

Project Description

What is the population of my library district? My school district? My community college district? I need the Federal Census numbers not an estimate.

Are there voter registration sites in town? How do I to find them?

How many unserved residents live next to my library's service area?

My board wants to annex to match the school district, what are the school district's boundaries? What about the fire district?

How will the TIF district impact my library? What are its boundaries? Population size? What will the EAV be of this area?

Where is the best location for my new store, based on the city's traffic patterns?

Where should the library's new branch be placed for the most effective foot traffic?

Where are the county's polling places? Do you have a map showing them all?

Where are the community college's students most heavily concentrated? What libraries serve these areas?

These are just a sampling of questions asked at local libraries, regional library systems, the Illinois State Library and other organizations. The answer to each question relies on the information combined in geographic data layers; for instance federal census, geographic boundaries, zip codes, etc. In today's world, people expect fast, accurate access to information for making decisions concerning locations and trends, much of which depends on the mapping and use of Geographic Information Systems (GIS) information for answering.

GIS is usually defined as the linking of information to location data, such as people to addresses, libraries to branch locations, or schools to bus routes. You can then superimpose (layer) that information on to other information, gaining a better understanding of how everything interacts together. The specific layers used are chosen based on the questions asked or the answers needed. (From: GIS.com, the guide to Geographic Information Systems at www.gis.com)

Geographic Information Systems (GIS) are used to help make decisions in hundreds if not thousand's of projects and programs. Projects, which have used GIS in some form, include the Madison County (Illinois) Real Estate Assessment Information Look-Up, 911 Emergency, among others.

Through the *Putting Illinois on the Map* project, Illinoisans will have a robust interactive database and electronic map via the Internet for not just their geographic but also their spatial queries and analysis. This project is to investigate and test the feasibility of incorporating demographic information from the US Census Bureau with various taxing districts and other geographic and political boundaries within the State of Illinois into one database, for use by librarians, residents, municipalities and others.

The Lewis & Clark Library System will subcontract with the *Southern Illinois University – Edwardsville's Laboratory for Applied Spatial Analysis (LASA)* for the development of the database and its web interface. The *Laboratory for Applied Spatial Analysis* is housed within the Department of Geography, Southern Illinois University – Edwardsville, a list of they clients and projects is attached at to the grant. The Laboratory seeks out cost-recovery projects that combine geographic information with other data in order to make informed, cost-effective decisions.

Under the *Laboratory for Applied Spatial Analysis*, the project will gather data layers of geographic information from various resources, including but not limited to:

- State and federal legislative districts
- Regional library systems' boundaries
- ELI, *Every Library in Illinois*
- Municipal boundaries
- Public library district boundaries
- Park district boundaries
- School district boundaries
- Community college boundaries
- Fire district boundaries
- TIF districts
- Drivers' license facilities
- Polling places
- Voter registration sites

As part of this data layer collection, the *Laboratory for Applied Spatial Analysis* will determine the which data layers are available in the public domain, such as ELI (Every Library in Illinois) and which are available for a licensing fee. Based on this information a priority list will be created, allowing for the greatest number of data layers for the project.

Once the data layers are gathered, the *Laboratory for Applied Spatial Analysis* will build a web accessible database to provide answers to queries from librarians, residents and others. The database and its accompanying web interface will be beta tested during the later part of the grant project, using the boundaries of the Lewis & Clark Library System¹ as the pilot area. However, we anticipate that some data layers for the whole state will be created, if not implemented, during this investigative stage. The web interface will be designed to meet the needs of non-geographers; being user-friendly for all ages and uses.

This usability will be confirmed through the training and beta testing with System members. Training will be provided using various methods; face-to-face, self-paced instruction as a LibraryU (www.libraryu.org) course, and interactive web-instruction with OPAL (<http://www.opal-online.org/>) are a few possibilities. We anticipate making a presentation at the Illinois Library Association conference and other conferences.

This is an exploratory project to determine the appropriate data layers available for the state, develop the web interface, decide the applicable geospatial² software, such as ESRI, for both aspects of the project (database and the web interface), determine server and other equipment needs, and test the database and web interface product. The tested product will become the blueprint to expand coverage as needed for the whole state during a second grant project.

Through each step of the project, input from perceived users of the database will be solicited and incorporated into the product's final design. During the grant period a developmental meeting will be held with the *Laboratory for Applied Spatial Analysis*, selected librarians, other organizations and state departments interested in GIS and spatial analysis. This meeting will help fine tune the gathering of data layers, development of the web interface and begin

¹ For this project, all of St. Clair and Clinton counties will be included. The Lewis & Clark and the Shawnee Library Systems each serve half of these two counties.

² Geospatial:

- Geomatics is the discipline of gathering, storing, processing, and delivering of geographic information. This broad term applies both to science and technology, and integrates the following more specific disciplines and technologies: *geodesy*surveying*mapping*positioning*navigation*cartography*remote sensing *photogrammetry*geographic information systems *global positioning system
en.wikipedia.org/wiki/Geospatial

the process of training others to use the map database. Training will also be provided to raise the awareness of the vast amount of geographic, GIS and geospatial information available to residents, libraries and organizations. As mentioned, training will be offered in a variety of formats, face2face, LibraryU and OPAL are potential options. The Lewis & Clark Library System is committed to developing and producing the necessary training, with assistance from the Laboratory, during and after the grant period.

While the final product will be determined through the exploratory process during the grant timeframe, this project will allow for the careful and conscientious exploration of possibilities through in-person and virtual meetings of Systems' staff, representatives from all types of Illinois libraries, and representatives from other interested agencies. Various methods and products will be tested. A plan to pursue additional funding to make the dream a reality will be developed.

During the grant project, various methods of long-term sustainability will also be investigated. The Lewis & Clark Library System anticipates housing and maintaining the mapping database server. This will ensure both continual access to residents, libraries and organizations. But will also allow access for backing up and updating the data.

This grant addresses Goal #5 to continue expanding the role of networks, consortia, and alliances in library development. We believe this grant meets all the LSTA Priorities as listed in the Illinois State Library's Long Range Plan for the Use of LSTA Funds (2003-2007). Especially:

- Linking libraries electronically with educational, social, or information services
- Assisting libraries in accessing information through electronic networks
- Paying costs for libraries to acquire or share computer systems and telecommunications technologies
- Targeting library and information services to persons having difficulty using a library and to underserved urban and rural communities including children (from birth through age 17) from families with incomes below the poverty line

Target Audience Needs and Outcomes

Illinois residents, in both their personal and their professional lives, are increasingly demanding access to the geospatial information held in a GIS via one-stop shopping. This information is needed for business planning, economic development, and general research among other needs. Libraries are the logical place to obtain this information, either from home, work, or by visiting the library.

Local librarians, at the public, school and academic levels, are realizing the need to better understand their community's demographic trends, to create strategic plans, and to become advocates for the library. They are becoming aware they must know, understand and use demographic information combined in a meaningful way with geographic data in order to determine the library's future. However, the concept of spatial information is not familiar to libraries, and having so few limits that it initially can be overwhelming when determining where to find the spatial information and how to use it once it has been found. This will change with the project's database; the information will be available in one easy-to-use place.

Local municipalities, school districts, businesses and organizations have long understood the importance of incorporating both geographic and demographic data into their planning, but the sheer volume of data layers is overwhelming. Some individual municipalities, such as Edwardsville and Chicago already have created database access to this information for their own unique spatial queries. But the vast number of municipalities, school districts and other Illinois organizations do not and will not have access to this type of information. By using the project's map database, via its web interface, they will be able to track community growth and changes allowing better informed decisions, in one easily accessible place.

Currently when one is trying to find geospatial information, there is no one place to gather all the information. Instead, one must determine:

- Who has the current political (usually taxing districts) boundary maps and are these available in print only or are they available electronically and,
- Where to find demographic data that follows these political boundaries and do they truly match.

This grant project will combine all these needs into one database for access by residents, librarians, and others. Allowing them fast and accurate

access to an immense number of facts and figures grouped by various, self-determined geographic and/or political boundaries.

- Currently the director of the Six Mile Regional Library District has to spend hours searching for the correct census blocks for his newly annexed area. With the *Putting Illinois On the Map* database, two or three clicks will give him the answer – based on the Federal Census and legal boundary descriptions from the Madison County Clerk’s office.
- Currently Bethalto Public Library District is pondering annexing unserved areas to the library district. But where are these unserved pockets located? The director must obtain the boundaries of nearby municipal libraries, library districts and school districts, resulting in a minimum of three maps, each at a different scale. With the map database, these maps will be superimposed, allowing quick reference and long term study of the potential annexation areas.
- A mega-subdivision is planned for an area half in and half out of Caseyville Public Library District’s area. A TIF district has been created by the municipality to sweeten the deal, but how will this impact the library’s projected tax revenue? Currently this data is impossible to obtain without spending hours with the County Clerk and the Department of Revenue. This information will be readily available with the map database.
- A municipal library board is considering becoming a district, they would like to look at area TIF districts, Enterprise zones and unserved areas, without tipping their nebulous idea to their municipality. With the map database, they have fast and confidential access to the information needed to make long-term decisions.
- Currently the Illinois Library Systems’ Delivery Services and the Illinois Library Delivery System (ILDS) create their courier routes independently. With the expansion of the project statewide, these routes could be spatially analyzed for maximum efficiency.

The Lewis & Clark Library System serves 55 public libraries (19 district, 4 township and 32 municipal); 62 school districts; and portions of 4 community college districts among 200+ municipalities. This group³ will be the grant’s

³ For this project, all of St. Clair and Clinton counties will be included. The Lewis & Clark and the Shawnee Library Systems each serve half of these two counties

specific target audience for developing the data layers and the web interface. However, the whole state is the actual target audience, because what is created for the Lewis & Clark Library System's service area will act as a template for replicating data for the state. This would roughly cover 3,000+ public, school, academic and special libraries in addition to the various municipalities, businesses and organizations within the state. As much work as possible will be done to prepare the mapping database for statewide coverage.

Outcomes:

All special taxing districts, such as school districts, library districts, TIF districts will be able to compare their boundaries with current Federal Census block information, obtaining accurate population numbers for planning purposes. This will also act as test model for incorporating special census and the 2010 census data into the various data layers.

With Federal Census block information incorporated with the library service area, Public Library Districts will be able to effectively plan annexations with unserved areas by targeting documented populated areas interested in library service. Currently this is done by hit and miss guess work.

Polling & Voter Registration locations will be geo-coded into the data layers for web access by voters and potential voters.

The Illinois State Library, the Library Research Center at the University of Illinois and the Regional Library Systems will be able to receive accurate population numbers for school per capita grants, public library per capita grants, public library annual reports and other official applications.

Community Colleges with distance learning access will be able to compare by specific class where their students live with nearby public libraries, allowing cooperative projects to be developed between the Community College libraries and the public libraries, benefiting the distance-learning students.

Users of the map database will be encouraged to complete a very short survey querying their satisfaction with the database's content and ease of use. The information gathered from the survey will be used to determine future enhancements.

Implementation Plan

October

- Grant awarded
- Grant contracts signed by the Lewis & Clark Library System, the Illinois State Library and the Secretary of State/State Librarian
- Contract finalized with the *Laboratory for Applied Spatial Analysis* (LASA) by the Project Director.

November

- Contracts signed by the *Laboratory for Applied Spatial Analysis* (LASA) and the Project Director for the project work.
- The *Laboratory for Applied Spatial Analysis* investigates other projects (in and out of state) to determine what has been done, what has worked and what has not worked. They will attempt to locate and recover work done as part of a prior LSTA grant with the Paul V. Galvin Library of the Illinois Institute of Technology.
- The Project Director creates promotional information about grant project for submission to area newspapers, state and federal legislators, the regional library systems and other interested parties.

December

- The *Laboratory for Applied Spatial Analysis* gathers information on potential data layers.
- Laboratory for Applied Spatial Analysis selects database software for integrating the data layers.
- Potential collaborators and clientele are identified and invited to development meeting by the Project Director.

January

- The LCLS hosts development meeting to determine how and which data layers are appropriate for project.
- Work will begin on planning for the project's expansion to the state of Illinois.
- Project expectations fine-tuned by *Laboratory for Applied Spatial Analysis* based on input from partners.
- *Laboratory for Applied Spatial Analysis* continues gathering data layers, as needed.
- First periodic narrative report submitted by the Project Director.

February

- Web interface is designed and tested by the *Laboratory for Applied Spatial Analysis* staff.
- Site visit with grant monitor, the Project Director and *Laboratory for Applied Spatial Analysis*.

March

- Collaborators and clientele test database and web interface.

April

- Database and web interface revised by *Laboratory for Applied Spatial Analysis* based on test results.
- Project Director, working with the Laboratory and others, investigates potential long-term funding streams for the continuation of the project.
- Second periodic narrative report submitted by *Laboratory for Applied Spatial Analysis* the Project Director.

May

- Training sessions for LCLS members to highlight the project, explain the usefulness of the database and how to use the database, are presented by the *Laboratory for Applied Spatial Analysis* staff and the Project Director.
- Project database beta tested by LCLS members and others.
- The *Laboratory for Applied Spatial Analysis* staff designs and implements a mechanism for regular database updates by System staff.
- The Project Director submits an LSTA grant request to expand the project to the entire state.

June

- Training opportunities offered to collaborators, clientele and other interested parties to highlight the project, explain the usefulness of the database and how to use the database, are presented by the *Laboratory for Applied Spatial Analysis* staff and the Project Director. Training formats include face2face, LibraryU and OPAL

July

- Third periodic narrative report submitted by the Project Director.

September

- Final e-mail/online report submitted by the Project Director.

Management Plan

Lewis & Clark Library System:

The Lewis & Clark Library System has the resources to be both the fiscal and the administrative agent for the grant. The System has successfully accomplished other grants, including the 2005/06 *Maryville Demonstration Library Services* grant, the 3-year *Gates Foundation/Illinois State Library's Staying Connected Grant* (www.libraryU.org), and the statewide grant the *Library's Contribution to Your Community* (see www.lcls.org, click on Library's Contribution to Your Community).

Charm Ruhnke, as project director, will oversee the project, negotiate the contract with the *Laboratory for Applied Spatial Analysis*, plan the various meetings, distribute project information and press releases, and generally ensure the project stays on target. As the Consultant Manager for Lewis & Clark Library System, Charm has over 20 years experience working with all types of libraries. During her years with the System, Charm has assisted 11 districts either to establish as a district or to convert to a library district, as well as 5 municipal libraries to establish, becoming very familiar with the geospatial informational needs of libraries and other organizations. Currently, Charm is serving on the Illinois Library Association's executive board as treasurer. In the past Charm has served on a variety of state and local committees, including IREAD and SPLMI.

Laboratory for Applied Spatial Analysis (LASA):

The Lewis & Clark Library System will subcontract the *Putting Illinois on the Map* project development to the *Laboratory for Applied Spatial Analysis*, a division within the Southern Illinois University – Edwardsville's Department of Geography. The *Laboratory for Applied Spatial Analysis* (LASA) has extensive experience working with both short and long term projects. A sampling of their clients and projects is attached.

The Lewis & Clark Library System has worked with *Laboratory for Applied Spatial Analysis* on several projects, including surveying annexation possibilities for a potential library district, and presenting an Illinois State Library teleconference on *Libraries and GIS* in November 2002. Other *Laboratory for Applied Spatial Analysis* projects include geospatial planning with area school districts to determine locations for school facilities and bus routes among other projects. The group has done extensive work with the Illinois Department of

Natural Resources (<http://dnr.state.il.us/>) plotting current, historic and abandoned coalmines.

Laboratory for Applied Spatial Analysis staff experience includes programming GIS, precision farming, transportation planning, creating web interfaces to specific needs, and a widespread knowledge of standard GIS software such as ArcImgs and ArcObjects. While staff will be assigned to various stages of the project as needed, we expect to work closely with Dr. Pearson, Department Chair; David Clelland, LASA Coordinator; Nancy Davis, Assistant Lab Director; and Felipe Rivera, Research Associate (web interfaces).

Potential Problems:

Even though this is an exploratory project, during the information gathering stage, we may discover this project is too large for the grant period. We believe limiting the area during this first project to the Lewis & Clark Library System boundaries⁴ will help control the project size. If necessary we will redefine this area to a smaller geographical area. However, after discussions with Dr. Pearson, chair of the Department of Geography and the *Laboratory for Applied Spatial Analysis*, we do not foresee geographic size to be an issue.

Since groupings of potential partners are still nebulous, we may discover that the project's collaborators and clientele want so many data layers added to the project that software, licensing and server issues arise. Should this happen, the listing of data layers will be prioritized balancing cost with access and need.

Continuity after the grant period is always an issue. To help ensure long-term, ongoing access, the final database will be housed on a server at the Lewis & Clark Library System with back-up, redundancy on the *Laboratory for Applied Spatial Analysis* servers. This will ensure both continual access to residents, libraries and organizations. But will also allow access for backing up and updating the data.

The grant assurances have been read. The Lewis & Clark Library System and the *Laboratory for Applied Spatial Analysis* will comply with the legal requirements. Should sections of CIPA be applicable, the project will comply.

⁴ For this project, all of St. Clair and Clinton counties will be included. The Lewis & Clark and the Shawnee Library Systems each serve half of these two counties.

Communication/Promotion Plan

The Project Director will oversee, and as applicable, produce various communication pieces.

The Lewis & Clark Library System will create an e-mail distribution list for the project to facilitate easy communication during the project. The *Laboratory for Applied Spatial Analysis* will send regular communication to the list during all stages of the project. The grant's State Library monitor will be included on this list as will staff from the State Library's Map Department and other interested parties.

Additionally we will have regular distribution of informational press releases to the Regional Library Systems' newsletters, the ISL Announce newsletter, the Illinois Library Association, the Illinois School Library Media Association, the Illinois Municipal League, the Illinois Department of Revenue, the Illinois GIS Association, the State and Federal Legislators and Illinois newspapers. The *Laboratory for Applied Spatial Analysis* will also augment this listing with other interested parties.

Informational, how-to-use sessions will be hosted during May and June at Lewis & Clark Library System to display and explain uses for the database. Applicable staff from *Laboratory for Applied Spatial Analysis* and Lewis & Clark Library System will present these sessions. The sessions will be face2face, self-paced instruction (LibraryU) and web-based instruction (OPAL).

We will also submit a program proposal for the annual Illinois Library Association conference. This will be the perfect venue to explain to Illinois Librarians the potential uses of the database and to discuss the project's statewide application.

Project Sustainability

The resulting database will reside on the Lewis & Clark Library System's server to ensure ready and regular access by residents, librarians, systems and others throughout the state. The database will purposely be built to provide for in-house maintenance by Lewis & Clark Library System staff. Additionally, we plan for data layer updates to be performed by System staff. This will ensure long-term access to Illinois residents, librarians and others to the information held within the database.

With the grant funding supporting the feasibility exploration, database design and web interface, the Lewis & Clark Library System and the *Laboratory for Applied Spatial Analysis* will be able to determine costs to expand the project statewide and long-term maintenance for the project as necessary. Grant funding will be sought for the statewide expansion of the database and its web interface.

The Lewis & Clark Library System, working with the *Laboratory for Applied Spatial Analysis* and other groups will continue to seek funding to ensure ongoing access to the interactive map database. We are confident that the end product with its expansive information base will draw both users and funding.

Once the product is complete with statewide data and access, potential funding sources are organizations and businesses within the state or who serve the state. This will need further investigation as a possible cost-sharing or cost-recovery option.

Another potential service to assist with sustainability is the printed of large-scale makes at cost-recovery fees to residents and others. This funding would help with the long-term support of the project.

LSTA Budget Chart

1. Complete the **BUDGET CHART** for requested LSTA funds.

✓ Certain items are ineligible for grant support. This is per Federal Regulation OMB Circular A-87 or others depending on the type of agency that is applying. For information please go to <http://www.whitehouse.gov/omb/>

✓ For grants under \$5,000 and for all Weed and Feed grants, project directors are required to attend a meeting at their regional library system regarding reporting requirements. LSTA budgets may include up to \$50 to cover travel expenses to this meeting at a rate of \$.375 per mile.

✓ For grants over \$5,000, project directors will be required to attend a meeting in Springfield regarding reporting requirements. LSTA budgets may include up to \$200 to cover the expenses of travel at a rate of \$.375 per mile, hotel at a maximum of \$70 per night and meals at a maximum of \$28 per day, which are based upon State of Illinois Travel Regulations.

2. Attach an **LSTA BUDGET EXPLANATION** to describe the budget items. Justify the value of the budgeted items by relating them to project activities, and show how the costs were determined. Include a list of equipment (Capital Outlay) and describe contracts (Professional Contracts, Contractual Services). The list of equipment should include the specifications but not the model of manufacturer. Specifying names of individuals or brand names of equipment or numbers of materials in the explanation is not appropriate.

LSTA BUDGET CHART

BUDGET CATEGORY	EXPLANATION	AMOUNT <i>(in whole)</i>
Library Materials	Books, non-print, software	\$
Capital Outlay	Equipment valued over \$500	\$
Professional Contracts	Hiring an individual on contract	\$
Contractual Services	Hiring an agency on contract	\$ 95,000
Personnel	Salaries and benefits for additional staff	\$
Travel and CE for Staff	Agency staff travel and meeting registrations	\$
CE and Meetings for Others	Travel, registrations and honorariums for others	\$ 3,000
Public Relations	Advertising done by outside firm	\$
Supplies, Postage and Printing	Supplies and equipment valued under \$500	\$ 2,000
Phones and Telecommunications	Phone charges and rental	\$
	TOTAL LSTA AMOUNT REQUESTED (in whole dollars only)	\$ 100,000

LSTA Budget Explanation

Contractual Services:

The bulk of the grant funding will be used to contract with the Southern Illinois University – Edwardsville’s *Laboratory for Applied Spatial Analysis* for performing the negotiated tasks to complete the grant project. These tasks include but are not limited to: determining potential data layers, designing a web interface to interact with users, developing a mechanism to easily up-date the database, etc.

The Laboratory is will qualified to perform the necessary work to complete the contracted project. A sampling of LASA clients and projects is attached.

CE and Meetings for Others:

To ensure usable and accessible product, we plan to invite a number of interested organizations and libraries to participate in the development of the product. Grant funds will be used to cover meeting costs, excluding refreshments and other ineligible items as per Federal Regulation OMB Circular A-87.

Supplies, Postage and Printing:

A small amount will be used to cover printing and supply costs for the grant, development meeting and training sessions.

Local Contribution Budget Chart

LOCAL CONTRIBUTION BUDGET INSTRUCTIONS

1. Complete the **LOCAL CONTRIBUTION BUDGET CHART** to reflect financial support, direct contributions and services contributed by the applicant (and other participating agencies) in support of the project. Only reflect funds that will be expended during the timeframe of the grant and specifically pledged to support this project.

2. Attach a **LOCAL CONTRIBUTION BUDGET EXPLANATION** to explain how local funds or other funding sources will support this project and what funding sources will be used. The Illinois State Library does not pay indirect costs and/or overhead on competitive grants. These funds can be considered a local contribution. Library agencies awarded a grant will be expected to report local contributions to the Institute of Museums and Library Services (IMLS) on the on-line reporting forms.

LOCAL CONTRIBUTION BUDGET CHART

BUDGET CATEGORY	EXPLANATION	AMOUNT <i>(in whole dollars only)</i>
Library Materials	Books, non-print, software	\$
Capital Outlay	Equipment valued over \$500	\$
Professional Contracts	Hiring an individual on contract	\$
Contractual Services	Hiring an agency on contract	\$
Personnel	Salaries and benefits for additional staff	\$ 8,725.00
Travel and CE for Staff	Agency staff travel and meeting registrations	\$ 100.00
CE and Meetings for Others	Travel, registrations and honorariums for others	\$
Public Relations	Advertising done by outside firm	\$
Supplies, Postage and Printing	Supplies and equipment valued under \$500	\$ 1,500.00
Phones and Telecommunications	Phone charges and rental	\$
Equipment Rental, Repair, and Maintenance	Rental, repair, insurance and maintenance of equipment	\$

Local Contribution Budget Explanation

Personnel:

Various System staff will support the *Putting Illinois on the Map* grant project, these staff include but are not limited to the Consultant Manager as project director; the Internet Applications Developer to assist with the web interface development; the Fiscal Officer with grant report and payments; among other staff.

Travel and CE for Staff:

The System will cover the transportation costs incurred by System staff in the course of the grant project.

Supplies, Postage and Printing:

The System will supply refreshments for the planned development meeting.

Supporting Documentation

- Letters of Support
- Laboratory for Applied Spatial Analysis Client and Project List

Client and Project Listing Laboratory for Applied Spatial Analysis, SIUE

Monroe County Soil & Water Conservation District

- Mapping of the Sinkhole Plain in Monroe County

IDNR Office of Mines and Minerals

- Mine Map Preservation Project (ongoing since 1997)
- MSHA Mine Map Recovery and Discovery
- Subsidence Monitoring Response Team (ongoing since 2003)

East St. Louis Board of Elections

- Mapping Voting Districts
- Mapping Ward Boundaries
- Production of Voting Precinct Maps

City of St. Louis/CDA

- GIS Database and ArcView Programming

St. Clair County Soil & Water Conservation District

- ArcView Programming for NRCS
- ArcView Programming for Sediment and Erosion Reports
- ArcView Programming for NRI

Lewis & Clark Library System

- Mapping Municipal Boundaries / Brooklyn, IL

USDA/NRCS

- ArcView Programming

Monroe County Board of Commissioners

- GIS Development of Incorporated Parcels
- Implementation of County-wide GIS
- ArcView Programming for Farmland Assessment
- GIS Training Services and Data Support

River Bend Growth Association

- Water & Sewer Mapping Project for I-255 Extension

Surface Systems (St. Louis)

- ArcView Programming for Weather Analysis
- Integration of GIS Street Data with Weather Information

SIUE Office of Admissions

- Mapping the Status of Freshmen Applicants

Edwardsville Community Unit School District 7

- GIS Database Development and Implementation (ongoing since 1996)
- GIS Site Selection Analysis for New Schools
- GIS Analysis and Development of New School Boundaries
- Bus Route Development for GIS Integration and Analysis

SIUE University Housing

- Mapping Origin of Housing Residents (ongoing since 2004)

Illinois National Guard

- GIS Data Development

Iowa Soybean Association and the McKnight Foundation

- Nutrient Management Evaluation

Gateway to Science

- Mapping Providers located in the St. Louis Metropolitan Area