



The
Legal Aid Society
— of Cleveland
Since 1905



Data Analysis Strategies to Improve Effectiveness & Efficiency

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Project Purpose

- What's the push:
 - Increasing poverty + decreasing resources
- Where are we now:
 - Some data-driven decisions; many anecdote-driven decisions
 - Cleveland: data analysis professional, urban, Pika
 - Montana: tech-savvy, rural, LegalServer
- Project goal:
 - **Develop data analysis strategies using new data and new technologies that will increase client service effectiveness and organizational efficiencies.**

Project Components: Data

○ Internal data

- Mine case management systems
- Outcomes and surveys
- Untapped resource
- Identify improvements

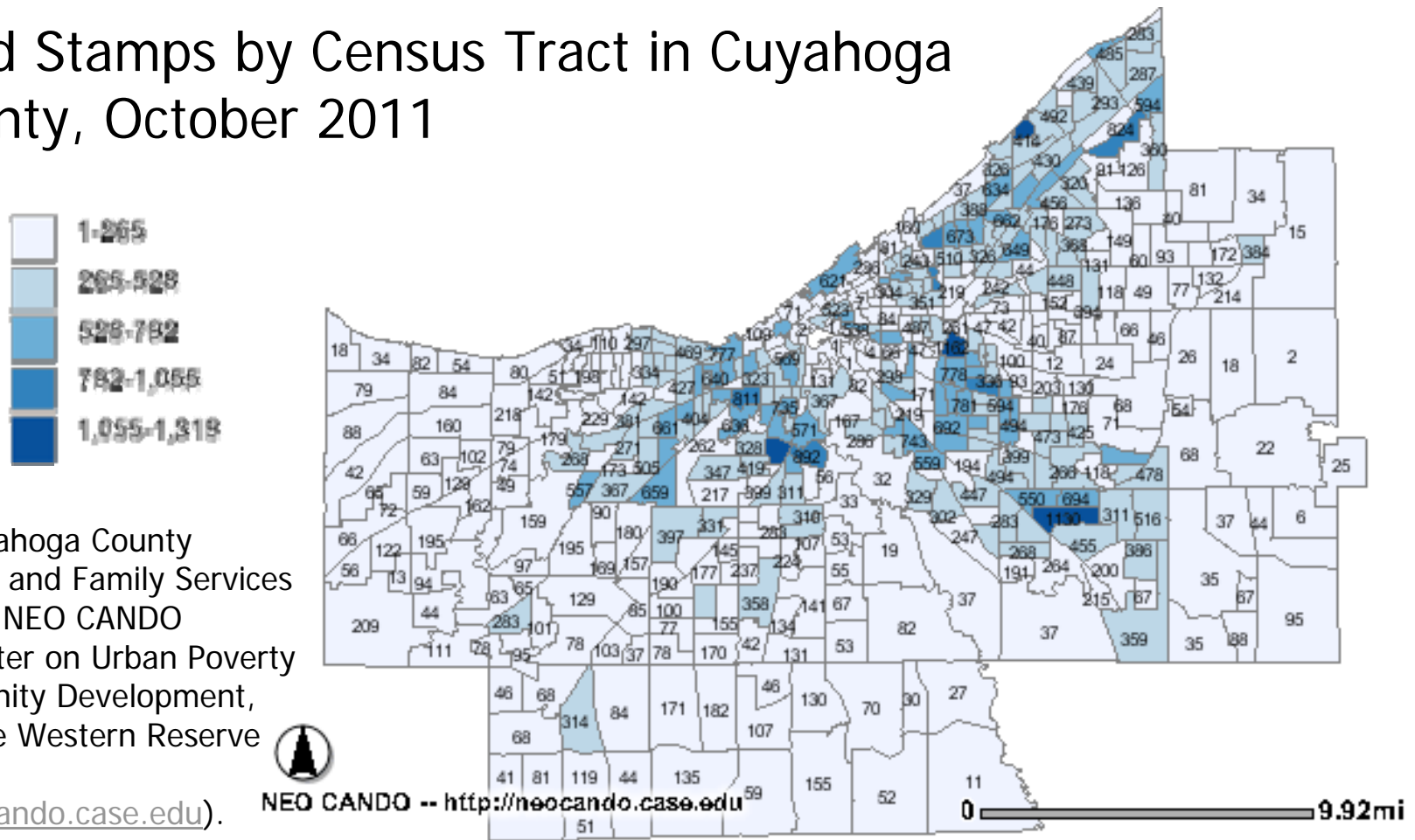
**Social Science
Advisors:** Cleveland
State University, Case
Western Reserve
University, Center for
Community Solutions

○ External data

- Direct: U.S. Census, county dept. of children & family services, court data, school data, auditor, etc.
- Compiled: University or community research centers, statewide data collaboratives, etc.

Compiled External Data-Example

- Food Stamps by Census Tract in Cuyahoga County, October 2011



Source: Cuyahoga County Employment and Family Services compiled by NEO CANDO system, Center on Urban Poverty and Community Development, MSASS, Case Western Reserve University (<http://neocando.case.edu>).

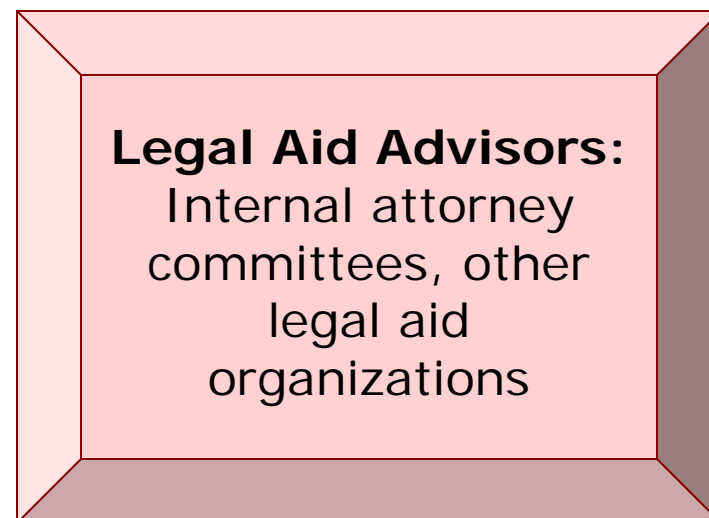
Project Components: Analysis

○ Data questions/hypotheses

- Based on data & advisor input
- Ex: Mediation v. Litigation
- Ex: Legal education strategies for specific communities

○ Analysis methods

- Statistical: trend, correlation, regression
 - Ex: Link neighborhood conditions to legal problems
 - Ex: Impact of socioeconomic factors on outcomes
- Spatial/Geographic: mapping, hot spot analysis
 - Ex: Geographic distribution of clients superimposed with community characteristics to identify service gaps
 - Ex: Identify emerging client needs based on demand for service



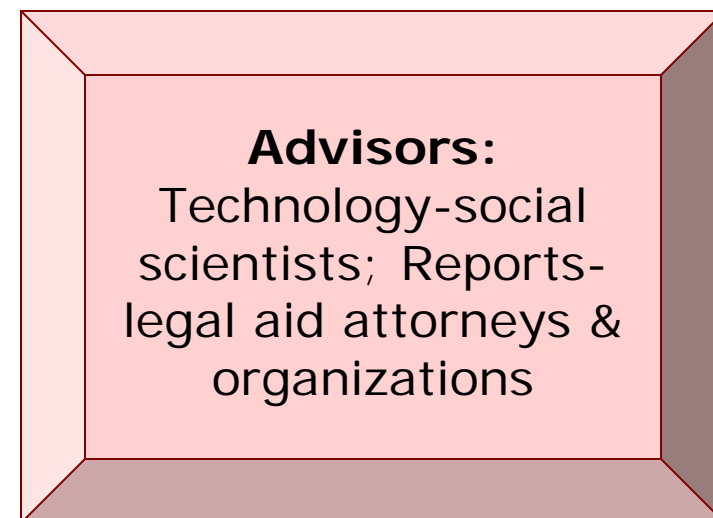
Project Components: Technology

○ Requirements:

- Robust analysis
- Cost effective
- Not overly complex
- Produce useful, user friendly reports

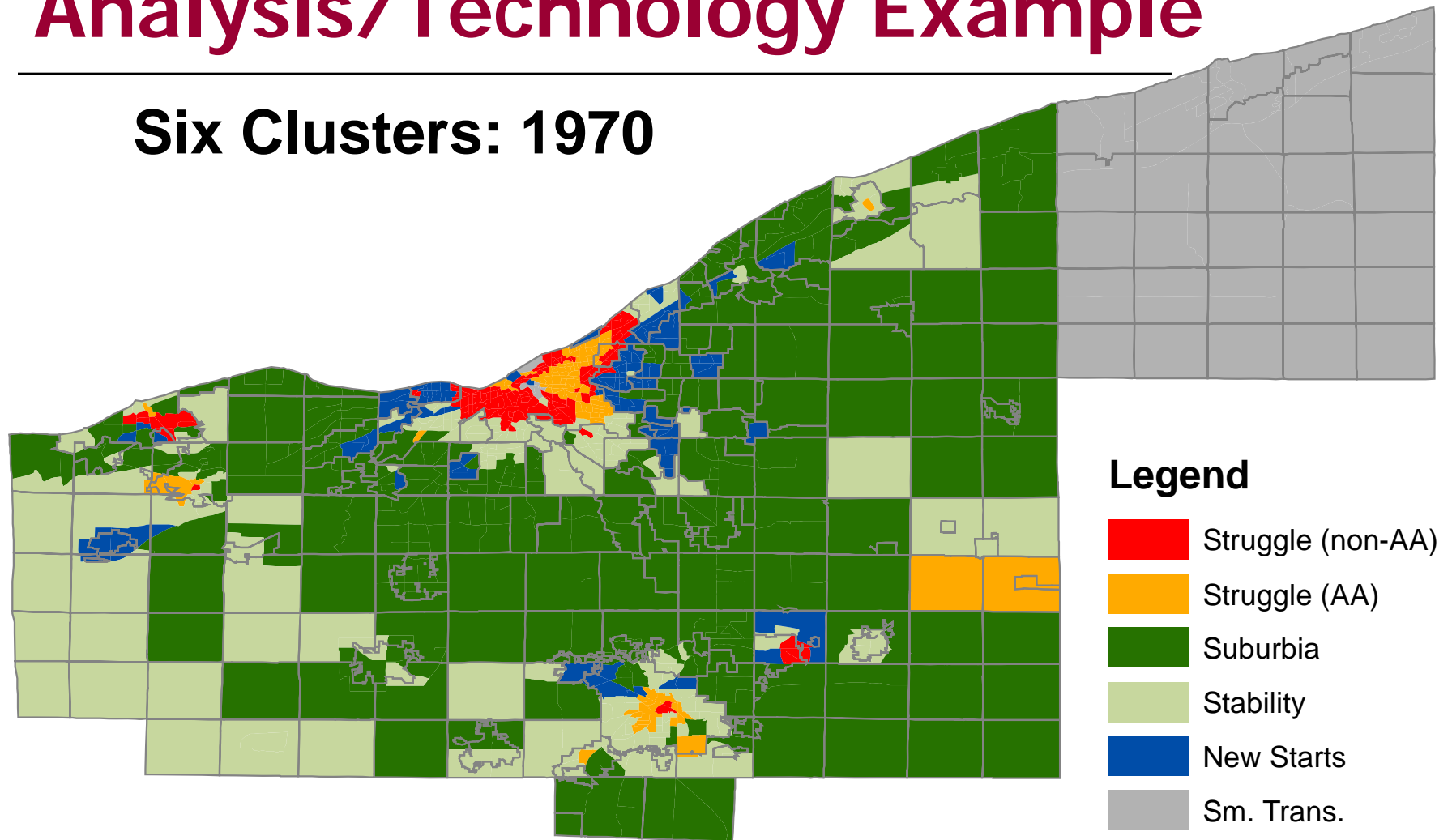
○ Options

- Statistical analysis software: SPSS/SAS, Excel
- Mapping & geocoding software: ArcGIS, free downloadable
- Automatic data extraction software: webscraping
- Website plug-ins: tickers, dashboards
- CMS improvements
- Graphic report improvements: Adobe Creative Suite



Analysis/Technology Example

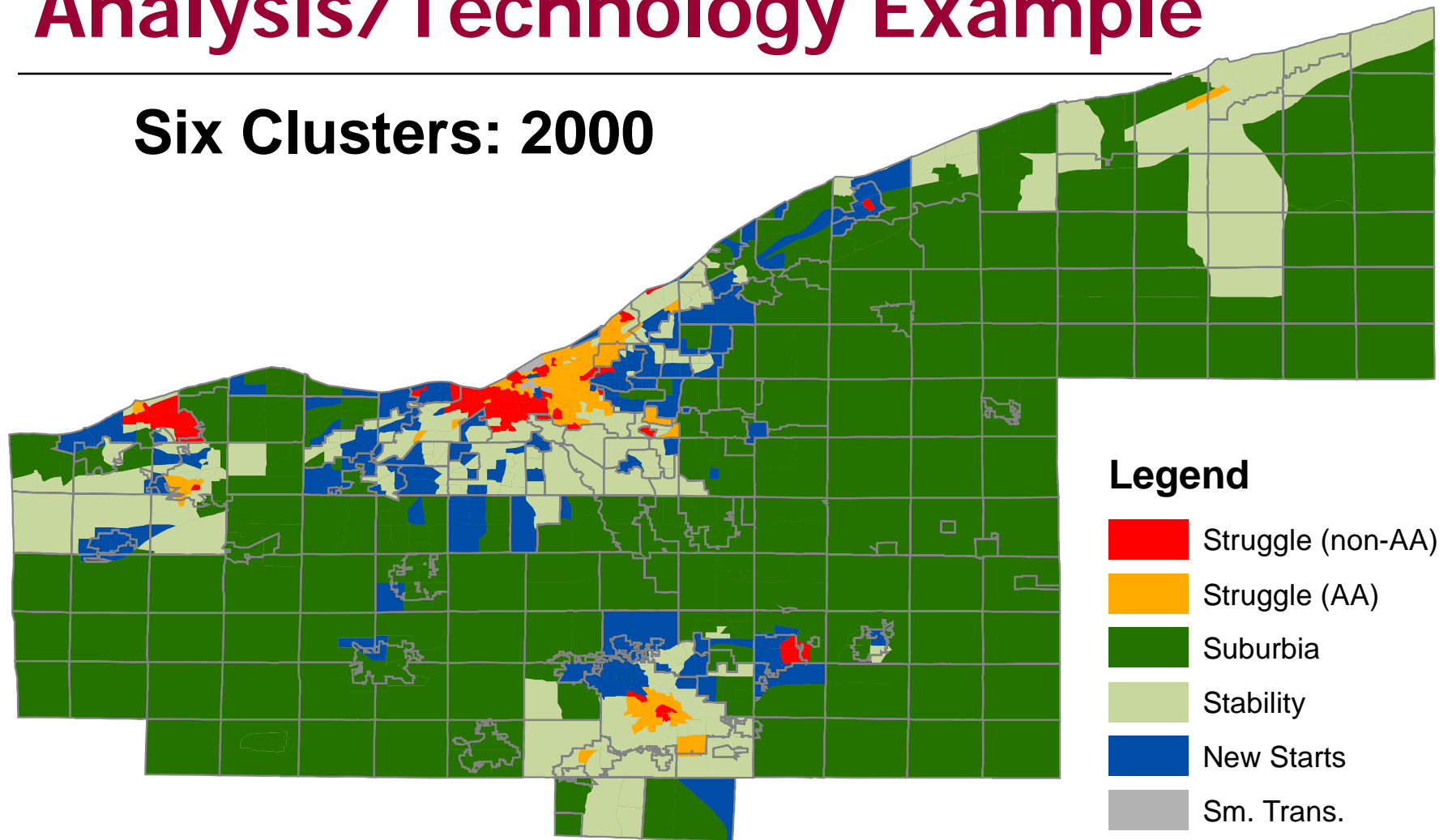
Six Clusters: 1970



Dr. Brian A. Mikelbank, Associate Professor of Urban Studies, Maxine Goodman Levin College of Urban Affairs, Cleveland State University, "Neighborhood Deja Vu: Classification in Metropolitan Cleveland, 1970-2000," *Urban Geography*, 2011, 32, 3, pp. 317–333.

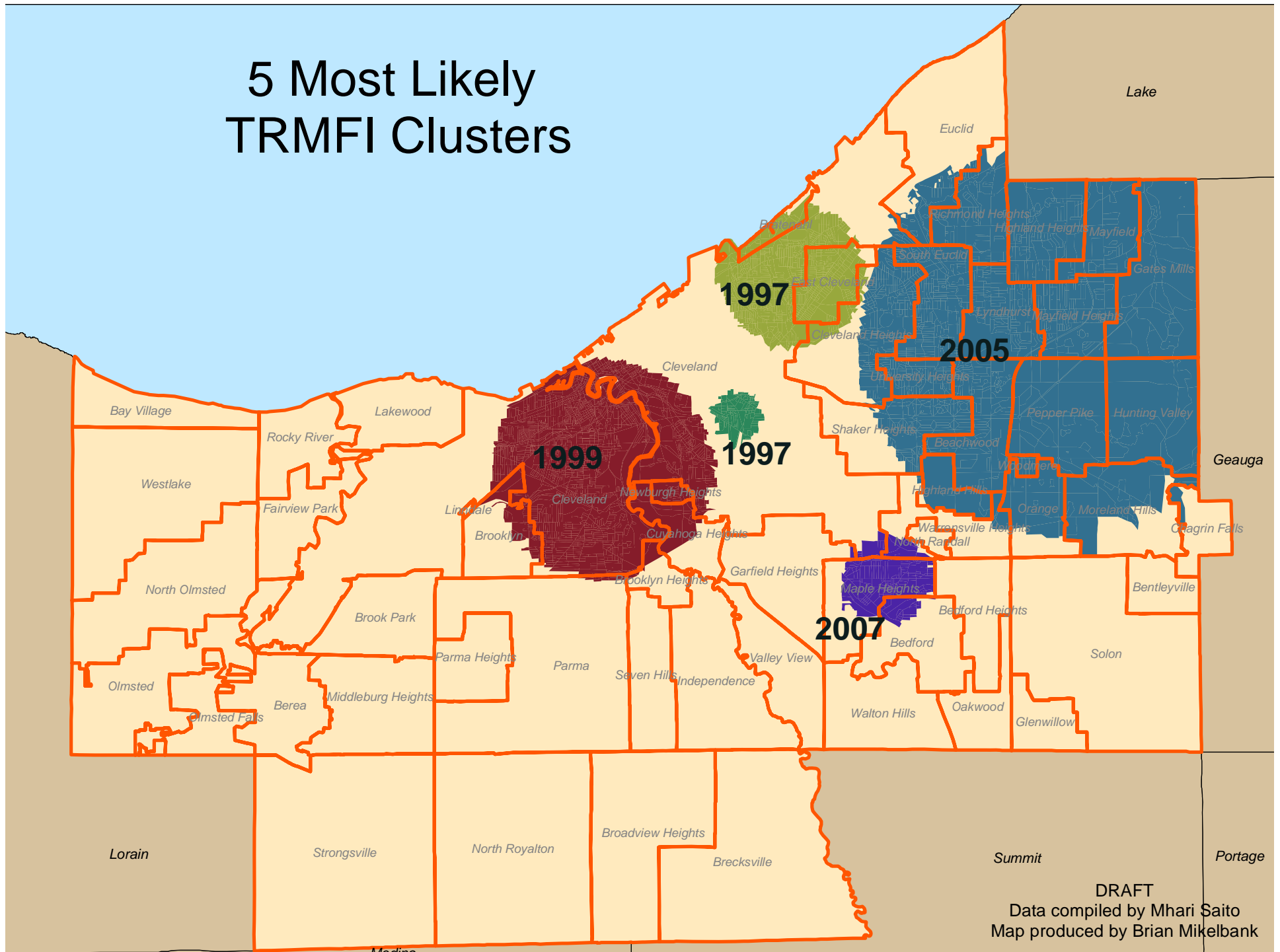
Analysis/Technology Example

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5 Most Likely TRMFI Clusters



DRAFT
Data compiled by Mhari Saito
Map produced by Brian Mikelbank

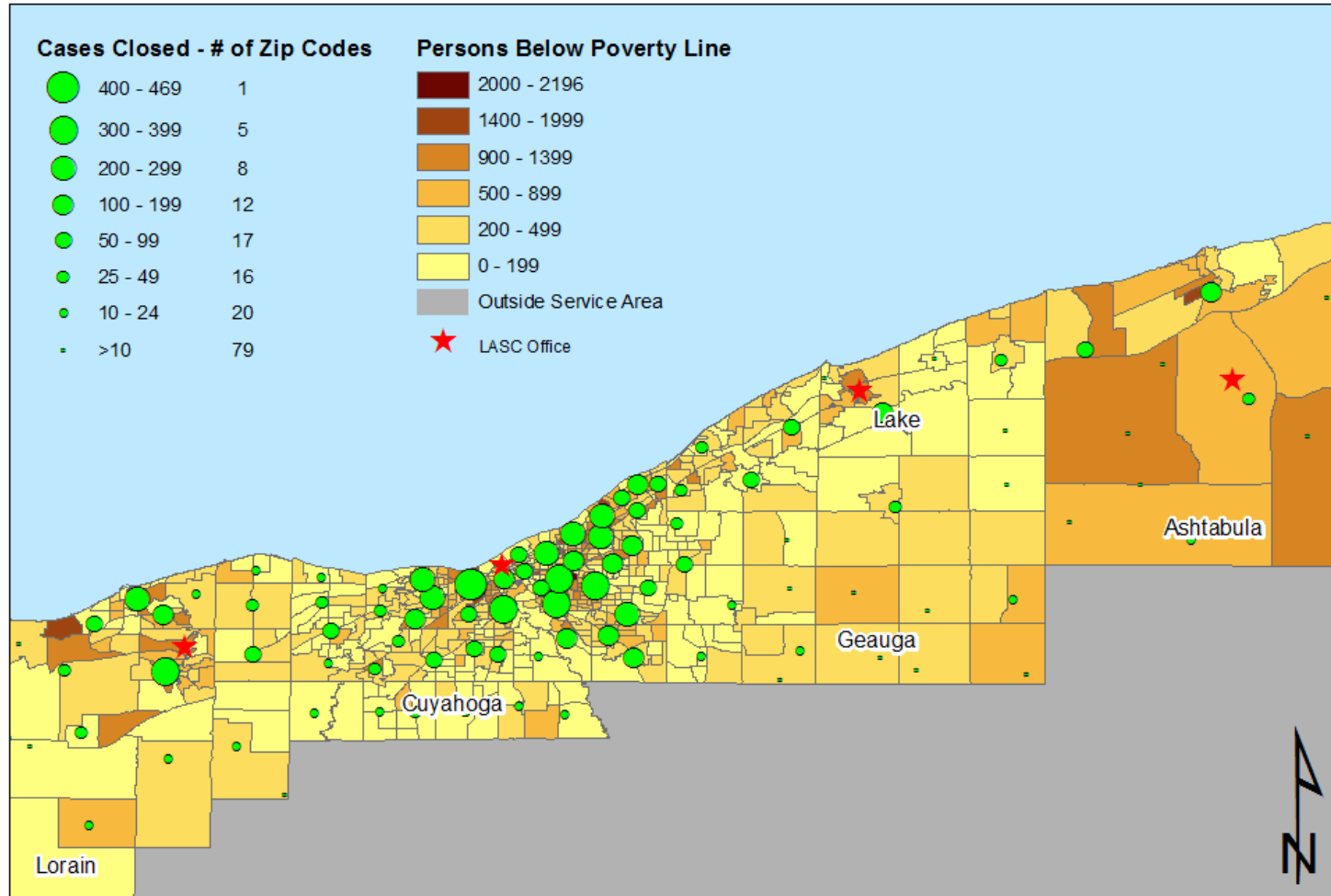
Analysis/Technology Example

Are Clusters Significantly Different in terms of:

Begin Year	Location	Population		Education			Housing		Median Income
		Non-White	Hispanic	High-School	Assoc Degree	BA Degree	Owner-Occupied	Median House Value	
1997	Cleveland and E. Cleveland	+	-	+	-	-	-	-	-
1997	Cleveland	+	-			-	-	-	-
1999	Cleveland	-	+	+	-	-	-	-	-
2005	Eastern Suburbs	-	-	-		+	+	+	+
2007	Inner Ring Suburb	+	-				+	-	

Dr. Brian A. Micklebank, Associate Professor of Urban Studies, Maxine Goodman Levin College of Urban Affairs, Cleveland State University, "Spatial Analysis of Mortgage Fraud Cuyahoga County, OH: 1997-2009," 42nd Conference of the Urban Affairs Association, Pittsburgh, PA, April 18-21 2012.

Cases Closed in 2010 (by zip code) Compared to Persons with Income Under the Poverty Level



Service Area of Legal Aid Society of Cleveland

“Legal Needs Assessment of those who are Low Income and Vulnerable in the Service Area of the Legal Aid Society of Cleveland,” Carmody and Associates, November 2011.

Project Challenges

- Finding time to conduct project work
- Data quality
- Making analysis results accessible and useful for attorneys
- Producing guidelines that can be implemented by other legal aids, whether or not they have a data staff person
- Long-term viability

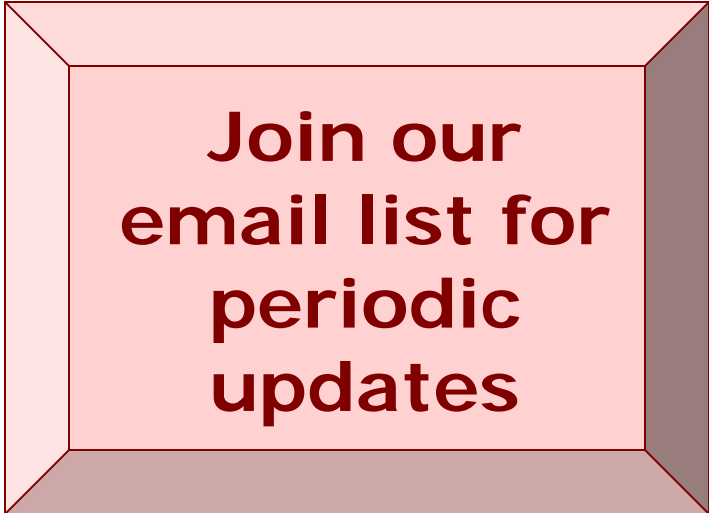
Project Resources

- Social scientists
 - Allowing them to use data for academic research
- Student interns
 - From Urban Affairs program, with statistical and geographic analysis skills and interests
- Legal aid attorneys
 - Data/tech-savvy legal aid organizations
 - Former and current TIG recipients
 - Cleveland & Montana attorneys with vast client experience
- Cleveland/Montana
 - Partnership between different types of program
 - Commitment to data analysis as a powerful tool for improving client service effectiveness and efficiency



Contact Information

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