

Libraries in Community Systems

We each live and work within dynamic interconnected systems. At the community level these include education and health systems which we use and, in our role as librarians, often contribute to in direct and indirect ways. What if as a librarian I could see the nodes of local system intersections—places where my own actions, attitudes, and behaviors might have the most impact? What if I could then develop a deep understanding of the true social value of my work informed by both economic and wellbeing models?

We refer to the practice of situating action within a system as a systems approach. Current community catalyst initiatives highlight the importance of exchange between the library and other community entities. And further, they suggest that libraries can maximize the impact of those exchanges for the wellbeing of residents if they have a clear view of community systems and their place within them. The practice that would come from such an understanding we refer to as a community systems approach. The Northern New York Library Network (NNYLN) proposes a 3-year national research in service to practice project, Libraries in Community Systems, to create clearer understanding of the unique role of public and tribal libraries within community systems, and how this role can be maximized for improved social wellbeing outcomes.

Statement of National Need: Widespread understanding in the profession of how various community systems operate, especially in goal setting, decision making, resource allocation, and implementation of actions, can illuminate ways in which public and tribal libraries interface with these processes and facilitate better outcomes. Although community systems are locally dependent, by working with public and tribal libraries in communities of all sizes, we will develop cross-community type models for a community systems approach to practice. Building on previous research into community systems by [Foster-Fishman et al. \(2007\)](#) and [Gustina et al. \(2020\)](#), as well as IMLS-funded development and social wellbeing frameworks, we ask, "What community systems approach will help libraries understand true social value and key system nodes to maximize impact and catalyze existing resources in order to improve wellbeing outcomes toward community resilience?"

Project Design: In order to answer this question we propose three phases of study, development, and dissemination, to generate the depth of understanding necessary for professional practice to shift towards effective social wellbeing outcomes. Partnerships are integral to the design. Here are the key roles:

Research Partners: NY State Library (NYSL) and TX State Library and Archives Commission (TSLAC) together serve 1,975 public library outlets in communities of all sizes and 6 tribal libraries. They will use their positions to convene conversations, identify candidate communities for systems model testing, and gather and share state specific data with the researcher.

Advisory Board: Our six advisory board members will act as critical friends throughout each phase of the project and will represent a breadth of expertise in the fields of community development, public economics, systems design, and public library outcomes assessment. We will invite advisors from library associations including BCALA, REFORMA, ULU, and ATALM as well as from non-library organizations.

Testers: With assistance from our research partners 20 communities will be chosen in Texas and New York (3 tribal, 4 urban, 2 suburban, 1 rural each). Two representatives from each (one from the library, one from a non-library entity) will participate in the process of developing and testing models of community systems.

Phase 1- Definition (2021): What is a library within the context of community systems?

Building a model for practice begins with shared definitions. During this phase of work, partners NYSL & TSLAC will virtually convene a series of facilitated collaborative diagramming sessions with the advisory board, as well as library and community agency volunteers from a representative sampling of community types. Results will create a system approach definition of library service, which will be shared with conversation participants, revised from their comments, and then distributed nationally via association listservs and hosted on project repository and website.

Phase 2- Valuation (2022-23): What is the value of library service within the context of wellbeing outcomes?

Valuation is one way we can operationalize systems for impact. Economic valuations of public libraries have historically focused on the exchange between the library and the local market economy—incomes and expenditures, cost savings to patrons through resource sharing, and so on— often ignoring non-monetized social goods. We propose, instead, an approach developed in economics which allows for the valuation of non-market services and plurality of community values.

Valuation methods will use revealed community member preferences for library services (through travel cost and hedonic analysis). Exposed through this phase of quantitative analysis will be maximum distances between library outlet and population clusters (based on community-type), using combinations of publicly available GIS locale data on community anchors like schools (NCES), hospitals (AHD), and libraries (IMLS) with property value (USRealty), library service (IMLS), and wellbeing indicator (Census, RWJF, and EdData.gov) data. Using these same data, we'll produce valuations of library services. Open-source applications will be used for analysis for full transparency and replicability. Data & code will be made publicly accessible via OSF as the project progresses. Results will be shared via partners' and advisors' networks.

Phase 3- Modelling Practice (2023-24): How do these elements fit together in community systems models, illuminating nodes for impactful action which staff and individuals can effectively use to make change?

Building on the narrative and diagrammatic definitions of tribal and public libraries from Phase 1, and the valuations derived in Phase 2, we will develop a model which describes community systems, a framework for testing this model in the real world, and locally customizable economic and decision-making models.

We will virtually convene testers to discuss the model and its testing framework which will inform first-round revisions. Testers will then be given this revised model and evaluative framework to test against the real world. Concurrently developed economic optimization models will be compared with community descriptive models. Two three month rounds of field testing, answering evaluative framework questions which are designed to uncover where the model is consistent with reality, and where it fails, will result in revision and group discussions within community-type groups. Results will be shared through networks and hosted online.

National Impact: Project deliverables from the above phases will be disseminated at the close of each phase and include: Phase 1 - Definitions of public and tribal library service that is contextualized within community systems and social wellbeing outcomes. Published as a one-liner with research brief context to guide assessment and valuation; Phase 2 - Valuation of tribal and public library service within economic and social systems. Foundational to building full descriptive, decision, and action models of libraries in community systems, immediate use include amended ROI calculators; Phase 3 - Descriptive model of libraries within community systems, economic model with customizable workbook for clearer understanding of investment returns and service value, and customizable system map with common nodes for action and impact.

Key Personnel: NNYLN is positioned to lead interdisciplinary work--within its membership are research, cultural heritage, and healthcare institutions all trying to operationalize social wellbeing outcomes through their libraries. ED Meg Backus will work with librarian and economics PhD (then) candidate Margo Gustina, who acts as lead researcher. Margo will in turn be aided by faculty of the University of New Mexico who have pioneered non-market valuation which we will use in our study. The Libraries in Community Systems key personnel have the expertise required to manage this ambitious project, as well as to develop and disseminate impactful, useful products.

Budget Summary: Salaries will be \$126,720. Researcher will dedicate 20 hours per week for 3 years for a total of \$96,720. Advisors (6 at \$2,800) and Model Testers (40 at \$3,000) will receive honorariums totaling \$136,800. For Supplies, Materials, and Equipment, web hosting, platform fees, and incidental print and postage costs will be \$2,500 over the life of the grant. We ask for \$266,020 from September 2021 through August 2024.