

## Developing Public and Academic Libraries as Key Participants in Civic Open Data Ecosystems

The University Library System (ULS) at the University of Pittsburgh requests \$206,700, matched with a \$110,000 cost share, in partnership with the Carnegie Library of Pittsburgh (CLP), the Western Pennsylvania Regional Data Center (WPRDC), and the National Neighborhood Indicators Partnership (NNIP) to model how public and academic libraries can collaborate to promote, support, and steward open civic data ecosystems. The project's primary output will be a guide and toolkit to help libraries: identify local needs and contexts around open civic data; consider roles, practices, and governance in the civic data ecosystem; anticipate and address common challenges; measure local civic open data health and capacity; and learn from examples of successful civic data partnerships. By directly involving several regional civic data partnerships that include library partners, the project will grow a national network of shared practice and organizational capacity.

### Statement of Need and Relevance

The widespread availability of open data, computing power, and accessible tools for analysis is leading to growth in the use of data for discovery and argument in civic and scholarly contexts. Supporting such use at scale requires the coordinated efforts of a complex network of *data intermediaries* who skillfully bridge communities of data providers and users. However, in practice, coordination amongst these intermediaries is a significant and ongoing challenge.

Libraries have long been sites of expertise for the management of information and engagement with communities around information resources; libraries are increasingly bringing that expertise to bear on the challenges surrounding the management of data and datasets. *Public libraries* are developing programs supporting data literacy and community-centered advocacy using open data.<sup>1</sup> *Academic libraries* are growing programs for research data management, data stewardship, and advocacy for data sharing.<sup>2</sup> And, increasingly, *local and regional municipal governments* are creating open data portals to share civic data, with goals of improved governmental efficiency and a better informed citizenry.<sup>3</sup> These entities must also recognize and collaborate with other *non-library data intermediaries*, such as the members of NNIP,<sup>4</sup> who often pre-date the open data movement in providing valuable services to data users and democratizing data. All of these actors form parts of a data ecosystem with overlapping and often complementary roles, expertise, and audiences. While libraries are beginning to take on greater roles around civic open data,<sup>5</sup> individual regional efforts usually focus on selected aspects of the local data ecosystem, and do not draw out how local factors impact reproducibility elsewhere. No effective guide or model at the national level currently exists for collaboration and coordination between public libraries, academic libraries, related data intermediaries, civic open data portals, and their associated data producers and users. This is the gap that our project will address, in alignment with IMLS's stated goal for the National Digital Platform of "[a]ddressing intersections between digital issues facing libraries and cutting edge work in other fields to yield broadly applicable modeling... and tools."

### Partners and Prior Work

The Pittsburgh-based project partners have several years of prior work modeling how public libraries, academic libraries, and other data intermediaries can successfully collaborate within a civic data ecosystem. The WPRDC is a partnership between the University of Pittsburgh, the City of Pittsburgh, and Allegheny County, PA to provide a civic open data portal and supporting services.<sup>6</sup> The ULS and CLP have concurrently been developing data-focused services and capacities. Over the past two years these entities have established

<sup>1</sup> See, for example, prior IMLS award [RE-00-13-0087-13](#), or CLP's involvement with [air quality monitor lending programs at public libraries](#)

<sup>2</sup> Prior related projects awarded funding from IMLS include: [LG-05-11-0154-11](#); [LG-06-10-0140-10](#); [LG-06-07-0032-07](#); [LG-55-14-0098-14](#)

<sup>3</sup> <http://us-city.census.okfn.org/>

<sup>4</sup> <http://www.neighborhoodindicators.org/>

<sup>5</sup> Example regions other than the applicants' include [Boston](#), [Philadelphia](#), [Seattle](#), and [Chattanooga](#).

<sup>6</sup> <http://www.wprdc.org/>; <http://pittsburghpa.gov/mayor/release?id=3876>

successful cross-institutional and cross-sector partnerships around the work of the open data portal and support for its associated communities.<sup>7</sup> Our partnership to this point has given us a perspective, informed by experience, about the many ongoing challenges around civic open data. This prior work will inform the first iteration of the guide that this project will produce. However, in recognition that no single local model can fit all situations, project partner NNIP will play a key role in connecting the project to other civic open data initiatives and encouraging library roles within them. NNIP, begun in 1996, is a collaboration of the Urban Institute and local partners in 30 cities to further the development and use of neighborhood-level information systems for community building and local decision-making.

### **Proposed Work Plan**

*Year One: Creating and iterating the guide; workshops with other civic data partnerships.* A project manager will be hired and will work with the Pittsburgh-based project partners to create an initial draft of the guide. The guide will be created in an open, versionable format that supports comments, contributions, and re-use. Project partner NNIP will promote the initial work and identify other civic data partnerships to serve as early users of the guide. The project team will conduct two pre-conference workshops, one at a national NNIP meeting and another at a conference primarily for librarians. Each workshop will be designed to bring together regional teams consisting of at least one library partner and one NNIP partner. Librarian partners will be subsidized to attend the NNIP workshop and non-librarian partners subsidized to attend the library conference workshop, with the goal of strengthening partnerships and cross-pollinating the communities. In both workshops, we will test the draft guide and gather additional examples of civic data partnerships. Workshop attendees will be encouraged to continue communicating and sharing after the events, using project supported communication channels.

*Year two: Deploying the guide to develop library roles in regional settings.* The project team will make 5-7 sub-awards to libraries with existing or potential roles in their civic data ecosystem. These awards will be used for field testing the guide; participating partners will be featured in the guide to illustrate the variety of existing models and roles. Towards the conclusion of the project term, team members will publicize the project work by speaking and writing at national forums.

### **Projected Performance Goals and Outcomes**

The project will use the following measures of success (Year 1 or 2 identified): 1) Creation and initial publication of a guide in open format (Y1); 2) Use of the guide, with positive user assessment, to deliver two workshops, at national conferences, to civic open data partnerships (Y1); 3) Use of the guide, with positive user assessment, over several months by a variety of regional civic data partnerships (Y2); 4) Revision and expansion of guide based on user testing and feedback (Y1,Y2); 5) Identifiable use of the guide by libraries in regions not participating directly in the project (Y2); 6) Establishment and growth of communications between libraries participating in this project, demonstrating a sustaining community of practice (Y2); 7) Promotion of project work by team members speaking and writing at national forums (Y2).

### **Budget**

The project budget of \$316,700 breaks down as follows: \$159,000 direct costs, comprised of: \$64K for a Project Manager at .5FTE over two years, inclusive of salary and fringe benefits; \$15K for project team travel to conferences; \$30K for stipends for workshop attendees from 10-15 cities; \$50K for sub awards to other regions to test the guide; \$47.7K indirect costs at 30%; \$110,000 cost sharing with in-kind support (staff salaries, services, and travel allocations) from the institutional partners.

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<sup>7</sup> E.g., Brenner et. al. (2015) "[Libraries Will be An Asset for Us: Emerging Roles for Libraries in Civic Data Partnerships](#)"; Carnegie Library of Pittsburgh's [work on data in the community](#);