

# DEVELOPMENT OF DEMOGRAPHICS FOR COMMUNITY AND TECHNICAL COLLEGES USING ARCIMS

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# Content

- Purpose of ArcIMS Site
- History of the project
- Installation
- Functioning Site

# Purpose

- To provide data in a simple, graphical, easy to use interface for college administration
- The presentation of the data needs to:
  - Reflect the needs of small institutions that might lack IR departments
  - Be mindful that institutions may lack expertise to use GIS as well as be easy for non-GIS users
- Colleges can customize the website to meet their need

# About KCTCS

- Formed in 1997
- Unified system of 28 Community and Technical Colleges and 50+ campuses
- 81,000+ full or part time students
- 150,000+ continuing education, workforce development, specialized training and certification
- Double digit percent increase in enrollment each o the last 6 years

# Project History

- American Association of Community Colleges met with Vince DiNoto and Mike Rudibaugh in Boston in March of 2005 after presentation
- Additional Meetings held in Washington DC, May of 2005
- AACC and researchers determine initial Census data to be displayed
- Kentucky data chosen as demonstration state.

## Slide 5

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**VAD1**

Vince DiNoto, 6/18/2006

# Data by 2000 Census Tracts

- Population by education level
- Population enrolled in educational institution
- Median income
- Poverty status
- Population by ethnic background
- Population by urban/rural

# Building the ArcIMS Site – Which way to go?

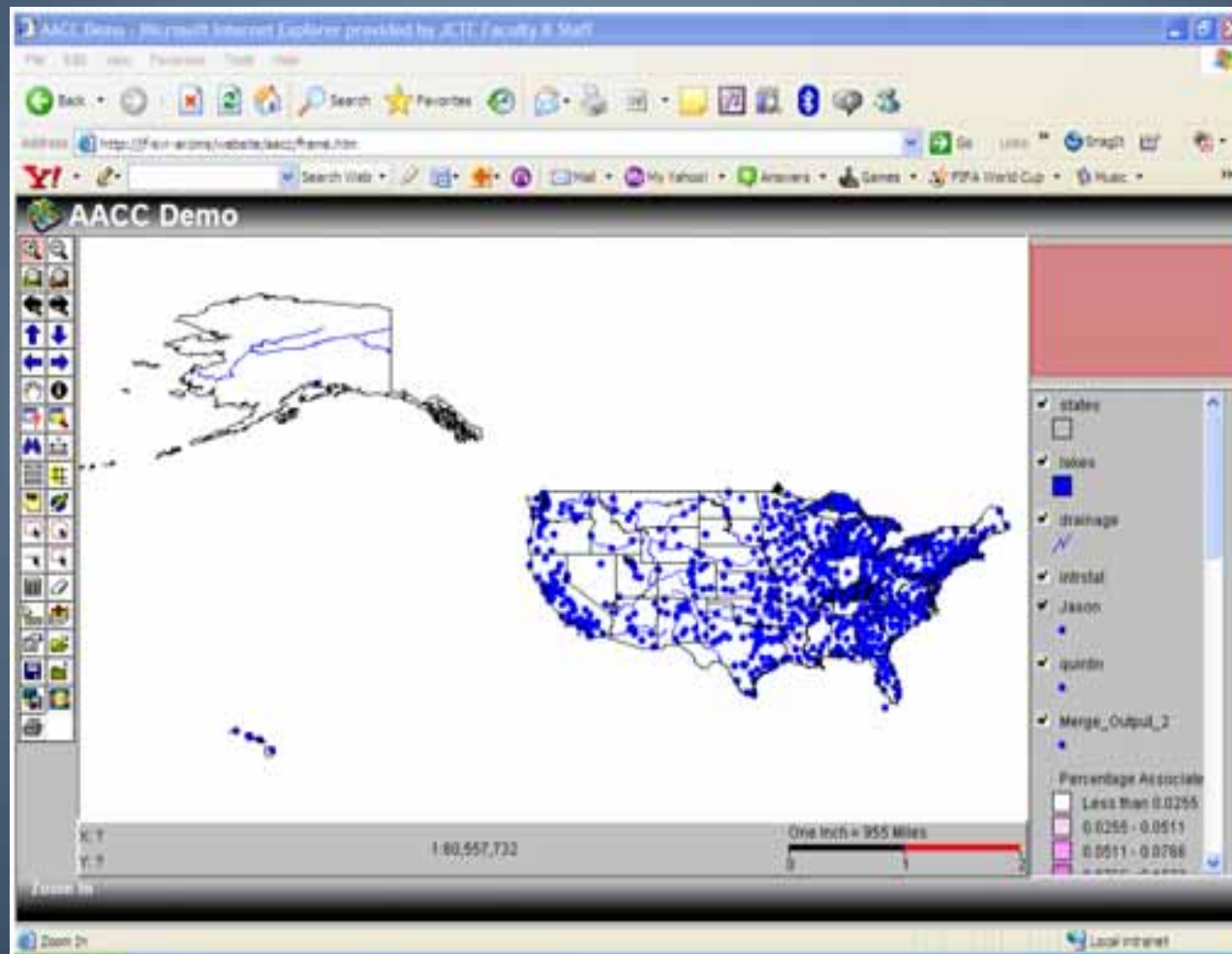
- Html based site that uses a bitmap
- JAVA based site
  - Must uninstall your Java before using the site
  - First time will install Java and other IE browser plugins



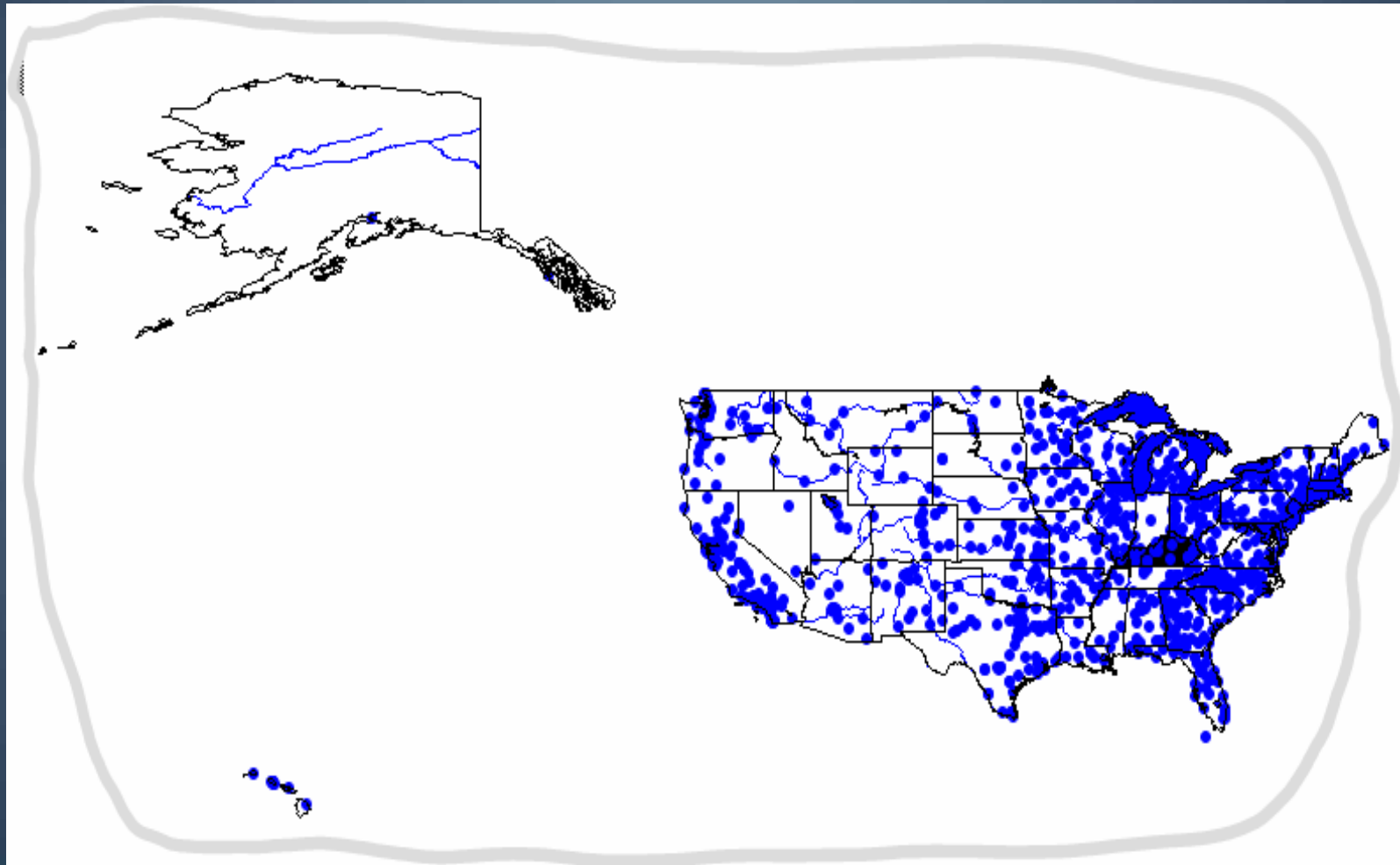
# Pros and Cons of sites

- Html
  - Pro – simple to connect the first time
  - Con – less dynamic
  - Con – slower in general
- JAVA
  - Pro – able to save own data
  - Pro – able to customize site
  - Con – initial installation of JAVA

# Demo website



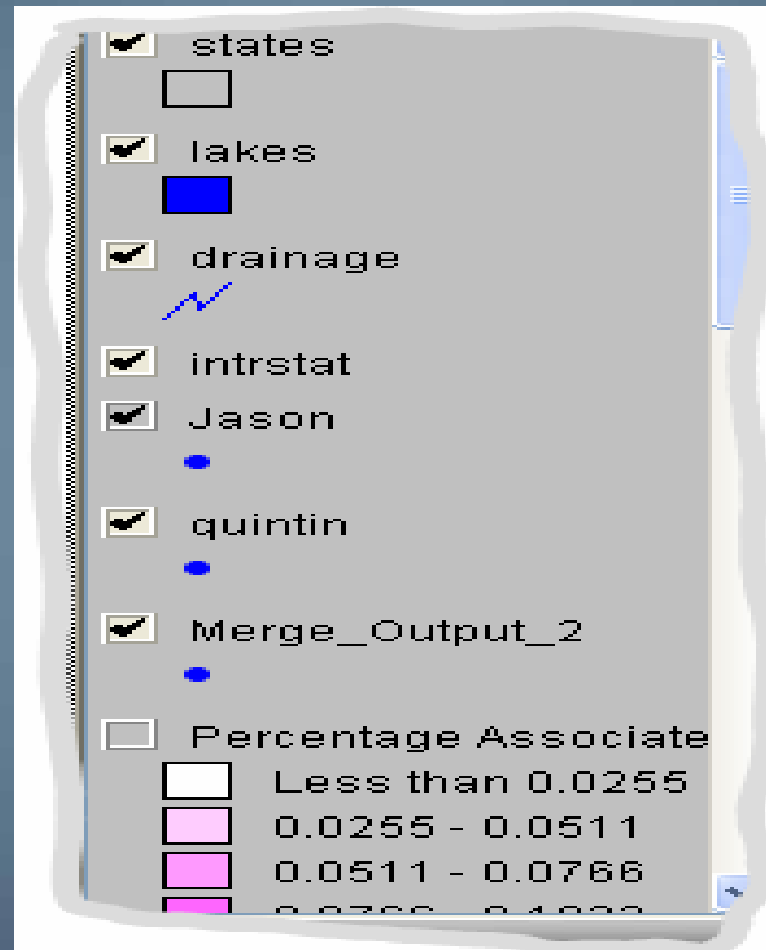
# Geocoded Locations of AACC Colleges



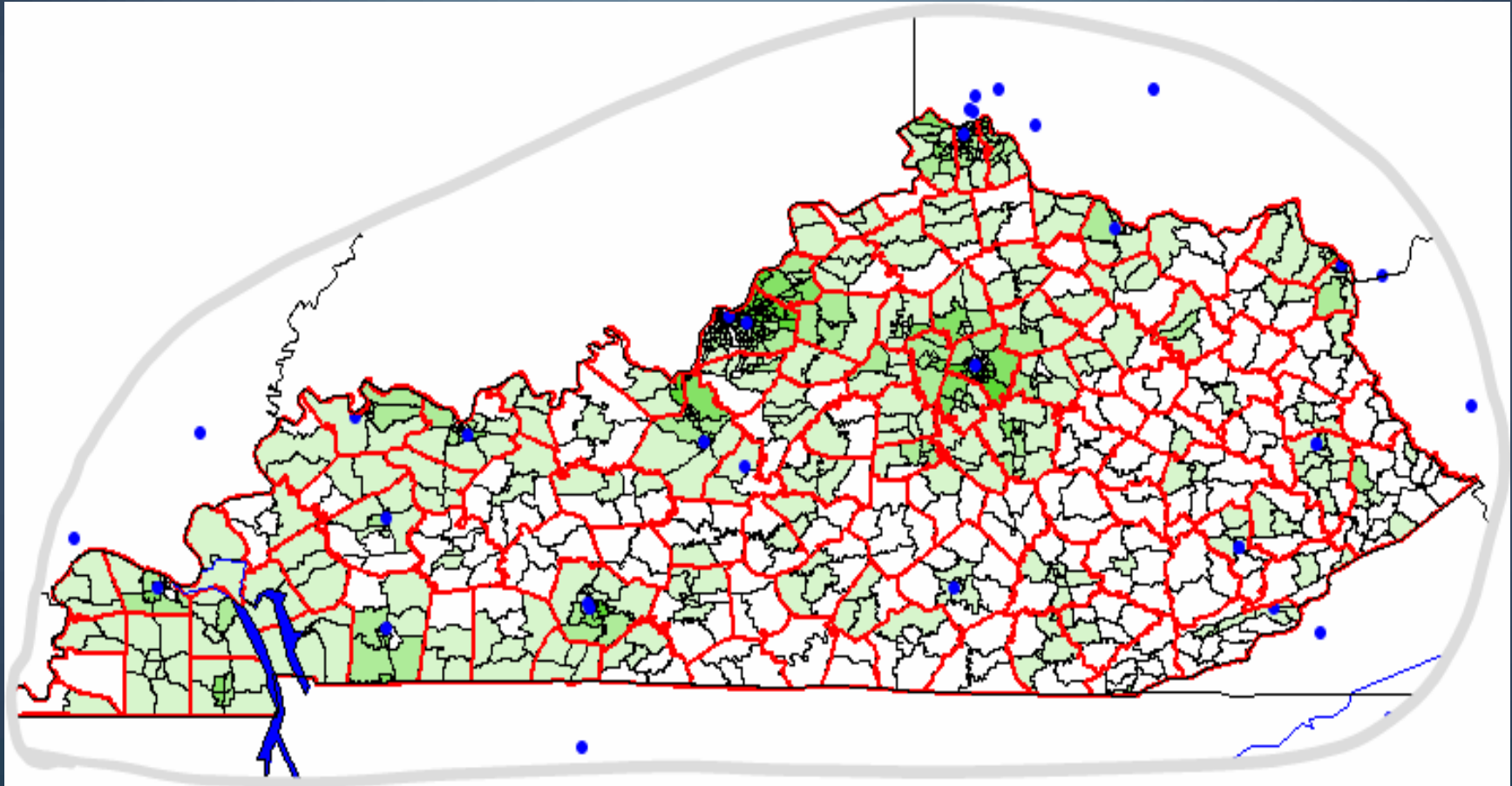
# Tools



# Layers



# Census Tracts for Kentucky Higher Educational Attainment

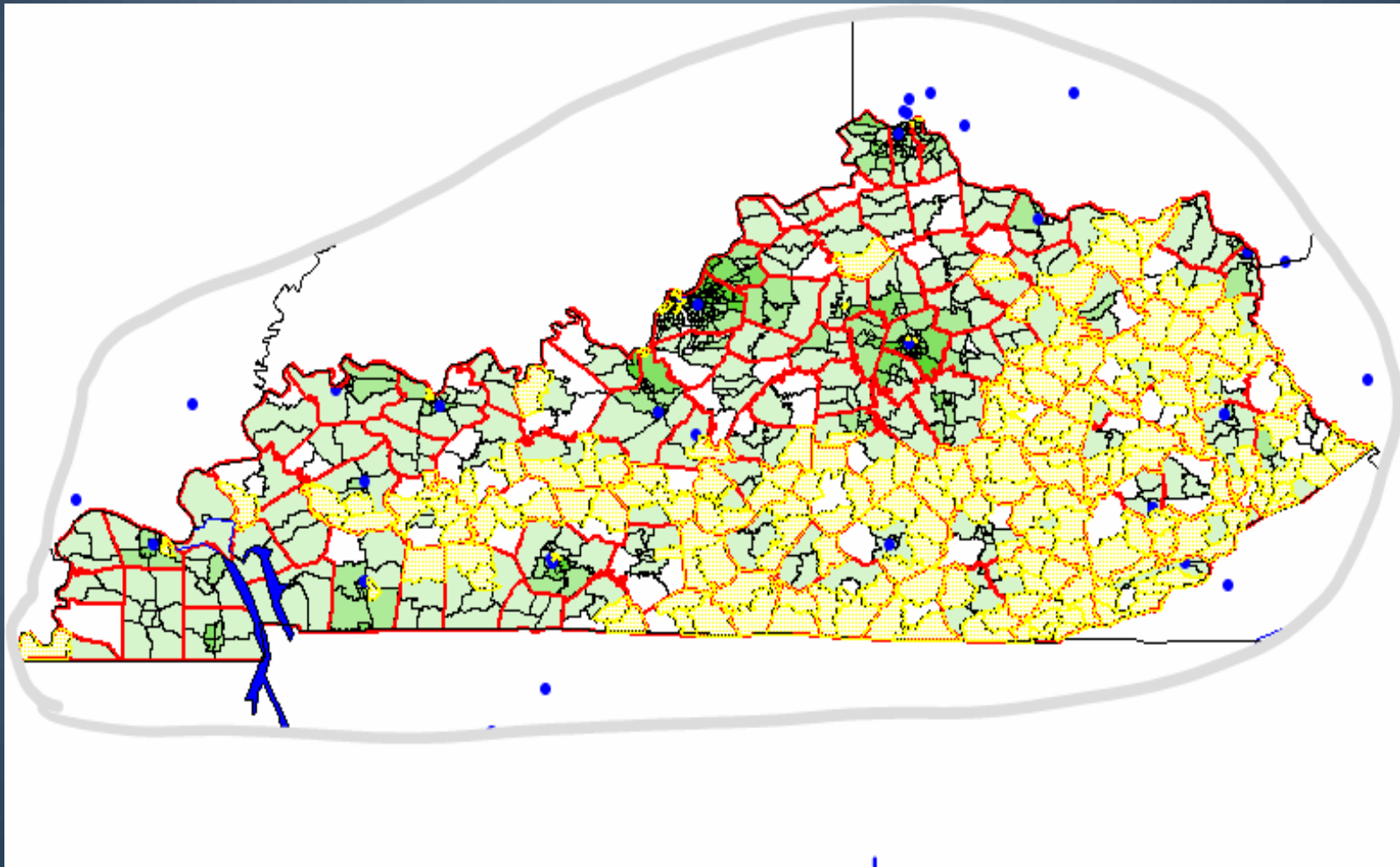


# Query Higher Ed less than 25% and median income less than \$30,000

The screenshot shows a 'Query Builder' window with the following components:

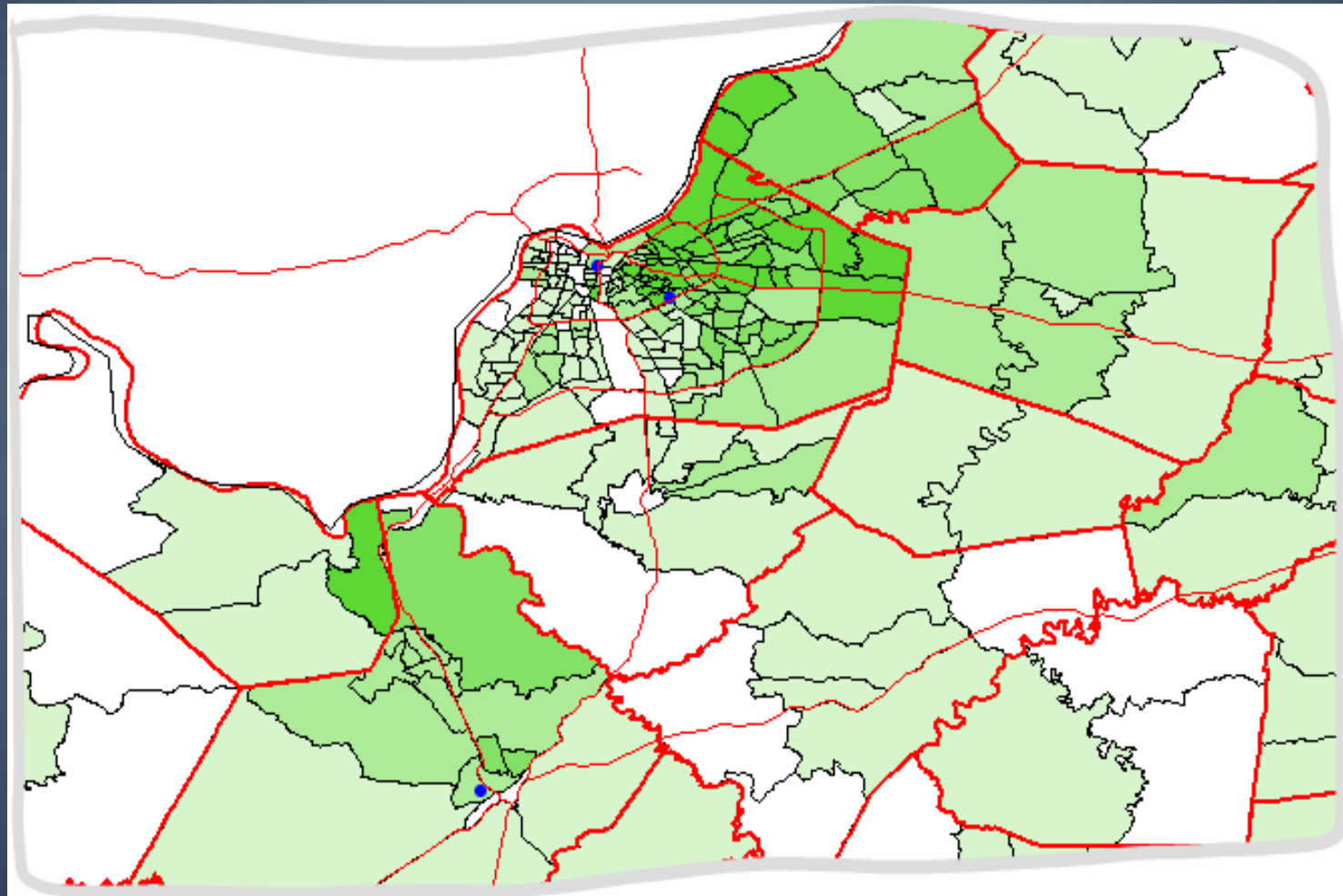
- Select a field:** A list of fields including P053001, P000001, P088002, P088003, P088004, P088005, P088006, and P000007.
- Operators:** A grid of buttons for comparison and logical operators: '<', '=', '>', '<=', '<>', '>=', 'and', 'or', 'not', '%', 'like', and '0'.
- Values:** A list of values including 0, 6006, 6743, 9367, 9966, 10626, 11420, and 11676.
- Query Text:** A text box containing the query: `(PERCHE < .25) and P053001 < 30000`.
- Buttons:** 'Execute' and 'Clear' buttons.
- Display Options:** A checkbox labeled 'Show All Attributes' (checked) and a 'Display Field:' dropdown menu set to 'ID'.
- Query Results:** A large empty text area for displaying results.
- Tools:** A row of buttons for 'Highlight', 'Pan', 'Zoom', 'Statistics', and a small icon button.

# Query Results

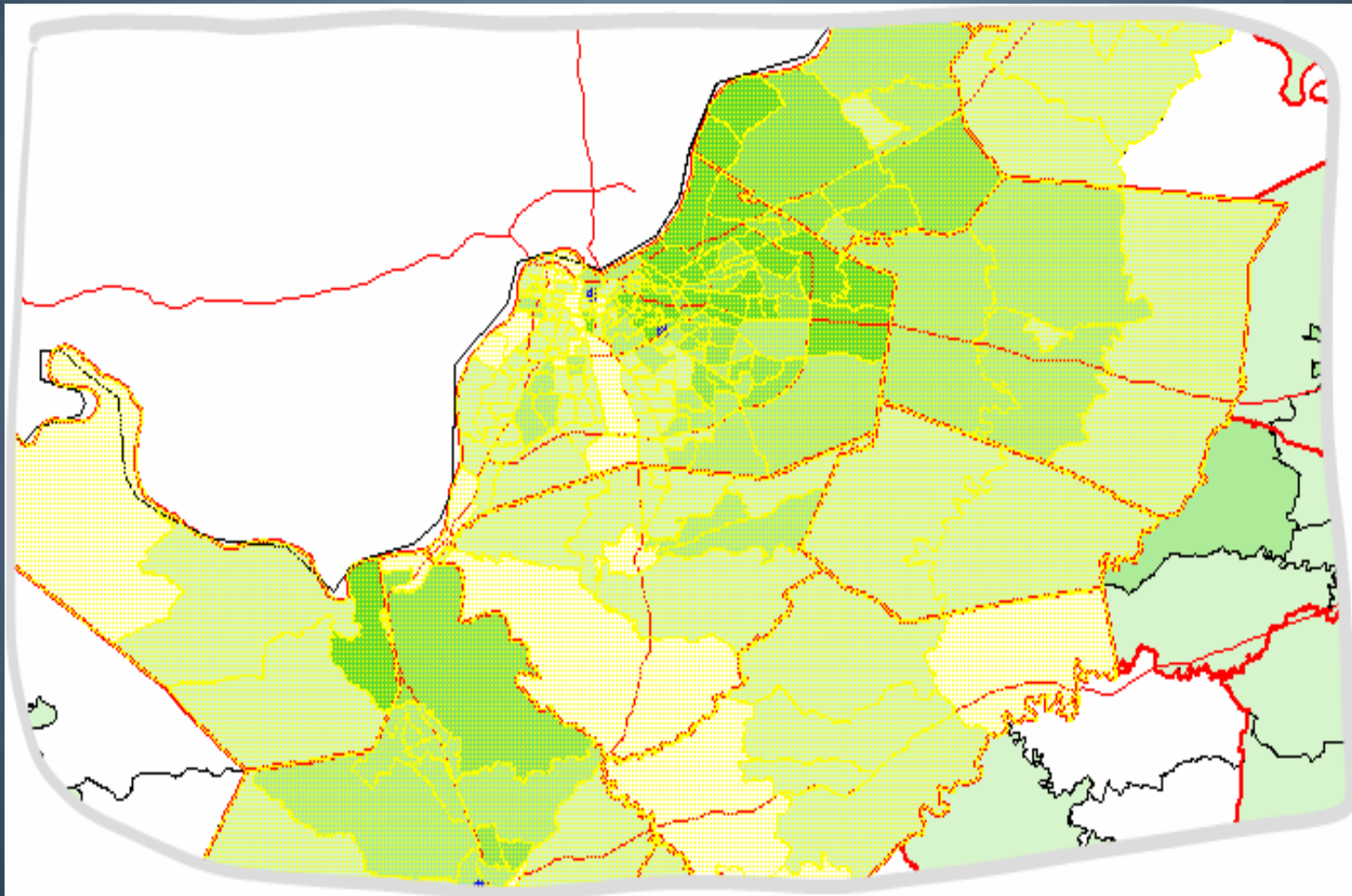




# Metro Louisville



Select by circle (radius)



# Data

- Data under lays all these selections that can be used in Excel
- User can add their own layers (saved on desktop)
- User can customize (saved on desktop)

# Future usage

- Customization for class usage for multiple college departments and institutions
- Learning basic geospatial techniques using web based data

# Installation Preparation

- Install & Update Windows Server
- Install the Java Development Kit 5
- Install the Java Runtime Environment 5

# Install Tomcat

- Download the Apache Tomcat Version 4.1.xx
- Install Tomcat with Service the option checked



# Installing ArcIMS

- Run the install of ArcIMS
  - Choose Features
  - Reboot
- Configure
  - Files
  - Global Variables
- Register ArcIMS

# Gather Datasets/Design the Site

- Verify and Geocode Addresses
- Import Administrative and Political Boundaries
- Prebuild Common Queries



# Conclusions

- Successful Proof of Concept
- Data is easily available
- Little or no training required
- Meaningful presentation of data
- End user customizations possible

Questions?