



Mapping Evaluation Summary - Phase I

Objective

The Office of Inspector General (OIG) conducted this evaluation to determine the utility of mapping in support of legal services strategic and operations planning and activities at the local, state and national levels. This summary discusses the products and outcomes of the first phase of the project. The OIG has two principal missions: to promote efficiency and effectiveness in the activities and operations of LSC and its grantees, and to prevent and detect fraud, waste and abuse. In the interest of furthering its first mission, the OIG is conducting this evaluation.

Conclusions

Mapping is a potentially useful tool for helping managers promote legal services, evaluate access to legal services, and deploy resources. Additional work needs to be done to fully develop mapping into a usable management tool. Further effort is required to employ 2000 Census data, establish the standards and methods for legal services mapping, educate leaders on the use and applicability of mapping, and evaluate cost-saving production and distribution technologies like Internet-mapping.

Mapping Benefits

The Georgia Legal Services Program (GLSP), Atlanta Legal Aid Society (ALAS) and the OIG determined that the use of maps has potential programmatic impacts in the following areas:

- ♦ Strategic and operations planning, analysis and program promotion;
- ♦ Identification of changes and movements in the poverty population;
- ♦ Access to legal services for low-income persons through identification of income-eligible populations, clients served and under-served; and,
- ♦ Grantee management information to support service provision, priority setting, funder relations, deployment of office locations, staff and special outreach programs and case administration.

Maps visually illustrate the rapid social changes in neighborhoods or communities over time. This visual presentation cannot be achieved with tables of data or graphs, the traditional way of presenting information. Maps can be used to show legislators, courts, social services organizations and constituents the wide discrepancy between community needs and resources available. As such, they can be valuable when managers seek additional resources from federal, state, local and private funding sources.

Project Description

For almost every case a legal services provider closes, the client's address is recorded. These closed cases can therefore be displayed on a map. A map can also show the locations of income-eligible persons as determined by the Census. This project combined case data with Census demographic data to create a series of maps to visually describe the Georgia legal services environment. The maps were assessed by the participating grantees and the OIG to determine whether mapping can provide valuable management insights.



The project identified and designed 132 prototype maps thought to be most valuable to decision-makers at various levels in the legal services environment. The project also sought to create standards for the look of the maps and the way the case data was represented, consolidate procedures into a repeatable mapping recipe, and reduce the cost of future legal services mapping. The end products of the first phase of the project are the evaluations, conclusions, mapping templates, lessons learned, and concepts.

Georgia was selected as the study area based on the representation of both highly urbanized and rural service areas. GLSP closely resembles a statewide program, serving 990,000 income-eligible persons distributed in mostly rural but also several mid-size urban areas. GLSP's service area is over 57,900 square miles and covers 154 counties. It is divided into 10 GLSP regions and 12 offices. The six ALAS offices serve the greater metropolitan area of Atlanta. The ALAS service area has 380,000 income-eligible persons densely distributed in five counties covering 1,700 square miles.

OIG Evaluation

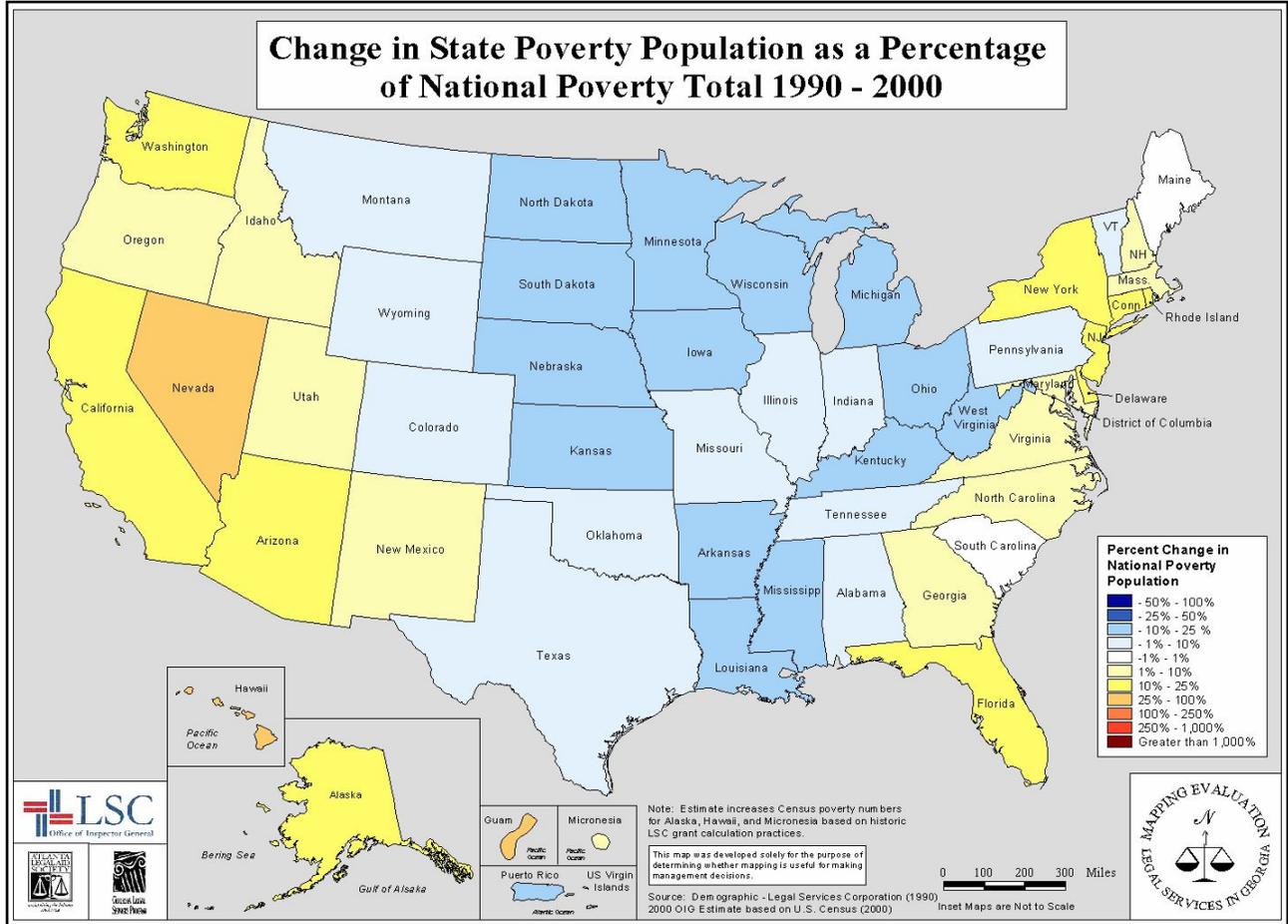
The OIG evaluation focused on comparisons, insights, trends, and actual and potential uses of the map templates as support tools for strategic and operational planning, management and reporting of accomplishments at all levels – potentially leading to a stronger case for legal services and enabling better access to legal services by the low-income community.

Strategic and Operations Planning, Analysis and Program Promotion

National maps could be useful for LSC in pursuing program support and attaining additional funding. Additionally, these maps can highlight program performance and promote equal access to legal services by providing a visual “big picture” on the legal services environment. Many of the map templates are natural examples of reporting and analysis tools that support the tenets of State Planning and the LSC Board's Strategic Directions such as access to legal services, leveraging and integrating scarce resources, improving service delivery, and assisting pro se activities.

Knowledge of movements or changes in the poverty population is key to an efficient legal services delivery system. Mapping the distribution of the poverty population creates a new visual perspective that enables significant questions, observations and insights that would not be apparent in any other format or medium – transforming data into management information.

For example, map NL-4s (next page) displays the changes in state poverty relative to the national poverty total when moving from the 1990 to the 2000 Census. The map shows significant shifts in the distribution of the poverty population across the nation when analyzed at state level. The relative decrease (blues) in the poverty population is centered in mid-America, while the growth (yellows and browns) is found on the East and West coasts. LSC funding is based on the same poverty numbers. Therefore, the map shows statewide changes in LSC funding expected starting January 2003 with the implementation of the 2003 Census poverty counts, assuming level basic field funding in the FY2003 LSC appropriation.



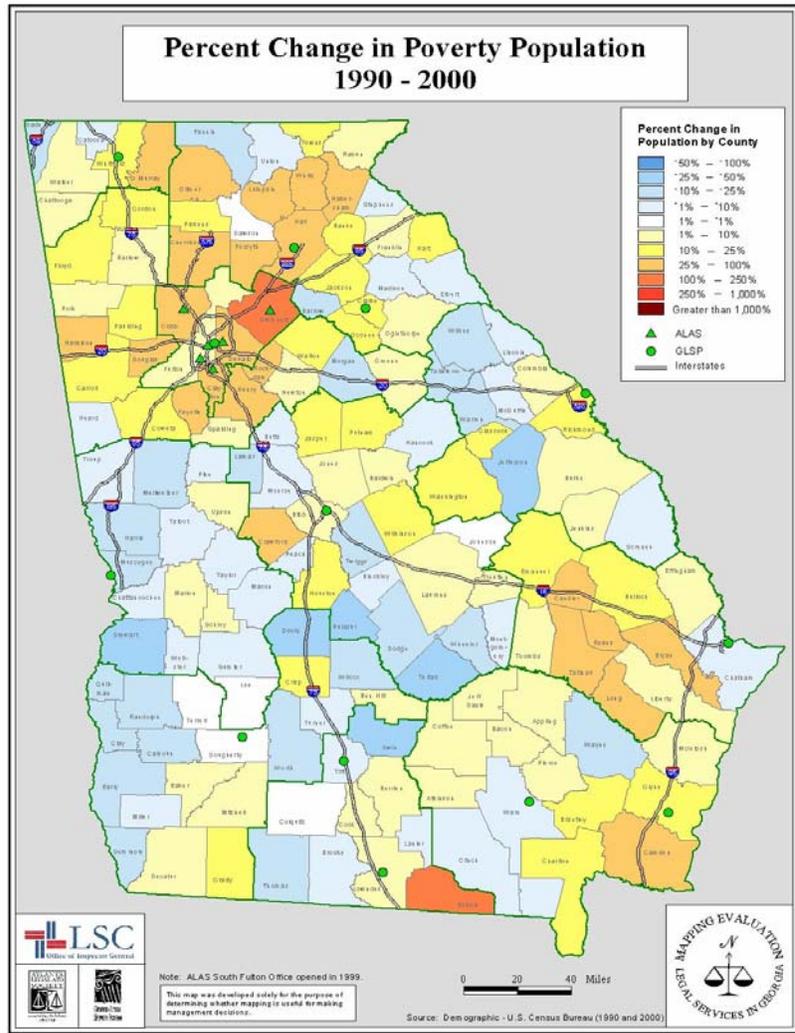
NL-4 - July 2002

Map NL-4s

Geographic information is more easily represented using maps than spreadsheets or tables.

Changes and Movements in the Poverty Population

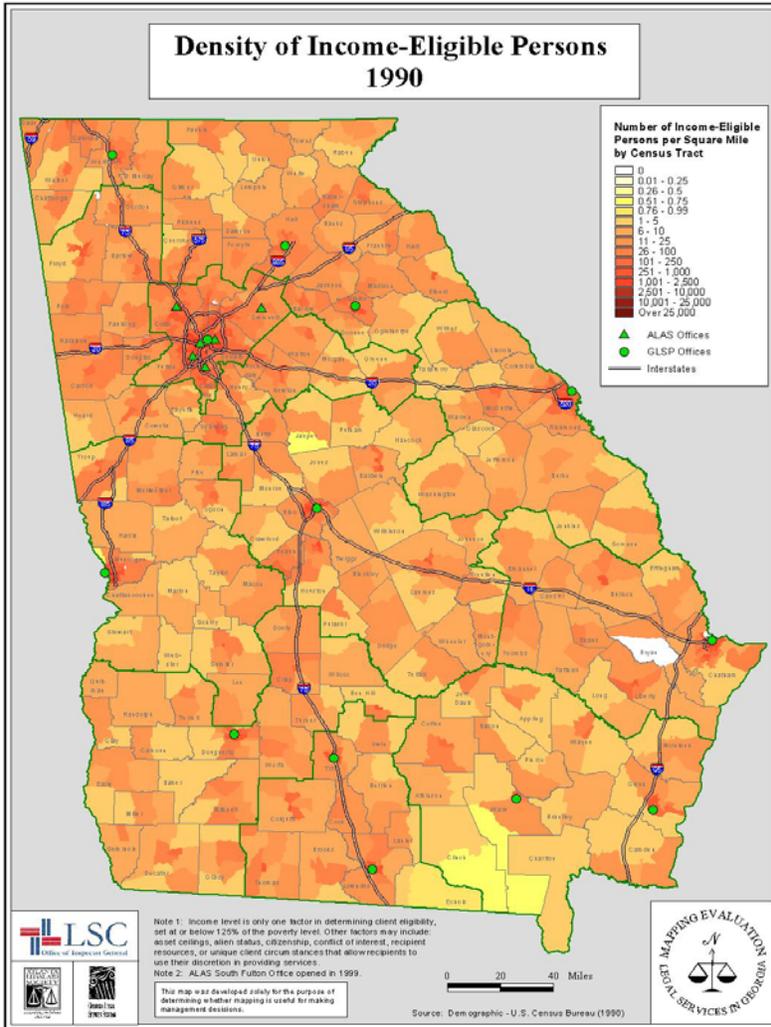
At county, city and community levels, changes or movements in poverty populations are potentially far more dramatic. For example, map SL-35c (right) shows the growth rate of the numbers of persons in poverty at the county level within Georgia. Regional offices and their service areas are in green. Between the 1990 and 2000 Census the poverty population of Georgia increased by over 110,000 persons. GLSP's service area experienced an average increase of 6.2%, but the individual county increases (yellows, browns and reds) and decreases (blues) vary greatly. The five county ALAS service area (center of the northwest quadrant) experienced a 30% increase in poverty population. Within the ALAS service area, Gwinnett county experienced a 137% growth rate in poverty population from nearly 14,000 to 33,000 persons. ALAS has used the map to help demonstrate the need for expanding the part-time Gwinnett county office (shown in red), into a full-time office, to better meet the rapidly expanding needs of the community. ALAS has provided the map to local judges, lawyers and community leaders in a local fund-raising effort to support the operational change. ALAS expects the map to be used in talks with the Gwinnett county leadership shortly.



Map SL-35c

Income-Eligible Populations

The evaluation mapped LSC income-eligible persons (those in households having annual incomes at or below 125% of the Federal Government's defined poverty threshold). The ability to better identify the locations where potential client base demands are, how they are distributed and how they move or change over time is vital in defining a delivery and resource allocation strategy. This information can be used as a promotion tool to share with potential funders, legislators and social services entities to estimate the potential demand for legal services. Maps of this magnitude enhance the presenter's credibility as a subject area expert, backed by the depth of the content of management information displayed.



Map SL-6b

Statewide map SL-6b (left) illustrates the density of income-eligible persons per square mile by Census tract in 1990 with much finer detail than a county map. Maps at increasingly smaller Census tract, block group or block levels support not only state, county but also local office management in identifying demand areas to enable better targeting of services or outreach activities.

Access to Legal Services¹

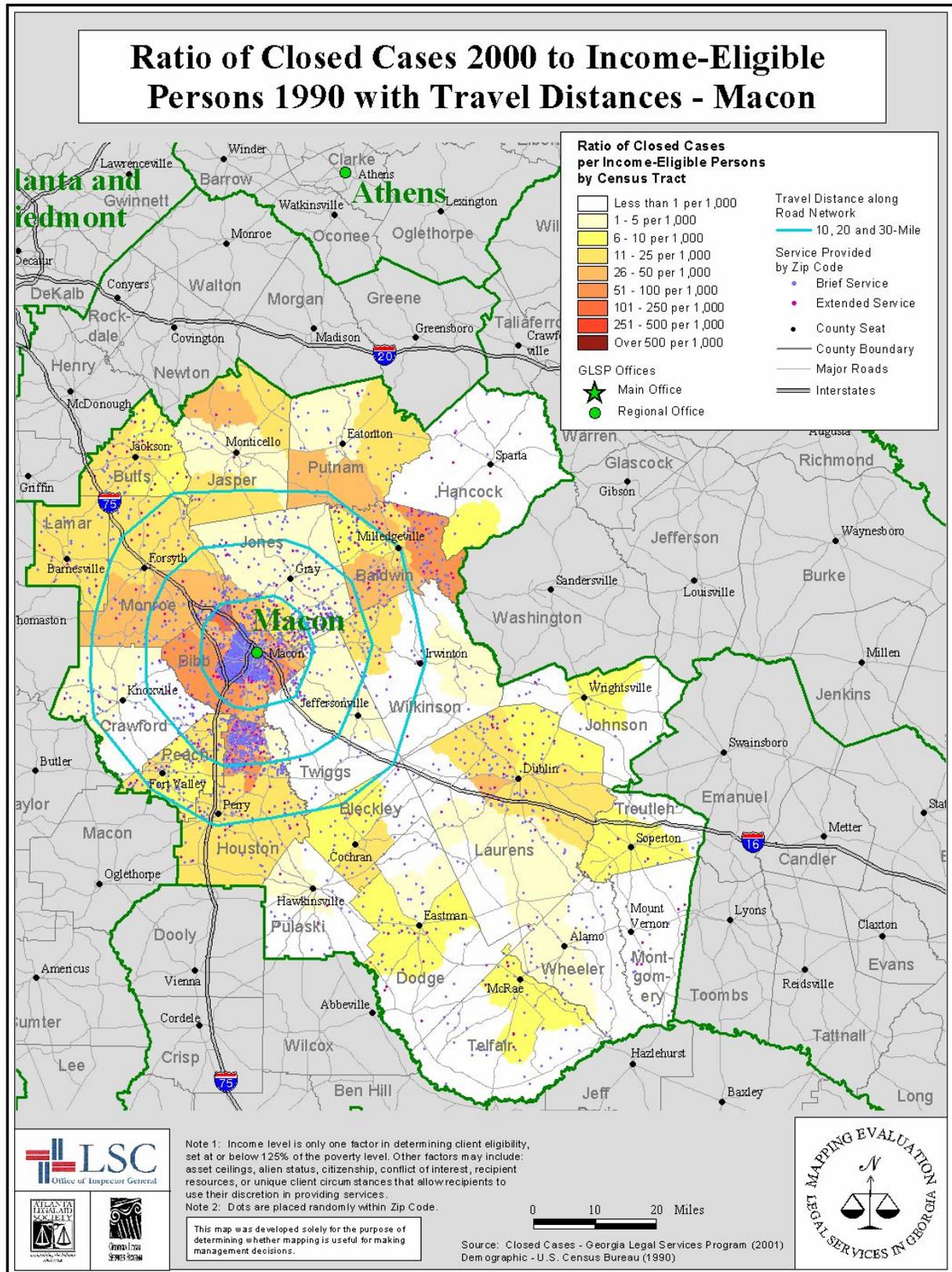
Ratio maps plot the result of the number of closed cases divided by income-eligible persons for a given geographic area. The resulting ratios are the number of closed cases per 1000 income-eligible persons. The ratio maps enable evaluation of access on a standard scale (per 1000 income-eligible persons). Region office managers could zoom in further to identify communities and neighborhoods that potentially are under-served, or perhaps determine if services are reaching the clients equitably or as intended. These maps are

interpreted as the closer to red the greater the access, while the closer to white the lower the access.

Map SL-16f (next page) displays the GLSP Macon region ratio map, with two additional layers of information overlain. The travel distance lines factor in available roadway systems help to identify varying areas of reach and to identify possible barriers that may inhibit clients from reaching services. The closed cases identifiers (dots) are colored to show the extent and distribution of services received. Brief services are in blue and extended services are in red.

The access maps represent a powerful analytical tool for measuring and visualizing access to legal services and identifying potentially under-served and relatively over-served populations – critical for assuring effective and even coverage of the service area. The maps provide a baseline tool for managing and tracking service performance over time.

¹ Maps included all geocodable grantee cases (LSC and Non-LSC) but do not include LSC “matters.”



SL-16f - July 2002

Map SL-16f

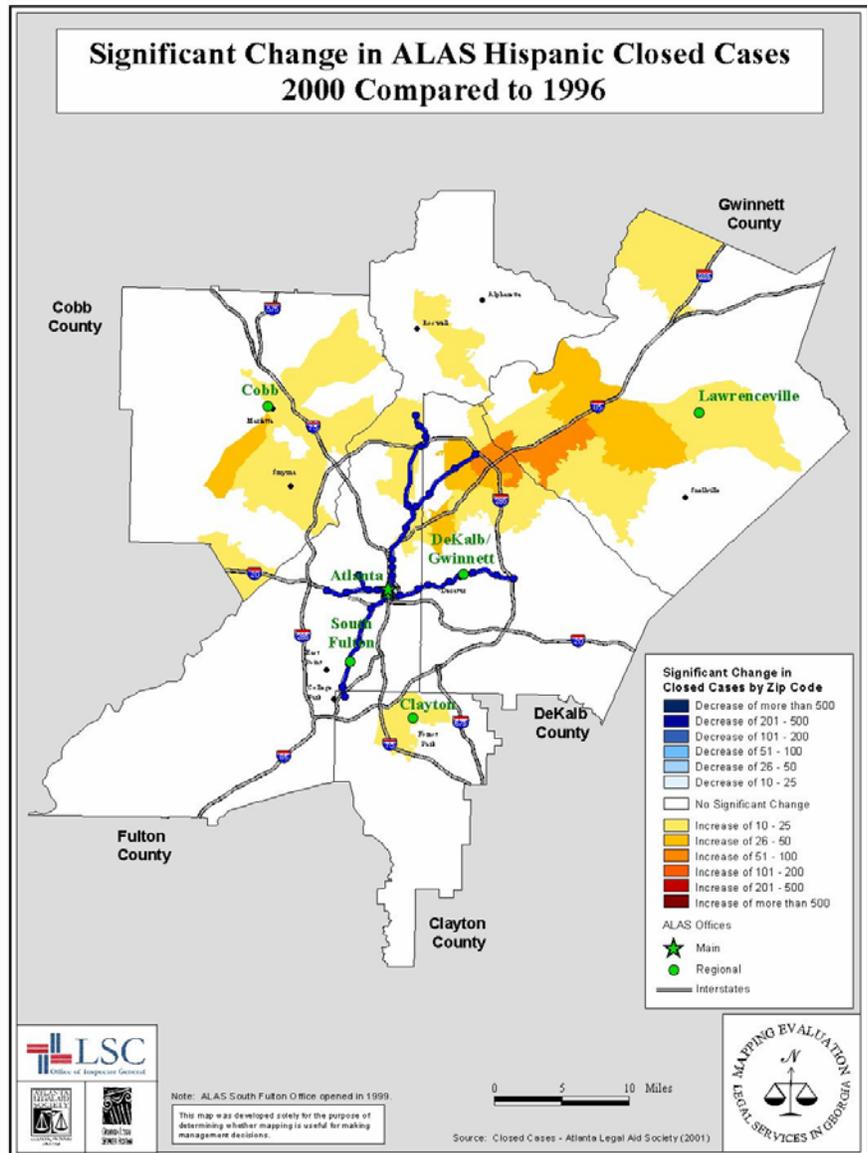
Grantee Management

Each map in some way supports grantee management decision-making. In fact, the more readily available the data and mapping templates, the more informed management decisions can be reached on a continuing basis. ALAS map ML-27c (right) illustrates the dramatic increase in Hispanic persons closed cases from 1996 to 2000. This map is extremely useful for management when evaluating a targeted outreach program of a special, fast-growing population. Other maps were created to support priority setting, funder relations, allocation of office and staff resources and case administration.

Grantees' Evaluation

Many of the long-term, tangible benefits from this project will not be known for some time; however, the general consensus is that the sample maps represent mapping as a useful tool for legal services, both from a management decision support and a program promotion standpoint.

The major caveat is the Income-Eligible Person numbers need to be updated to the Census 2000 standard in approximately 35% of the phase I maps so they can be made suitable to support management decision-making. From a program promotion viewpoint, the maps can be used as one-page program promotional hand-out to demonstrate to legislative, court, social services and funding partners the extent of the problems faced in their region and the success of the programs in place. To support general management and efficient service provision, the grantees believe an annual production cycle for most maps with timely information would be beneficial in spotting trends, evaluation, planning and goal assessment; and, only when addressing specific issues, maps would be generated on an ad-hoc basis. The grantees felt that in order to minimize the impact of an odd one-year occurrence it would be wise to use multi-year map comparisons for decision-making.



All parties agree that training will be essential for the development of mapping technologies in legal services. Users need a certain level of sophistication or map data could be poorly interpreted or even misused.

GLSP and ALAS see the benefit of continuing the project by incorporating data from the 2000 U.S. Census and 2001 and 2002 case data and await the OIG Mapping Evaluation – Legal Services in Georgia Phase II project proposal.

GLSP Evaluation

“These maps are the starting point that prompts you to look at other information and ask additional questions about why things are the way they are.”

In the view of Ms. Phyllis Holmen, Executive Director of GLSP, the use of maps as a legal services management tool has benefit based on her experience with the project. “These maps are the starting point that prompts you to look at other information and ask additional questions about why things are the way they are. Current census data would (only) make these maps even better in serving as a management tool.” These maps will assist with strategic management decisions.

However, it will require more analysis, education, and time in working with the maps, understanding them, and comparing them to each other to grasp their full potential.

GLSP has used them as a tool when addressing the GLSP Board of Directors and program mid-managers. Ms. Holmen felt that the use of these maps in the Georgia state planning process is possible although more review is needed to determine how or which maps to integrate into the state planning process. One possible use is resource allocation. The maps definitely show a disparity in resources between the GLSP service area and Metropolitan Atlanta.

Historically, GLSP had only county tables and charts for analysis of the same information as in the maps. However, the maps were constructed using lower level data, vividly depicting the differences that exist between regions, counties, census tracts and communities in the way that only maps can. The maps generate useful views and subsequent questions that probably would not come to mind otherwise. Ms. Holmen expressed that “currently office managers use their experience, common sense and local knowledge to target their services, but this is not anything that has been analyzed or communicated in a visual way. The maps could be useful in making proposals to funding partners.”

Although GLSP sees the benefit of employing the maps in strategic planning and deploying services, more information, design work and time is needed for the maps to identify legal trends. One innovative use of these maps that surfaced during these discussions was the potential for initiating outreach projects. The maps could be shown to local law schools to identify needs in their areas. The schools could then organize their students in serving those target areas.

To analyze the sample maps Ms. Holmen divided the maps into five categories based on use and selected those maps she and her regional managers considered most beneficial. These categories are demographics, service data, funding codes, problem codes and miscellaneous.

GLSP found the demographic maps containing case closure data much easier to interpret than data tables or charts. Poverty population maps are very useful in showing concentrations of people and GLSP’s office locations in relation to potential clients. This type of information aids in deploying

resources. The Medicaid and Supplemental Medicare maps can assist GLSP with applying for a grant from a new foundation in Georgia that is interested in looking at access to healthcare around the state. They help to show the level of activity and participation in these respective programs.

"This type of information would be hard to come by any other way than a map."

The service data maps ensure that the right areas are targeted and the right services are delivered in the right locations, in the right proportions. "To sum it up, it is self-evident that maps assist with identifying concentrations and distributions of populations – this is what they do." For a rural program such as GLSP, however, the service data on a statewide map can be spread so thinly that the map loses impact. This, in part, is due to small numbers involved and a function of rural populations being so scattered. As for the rural area aggregations, zip code proved to be more useful in this case, but there did not appear to be much of a difference between the zip code and census tract aggregations.

The ratio or access to case services maps, were very useful in analyzing proportional access to services. GLSP was pleased to find that extended services were fairly distributed within each region – not just concentrated around each office's city location. More brief service cases were expected outside the 30-mile radius on the ratio maps because of their 800 numbers, but this proved to be unfounded. Ms. Holmen said, "This type of information would be hard to come by any other way than a map."

The problem code maps probably would be more beneficial on a local level than statewide. Their sparse data and small sample sizes diminish their impact. This is due primarily to rural areas being so spread out. On the other hand, this dispersion of rural population underscores the problem with resource allocation. Although resources are distributed the same way in rural areas as in urban areas, the outreach costs associated with rural areas, such as long distance phone calls and travel time, are much higher. Finally, there is some risk that viewers of these maps may draw inaccurate or improper conclusions based on these maps given the dispersion of the data. Care must be taken to assure that additional explanation would be provided about the weaknesses of the presentation.

The funding code maps and significant change maps will be useful for management as well as funders. The resource perspective map raised many questions relating to disparities – questions that have good explanations that are not reflected by the maps themselves. For example, a difference in case closure statistics from region to region may be a function of a difference in the complexity or type of cases accepted between offices or the size of the region and geographic barriers (such as travel over mountains to reach clients). As stated earlier, however, the maps raise questions that generate further useful program management discussion about these issues. Care must be taken that the maps are not used improperly by funders or other interested parties.

The miscellaneous maps and the duration of closed cases map each focus on a single management issue. These maps revealed a disparity in case duration in two offices and resulted in further analysis of the issue. Later maps indicated that the situations were being addressed.

ALAS Evaluation

Mr. Steven Gottlieb, Executive Director of ALAS, said that maps can be a useful management tool and having the right information, with the right presentation at the right time is certainly of great value. "If you can think of something that you want to demonstrate in a map, then it can be a useful tool. My problem is not having too little information, most of the time it is having too much.

Relevance of the information is the key. The challenge is how do you decide what needs to be targeted. More times than not, maps generate more questions, thus generating more strategic discussions on deployment of resources.”

Mr. Gottlieb commented he planned to use the current maps as a marketing tool for supporting funding initiatives and educating constituents on the issues in their service area. One of the toughest issues facing ALAS is a 30% growth of the poverty population in its service area since 1990. According to Mr. Gottlieb, “the maps supported what we (ALAS) already knew, and they served to demonstrate our work in a graphical way.” For example, ALAS knew that a potential office expansion may be required in Gwinnett County. The 2000 Census data and the SL-35c map confirmed the conclusion in a convincing way by displaying the rapid growth of low-income persons in that county as compared to the other counties in the state. In addition, the low-income data ALAS had historically used was county level data, so the income-eligible maps generated at zip or census tract level were new and helpful in identifying concentrations of the low-income population within counties.

“The maps supported what we (ALAS) already knew, and they served to validate our work in the region in a graphical way that easily conveys our successes.”

Mr. Gottlieb pointed out that a most beautifully crafted map is only as useful as its supporting data is complete, timely and accurate. The maps provide a fair representation of how mapping can be applied to legal services. Although to be meaningful, the maps need to encompass all of Georgia’s resources – not just those of ALAS and GLSP. For example, the Hispanic population in Atlanta has other legal resources it uses, besides those provided by ALAS.

From the perspective of an urban-area legal services manager, Mr. Gottlieb felt that the sample maps that were produced generally provided too much general information on too large of scale. The maps often displayed a micro-scale analysis of a large population in a relatively small area of space where more detailed, lower level maps would help target specific areas or anomalies within those counties. ALAS needs to focus on where the anomalies (concentrations or lack thereof) exist and attend to those. ALAS is interested in local level mapping efforts that could aid in research and litigation support of local issues, such as those involving predatory mortgage lending.

“... More times than not, maps generate more questions, thus allowing more strategic discussions on what needs to be targeted.”



Future Plans

Before mapping can be widely adopted in the legal services community, further preparatory work must be accomplished. An educational process on mapping, targeting manager and technical leaders in the legal services community is needed to spur acceptance of mapping as a tool. Methods of neighborhood-scale mapping for purposes such as micro-level need identification, planning of initiatives, litigation support (predatory lending) that might support local-level management of legal services need to be explored. The use, applicability, techniques and value of mapping in areas that are either extremely rural or densely populated with rapidly growing poverty populations need to be validated. Methods of reducing the costs of mapping need to be explored. A future project should involve state planners and LSC management in order to fully understand their mapping interests and needs. Lastly, an evaluation should be made of the ability of mapping to show the impacts of pro se activities, services available from of other legal services providers, and the courts.

The OIG plans to continue the mapping evaluation project in 2003 by:

- ◆ Updating a core set of the Georgia maps, incorporating the recently released Census 2000 demographic information and 2001 and 2002 case data;
- ◆ Validating the legal services mapping methodologies in nation's most extreme urban and rural low-income environments; and,
- ◆ Evaluating the potential cost-saving possibilities of Internet-mapping technologies.