

**MidAmerica GIS Consortium
Project Completion Report Form**

Name of Project: Neighborhood Data Gateway: Expanding Strength-Based Market Data to a Bi-State Region

Date: September 30, 2014

Project Duration: January 1, 2013 - September 30, 2014

Contact information for report preparer:

Eleanor Tutt
Data Management Coordinator
Rise Community Development (formerly RHCD)A
1627 Washington Ave.
St. Louis, MO 63103
314-333-7017
eleanor@risestl.org

Please describe the project as implemented.

The Neighborhood Data Gateway project developed a methodology in order to create strengths-based market data highlighting purchasing power and retail spending patterns for use in a wide variety of economic development and community revitalization initiatives (i.e., we created data on “retail leakage” for different business categories at different non-standard neighborhood geographies).

In addition, the project created an interactive online map interface using open source tools (Leaflet, BootLeaf, and MapBox).

Other MAGIC members can use the methodology, the end data produced, or the online interface tools as desired - we used open source tools to ensure the project was replicable, and we have shared our methodology.

Which goals and objectives cited in your grant application were met?

The following goals and objectives cited in our original grant application were met:

*“Create open [strengths-based market] data developed using transparent and replicable methodology” and
“expand the geographic footprint of the data to a bi-state region”*

The data is available on our GitHub page (<https://github.com/RiseSTL/neighborhood-data-gateway>) for the project and covers four counties in two states (Missouri and Illinois) as planned. The methodology is also on the project GitHub page, and is both transparent and replicable. One of our goals of making the methodology transparent was to invite improvements or constructive criticism from the community, and we hope that will come to pass. In addition, we used free and openly available data whenever possible so that duplicating the methodology for different regions is feasible to organizations with small budgets.

"A white paper outlining the collaborative process, methodology, and lessons learned will be published to allow organizations under the MAGIC umbrella to benefit from both the created data and the underlying methodology. Should any templates or technology result as a part of the project, it will be made publicly available."

The white paper is also available on the project GitHub page (<https://github.com/RiseSTL/neighborhood-data-gateway>).

"Encourage future communication and data sharing between local governments and across sectors by demonstrating the value that can result from collaboration."

This project would not have been possible without collaboration from a nonprofit entity (Rise Community Development; formerly RHCDA) and a university institution (Washington University in St. Louis). In addition, during the course of the project, we developed an additional collaboration with a local governmental jurisdiction (St. Louis County) which strengthened both the direction of the project and the end product, as well as demonstrating the value of cross-sector communication.

What were the results of your project? How did you measure success?

As a result of our project, we:

1. Produced the strengths-based market data for a four-county, bi-state region and created an interactive map website for stakeholders to view the data as we originally planned
2. Continued our collaboration with Washington University in St. Louis and forged a deeper collaboration with St. Louis County government
3. Gained a much deeper knowledge about both retail leakage analysis and available data sources and open source tools and technologies that we researched during the course of our work

We have already used the new retail leakage data and Neighborhood Data Gateway web interface (which is complete and "live" internally, but not officially launched on the main www.datagateway.org site yet, as we are waiting for an appropriate time to launch with our partners). The interface and data have been used by Community Development Corporations in the St. Louis area to identify target areas for economic development efforts and have been used in planning efforts for St. Louis neighborhoods.

We have included "layer analytics" within the new Neighborhood Data Gateway site so that we will be able to measure the success of individual data layers. For example, we will be able to tell whether visitors to the site are most interested in grocery leakage, apparel leakage, total purchasing power, etc. These analytics will help us measure success (in terms of the number of visitors) as well as tweak the site in the future based on user needs (either by adding additional layers to support popular themes or by describing lesser-used layers in different terms that may be more compelling to the average user).

What lessons did you learn from this project?

By far, the greatest challenge to our analysis (and therefore also an important lesson learned for future work) was finding a reliable and sustainable source for business data - ideally, a source that was affordable and that we could make open to users of the Neighborhood Data Gateway tool. We had several serious delays in our project schedule, all of which related to this challenge. Essentially, the lesson learned was how

difficult it is to obtain suitable business location and sales volume data within our region from publically-available sources. Although business location data can be purchased from various private vendors, it is both expensive and is licensed in such a way that prevents sharing of data between partners. Until this is addressed, it will be a limiting factor for many research projects and community building efforts. More information on our search for appropriate business data for this project and the lessons learned from that search can be found in our methodology white paper.

In addition, we learned a lot about the state of geocoding services and open source geospatial tools for analysis and interactive display. The tools we ultimately elected to use are also outlined in our methodology white paper.

Finally, we learned a lot about the non-linear qualities and unexpected benefits of collaboration. For example, during the MAGIC grant period, our work caught the attention of the St. Louis County Planning Department, and we have been working with St. Louis County on a joint launch of the final Neighborhood Data Gateway website with both the MAGIC-supported strengths-based market data and additional data from the St. Louis County Planning Department that they are interested in sharing with their constituents. This collaboration has added a lot of value to the project and opened the doors for future data sharing work with St. Louis County. In addition, some of the contacts we met at the MAGIC Symposium in April 2014 we have stayed in touch with and hope to collaborate with in the future.

How did your results benefit the MAGIC region?

Our work benefits the MAGIC region in several ways. First, we have shared our methodology and the knowledge we gained about available data and technology resources in our methodology white paper. We believe that MAGIC members from all states and organizational types can benefit from this knowledge. Second, we produced the actual strengths-based market data which will benefit community stakeholders and entities working within the City of St. Louis (MO), St. Louis County (MO), St. Clair County (IL), or Madison County (IL) and which other MAGIC members can also download. Third, we learned how to forge effective collaborations between non-profit, government, and university entities, and demonstrated one model for that sort of collaboration that other MAGIC members might learn from as well. Finally, we demonstrated our process and results at the MAGIC symposium in April 2014 and received very positive feedback from people attending our session that the introduction to open source web mapping and analysis tools (one component of our presentation) was helpful to them.

Code, data and materials related to Neighborhood Data Gateway can be found here:

<https://github.com/RiseSTL/neighborhood-data-gateway>

How can other entities use your implementation plan and/or results?

Our goal throughout this MAGIC grant was to make Neighborhood Data Gateway as open and replicable as possible. To that end, we have created a repository on GitHub where our methodology white paper, our R scripts, the resulting data in GeoJSON format, and other code pertinent to the Neighborhood Data Gateway project. Code, data and materials related to Neighborhood Data Gateway can be found here:

<https://github.com/RiseSTL/neighborhood-data-gateway>

In addition, other entities can use the results of the data analysis in an interactive map format (rather than downloading the GeoJSON data) by visiting www.datagateway.org once the official site is launched (the site is

complete as of September 2014, but we are waiting for an appropriate time/event to officially launch it with our partners at Washington University in St. Louis and St. Louis County).

Final budget:

In the end, nearly all our expenses were in the form of Rise and Washington University in St. Louis staff time, including project management, collecting data, analyzing data, developing an OpenStreetMap geocoder, developing the Neighborhood Data Gateway online interface, holding feedback meetings with collaborators and methodology reviewers, and providing training and individualized technical assistance to Community Development Corporations in the St. Louis area about how to use data for community and economic development.

We estimate total costs as \$25,000: \$5,000 MAGIC-supported, \$7,500 PNC-supported and \$12,500 in-kind staff time.

Final Payment Requested in the amount of: \$5,000

(Note: We have not received any payment under this grant thus far and we were "saving" the money to potentially use for the purchase of business data for the project. Ultimately, the search for business data and the non-ideal solution we eventually chose was staffing-intensive, alongside our in-kind staff time to create the Neighborhood Data Gateway platform. Therefore, we are asking to be reimbursed for staffing in the amount of our original MAGIC grant.)

Signed:

 (Eleanor Tuff)

Date:

9/30/14