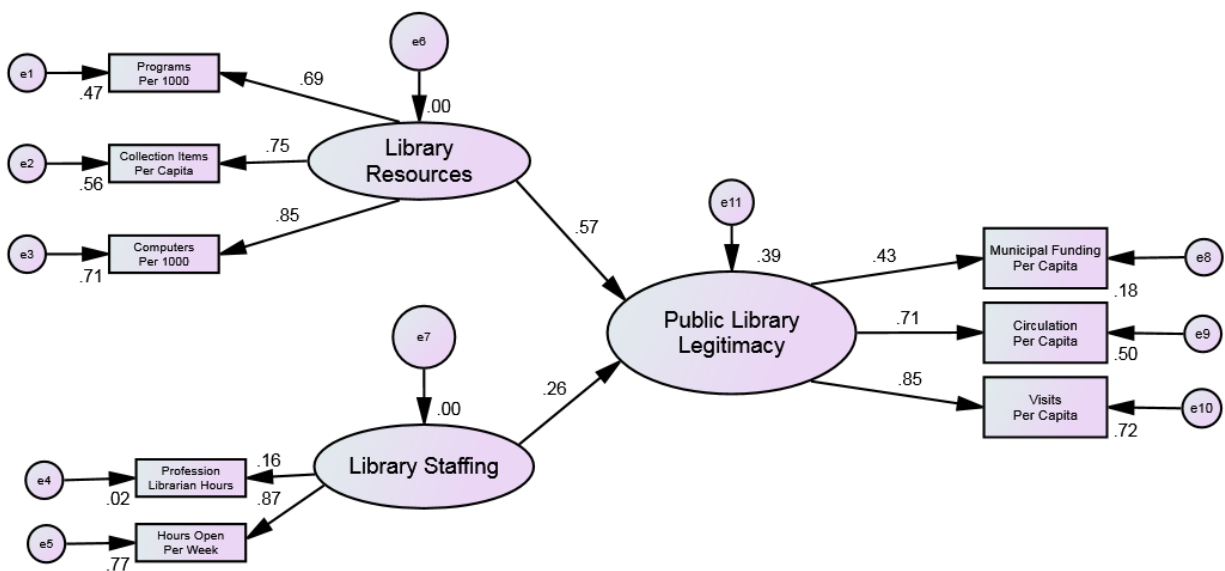
Notes: sample size = 300; chi-square = 116.885; degrees of freedom = 19; probability level = 0.000; RMSEA = 0.131; RFI = 0.737; CFI = 0.844

The fit statistics for this model do not indicate overall good fit, and with the library characteristics, there are three indicators which have negative coefficients, and two with positive

coefficients. Again, this indicates that the indicators are moving in statistically opposite directions. This factor analysis indicates a potential issue with construct validity for both library characteristics. Therefore, it is statistically justified to consider splitting the library characteristics into two constructs (staffing and resources as potential constructs) in one model, two constructs in two models, or removing the two hour measures (professional library hours worked and hours open) entirely from the model. These approaches are modeled in Figures 11, 12, and 13, respectively.

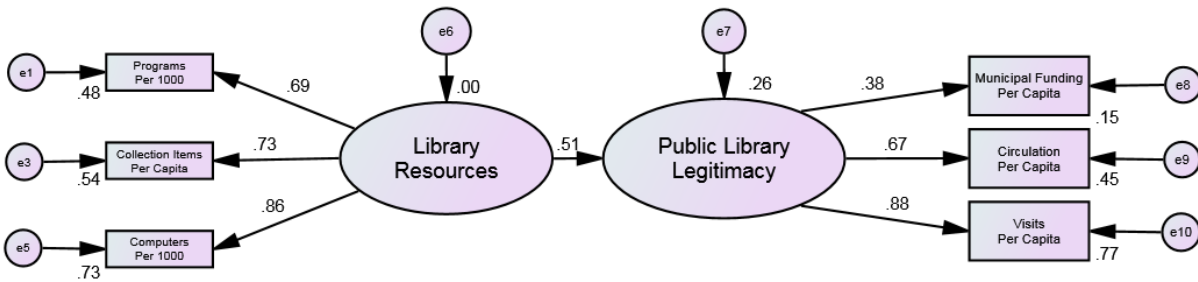
Figure 11

Model with Library Resources and Library Staffing as Separate Constructs Correlating with Public Library Legitimacy



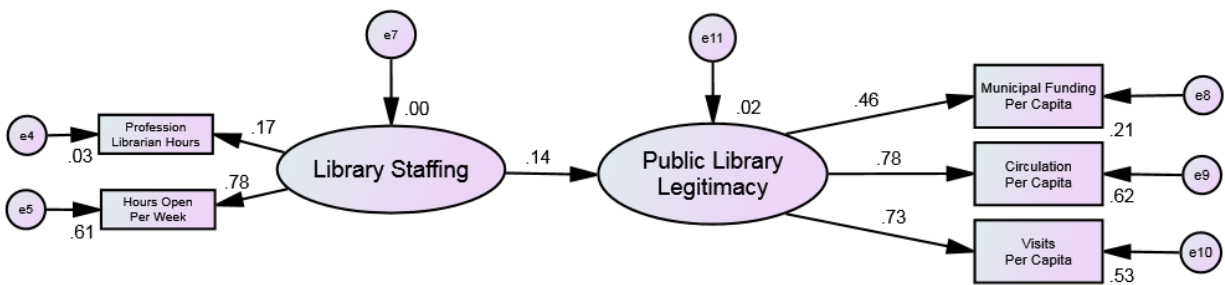
Notes: sample size = 300; chi-square = 121.721; degrees of freedom = 18; probability level = 0.000; RMSEA = 0.139;

RFI = 0.711; CFI = 0.834

Figure 12*Model with Library Resources Correlating with Public Library Legitimacy*

Notes: sample size = 300; chi-square = 65.681; degrees of freedom = 8; probability level = 0.000; RMSEA = 0.155;

RFI = 0.787; CFI = 0.898

Figure 13*Model with Library Staffing Correlating with Public Library Legitimacy*

Notes: sample size = 300; chi-square = 27.266; degrees of freedom = 4; probability level = 0.000; RMSEA = 0.139;

RFI = 0.667; CFI = 0.881

None of these three models demonstrates overall good model fit, offering no clear indication of which library characteristics, if any, correlate with public library legitimacy. However, we can see from the descriptive statistics reported in Chapter 3 that there is likely significant skew of the library service characteristics, given the disparities between mean, median, minimum and maximum. These could be contributing to the inability to effectively fit

the model. Bootstrapping is one statistical technique often utilized with samples that violate the normality assumption (Byrne, 2016). Bootstrapping takes random, multiple subsamples from the sample with replacement to help address issues of parameters and goodness of fit. Another issue may be skew resulting from the disparity in population sizes. To consider the potential impact of these factors, I took a two-step model modification approach to the models in Figure 12 and 13. First, I omitted all libraries in the bottom and top population categories, as reported in Chapter 3, which removed libraries serving populations of less than 500 (82 cases) and more than 100,000 (3 cases). This left a sample size of 215. I conducted a Bollen-Stine bootstrap on the model of this smaller sample, with 500 bootstrap samples. The p-value for this adjusted model in Figure 12, correlating library resources to public library legitimacy, is 0.094. The p-value for the adjusted model in Figure 13, correlating library staffing to legitimacy, is 0.066. Both p-values are above the 0.05 threshold, which supports retaining the null hypothesis that model fits the data.

Overall, research question 2, regarding which library service characteristics relate to legitimacy, cannot be adequately answered by the statistical models, because no well-fitting models could be generated. However, when the sample is trimmed to remove the smallest and largest libraries, and boot-strapping is utilized to address normality issues, better models emerge. In these adjusted models, library resources (0.50, $p < .01$) and staffing both show positive (0.46, $p = .182$) correlation between legitimacy. Given that the p-value for the resources path coefficient is significant, this supports further research with the adjusted sample.

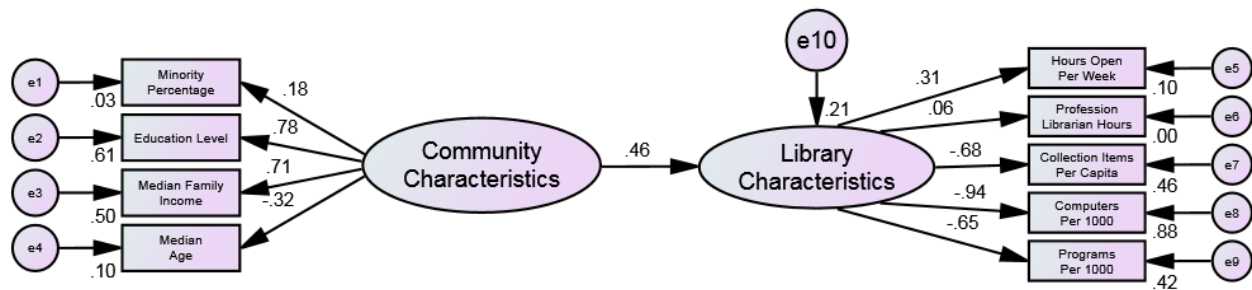
Research Question 3

The third research question is *do community socioeconomic characteristics impact the adoption of library service characteristics?* The related hypothesis is that the proposed

community indicators will correlate with library service characteristics. Figure 14 tests this hypothesis.

Figure 14

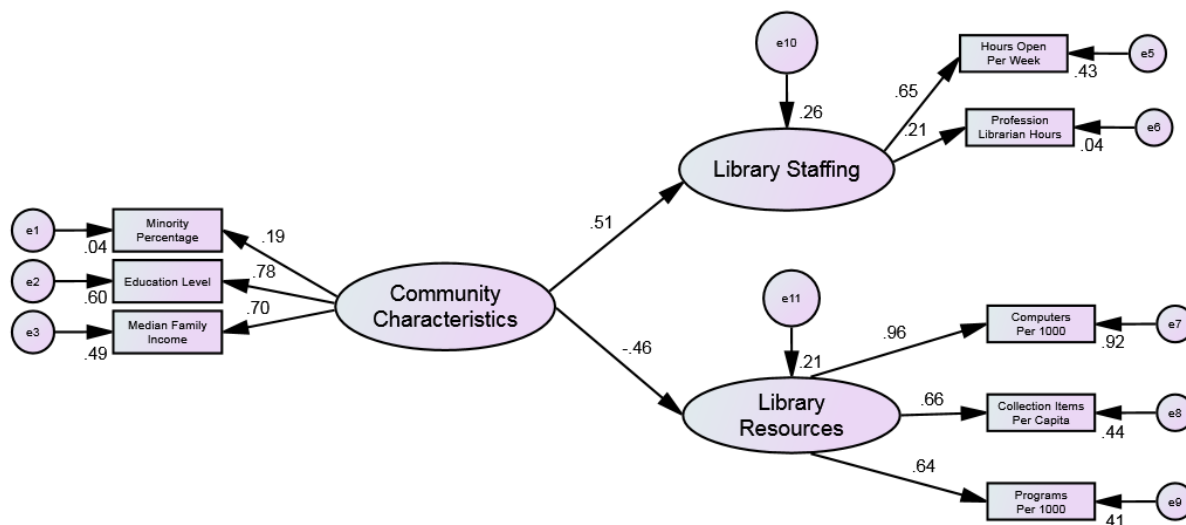
Model for Correlation Between Community Characteristics and Library Characteristics



Notes: sample size = 300; chi-square = 146.873; degrees of freedom = 26; probability level = 0.000; RMSEA = 0.125;

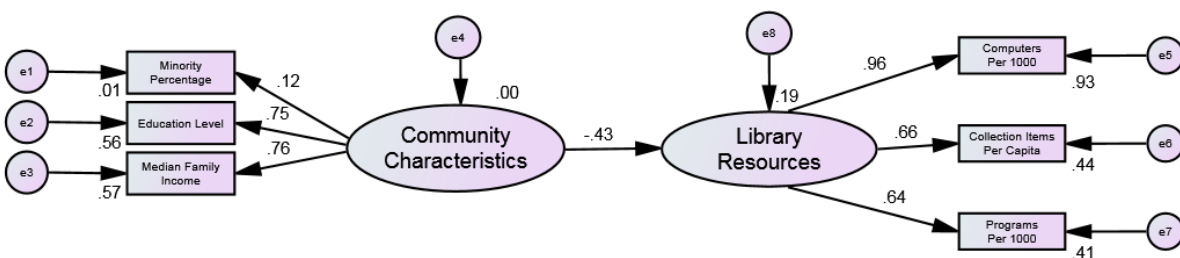
RFI = .690; CFI = .805

As with earlier models and research questions, the model fit statistics are not promising, and an examination of the various factors indicates potential areas for model modification. With the community characteristics, age has a negative coefficient compared to the other three positive coefficients, and the split on the library characteristics side is the same as earlier, with the two hour indicators and the three resource indicators seemingly illuminating differing constructs. By removing the age variable from the community side, and examining the library indicators as two variable sets, three more models, Figures 15, 16, and 17, can be considered.

Figure 15*Model for Correlation Between Community Characteristics and Library Characteristics*

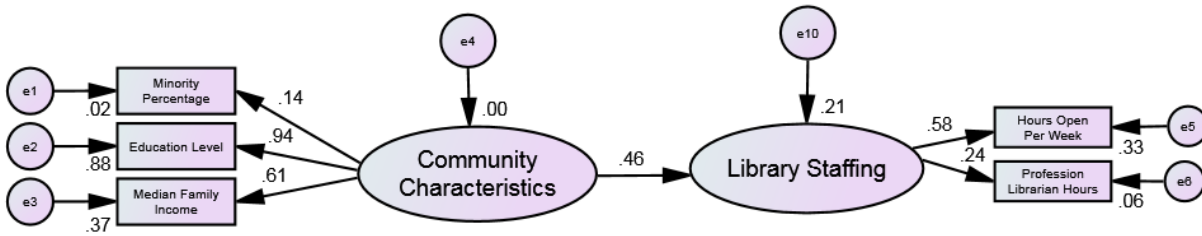
Notes: Library characteristics considered as two separate constructs. sample size = 300; chi-square = 107.439;

degrees of freedom = 18; probability level = 0.000; RMSEA = 0.129; RFI = .721; CFI = .843

Figure 16*Model for Correlation Between Community Characteristics and Library Resources*

Notes: sample size = 300; chi-square = 28.425; degrees of freedom = 8; probability level = 0.000; RMSEA = 0.092;

RFI = .891; CFI = .957

Figure 17*Model for Correlation Between Community Characteristics and Library Staffing*

Notes: sample size = 300; chi-square = 62.300; degrees of freedom = 4; probability level = 0.000; RMSEA = 0.221;

RFI = .262; CFI = .710

Examining the fit statistics, we see that Figure 15 is not a good fit, Figure 16 shows some promise, and Figure 17 is dismal. As Figure 16 has the best overall fit statistics, with good CFI and acceptable RMSEA, this supports the removal of age from the community characteristics, as well as the professional librarian hours and hours open from the library characteristics.

Removing these variables, however, we see that the path coefficient between the community characteristics and the library characteristics is now negative (-0.43, $p=0.079$), indicating that an increase in minority population, education level, and median family income corresponds to fewer library collection items, programs, and computers. Therefore, this lends support to hypothesis 1, which states that community socioeconomic characteristics will be significantly correlated with library service characteristics. The theoretical framework of institutional theory indicates that community characteristics should impact the adoption of the isomorphic template, the template in this study being library service characteristics included in the public library survey.

Community characteristics explain 19% of the variance in the library service characteristics variables.

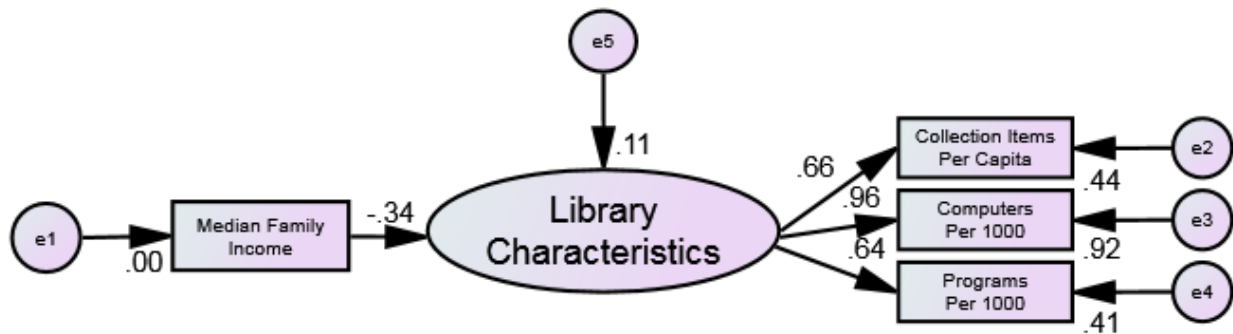
While the finding that increased education level, increased minority percentages, and increased median income correlates with decreased library resources may be surprising in reference to specific variable relationships, it still indicates the influence of the community on library resources. In order to investigate the specific relationships of each community variable to library resources directly, it is possible to remove the latent construct and create a path directly to the latent library resource construct.

Figure 18

Model for Correlation Between Minority Percentage and Library Characteristics



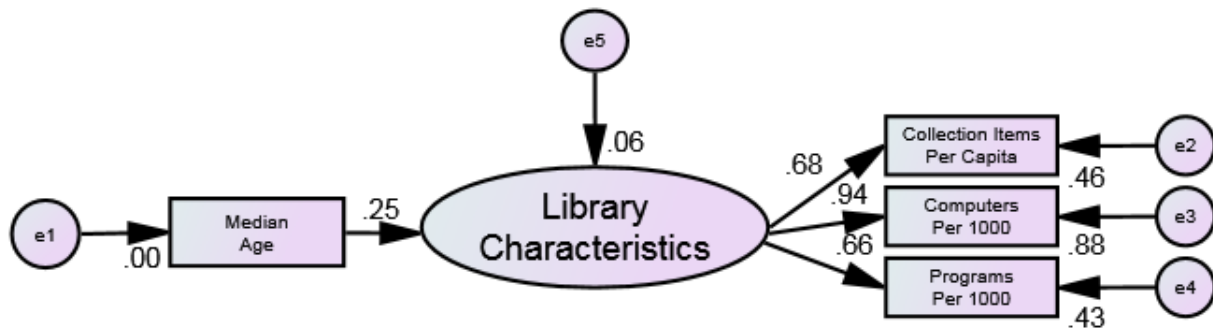
Notes: sample size = 300; chi-square = 3.652; degrees of freedom = 2; probability level = 0.161; RMSEA = 0.053; RFI = .966; CFI = .995

Figure 19*Model for Correlation Between Median Family Income and Library Characteristics*

Notes: sample size = 300; chi-square = 2.472; degrees of freedom = 2; probability level = 0.291; RMSEA = 0.028; RFI = .978; CFI = .999

Figure 20*Model for Correlation Between Education Level and Library Characteristics*

Notes: sample size = 300; chi-square = 1.156; degrees of freedom = 2; probability level = 0.561; RMSEA = 0.000; RFI = .989; CFI = 1.00

Figure 21*Model for Correlation Between Median Age and Library Characteristics*

Notes: sample size = 300; chi-square = 2.847; degrees of freedom = 2; probability level = 0.241; RMSEA = 0.038; RFI = .973; CFI = .997

In answering research question 3, asking whether socioeconomic characteristics impact the adoption of library service characteristics, the statistical analysis indicates that all four community indicators (age, minority population, income, and education level) had a significant relationship between library resource levels. Age has a positive relationship (0.25, $p < 0.01$), indicating that as the median age increases, library resources increase, and age explains 6% of resource variance. Minority percentage (-0.27, $p < 0.01$), median family income (-0.34, $p < 0.01$), and education level (-0.30, $p < 0.01$) have negative correlations, indicating as these three increase, resources decrease. The relationship between library characteristics can be modeled with the sample in this study; however, the relationship between the community and staffing characteristics, hours open and hours worked by a professional librarian, could not be adequately modeled with this sample.

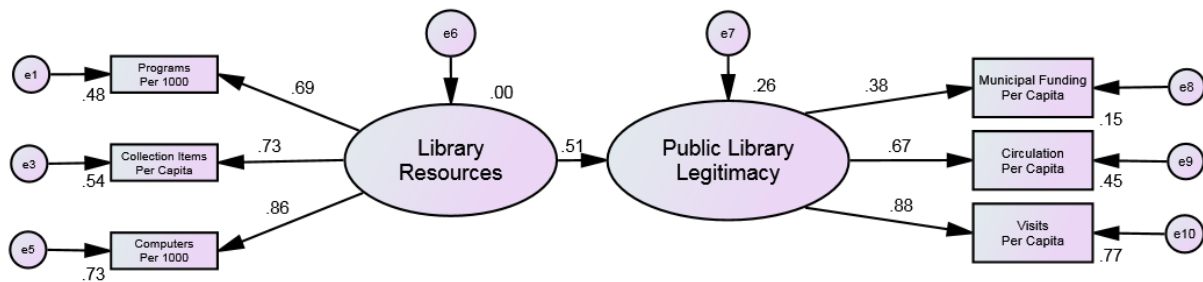
Research Question 4

Research question four asks *does adoption of library service characteristics positively correlate with legitimacy?* Based on previous models, it is apparent that hours open and hours

worked by a professional librarian are a different construct than programs, collection items, and computers, and therefore builds on this knowledge and denotes “library resources” and omits the two hours variables for testing this hypothesis. As seen from the model in Figure 22, while the coefficients appear promising, the fit indices for this model do not indicate good fit, which is a precondition of model acceptance. However, as discussed in research question 2, by removing the most disparate population sizes and bootstrapping the data to adjust for non-normality, the support for good model fit increases (above the 0.05 p-value threshold). Therefore, the hypothesis that public library legitimacy is significantly correlated is not supported by the original model, but the adjusted models indicate potential for further investigation.

Figure 22

Model for Correlation Between Library Resources and Public Library Legitimacy



Notes: sample size = 300; chi-square = 65.681; degrees of freedom = 8; probability level = 0.000; RMSEA = 0.155;

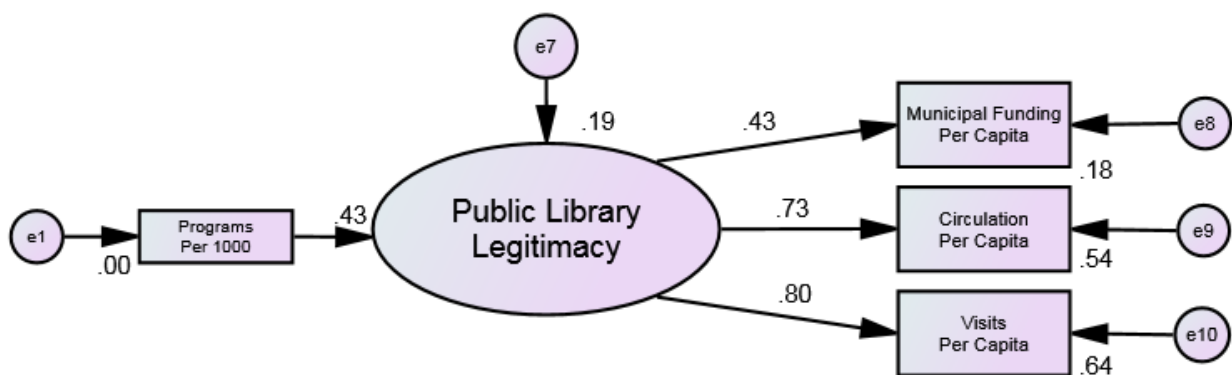
RFI = .787; CFI = .898

Similar to the approach with previous models, each library resource indicator can be individually compared to public library legitimacy, with the models presented below in Figure 23, 24, and 25. As evidenced by the model fit statistic, only programs per 1000 residents creates

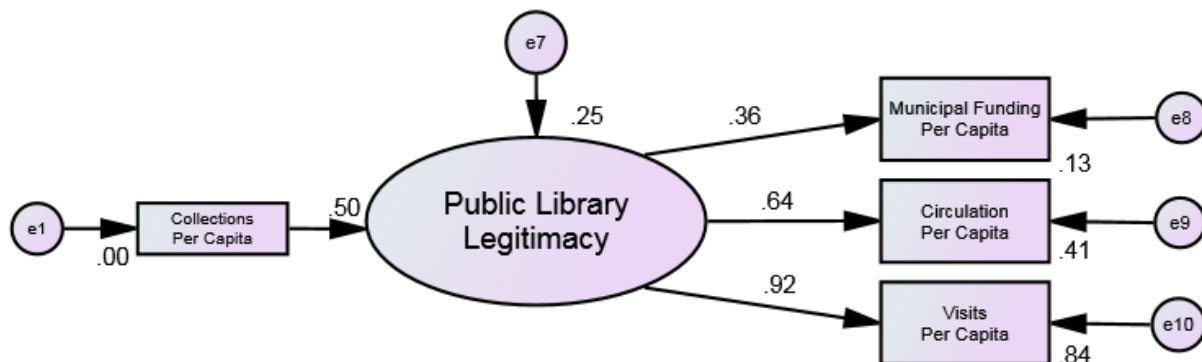
a well-fitting model based on the fit indices. The path coefficient between programs and legitimacy is positive (0.43, $p < 0.01$) and the squared multiple correlation is 0.19. This denotes that programs may play a significant role in library legitimacy. This also supports the idea that within library service characteristics, there are potentially a number of different sub-constructs that need to be parsed out through further research and analysis.

Figure 23

Model for Correlation Between Programs and Public Library Legitimacy

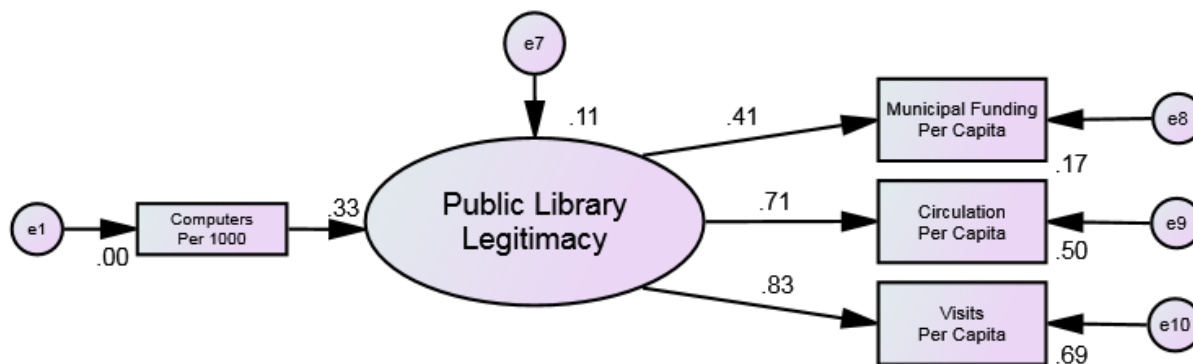


Notes: sample size = 300; chi-square = 4.916; degrees of freedom = 2; probability level = 0.086; RMSEA = 0.070; RFI = .933; CFI = .986

Figure 24*Model for Correlation Between Collections and Public Library Legitimacy*

Notes: sample size = 300; chi-square = 21.635; degrees of freedom = 2; probability level = 0.000; RMSEA = 0.181;

RFI = .747; CFI = .922

Figure 25*Model for Correlation Between Computers and Public Library Legitimacy*

Notes: sample size = 300; chi-square = 14.273; degrees of freedom = 2; probability level = 0.001; RMSEA = 0.143;

RFI = .794; CFI = .939

Overall, the models for this fourth research question do not fit well, meaning the question of whether increased adoption of library service characteristics correlates with increased library legitimacy cannot be adequately answered. The exception is the model in Figure 24, modeling the correlation between programs and public library legitimacy, indicating that the library service characteristic that most correlates with increased legitimacy is programming. Trimming the sample and utilizing boot-strapping procedures again positively impacts model fit, providing direction for potential future research.

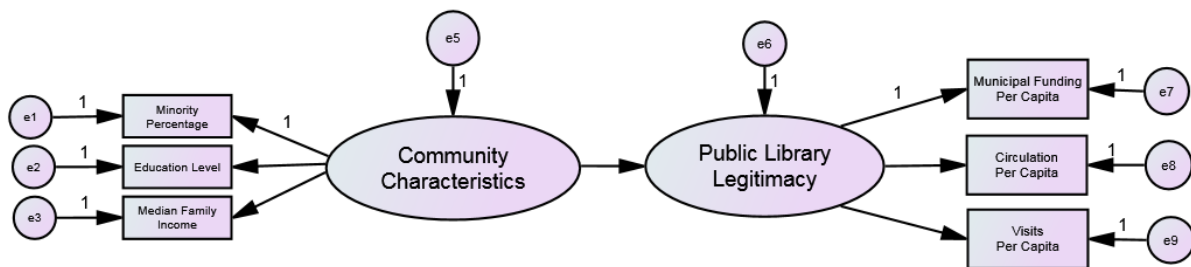
Research Question 5

Research question 5 asks *is public library legitimacy better explained by library service characteristics or community socioeconomic characteristics?* The previous models examined the relationship between library characteristics and legitimacy, so the next step is to test models relating community characteristics to legitimacy and then compare the results. A model correlating community characteristics with public library legitimacy is presented in Figure 26, which is then compared to the model in Figure 22, which correlated library resources with legitimacy, to consider the overall comparative fit of the models. The models utilize the same pared-down variable selection. However, the model in Figure 26 has statistical issues that prevented Amos from reaching a solution and instead outputted an “iteration limit reached” error, indicating an inability to fit the model. An examination of model statistics within Amos indicated the issue in this model was the education level variable, which had extremely high error residuals and standard errors. Removing the education variable allowed the model to run, which is presented in Figure 27. The fit statistics in this model indicate an acceptable fit between the remaining two community characteristics and public library legitimacy, and indicate that the path coefficient is -0.97 ($p=0.918$), then 94% of the variance in public library legitimacy is

determined by minority percentage and median family income, but with a negative relationship. Therefore those public libraries with higher minority and higher family income in their communities will have lower legitimacy. The p-value for the path coefficient, however, is not significant. A model attempting to compare all remaining indicators to legitimacy, shown in Figure 28, could not be identified in Amos.

Figure 26

Model for Correlation Between Community Characteristics and Public Library Legitimacy



Notes: sample size = 300; iteration limit reached in Amos, so model statistics are unavailable

Figure 27

Model for Correlation Between Community Characteristics and Public Library Legitimacy

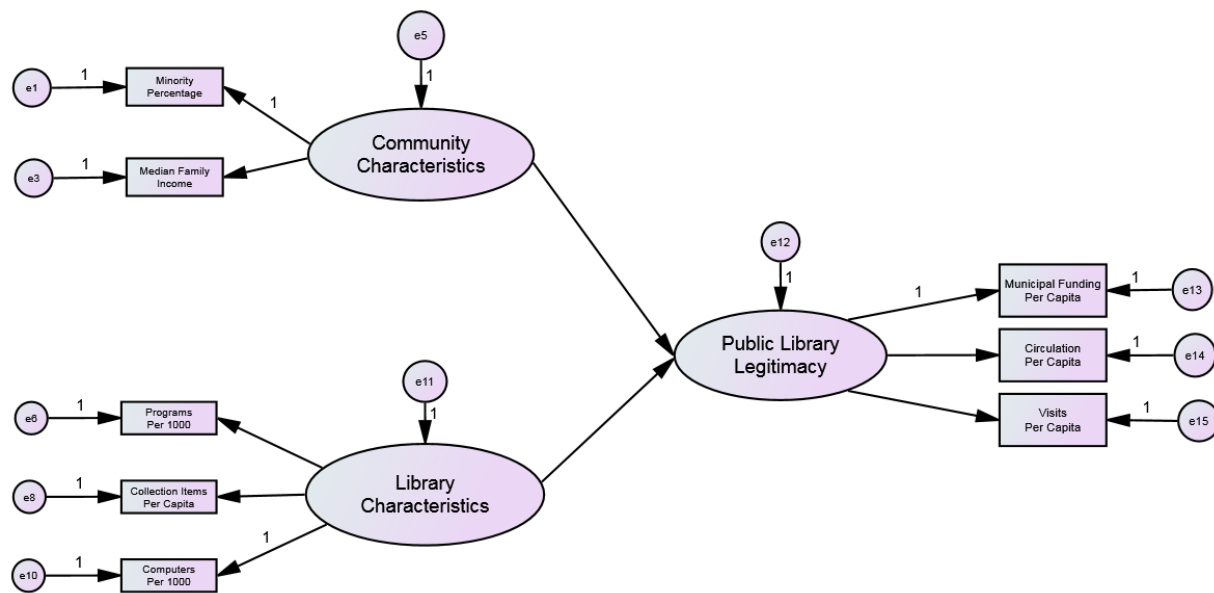


Notes: sample size = 300; chi-square = 13.444; degrees of freedom = 4; probability level = 0.009; RMSEA = 0.089;

RFI = .822; CFI = .947

Figure 28

Model for Correlation Between Community Characteristics, Library Characteristics, and Public Library Legitimacy



Notes: sample size = 300; Amos could not identify the model, so model statistics are unavailable

Impact of Population Size

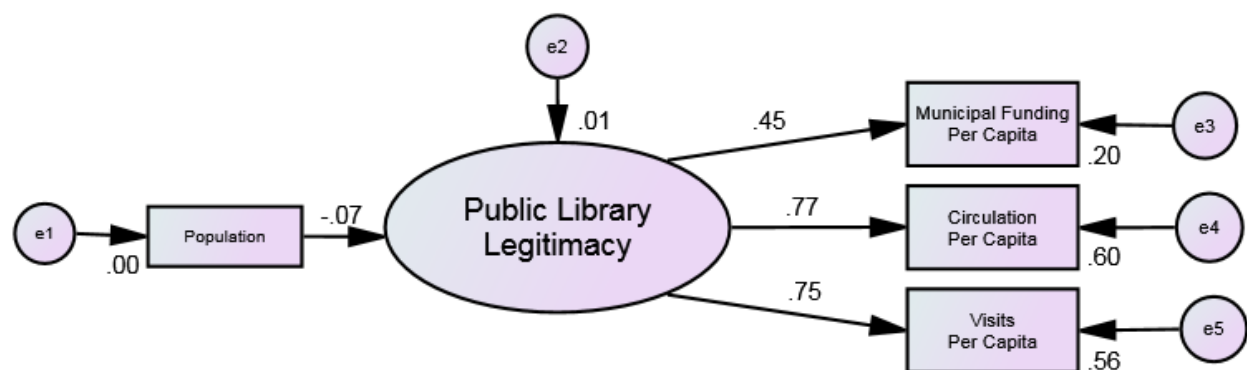
Population correlation with other variables. One notable observation in the models is that within the community characteristic variable set, minority percentage, median income, and education level all appear correlated in similar directions. Typically, minority populations are associated with lower income and education levels; however, in Kansas, higher minority populations are strongly correlated with population size, as demonstrated in the Pearson path coefficients found in Table 8. These path coefficients also show that education level is significantly correlated with population. Therefore, these associations may be a function of population and urbanness, and may not be generalizable to other states or populations with significantly different demographic makeup.

Table 8*Pearson Correlations Between Community Variables and Population*

<u>Variable</u>	<u>Education</u>	<u>Income</u>	<u>Minority</u>	<u>Population</u>
Education	1	.571**	.123*	.231**
Income	.571**	1	.006	.111
Minority	.123*	.006	1	.417**
Population	.231**	.111	.417**	1

Notes. ** means correlation is significant at the 0.01 level. * means correlation is significant at the 0.05 level. n=300. Data from Kansas Public Library Survey and Annual Report (State Library of Kansas, 2018).

This raises the question of whether the community socioeconomic characteristic indicators are functions of population size, particularly in the model correlating community characteristics to public library legitimacy. To further investigate, I created a model replacing community characteristics with legitimacy, which is shown in Figure 29. The model fit statistics show an overall good fit, which lends credibility to the finding that only 1% of variance in legitimacy is explained by population.

Figure 29*Model for Correlation Between Population and Public Library Legitimacy*

Notes: sample size = 300; chi-square = 79.870; degrees of freedom = 17; probability level = 0.009; RMSEA = 0.111;

RFI = .797; CFI = .899

Population disparities. One reality of this particular data set is the disparity in population sizes of the various libraries. Table 9, repeated from Chapter 3, illustrates how the populations of Kansas communities skew small.

Table 9 <i>Kansas Public Libraries By Population Served</i>			
<u>Library Service Level</u>	<u>Population Range</u>	<u>Number of Libraries</u>	<u>Percentage of Sample</u>
Gateway	Fewer than 500	82	27.33%
Linking	500-1,000	55	18.33%
Service Center I	1,001-2,500	82	27.33%
Service Center II	2,501-10,000	53	17.67%
Major Service Center I	10,001-25,000	17	5.67%
Major Service Center II	25,001-100,000	8	2.67%
Major Resource Center	More than 100,000	3	1.00%
<i>Note.</i> These Library Service Level categories are those used by the Standards for Kansas Public Libraries (2016). Data from Kansas Public Library Survey and Annual Report (State Library of Kansas, 2018).			

The population of libraries and the sample size do not allow for meaningful population category groupings, because the sample sizes would be too small for libraries in the upper population realm. However, to consider how this might be influencing the overall poor ability to fit models within the data set, I did test one model with a combination of a smaller sample size omitting the top and bottom size categories, and utilizing bootstrapping to adjust for non-normality of the data. The fact that this significantly improved the p-values indicating goodness of fit, it is potentially evidence that with a larger sample size grouped or adjusted for population, better model fits could be obtained, allowing for further analysis.

Summary

This chapter provided an overview of the structural equation models used to test the research questions of this study, evaluating the relationships between community socioeconomic characteristics, library service characteristics, and public library legitimacy. Several models had acceptable model fit statistics and provide useful theoretical and practical insights into understanding these complex relationships. Some models did not fit the data well, which in itself has implications for further research. These implications will be discussed in the next chapter.

Chapter 5: Discussion

Exploring Within the Theoretical Framework

One of the tensions in a quantitative study such as this is the continual balancing of exploring new potential relationships without compromising theoretical considerations. With structural equation modeling (SEM), it is highly unlikely that a model will fit the data well on an initial test (Blunch, 2013; Byrne, 2016). Model modification is an expected component of SEM work. As with any statistical method, however, this is not a license for a post hoc fishing expedition within the data. To balance those considerations, I attempted to hold the theoretical aspects of the models as constant as possible, while acknowledging that the indicators I chose to represent the library service and community constructs represent only an initial foray and are unlikely to create a useful model without modification and reconfiguration.

In this study, institutional theory suggested the overall model and its directionality, positing that community characteristics would correlate with library service characteristics and that library service characteristics would correlate with public library legitimacy and mediate the impact of community characteristics. The indicators for legitimacy were carefully parsed through a literature review connecting existing legitimacy research with LIS understandings of public libraries. Therefore, the overall relational path and the legitimacy indicators were held constant throughout the study. While the particular indicators to represent the community context and the library characteristics were selected from existing literature and logical considerations, they are less supported by theoretical or empirical research because little LIS research exists on this topic. Therefore the SEM approach allowed me to consider and at times modify which variables were included based on factor analysis.

With structural equation modeling, parsimony is an important consideration. The data set must include an adequate number of cases as a ratio to the number of indicators. With a sample size of 300, adding substantially more indicators could have been problematic. Given the initial and exploratory nature of this study, however, the process of weeding out variables and discovering lack of relationships means seemingly little is left in the model when all is said and done, or rather modeled and computed.

Modification indices. Amos statistical software does include model modification indices in the statistical outputs. These indices demonstrate the impact that modifications such as covarying two error terms can have on model fit. As with any modifications to the model, if there are theoretical reasons to make the modifications, these types of outputs can be very useful. For example, it became apparent during the model analysis that the constructs of library service characteristics may actually be better represented as two separate sub-constructs, library staffing and library resources. If the modification error terms had indicated potential covariances between those errors, then such an alteration to the model could be potentially justified. I did not observe such theoretically—and logically—consistent modification indices, however, and simply covarying error terms such the term associated with family income and hours open per week (an example taken from the output from Figure 16 in Chapter 4) might have improved the model fit for this particular sample set but would have added nothing to the model's ability to explain actual variable relationships.

Community Characteristics & Library Characteristics

The first piece of the theoretical model proposed by institutional theory is that the community will moderate the expression of the isomorphic template. This study asked *do community socioeconomic characteristics impact the adoption of library service characteristics?*

A correlation was hypothesized (either positive or negative) between community characteristics and library characteristics. This hypothesis is supported, primarily modeled in Figure 16, which indicates that there is a -0.43 coefficient between community characteristics and library resources (computers, collection items, and programs), with a squared multiple correlation of 0.19. The path coefficient is not significant, however ($p=0.079$). When considered individually in correlation with library resources (Figures 19, 20, 21 and 22), the community characteristics each demonstrate good model fit. The path coefficients are 0.25 for age, -0.30 for education level, -0.34 for family income, and -0.27 for minority percentage, all with significant p-values (less than 0.01). These results indicate that communities that are older, less educated, and with lower incomes and minority populations, will likely have higher levels of library resources. These statistics are practically surprising but professionally encouraging. Previous research indicates relationships between these socioeconomic characteristics that seemingly contradict these results. For example, Sin (2009) found in a nationwide analysis of public libraries and socioeconomic characteristics that “library systems in lower-income or rural neighborhoods offer a lower level of service per capita compared to their counterparts in higher income or urban neighborhoods. Systems in lower-income or rural neighborhoods tend to have shorter hours, less staff and programs, and smaller collection size” (p. 1). The result of this study may be a geographical anomaly, but it is in line with the professional goals of public librarians to provide resources to those who may otherwise not have the means to privately acquire those resources. Overall, however, the assertion of institutional theory that the community will impact the adoption of the isomorphic template is supported when the individual models are considered..

Community Characteristics & Legitimacy

The study also asked *what community socioeconomic characteristics relate to public library legitimacy?* From the models and factor analysis, the community variables of minority percentage and median family income had a significant relationship between legitimacy, with a path coefficient of -0.97 between community characteristics and legitimacy, but the p-value for this coefficient is quite high (0.918). The negative coefficient indicates that as the percentage of minorities and the median family income go up, legitimacy goes down. The squared multiple correlation is 0.94, indicating that these two factors explain 94% of the variance in public library legitimacy. I would consider this relationship to be an important starting point for further research, and the non-significant p-value indicates this is not a confirmation of a socioeconomic deterministic view of public library legitimacy. The strength of the relationship is similar to Carlozzi's (2018) study of Massachusetts public libraries, which found that 85% of the variance in municipal funding was explained by community characteristics, and municipal funding is one of the legitimacy indicators. This would be consistent with findings that community characteristics explain a significant portion of the variance in public library legitimacy. Carlozzi, however, found a strong positive correlation between education level (which he defined in the same way as I did for this study, with percentage of population with a bachelor's degree) and municipal funding, whereas my study found a link between minority population and median family income and legitimacy, and in the negative direction. Education level in this study did not have significant explanatory power, nor did median age. Existing research has tended to point toward a positive relationship between median family income and library usage (Vakkari & Serola, 2012). Given that usage is a part of the legitimacy construct, it is therefore unexpected that median income has a negative correlation with public library legitimacy.

The indicators of the legitimacy construct—municipal funding, circulation and visits (all per capita)—appear to have good intra-construct correlation and uni-directionality. In all study models, the three indicators statistically perform well as a construct. As an initial study, this again is not a confirmation of these indicators, and additional indicators may be warranted, but it does support further research using these indicators to represent public library legitimacy.

Library Characteristics & Legitimacy

Three research questions pertained to the relationship between library service characteristics and legitimacy. Those questions are, *what library service characteristics relate to public library legitimacy? Does adoption of library service characteristics positively correlate with legitimacy? Is public library legitimacy better explained by library service characteristics or community socioeconomic characteristics?*

While several of the models related to library service characteristics and legitimacy did not have good overall fit, one variable that is the exception is programs. Number of programs offered had a path coefficient of 0.43 ($p < .01$), shown in Figure 23, and explains 19% of the variance. It is noteworthy that programs, which are often advertised and at times even held at locations outside of the library, demonstrate a correlation between legitimacy while more passive aspects (collections and computers) do not. This is worthy of further research to more thoroughly examine the relationship between programming and legitimacy, and to further parse out programming types and target audiences as independent variables.

The results are not as conclusive as desired, because the model using the selected library variables and the selected public library legitimacy indicators was not statistically sound, indicating the need for further research into the relationship (or lack of relationship) between the different variables. The fact that larger collections and more computers does not strongly

correlate with a construct indicated by local government funding, visits, and circulation is logically challenging, however. If a library offers more resources, the professional narrative would seem to imply that higher usage and support should follow, but as the models in this study stand, that cannot be statistically supported.

As discussed previously, when altering this model by both removing libraries in the two population categories at the extreme end of the scale, and bootstrapping the data to account for non-normality, model fit improved significantly, indicating that the lack of a well-fitting model is not necessarily a repudiation of the theoretical design of the model, but rather potentially a function of too small and skewed of a sample size regarding population.

Based on the models, the variables of hours open and the hours worked by a professional ALA-MLS librarian appear to be measuring a different construct than the variables of collection, programs, and computers. The different directions of correlation indicate that library service characteristics should potentially be broken down into sub-constructs, with other variables potentially added from the public library survey variables.

Institutional theory posits that adherence to the isomorphic template, which in this study is the set of variables promoted by the 2018 Kansas Public Library Annual Survey and Report, should correlate with increased legitimacy. The one variable that is modeled to show this increase is programming, and this explains 19% of the variance. This is an important finding. As to the question of whether community characteristics or library characteristics better predict library legitimacy, the results are inconclusive. While the model of community characteristics to library legitimacy does have high path coefficients and multiple squared correlations, the p-values are not significant. The coefficient is smaller for the one library variable that can be well-

modeled and correlated to legitimacy (programs), but it does explain a high percentage of the variance for a single indicator.

Theoretical Implications

This research, though embryonic in nature, contributes to the theoretical framework of institutional theory in two ways. First, it does support the assertion that the community context impacts the adoption of the isomorphic template, because the characteristics of the community (minority population, education level, and median family) demonstrate a correlation with library service characteristics. While the variance is somewhat small (19%), it does demonstrate a correlation between the community and the isomorphic template, and this variance is explained by a very small number of community indicators. When the models are fitted to a smaller sample with disparate populations removed, the model fit statistics do improve, indicating that improvements to sample sizes and possible utilization of bootstrapping techniques may allow for better fitting models and more definitive analysis. Further research avenues are suggested later in this chapter to continue addressing these important theoretical issues.

As an LIS study grounded in institutional theory, this study also contributes a working definition of public library legitimacy that can be empirically tested. As legitimacy research is an under-developed research avenue within LIS, this can be seen as a building block for further investigation. The three public library legitimacy indicators selected (funding, usage, and circulation) were theoretically derived from existing legitimacy definitions (e.g. Terreberry, 1971, Maurer, 1971), and factor analysis of these indicators demonstrated internal statistical consistency. This supports the operationalization of public library legitimacy as used in this study.

Practical Implications

In the 1940s, the Public Library Inquiry questioned what it dubbed “The Library Faith,” the oft-proclaimed democratic role of libraries in educating and improving the masses of society and therefore society itself (Raber, 1999). The researchers behind the PLS argued libraries were not actually reaching the masses and found that library users tended to be better off financially and more educated. The researchers encouraged librarians to focus on these users as a way of legitimizing themselves in the age of increasing information and entertainment access. Librarians did not take it well.

While only one study, the finding of this study that communities with older, less educated, and with lower incomes and minority populations, positively correlates with library resources, is a sign that perhaps as Maack (1994) argues, the PLI’s recommendations to focus on the wealthier and better educated spurred librarians own toward expanding the egalitarian and democratic reach of public libraries. Correlating higher resources levels (collections, computers and programs) with communities where families have less income with which to personally acquire these types of resources is important in light of librarian narratives such as the American Library Association’s goal of “to enhance learning and ensure access to information for all” (n.d.). The finding that lower minority population is associated with lower resource level, is disconcerting, however. As discussed at the end of Chapter 4, the minority percentage variable in Kansas was associated with higher median income and education level, which is atypical. All three variables, however, are also strongly correlated with population size, and these relationships may be a function of population size, in that more urban populations in Kansas are also more diverse. Even so, practitioners and researchers should take note and evaluate resource levels as it pertains to minority populations.

Of specific practical note is the finding that library programs demonstrated a significant correlation with public library legitimacy, the most significant legitimacy finding of the study. Given that programs can be quite visible, public expressions of library activity and service, it is interesting that they show more statistical correlation than physical collections and computers. From a methodological standpoint, this type of statistical analysis contributes to the public library profession because it encourages the use of complex modeling to address issues of great practical significance to public librarians. Too often, statistics such as circulation, usage, and funding are considered in siloed ways, cited frequently but with too little research as to how they relate to one another and to the community characteristics at large. This study demonstrates the usefulness of Structural Equation Modeling (SEM) to public library organizational research. Public libraries and related entities collect and maintain vast amounts of data through surveys and other organizational data collection methods. The ability of SEM to consider a large number of variables, and consider multiple dependent variables and recursive relationships, makes it a useful statistical tool for mining and learning from this existing stockpile of data.

While existing literature related to public library legitimacy is sparse, the findings do relate to a few other LIS studies examining public library and community variables. Stabell (2015) found a positive correlation between library funding and per-capita library usage (which encompassed both visits and circulation), which although both were selected as library legitimacy indicators, they did have a positive correlation within legitimacy construct. The Institute of Museum and Library Services report on public libraries in the United States found that “as investments, such as revenue, staffing, and programs, increased, so did critical use measures, such as visitation and circulation” (IMLS, 2014, p. 13). While this study did not find a correlation between staffing and legitimacy, programs did have a positive correlation with

legitimacy, of which visitation and circulation are two indicators. Increased numbers of computers per 1,000 residents did model as a correlating variable to legitimacy, which is similar to Kinney (2010), who found that having any Internet terminals at all had a significant positive effect on library visits, but that an increase in the number of Internet terminals did not correlate with changes in visits or circulation. Sin (2012) found higher service levels correlated with higher usage levels among high school students; this study only was able to model the variable of programming as positively correlating with legitimacy, of which usage are two indicators. While age has been found to influence both usage and perception of public libraries (Sin & Vakkari, 2015; Paul, 2019; Yang & Shieh, 2019), and theoretically perception should relate to the non-use variable of funding, this study was not able to correlate age to legitimacy, although it did correlate positively with library resource levels.

The inability to build models in many of the attempts demonstrates the complexity and cross-pressures that influence public library legitimacy. Practitioners and decision makers should avoid simplistic understandings of ways in which to improve library legitimacy. This study contradicts notions of straightforward correlations between the resources the library offers and public library legitimacy, at least within this population. Also, as discussed in the literature review, this is an isomorphic template promoted by the professional library community. The legitimacy indicators, however, are grounded in the local community. Therefore, the inability to build adequate models may be indicative of a disconnect between the professional template and community legitimacy perceptions. As Evjen and Audunson (2009) argued, when libraries enact changes and organizational behaviors, they “need to be anchored in the public’s images if they are to be regarded as legitimate” (p. 164).

When considering the impact of both socioeconomic and library service characteristics, findings that do not demonstrate clear correlations between library organizational behavior and legitimacy outcomes can seem disheartening to professional ideas. Studies such as Carlozzi's (2018) finding that 85% of the variance in library's municipal funding is determined by community characteristics, which librarians likely have little influence over, can feel deterministic and defeating. Some might even argue such findings have the capability to delegitimize libraries and the work of librarians within their communities. The findings of this study do not support a socioeconomically-determined view of library legitimacy; however, the lack of clear correlations between most library variables and legitimacy is still disappointing. If studies such as this one cannot find correlations between the organizational behavior that is measured and endorsed by the professional library community, there are two potential (and potentially overlapping) implications. The first is that the professional library surveys are not measuring those organizational behaviors that actually relate to legitimacy indicators. In other words, the measuring stick may be flawed, and the professional community may be focusing on immaterial indicators. The second, and even more concerning, implication could be that libraries' organizational behaviors, measured or unmeasured, are not influencing legitimacy indicators. If either of these implications hold true, or even partially true, it is imperative that the public library community knows and responds to this. Just as the Public Library Inquiry forced a professional community to reevaluate its societal role, public librarians today must continually reevaluate public libraries in the midst of continual societal change. As Larsen (2016) found in his work on non-profit cultural organizations, organizations must be credible professionally, but the main work of legitimacy comes in creating wide community appeal and solidarity. If librarians hold to the premise that providing quality information is a necessary role within

society, then as librarians, we must be willing to turn the information-seeking process inward to our own institutions and acknowledge the need to continually learn, gather information, and adapt accordingly.

This study was limited to public libraries in the state of Kansas. However, the findings likely have cross-population generalizability with other states that are similar in their demographic makeup and population distribution. The findings of this study are most likely to be generalizable to states with overall similar median incomes, minority populations, education levels, and median age. Many Midwestern states, in particular, are likely to be similar in many ways to the demographic profile of the study population. Nebraska, for example, has a median income of \$59,116 (Kansas is \$57,422), according to United States Census Bureau 2019 estimates (“Quick facts; Kansas, n.d.; “Quick facts: Nebraska,” n.d.). Nebraska has a minority percentage of 11.7% (Kansas is 13.6%), and 31.3% of the population has a bachelor’s degree or higher (Kansas is 32.9%). Also, a 2013 report by the Institute of Museum and Library Services cited Nebraska’s percentage of small libraries (serving a population of less than 25,000) as 96.3%, similar to Kansas’ percentage of 95.5%. Generalizability of the study results is most likely to apply in cases such as these, when the state’s population shares many commonalities with the demographics of Kansas.

Limitations

Based on factor analysis, one of the key limitations in this study is likely the inability of the selected indicators to adequately represent the latent constructs due to the limited number of library and community characteristic indicators and the lack of internal consistency among the indicators. The legitimacy indicators selected, however, did have internal consistency, which is

noteworthy because those indicators were grounded in the theoretical definition of legitimacy as applied to the public library context.

The sample was a virtual census of the population of Kansas libraries, omitting only the few cases where data were missing (2 cases) and those that were county or multi-city systems, since those libraries cannot be compared to a specific, single community's characteristics. The data on the variables, however, shows that the variables violate assumptions of normal distribution. This potentially contributes to the difficulty in achieving adequate fit for many of the models. The fact that several of the models did not have adequate fit also limits the ability of those particular models to be interpreted and analyzed, because good model fit is a pre-condition for utilizing path coefficients and squared multiple correlation statistics from the model outputs. Those models with more appropriate fit statistics were selected for analysis and discussion, and some models demonstrated improved fit through the smaller, less disparate sample and bootstrapping. This indicates that with additional sample size and statistical techniques that address non-normality (such as bootstrapping), model fit can be improved to significant levels.

A reality that should be acknowledged is that the isomorphic templates within public libraries may be so diverse that they cannot be adequately modeled. As the literature review showed, public libraries are situated between diverse stakeholders, such as library boards of trustees, local governments, the professional library community, and users and community members. This may be contributing to the lack of adequate model fit; however, many additional approaches can be utilized to see whether they increase the statistical significance of the results.

As discussed in Chapter 3, there are several other limitations to this study based on the statistical methods used. The first is that this study's dependent variable is a latent construct, and as such, the selected indicators of library usage and funding may not adequately capture this

construct. A second limitation is that structural equation modeling can test the plausibility of a model, but it cannot exclusively confirm a model. A third potential limitation is generalizability, in that the population is limited to public libraries in Kansas. Geographical differences may hinder the transferability of results to different parts of the United States and other countries.

Further Research

As discussed in the literature review in Chapter 2, the existing body of research on public library legitimacy and its relationship to the library and its community is sparse. This study was designed to be a first step in a research agenda that addresses the many facets of this issue. Using existing data to build a general model is an important first step in considering which variables, if any, have strong relationships to the legitimacy indicators. The goal was to build a generalized model that can then be tested using data from other states and the national data as a whole, to determine whether the model continues to explain variances between the variables. While not all tested models fit the data well, this initial study does provide useful baseline information from which to conduct further research. A number of potential research directions are worthy of consideration.

First, this study could be expanded by adding in additional indicators for the latent constructs. As factor analysis demonstrated, the constructs of community characteristics and library characteristics need further research because this study indicates there may be multiple sub-constructs involved, and additional indicators may be warranted to better fit and explain the data. As initial research, this study focused on a small set of community socioeconomic characteristics, and a small set of library characteristics related to library behavior (essentially how the library distributes resources, such as staffing, collections, hours open, etc.). At times, factor analysis and model modification left few indicators in the model. Adding additional

community characteristics and library characteristics, and potentially organizing them into meaningful sub-constructs, could increase model fit and squared multiple correlations (explanations of variance).

Second, other variable sets could also be employed, either as sub-constructs or new latent constructs, that may relate to public library legitimacy. Examples could include community characteristics that relate to the community itself, such as population, age of the municipality, and proximity to urban areas, whereas this study examined socioeconomic variables of the community. Similarly, library variables that may not be directly or easily controlled by library administration could be modeled, such as age of the library, age of the library building, and proximity to other libraries. The Kansas Public Library Survey and Annual Report is a prominent isomorphic template, but it is not the only one available for study. Other templates, such as state standards, could also be utilized.

Third, the population could be extended to a regional or national group of public libraries, which would result in a larger sample size. For example, the Institute of Museum and Library Services divides states into regions for public library statistical analysis, which could be a useful starting place for selection of regional groupings of libraries. There is indication from the statistical results that considering population groupings, or removing extremely small and extremely large libraries, could lead to better fitting models. Increasing sample size could allow for such population considerations while still maintaining adequate sample size for SEM procedures. A larger data set also allows for inclusion of more variables in order to maintain rules-of-thumb for adequate SEM sample size compared to number of variables in the model.

Fourth, longitudinal research could be utilized to consider how different legitimacy indicators vary over time in relationship with independent variables. For example, in the state of

Kansas, yearly data on many variables is available from the mid-1960s to the present day, providing an important, mineable dataset to utilize in this type of research.

Fifth, public library legitimacy should also be studied through qualitative and mixed-methods approaches, as well. The construct of public library legitimacy itself deserves empirical attention as a complex set of perceptions and actions of a diverse set of stakeholders. While this study utilized quantitative indicators of legitimacy, other approaches such as surveys and interviews with a variety of library publics will help address this construct complexity and further our understanding of the ways in which public library legitimacy is perceived and acted upon by different audiences. Similar to Audunson (2005), different community leaders could be interviewed to investigate perceptions of library roles, identity, and legitimacy. Such responses could be compared to the operationalized definition of public library legitimacy to consider possible correlations. In-depth case studies could be conducted in public libraries that exemplify particular characteristics shown to have a strong relationship with legitimacy indicators. For example, in this study, programming as a library characteristic correlated with public library legitimacy to a higher degree than other library service characteristics, so libraries that offer unusually high or low numbers of programs might be considered. Cases that represent outliers could also be chosen to investigate facets of particular libraries that may contribute to unexpected variable relationships. As with virtually all issues within Library and Information Science, the topic of public library legitimacy should be investigated with a variety of methodological approaches designed to capture the complexity of public libraries as institutions.

Summary

The purpose of this study was to examine the factors that influence public library legitimacy and determine whether relationships exist among public library organizational

characteristics, community characteristics, and public library legitimacy. Structural equation modeling was employed to analyze public libraries in the state of Kansas and their corresponding community characteristics. As little research exists in this area, particularly of a quantitative nature, it is not surprising, although somewhat disappointing, that many of the proposed statistical models did not demonstrate adequate model fit, making conclusions difficult to discern. By increasing the sample size, addressing the non-normality of the data through bootstrapping, and utilizing population groupings, I do find it quite plausible that meaningful models would emerge.

Despite the challenges and limitations, this study does offer some conclusions and evidence that can be utilized to continue research within the important area of public library legitimacy. It also proposes a definition of public library legitimacy that can be operationalized and tested. This study should be of interest to public library scholars and practitioners as well as legitimacy scholars from other disciplines who are interested in potential ways to operationalize organizational legitimacy. As such, the results of this study would be appropriate for publication in a range of journals, including the *Journal of Library Administration*, *Public Library Quarterly*, *Library and Information Science Research*, and the *Journal of Management Inquiry*.

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Appendix A: Kansas Public Library Survey & Annual Report

* Indicates a Federal Question

PART 1: Identification

Location

1.1	Name of Library Provide the official name of your library.	Prefilled, frozen
1.2a	Physical Street Address No post office box numbers. Provide street address where the library is located.	Prefilled, frozen
1.2b	Mailing Address Provide if different than street address.	Prefilled, not frozen
1.3	City or Town of Administrative Entity Provide the city or town in which your library is located.	Prefilled, frozen
1.4	Physical Address ZIP Code Provide ZIP code for the physical address of the library.	Prefilled, frozen
1.5	Population of the Legal Service Area (LSA 2019) LSA populations are determined by the State Library using the KS Certified Populations.	Prefilled, frozen
1.6	Legal Service Area Boundary Change Have there been any changes to the library's legal service area boundaries during the past year? Changes might be the result of city annexation, change in library status (i.e. city to township or district), creation of new library, or similar increases to the library taxing district.	Defaulted to "NO"
1.7	Regional Library System If your library is affiliated with a Regional Library System, either through membership or contract, indicate which system.	Prefilled, not frozen
1.8	County Provide the county in which your library is located.	Prefilled, frozen
1.9a	Library Director's Name This is the name of the person hired to be responsible for operating the library. If there have been staffing changes during the year, provide the name of the person holding the position at the end of the reporting year.	Prefilled, not frozen
1.9b	Library Director's Email Address This is the email address for the director of the library.	Prefilled, not frozen
1.9c	General Library Email Address Provide the general email address for the library, if available. This would be an email address that does not change if the director changes.	Prefilled, not frozen
1.10a	Library Phone Provide the phone number of the library.	Prefilled, not frozen
1.10b	Library Fax Provide the fax number of the library.	Prefilled, not frozen

Online Presence

1.10c	Website Address Enter the web address (URL) of the library website.	Prefilled, not frozen
1.10d	Facebook If your library has a Facebook page, provide the address for your page.	Prefilled, not frozen

1.10e	Twitter If your library has a Twitter account, provide the username.	Prefilled, not frozen
1.10f	Other Social Media If your library has other social media (Pinterest, etc.) enter that address.	Prefilled, not frozen

Other

1.11	Friends of the Library Does your library have a Friends group?	Prefilled, not frozen
1.12	Volunteers Do you have volunteers working in your library? Answer yes if your library has volunteers <i>or any unpaid staff or workers</i> .	Prefilled, not frozen

PART 2: General Information

2.1*	Number of Bookmobiles Bookmobiles are staffed with <i>paid</i> staff, have regularly scheduled stops, regularly scheduled service hours and carry an organized collection of library materials. Provide the total number of vehicles.	Prefilled with previous answer, frozen
2.2	Online Public Access Catalog (OPAC) The online public access catalog used by your library.	Prefilled with previous answer, not frozen
2.2a*	Number of Registered Users Report the number of registered users. A registered user is a library user who has applied for and received an identification number or card from the public. Note: Inactive patron accounts should have been purged within the past three (3) years.	
2.3*	Number of Central Libraries Synonymous with main library. A central library is one type of single outlet library or the library which is the operational center of a multi-outlet library. Usually all processing is centralized here and the principal collections are housed here.	Prefilled with previous answer, frozen
2.4	Number of Branch Libraries A branch library is an auxiliary unit of an administrative entity which has all of the following: 1) separate quarters, 2) an organized collection of library materials, 3) paid staff, and 4) regularly scheduled hours for opening to the public.	Prefilled with previous answer, frozen
2.5a	Legal Name Full legal name of the library.	Prefilled, frozen
2.5b	Square footage Provide the area, in square feet, of the library. This is the area of all floors (including attics and basements) enclosed by the outer walls of the library. Include all areas occupied by the library, including those areas off-limits to the public. Include any areas shared with another agency or agencies if the library has use of the area. This includes hallways, restrooms, office space, shared meeting rooms, closets, etc.	Prefilled with previous answer, not frozen
2.5c	Public Service Hours Per Year Provide the annual number of hours the library is open to the public. You can use your weekly hours multiplied by 52.	Prefilled with previous answer, not frozen
2.5d	Public Service Weeks Per Year Provide the number of weeks, rounded to the nearest week, this library was open to the public.	Prefilled with "52", not frozen
2.5e	Head Librarian	Prefilled
2.5f	Street Address	Prefilled
2.5g	City	Prefilled
2.5h	Email Address	Prefilled
2.5i	Telephone	Prefilled
2.5j	Fax	Prefilled

2.6*	Public Service Hours Per Year This sum will include any branch hours previously provided.	hidden calculation $2.5c = 2.6$
2.7*	Library Visits Report the total annual number of times individuals enter the library for whatever purpose (include attending activities and meetings and others requiring no staff services).	
2.8*	Reference Transactions Questions answered to patrons. Reference transactions are information consultations in which library staff recommend, interpret, evaluate, and/or use information resources to help others to meet particular information needs. This includes providing Readers Advisory.	

PART 3: Paid Staff

Include total hours for all individuals in each category. The full time equivalent (FTE) for any staff category is determined by adding the total hours worked per typical week by all category employees and dividing by 40.

3.1	Total Librarian Hours Weekly hours worked by all paid staff holding the title of Librarian. Provide the average number of hours per week worked by library staff persons holding the title of "Librarian" or equivalent. "Librarians" are defined as persons who do paid work that usually requires professional training and skills in the theoretical or scientific aspects of library work or both, as distinct from its mechanical or clerical aspect. The usual educational requirement is a master's degree from programs of library and informational studies accredited by the American Library Association (ALA). However, other persons may hold the title of "Librarian".	Prefilled, not frozen
3.1a*	Total Librarians The full time equivalent (FTE) for any staff category is determined by summing the total hours worked per typical week by all category employees and dividing by 40.	Hidden calculation $3.1/40=3.1a$
3.2	ALA-MLS Hours Of the hours listed above in question 3.1 (Total Librarian Hours), how many hours worked by Librarians with master's degrees from programs of library and informational studies accredited by the American Library Association? Example- MLS, MLIS or equivalent degrees.	Prefilled, not frozen
3.2a*	ALA-MLS Librarians The full time equivalent (FTE) for any staff category is determined by summing the total hours worked per typical week by all category employees and dividing by 40.	Hidden calculation $3.2/40=3.2a$
3.3	All Other Paid Employees Hours Weekly hours worked by all other paid staff not included in question 3.1. This should include maintenance, office, housekeeping, security, etc. regardless of their educational background.	Prefilled, not frozen
3.3a*	All Other Paid Employees The full time equivalent (FTE) for any staff category is determined by summing the total hours worked per typical week by all category employees and dividing by 40.	Hidden calculation $3.3/40=3.3a$
3.4	Total Paid Employee Hours	Hidden calculation $3.1+3.3=3.4$
3.4a*	Total Paid Employees	Hidden calculation $3.1a+3.3a=3.4a$

PART 4: Salary Survey

Do not report individual names.

4.a	Name of Position Enter the position name or title. For example "Library Director".	Prefilled, not frozen
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4.b	Current number of employees in this position Indicate the total number of employees who have this position or title (full or part-time).	Prefilled, not frozen
4.c	Current Hourly Salary Enter the hourly pay for this position or job title. If more than one employee holds this position, enter a range. For salaried employees, you can either divide by the hours worked to get an hourly rate, or enter the annual salary.	Prefilled, not frozen

PART 5: Benefits

5.1	Does your library provide paid vacation days? Answer "Yes" if vacation leave is paid at your library.	Prefilled, not frozen
5.2	Does your library provide sick leave days? Answer "Yes" if sick leave is paid at your library.	Prefilled, not frozen
5.3	Does your library provide retirement benefits? Answer "Yes" if KPERs or a similar retirement package is offered by your library.	Prefilled, not frozen
5.4	Does your library provide medical insurance? Answer "Yes" if medical and/or health benefits are offered by your library.	Prefilled, not frozen

PART 6: Operating Income

Report all income as whole dollars only. If your library does not have an item in its budget or if the information is not available, enter "0". For most libraries, mill levy information can be located at: <http://admin.ks.gov/offices/chief-financial-officer/municipal-services/municipal-budgets> or by asking your city office. Locate the appropriate budget for your library. Spreadsheet budgets will have a red tab called "Library Grant", .PDF budgets will have a page headed "Worksheet for State Grant-in-Aid to Public Libraries". Note: some libraries will have more than one budget to check.

6.1a	Library Fund Mill Levy (three decimal places) Provide the library fund mill levy rate to three decimal places (example: 8.750).	
6.1b	Library Fund Revenue (whole dollars only) This includes all tax funds designated by all taxing entities involved (city, township, county), and available for expenditure by the public library. This includes ad valorem, motor vehicle, RV, 16-20M, boat and aircraft taxes and delinquent back taxes. All other income is to be reported in 6.2 or 6.3.	
6.2a	Library Employee Benefits Fund Levy (three decimal places) Include the current levy for the Library Employee Benefits Fund to three decimal places. If no fund, please enter "0".	
6.2b	Library Employee Benefits Fund Revenue (whole dollars only) Include any payments received for a separate library employee benefit fund levy. If your library does not have a separate library employee benefits fund levy, enter "0".	
6.3	Additional Municipal Government Funds Include any additional monies from your municipality, such as electric funds, water funds, transfers from general funds unless already reported in line 6.1.	
6.4	Indirect additional local public support Indirect local support includes any goods or services for the library that are paid for directly by the municipality. This may include things like utilities, Internet or phone service, or capital improvements. Include only the actual monetary value of local government contributions towards these services that can be documented from the local government. If none, enter "0".	

6.5*	Local Government Revenue	Hidden calculation $6.1b+6.2b+6.3+6.4=6.5$
6.6	State Grant-in-Aid	Prepopulated by State Library
6.7	Regional Library System Grant Funds Include the total amount of money your library received from the regional systems.	may be prepopulated by Regional
6.8*	State Government Revenue State and regional funds are considered "state" for this definition only.	Hidden calculation $6.6+6.7=6.8$
6.9*	Federal Government Revenue Include any monies received from the Federal government either through direct grants or through grants passed through the State Library from the Library Services and Technology Act (LSTA). Examples: KS Notable Books Grant.	Prepopulated by State Library, not frozen
6.10*	Other Revenue Report all income other than given in 6.2-6.9. Examples: Gifts from Friends of the Library or Foundations, fines and fees, interest earned, or any fundraising efforts (book sales). Do not include designated for capital purposes; the value of any contributed or in-kind services or non-monetary gifts or donations; or carryover funds from the previous year.	
6.11*	Total Revenue	Hidden calculation $6.5+6.8+6.9+6.10=6.11$

PART 7: Capital Funds

Note: The survey definition of acceptable capital expenditures is NOT the same as the Kansas statute definition. To the best of your ability, please use the survey definition here. *Funds designated for the acquisition of or additions to fixed assets such as building sites, new buildings and building additions, new equipment, initial book stock, furnishings for new or expanded buildings, and new vehicles. This excludes replacement and repair of existing furniture and equipment, regular purchase of library materials, and investments for capital appreciation.*

7.1	Does your library have a Capital Improvement Fund?	Yes or No skip logic, prefilled, not frozen
7.2a*	Local Government Capital Revenue Report all tax sources for capital funds from the local government. Example: city gives to a library capital fund. Report income received only in the reporting year. Do not report the current balance, only calendar year additions. Include transfers from the operating budget which can be a maximum of 10% of your tax income. Any amount in excess of this percentage should be reported in 7.2d.	Prefilled with "0", not frozen
7.2b*	State Government Capital Revenue No state government sources are available for capital improvements.	Prefilled with "0", frozen
7.2c*	Federal Government Capital Revenue Example: FEMA funds received by library.	Prefilled with "0", frozen
7.2d*	Other Capital Revenue Report any other sources of capital funds, including: building fund campaigns, insurance claim funds received, interest, transfers from the operating budget in excess of 10%, and donations. Do not report the current balance, only calendar year additions.	Prefilled with "0"
7.2e*	Total Capital Revenue	Hidden calculation $7.2a+7.2b+7.2c+7.2d=7.2e$

7.3*	Total Capital Expenditures Note: the survey definition of acceptable capital expenditures is NOT the same as the Kansas statute definition. To the best of your ability, please use the survey definition here. Include funds spent for the acquisitions of, or additions to, fixed assets such as building sites, new buildings and building additions, new equipment (including major computer installations), initial book stock, furnishing and equipment, regular purchase of library materials, and investments for capital appreciation. This does not need to match 7.2e.	Prefilled with "0"
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PART 8: Expenditures

Report all expenses as whole dollars only. If your library does not have an item in its budget or the information is not available, enter "0".

Staff Expenditures

8.1*	Salaries & Wages Expenditures Include salaries and wages before deductions for all staff paid for the past year. Report employee benefits on line 8.2.	
8.2*	Employee Benefits Expenditures Include benefits paid to all employees. Examples: Social Security, Medicare (FICA), retirement (KPERs), medical insurance, life insurance, guaranteed disability income protection, unemployment compensation, workers compensation and tuition.	
8.3*	Total Staff Expenditures	Hidden calculation 8.1+8.2=8.3

Print Collection Expenditures

8.4a	Expenditures on Books Include expenditures for print books.	
8.4b	Expenditures on Periodicals Report the amount spent for current print periodical subscriptions during the past year. Exclude expenditures for microforms or binding of periodicals.	
8.4c*	Total Print Expenditures	Hidden calculation 8.4a+8.4b=8.4c

Electronic Materials Expenditures

8.5a	Expenditures on Ebooks Report expenditures for ebooks only. Designed to be read on a screen or where text is prevalent.	
8.5b	Expenditures on Databases/Online Resources Report the library's expenditures only on databases.	
8.5c	Expenditures on other electronic materials Report the total expenditures for electronic (digital) materials not reported in 8.5a or 8.5b. Examples: Downloadable audios or videos, maps, photographs, electronic subscriptions, or other items that can be accessed via computer, internet access or some other device.	
8.5*	Total Expenditures of All Electronic Materials	Hidden calculation 8.5a+8.5b+8.5c=8.5

Collection Expenditures

8.6*	Other Materials Expenditures Report total expenditures for materials in the collection not reported on 8.4a-8.5d. Examples: audio CDs, DVDs, video games, Playaways, cake pans, fishing poles, ereaders, etc.	
8.7*	Total Collection Expenditures	Hidden calculation 8.4c+8.5d+8.6=8.7

Operating Expenditures		
8.8*	Other Operating Expenditures Report all other expenditures excluding staff and collection. Examples: water, heating, Internet, office supplies, replacement computers (staff or public), furniture.	
8.9*	Total Operating Expenditures	Hidden calculation 8.3+8.7+8.8=8.9
PART 9: Resources		
9.1a	Books owned at beginning of 2019 Report the total number of print books in the library's collection at the beginning of calendar year 2019. Count individual items, not titles.	Prefilled with prior year 9.1d answer given, not frozen
9.1b	Books added during calendar year Report the total number of print books added to the library's collection during 2019, whether purchased, or donated as gifts.	
9.1c	Books withdrawn during calendar year Report the total number of books withdrawn (through weeding or loss) from the collection during 2019.	
9.1d*	Total Print Material at end of 2019	Hidden calculation 9.1a+9.1b-9.1c=9.1d
9.2*	Audio- Physical Units Report the total number of audio physical units. Examples: CDs, Playaways and Wonderbooks.	
9.3*	Video- Physical Units Report the total number of video physical units. Examples: DVDs, Playaway Views	
9.2a*	Audio- Downloadable Units Report the total number of downloadable audio units that have been purchased, leased, or licensed by the library, a consortium, the state library, a donor or other person or entity. Included items must only be accessible with a valid library card; inclusion in the catalog is not required. Do not include items freely available without monetary exchange. Do not include items that are permanently retained by the patrons; count only items that have a set circulation period where it is available for their use.	
	Sunflower Overdrive Consortium	prepopulated by NWKLS (Sunflower Admin)
	Statewide Collection	prepopulated by State Library
	Overdrive (not part of Sunflower)	
	Axis360	
	Other	
	Total	what is reported to IMLS
9.3a*	Video- Downloadable Units Report the total number of downloadable video units that have been purchased, leased, or licensed by the library, a consortium, the state library, a donor or other person or entity. Included items must only be accessible with a valid library card; inclusion in the catalog is not required. Do not include items freely available without monetary exchange. Count only items that have a set circulation period available for their use.	
	Sunflower Overdrive Consortium	prepopulated by NWKLS (Sunflower Admin)
	Overdrive (not part of Sunflower)	
	Axis360	
	Other	
	Total	what is reported to IMLS

9.4*	Electronic Books (Ebooks) Ebooks are defined as electronic equivalents of paper books; they are electronic documents that require a device (eReader, computer, etc.) to access. Report only ebook units that have been purchased, leased, or licensed by the library, a consortium, the state library, a donor or other person or entity. Included items must only be accessible with a valid library card; inclusion in the catalog is not required. Do not include items freely available without monetary exchange. Count only items that have a set circulation period available for their use.	
	Sunflower Overdrive Consortium	prepopulated by NWKLS (Sunflower Admin)
	Statewide Collection	prepopulated by State Library
	Overdrive (not part of Sunflower)	
	Axis360	
	Other	
	Total	what is reported to IMLS

Additional Resources

9.5	Number of all Other Materials Include any other circulating materials not included above. This can include book club kits, video games, fishing rods, cake pans, etc.	
9.6	Total Collections	Hidden calculation $9.1d+9.2+9.2a+9.3+9.3a+9.4+9.5=9.6$
9.7*	Current Print Serial Subscriptions Provide the number of current print serial subscriptions, including duplicates for branches, not the number of items. Examples: magazines, newspapers, yearbooks, annual reports, proceedings.	
9.8*	Local/Other cooperative agreements Report the number of electronic collections acquired through curation, payment or formal agreement, purchased by the library either on its own or in cooperation with other libraries or Regional Library System. Do not count the statewide databases. Electronic collections do not have a circulation period and may be retained by the patron. Remote access to the collection may or may not require authentication. Example: Hoopla (count as 1/each).	
9.9*	State Electronic Collections	Prefilled with "74", frozen
9.10*	Total Electronic Collections	Hidden calculation $9.8+9.9=9.10$

PART 10: Public Computers & Internet Access

10.1*	Internet Computers Used by General Public How many computers (desktop, laptop or tablet) which are connected to the Internet (wired or wireless) does the library make available for public use? Do not include Internet-connected computers that are only available to the staff. Do not include computers that are only used for the OPAC.	
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10.2*	Number of Uses (Sessions) of Public Internet Computers Per Year Report the total number of times (number of sessions) your public access Internet computers were used for Internet access. If a single patron uses your computers three times in one day to check email, that is one user, but you would count that as three uses for this question.	
10.3	Does your library provide wireless (WiFi) access to the Internet to patrons?	Yes or No (prefilled, not frozen)
10.4*	Wireless Sessions- Annually Report the number of wireless sessions provided by the library wireless service annually.	
10.5*	Website Visits Report the annual number of sessions initiated by all users from inside or outside the library to the library website. The library website consists of all webpages under the library's domain. Usage of library social media accounts should not be reported here.	

PART 11: Circulation & Programs

The total annual circulation of all library materials of all types, including renewals. Count all materials in all formats that are checked out for use outside the library. Count interlibrary loan transactions only for items borrowed and checked out to patrons. Do not include items checked out to another library. Do not use circulation multipliers. For example, if a film is checked out and shown to 30 people, count 1 circulation, not 30. Do not report "automatic renewals" as circulations. Report annual totals.

Physical

11.1	Circulation of Adult Materials Report all circulations from your adult collection, regardless of the age of the person who checks out the material.	
11.2	Circulation of Children's Materials Children's materials are those which are intended for use by persons age 18 and under, regardless of the age of the person who checks out the material. Include young adult materials also in this count.	
11.2a	Total Physical Item Circulation	Hidden calculation 11.1+11.2=11.2a

Electronic		
11.3*	Use of Electronic Materials Electronic Materials are materials that are distributed digitally online and can be accessed via a computer, the Internet, or a portable device such as an e-book reader. Types of electronic materials include e-books and downloadable electronic video and audio files. Electronic materials packaged together as a unit and checked out as a unit are counted as one. Include circulation only for items that require a user authentication and have a limited period of use. Note: not all of the Statewide Digital Book eLending statistics are available at the local library level. Some other consortium services may not be available either, even though your library may have electronic material expenditures.	
	Sunflower Overdrive Consortium	prepopulated by NWKLS (Sunflower Admin)
	Statewide Collection (RB Digital, cloudLibrary & Freading)	prepopulated by State Library
	Overdrive (not part of Sunflower)	
	cloudLibrary (individual collection, not statewide)	
	RB Digital (individual collection, not statewide)	
	Axis360	
	Other	
	Total	what is reported to IMLS
11.3a*	Successful Retrieval of Electronic Resources The number of full-content units or descriptive records examined, downloaded, or otherwise supplied to user, from online library resources that require user authentication but do not have a circulation period. Examining documents is defined as having the full text of a digital document or electronic resource downloaded or fully displayed. Some electronic services do not require downloading as simply viewing documents is normally sufficient for user needs.	
	Hoopla	may be prepopulated by Regional System
	Zinio	may be prepopulated by Regional System
	Other	
	Total	what is reported to IMLS
11.3b*	Electronic Content Use	Hidden calculation 11.3+11.3a=11.3b
11.4*	Total Circulation of Materials	Hidden calculation 11.2b+11.3=11.4
11.4a*	Total Collection Use	Hidden calculation 11.2b+11.3+11.3a=11.4a

Interlibrary Loan Statistics**Borrowing**

Requesting of materials from another library for your own patrons.

11.5	Returnables Examples: books, DVDs, etc.	
11.6	Copies Examples: photocopies, printed copies of microfilm, etc.	
11.6a	Playaways Please count the number of floating Playaways on this line. This was previously reported under the "copies" category.	
11.7*	Total- Interlibrary Loans Received From	Hidden calculation 11.5+11.6=11.7
11.8	Unfilled Requests made where you determine that an item is not available at all.	

Lending

Sending out of your materials to another library for their patrons.

11.9	Returnables Examples: books, DVDs, etc.	
11.10	Copies Examples: photocopies, printed copies of microfilm, etc.	

11.10a	Playaways Please count the number of floating Playaways on this line. This was previously reported under the "copies" category.	
11.11*	Total- Interlibrary Loans Provided To	Hidden calculation 11.9+11.10=11.11
11.12	Unfilled Requests received where you determine that an item is not available or a request that you are not able to fill.	

Programming

Report program and events whether held on-site OR off-site, that are sponsored or co-sponsored by the library. Count each instance of a series of programs as an event. Example: a weekly story hour is 52 programs, not one.

Early Literacy (birth-5)

	11.15a Number of Programs/Events	11.15b Attendance (regardless of age)
Summer Reading Program		
KS Reads to Preschoolers		
Other		
Total	Hidden calculation (total of 11.15a)	Hidden calculation (total of 11.15b)

Children (6-11)

	11.15c Number of Programs/Events	11.15d Attendance (regardless of age)
Summer Reading Program		
Other		
Total	Hidden calculation (total of 11.15c)	Hidden calculation (total 11.15d)

Young Adult (12-18)

	11.16a Number of Programs/Events	11.16b Attendance (regardless of age)
Summer Reading Program		
Other		
Total *	Hidden calculation (total of 11.16a)	Hidden calculation (total of 11.16b)

Adult (18+)

	11.17a Number of Programs/Events	11.17b Attendance (regardless of age)
Summer Reading Program		
Other		
Total *	Hidden calculation (total of 11.17a)	Hidden calculation (total of 11.17b)

Total

	11.18 Number of Programs/Events	11.19 Attendance (regardless of age)
Total of All Children *	Hidden calculation 11.15a+11.15c	Hidden calculation 11.15b+11.15d
Total of All Ages*	Hidden calculation 11.15e+11.16a+11.17a	Hidden calculation 11.15f+11.16b+11.17b

Technology and Computer Training (prefilled, not frozen)		
11.20	Does your library provide computer or technology skills training to patrons? Indicate if your library provides <i>any</i> kind of training, guidance or education to your patrons on computer or technology skills, such as using computers, accessing social media sites, searching databases, downloading eBooks, or using smartphones. Training activities can be planned or unplanned, formal or informal, individual or group.	Yes or No
11.21	What formats of training sessions do you provide? Select all that apply:	
	<u>Online or on-demand</u> (handouts, online classes, video tutorials, etc.) This includes videos, webinars, tutorials, handouts, or other training media accessible by your patrons at their convenience.	Checkbox
	<u>One-on-one</u> (including unscheduled, time-of-need) Include any training directly between a library staff member and a patron. This can include a pre-planned or scheduled meeting or a situation where the patron asks for immediate assistance learning a skill. (e.g. setting up email, Facebook account, etc.).	Checkbox
	<u>Classroom/group</u> These would include more traditional, planned training events introducing patrons to computer or technology skills.	Checkbox
	<u>Promotions of LearningExpress</u> Indicate if your library promotes or provides instruction to your patrons on using LearningExpress or similar statewide self-paced learning.	Checkbox
11.22	Which of these computer and technology skills topics does your library provide? All of the following topics are under the umbrella of "Digital Literacy" (which we will not try to define here). Select all that apply:	
	<u>Basic computer use/skills</u> (mouse/keyboard/basic programs) Classes or training to introduce the user to basic computer use skills including using a mouse, keyboarding, accessing the Internet, and using basic programs such as Word.	Checkbox
	<u>Employment</u> (resume writing, job search, etc.) Instructing patrons how to find and apply for online job postings, write resumes, etc.	Checkbox
	<u>eGovernment</u> Assisting patrons with finding appropriate government forms, applications, information or other resources online.	Checkbox
	<u>Mobile device use</u> (smartphones, tablets, etc.) Teaching patrons how to use the features and capabilities of their smartphone or tablet.	Checkbox
	<u>Electronic resources</u> (accessing, searching databases) Training on how to access, use or search databases.	Checkbox
	<u>Connections and communications</u> (email, social media, etc.) Teaching patrons how to set up or use email, download or upload digital photos or videos, using social media (Facebook, Twitter, Pinterest, etc.) using Skype or similar communications.	Checkbox
11.23	What level of training does your library provide to patrons? Select all that apply:	
	<u>Basic skills</u> This is the most basic skill level for the type of training. Basic classes would introduce the patron to the topic, and provide them the basic skills to move to more advanced training. Examples might include how to use a mouse, how to open or save a file, how to find and download an app to a smartphone, how to navigate the Internet, etc.	Checkbox
	<u>Intermediate</u> Classes at this level assume the patron has the basic skills necessary to use the applicable item or resource. Skills at this level might include using basic computer programs, searching for and downloading eBooks, being able to file taxes online, creating a social media account, uploading and downloading pictures, etc.	Checkbox
	<u>Advanced</u> For patrons who have mastered the Intermediate level and wish to proceed further.	Checkbox

	Classes here may include more advanced uses of computer programs, basic webpage or blog creation, advanced database searching, etc.	
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Part 12: Project Evaluation

Completing this section fulfills your library's reporting eligibility requirement for State Grants-in-Aid (State Aid) and serves as your application for Grants-in-Aid.

12.1	Amount of Grant last year	Prepopulated by State Library
Expenditures		
12.2a	Salaries Report the amount of State Aid spent for salaries.	
12.2b	Books Report the amount of State Aid used for purchasing books.	
12.2c	Periodicals Report the amount of State Aid funds spent for purchasing periodicals.	
12.2d	Other Report all other expenditures with State Aid funds. No fund can be expended for construction, repair or debt reduction.	
12.3	Total State Aid Expenditures for 2019 This number must be the same as what is shown in 12.1.	Hidden calculation $12.2a+12.2b+12.2c+12.2d=12.3$

PART 13: Kansas Children's Internet Protection Act (KS-CIPA)

The applicant provides this assurance for the purpose of certifying ongoing compliance with:

- The Kansas children's internet protection act, K.S.A. 75-2589, which requires that any public library that provides public access to a computer shall implement and enforce technology protection measures as specified by statute, and with
- Public library internet access policy, KAR 54-4-1, which defines the internet access policy required under statute, and directs the governing body to review this policy at least once every three years.

The applicant further certifies that review of the policy is current by providing the date of the most recent policy review. *If the pre-filled date is not within the past three years, you are not in compliance.* You must review the policy at a board meeting and record the new date. If the review will occur after the survey is submitted, contact the State Library and we will update your review date.

13.1	Date last reviewed Kansas Children's Internet Protection Act (KS-CIPA) Verify that your library board has reviewed library's policy regarding KS-CIPA within the last 3 years and provide the date of the most recent review.	Prefilled, not frozen
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PART 14: Civil Rights Certificate

The applicant provides this assurance in consideration of and for the purpose of obtaining Federal grants, loans, contracts, (except contracts of insurance or guaranty), property, discounts, or other Federal financial assistance to education programs or activities from the Institute of Museum and Library Services.

The applicant assures that it will comply with:

1. Title VI of the Civil Rights Act of 1964, as amended. 42 U.S.C. 2000d et seq., which prohibits discrimination on the basis of race, color, or national origin in programs and activities receiving Federal financial assistance.
2. Section 504, of the Rehabilitation Act of 1964, as amended, as amended, 29 U.S.C. 794 et seq., which prohibits discrimination on the basis of handicap in programs and activities receiving Federal financial assistance.
3. Title IX of the Education Amendments of 1972, as amended. 20 U.S.C. 1681 et seq., which prohibits discrimination on the basis of sex in education programs and activities receiving Federal financial assistance.

4. The Age Discrimination Act of 1975, as amended. 42 U.S.C. 6101 et seq., which prohibits discrimination on the basis of age in programs or activities receiving Federal financial assistance.

5. All regulations, guidelines, and standards lawfully adopted under the above statutes by the Institute of Museum and Library Services.

The applicant agrees that compliance with this Assurance constitutes a condition of continued receipt of Federal financial assistance, and that it is binding upon the applicant, its successors, transferees, and assignees for the period during which such assistance is provided. The applicant further assures that all contractors, subcontractors, subgrantees or others with whom it arranges to provide services or benefits to its students or employees in connection with its education programs or activities are not discriminating in violation of the above statutes, regulations, guidelines, and standards against those students or employees. In the event of failure to comply the applicant understands that assistance can be terminated and the applicant denied the right to receive further assistance. The applicant also understands that the Institute of Museum and Library Services may at its discretion seek a court order requiring compliance with the terms of the Assurance or seek other appropriate judicial relief.

14.1	I agree with the above Civil Rights Certifications.	Yes or No
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PART 15: Certification

Thank you for completing this report. Please submit online no later than **February 10, 2020**.

Submission after February 10, 2020 will result in the library deemed ineligible for State Grants-in-Aid.

15.1	Respondent's Name Provide the name of the person completing this report online so that this person can be contacted if necessary.	
15.2	Respondent's Title	
15.3	Respondent's Email	

Appendix B: List of Kansas Public Libraries

The following is a list of libraries that participated in the 2018 Kansas Public Library Survey & Annual Report, and was retrieved from the survey (State Library of Kansas, 2018). The list is arranged alphabetically by municipality. Libraries marked with a * are multi-city or county library systems, or cooperative school/community libraries, and were omitted from the study. Libraries indicated by a ** did not complete at least one of the variables that were included in the study, and were also omitted.

ABILENE PUBLIC LIBRARY	ABILENE
AGRA/F LEE DOCTOR LIBRARY	AGRA
LYON COUNTY LIBRARY DIST. #1*	ALLEN
ALMENA CITY LIBRARY	ALMENA
ALTAMONT PUBLIC LIBRARY	ALTAMONT
ALTOONA PUBLIC LIBRARY	ALTOONA
AMERICUS TOWNSHIP LIBRARY	AMERICUS
ANDALE DISTRICT LIBRARY	ANDALE
ANDOVER PUBLIC LIBRARY	ANDOVER
ANTHONY PUBLIC LIBRARY	ANTHONY
DIXON TOWNSHIP LIBRARY	ARGONIA
ARKANSAS CITY PUBLIC LIBRARY	ARKANSAS CITY
ARLINGTON CITY LIBRARY	ARLINGTON
ARMA CITY LIBRARY	ARMA
ASHLAND LIBRARY	ASHLAND
ATCHISON LIBRARY	ATCHISON
ATTICA CITY LIBRARY	ATTICA
ATWOOD PUBLIC LIBRARY	ATWOOD
AUGUSTA PUBLIC LIBRARY	AUGUSTA
AXTELL PUBLIC LIBRARY	AXTELL
BALDWIN CITY LIBRARY	BALDWIN CITY
BASEHOR COMMUNITY LIBRARY, DIST #2, LV. CO.	BASEHOR
JOHNSTON PUBLIC LIBRARY	BAXTER SPRINGS
BEATTIE PUBLIC LIBRARY**	BEATTIE
BELLE PLAINE PUBLIC LIBRARY	BELLE PLAINE
BELLEVILLE PUBLIC LIBRARY	BELLEVILLE
PORT LIBRARY	BELOIT
BIRD CITY PUBLIC LIBRARY	BIRD CITY
BISON COMMUNITY LIBRARY	BISON
LINN COUNTY LIBRARY DIST #3	BLUE MOUND
BLUE RAPIDS PUBLIC LIBRARY	BLUE RAPIDS
BONNER SPRINGS CITY LIBRARY	BONNER SPRINGS
BRONSON PUBLIC LIBRARY	BRONSON
BUCKLIN PUBLIC LIBRARY	BUCKLIN
BUHLER PUBLIC LIBRARY	BUHLER

BURLINGAME COMMUNITY LIBRARY	BURLINGAME
COFFEY COUNTY LIBRARY	BURLINGTON
BURNS PUBLIC LIBRARY	BURNS
BURR OAK COMMUNITY LIBRARY	BURR OAK
RUTH DOLE MEMORIAL LIBRARY	BURRTON
FARMER TOWNSHIP/CPMS LIBRARY	BUSHTON
CALDWELL PUBLIC LIBRARY	CALDWELL
CANEY CITY LIBRARY	CANEY
CANTON TOWNSHIP	CANTON
CARBONDALE CITY LIBRARY	CARBONDALE
CAWKER CITY PUBLIC LIBRARY	CAWKER CITY
CEDAR VALE MEMORIAL LIBRARY	CEDAR VALE
CENTRALIA COMMUNITY LIBRARY	CENTRALIA
CHANUTE PUBLIC LIBRARY	CHANUTE
CHAPMAN PUBLIC LIBRARY	CHAPMAN
CHENEY PUBLIC LIBRARY	CHENEY
CHERRYVALE PUBLIC LIBRARY	CHERRYVALE
CHETOPA CITY LIBRARY	CHETOPA
CIMARRON CITY LIBRARY	CIMARRON
INDEPENDENT TOWNSHIP	CLAFLIN
CLAY CENTER CARNEGIE LIBRARY	CLAY CENTER
CLEARWATER PUBLIC LIBRARY	CLEARWATER
CLIFTON PUBLIC LIBRARY	CLIFTON
RANDOLPH-DECKER PUB. LIB.	CLYDE .
COFFEYVILLE PUBLIC LIBRARY	COFFEYVILLE
COLBY/PIONEER MEMORIAL LIBRARY	COLBY
COLDWATER-WILMORE REGIONAL LIBRARY*	COLDWATER
COLONY CITY LIBRARY	COLONY
COLUMBUS PUBLIC LIBRARY	COLUMBUS
COLWICH COMMUNITY LIBRARY	COLWICH
FRANK CARLSON LIBRARY	CONCORDIA
CONWAY SPRINGS CITY LIBRARY	CONWAY SPRINGS
COPELAND PUBLIC LIBRARY	COPELAND
CORNING CITY LIBRARY	CORNING
BURNLEY MEMORIAL/FALLS TOWNSHIP	COTTONWOOD FALLS
COUNCIL GROVE PUBLIC LIBRARY	COUNCIL GROVE
COURTLAND COMMUNITY LIBRARY	COURTLAND
HILLCREST LIBRARY	CUBA
CUNNINGHAM PUBLIC LIBRARY	CUNNINGHAM
DELPHOS PUBLIC LIBRARY	DELPHOS
DERBY PUBLIC LIBRARY	DERBY
DIGHTON/LANE COUNTY LIBRARY*	DIGHTON
DODGE CITY PUBLIC LIBRARY	DODGE CITY
DOUGLASS PUBLIC LIBRARY	DOUGLASS
DOWNS CARNEGIE LIBRARY	DOWNS
DWIGHT PUBLIC LIBRARY	DWIGHT
EDNA PUBLIC LIBRARY	EDNA
EFFINGHAM COMMUNITY LIBRARY	EFFINGHAM
BRADFORD MEMORIAL LIBRARY	EL DORADO
ELKHART/MORTON COUNTY LIBRARY*	ELKHART

ELLINWOOD SCHOOL COMMUNITY LIBRARY*	ELLINWOOD
ELLIS PUBLIC LIBRARY	ELLIS
J.H. ROBBINS MEMORIAL LIBRARY	ELLSWORTH
EMPORIA PUBLIC LIBRARY	EMPORIA
ENTERPRISE PUBLIC LIBRARY	ENTERPRISE
ERIE CITY PUBLIC LIBRARY	ERIE
EUDORA PUBLIC LIBRARY	EUDORA
EUREKA PUBLIC LIBRARY	EUREKA
BARNES READING ROOM	EVEREST
FALL RIVER PUBLIC LIBRARY**	FALL RIVER
FLORENCE PUBLIC LIBRARY	FLORENCE
FORMOSO PUBLIC LIBRARY	FORMOSO
FORT SCOTT PUBLIC LIBRARY	FORT SCOTT
FOWLER PUBLIC LIBRARY	FOWLER
FRANKFORT CITY LIBRARY	FRANKFORT
FREDONIA PUBLIC LIBRARY	FREDONIA
GALENA PUBLIC LIBRARY	GALENA
FINNEY COUNTY PUBLIC LIBRARY*	GARDEN CITY
GARDEN PLAIN COMMUNITY LIBRARY	GARDEN PLAIN
GARNETT PUBLIC LIBRARY	GARNETT
GAYLORD CITY LIBRARY	GAYLORD
GENESEO PUBLIC LIBRARY	GENESEO
GIRARD PUBLIC LIBRARY	GIRARD
GLASCO CITY LIBRARY	GLASCO
GLEN ELDER LIBRARY	GLEN ELDER
GODDARD PUBLIC LIBRARY	GODDARD
GOESSEL PUBLIC LIBRARY	GOESSEL
GOODLAND PUBLIC LIBRARY	GOODLAND
GOVE CITY LIBRARY	GOVE
GRAINFIELD CITY LIBRARY	GRAINFIELD
GREAT BEND PUBLIC LIBRARY	GREAT BEND
KIOWA COUNTY LIBRARY*	GREENSBURG
GRENOLA PUBLIC LIBRARY	GRENOLA
GRINNELL/MOORE FAMILY LIBRARY	GRINNELL
GYP SUM COMMUNITY LIBRARY	GYP SUM
HALSTEAD PUBLIC LIBRARY	HALSTEAD
HAMILTON CITY LIBRARY	HAMILTON
HANOVER PUBLIC	HANOVER
HANSTON CITY LIBRARY	HANSTON
HARDTNER PUBLIC LIBRARY	HARDTNER
HARPER PUBLIC LIBRARY	HARPER
HARTFORD/ELMENDARO TOWNSHIP	HARTFORD
HAVEN PUBLIC LIBRARY	HAVEN
HAYS PUBLIC LIBRARY	HAYS
HAYSVILLE COMMUNITY LIBRARY	HAYSVILLE
HEPLER CITY LIBRARY	HEPLER
HERINGTON PUBLIC LIBRARY	HERINGTON
HESSTON PUBLIC LIBRARY	HESSTON
HIAWATHA/MORRILL PUBLIC LIBRARY	HIAWATHA
GRAHAM COUNTY PUBLIC LIBRARY	HILL CITY

HILLSBORO PUBLIC LIBRARY	HILLSBORO
HOISINGTON PUBLIC LIBRARY	HOISINGTON
BECK-BOOKMAN LIBRARY	HOLTON
HOPE COMMUNITY LIBRARY	HOPE
HORTON PUBLIC LIBRARY	HORTON
HOWARD CITY LIBRARY	HOWARD
SHERIDAN COUNTY PUBLIC LIBRARY*	HOXIE
STEVENS COUNTY LIBRARY*	HUGOTON
HUMBOLDT PUBLIC LIBRARY	HUMBOLDT
HUTCHINSON PUBLIC LIBRARY	HUTCHINSON
INDEPENDENCE PUBLIC LIBRARY	INDEPENDENCE
INMAN PUBLIC LIBRARY	INMAN
IOLA PUBLIC LIBRARY	IOLA
JAMESTOWN CITY LIBRARY	JAMESTOWN
JENNINGS CITY LIBRARY	JENNINGS
JETMORE PUBLIC LIBRARY	JETMORE
JEWELL PUBLIC LIBRARY	JEWELL
STANTON COUNTY PUBLIC LIBRARY*	JOHNSON
DOROTHY BRAMLAGE PUBLIC LIBRARY	JUNCTION CITY
KANOPOLIS PUBLIC LIBRARY	KANOPOLIS
KANSAS CITY, KANSAS PUBLIC LIBRARY	KANSAS CITY
KENSINGTON COMMUNITY/SCHOOL LIBRARY	KENSINGTON
KINCAID COMMUNITY LIBRARY	KINCAID
KINGMAN CARNEGIE LIBRARY	KINGMAN
KINSLEY	KINSLEY
KIOWA PUBLIC LIBRARY	KIOWA
KIRWIN CITY LIBRARY	KIRWIN
KISMET PUBLIC LIBRARY	KISMET
BARNARD LIBRARY	LA CROSSE
LIBRARY DISTRICT #2 , LINN COUNTY	LACYGNE
KEARNY COUNTY LIBRARY*	LAKIN
LANSING COMMUNITY LIBRARY	LANSING
JORDAAN MEMORIAL LIBRARY	LARNED
LAWRENCE PUBLIC LIBRARY	LAWRENCE
LEAVENWORTH PUBLIC LIBRARY	LEAVENWORTH
LEBANON COMMUNITY	LEBANON
LENORA PUBLIC LIBRARY	LENORA
LEON PUBLIC LIBRARY	LEON
LEONARDVILLE CITY LIBRARY	LEONARDVILLE
WICHITA COUNTY LIBRARY*	LEOTI
MEADOWLARK LIBRARY/LEWIS	LEWIS
LIBERAL MEMORIAL LIBRARY	LIBERAL
LINCOLN CARNEGIE LIBRARY	LINCOLN
LINDSBORG COMMUNITY LIBRARY	LINDSBORG
LINWOOD COMMUNITY LIBRARY DISTRICT #1	LINWOOD
LITTLE RIVER COMMUNITY LIBRARY	LITTLE RIVER
LOGAN PUBLIC LIBRARY	LOGAN
LONG ISLAND COMMUNITY LIBRARY	LONG ISLAND
LONGTON PUBLIC LIBRARY	LONGTON
LIBRARY DISTRICT #1, MIAMI COUNTY	LOUISBURG

LUCAS PUBLIC LIBRARY	LUCAS
LURAY CITY LIBRARY	LURAY
LYNDON CARNEGIE LIBRARY	LYNDON
LYONS PUBLIC LIBRARY	LYONS
MACKSVILLE CITY LIBRARY	MACKSVILLE
MADISON PUBLIC LIBRARY	MADISON
MANHATTAN PUBLIC LIBRARY	MANHATTAN
MANKATO CITY LIBRARY	MANKATO
MARION CITY LIBRARY	MARION
MARQUETTE COMMUNITY LIBRARY	MARQUETTE
MARYSVILLE PUBLIC LIBRARY	MARYSVILLE
MCCRACKEN PUBLIC LIBRARY	MCCRACKEN
MCCUNE OSAGE TOWNSHIP LIBRARY	MCCUNE
MCLOUTH PUBLIC LIBRARY	MCLOUTH
MCPHERSON PUBLIC LIBRARY	MCPHERSON
MEADE PUBLIC LIBRARY	MEADE
LINCOLN LIBRARY	MEDICINE LODGE
MERIDEN-OZAWKIE PUBLIC LIBRARY*	MERIDEN
MINNEAPOLIS PUBLIC	MINNEAPOLIS
MINNEOLA CITY LIBRARY	MINNEOLA
MOLINE PUBLIC LIBRARY	MOLINE
MONTEZUMA TOWNSHIP LIBRARY	MONTEZUMA
MORAN PUBLIC LIBRARY	MORAN
MOUND CITY/LINN COUNTY DIST. #4	MOUND CITY
MOUND VALLEY LIBRARY	MOUND VALLEY
MOUNDRIDGE PUBLIC LIBRARY	MOUNDRIDGE
MT. HOPE PUBLIC LIBRARY	MT. HOPE
MULVANE PUBLIC LIBRARY	MULVANE
NEODESHA/W.A. RANKIN MEMORIAL	NEODESHA
NESS CITY PUBLIC LIBRARY	NESS CITY
NEWTON PUBLIC LIBRARY	NEWTON
NICKERSON PUBLIC LIBRARY	NICKERSON
NORCATUR PUBLIC LIBRARY	NORCATUR
NORTON PUBLIC LIBRARY	NORTON
NORTONVILLE PUBLIC LIBRARY	NORTONVILLE
NORWICH PUBLIC	NORWICH
OAKLEY PUBLIC LIBRARY	OAKLEY
OBERLIN CITY LIBRARY	OBERLIN
OLATHE PUBLIC LIBRARY	OLATHE
OSAGE CITY PUBLIC LIBRARY	OSAGE CITY
OSAWATOMIE PUBLIC LIBRARY	OSAWATOMIE
OSBORNE PUBLIC LIBRARY	OSBORNE
OSKALOOSA PUBLIC LIBRARY	OSKALOOSA
OSWEGO PUBLIC	OSWEGO
OTIS COMMUNITY LIBRARY	OTIS
OTTAWA LIBRARY	OTTAWA
OVERBROOK PUBLIC LIBRARY	OVERBROOK
JOHNSON COUNTY LIBRARY*	OVERLAND PARK
OXFORD PUBLIC LIBRARY	OXFORD
PALCO PUBLIC LIBRARY	PALCO

PAOLA FREE LIBRARY	PAOLA
PARK CITY PUBLIC LIBRARY	PARK CITY
LINN COUNTY LIBRARY DISTRICT #1	PARKER
PARSONS PUBLIC LIBRARY	PARSONS
PARTRIDGE PUBLIC LIBRARY	PARTRIDGE
PEABODY TOWNSHIP LIBRARY	PEABODY
PHILLIPSBURG CITY LIBRARY	PHILLIPSBURG
PITTSBURG PUBLIC LIBRARY	PITTSBURG
PLAINS COMMUNITY LIBRARY	PLAINS
PLAINVILLE MEMORIAL LIBRARY	PLAINVILLE
LINN COUNTY LIBRARY DISTRICT #5	PLEASANTON
POMONA COMMUNITY LIBRARY	POMONA
POTWIN PUBLIC LIBRARY	POTWIN
SUNSHINE CITY LIBRARY	PRAIRIE VIEW
PRATT PUBLIC LIBRARY	PRATT
PRESCOTT CITY LIBRARY	PRESCOTT
PRETTY PRAIRIE PUBLIC LIBRARY	PRETTY PRAIRIE
PROTECTION TOWNSHIP LIBRARY	PROTECTION
JAY JOHNSON PUBLIC LIBRARY	QUINTER
RANDALL PUBLIC LIBRARY	RANDALL
RANSOM PUBLIC LIBRARY	RANSOM
RAE HOBSON MEMORIAL LIBRARY	REPUBLIC
RICHMOND PUBLIC LIBRARY	RICHMOND
RILEY CITY LIBRARY	RILEY
ROSE HILL PUBLIC LIBRARY	ROSE HILL
ROSSVILLE COMMUNITY LIBRARY	ROSSVILLE
RUSSELL PUBLIC LIBRARY	RUSSELL
MARY COTTON PUBLIC LIBRARY	SABETHA
SALINA PUBLIC LIBRARY	SALINA
DUDLEY TOWNSHIP LIBRARY	SATANTA
SAVONBURG PUBLIC LIBRARY	SAVONBURG
SCANDIA CITY LIBRARY	SCANDIA
SCOTT COUNTY LIBRARY*	SCOTT CITY
SEDAN PUBLIC LIBRARY	SEDAN
SEDGWICK/LILLIAN TEAR	SEDGWICK
SELDEN PUBLIC LIBRARY	SELDEN
SENECA FREE LIBRARY	SENECA
SHARON SPRINGS PUBLIC LIBRARY	SHARON SPRINGS
SILVER LAKE LIBRARY	SILVER LAKE
SMITH CENTER PUBLIC LIBRARY	SMITH CENTER
SOLOMON PUBLIC LIBRARY	SOLOMON
SOUTH HAVEN TOWNSHIP LIBRARY	SOUTH HAVEN
SPEARVILLE TOWNSHIP LIBRARY	SPEARVILLE
GRAVES MEMORIAL PUBLIC LIBRARY	ST PAUL
ST. FRANCIS PUBLIC LIBRARY	ST. FRANCIS
IDA LONG GOODMAN MEMORIAL LIBRARY	ST. JOHN
POTTAWATOMIE WABAUNSEE REGIONAL LIBRARY*	ST. MARYS
NORA E. LARABEE MEMORIAL LIBRARY	STAFFORD
STERLING FREE PUBLIC LIBRARY	STERLING
STOCKTON	STOCKTON

HASKELL TOWNSHIP LIBRARY	SUBLETTE
SYLVAN GROVE PUBLIC LIBRARY	SYLVAN GROVE
SYLVIA PUBLIC LIBRARY	SYLVIA
HAMILTON COUNTY PUBLIC LIBRARY*	SYRACUSE
THAYER FRIDAY READING CLUB CITY LIBRARY	THAYER
TONGANOXIE PUBLIC LIBRARY	TONGANOXIE
TOPEKA AND SHAWNEE COUNTY PUBLIC LIBRARY*	TOPEKA
TORONTO PUBLIC LIBRARY	TORONTO
TOWANDA PUBLIC LIBRARY	TOWANDA
GREELEY COUNTY PUBLIC LIBRARY*	TRIBUNE
LIBRARY DISTRICT #1, DONIPHAN COUNTY*	TROY
TURON COMMUNITY LIBRARY	TURON
UDALL PUBLIC LIBRARY	UDALL
GRANT COUNTY LIBRARY*	ULYSSES
VALLEY CENTER PUBLIC LIBRARY	VALLEY CENTER
DELAWARE TOWNSHIP LIBRARY	VALLEY FALLS
VERMILLION PUBLIC LIBRARY	VERMILLION
VIOLA TOWNSHIP	VIOLA
WAKEENEY PUBLIC LIBRARY	WAKEENEY
WAKEFIELD PUBLIC LIBRARY	WAKEFIELD
WALNUT PUBLIC LIBRARY	WALNUT
WALTON COMMUNITY LIBRARY	WALTON
WAMEGO PUBLIC LIBRARY	WAMEGO
WASHINGTON PUBLIC LIBRARY	WASHINGTON
BERN COMMUNITY LIBRARY*	WASHINGTON TOWNSH
WATERVILLE PUBLIC LIBRARY	WATERVILLE
WEIR PUBLIC LIBRARY	WEIR
WELLINGTON PUBLIC	WELLINGTON
WELLSVILLE CITY LIBRARY	WELLSVILLE
WETMORE PUBLIC LIBRARY	WETMORE
WHITE CITY PUBLIC LIBRARY	WHITE CITY
WHITEWATER MEMORIAL LIBRARY	WHITEWATER
WICHITA PUBLIC LIBRARY	WICHITA
WILLIAMSBURG COMMUNITY LIBRARY	WILLIAMSBURG
ELM CREEK TOWNSHIP LIBRARY	WILSEY
LANG MEMORIAL	WILSON
WINCHESTER PUBLIC LIBRARY	WINCHESTER
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