Binghamton University's GIS Core Facility

BINGHAMTON UNIVERSITY — State University of New York

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About Us

Mission

The Binghamton University GIS Campus Core Facility supports the research mission of the university. It fosters the educated use of geographical information systems (GIS) and global positioning systems (GPS) technologies for the development and execution of funded basic and applied research.

Purpose and Commitment

The GIS Campus Core Facility was created in August 2001 in response to a growing need for GIS and GPS training in a variety of disciplines. We are committed to a program of quality training and informed interaction, as well as to the provision of selected secondary data sources, through a variety of short-courses and one-on-one interactions with users seeking funded research. While the facility will not create primary databases, it will train users in GIS and GPS data acquisition methods, assist them in research and design, and evaluate existing data sets provided by users.

Location and Hours of Operation
Main Office: OJ 133
Training Center: OJ135

Monday through Friday
9:00 A.M. - 4:00 P.M.

GIS Campus Core Facility Staff
Director (part-time): John Frazier
Associate Director: Kevin Heard
Geography Department Consultant:
Lucius Willis

Workshops Offered

-Intro to GIS: A Conceptual Overview
-Intro to ArcGIS 10x
-Intro to GPS
-Intro to Census Products
-Intro to PUMS Microdata from the U. S. Census
-Intro to the American Community Survey
-Intro to Census Migration Data
-Secondary Data and Longitudinal Census

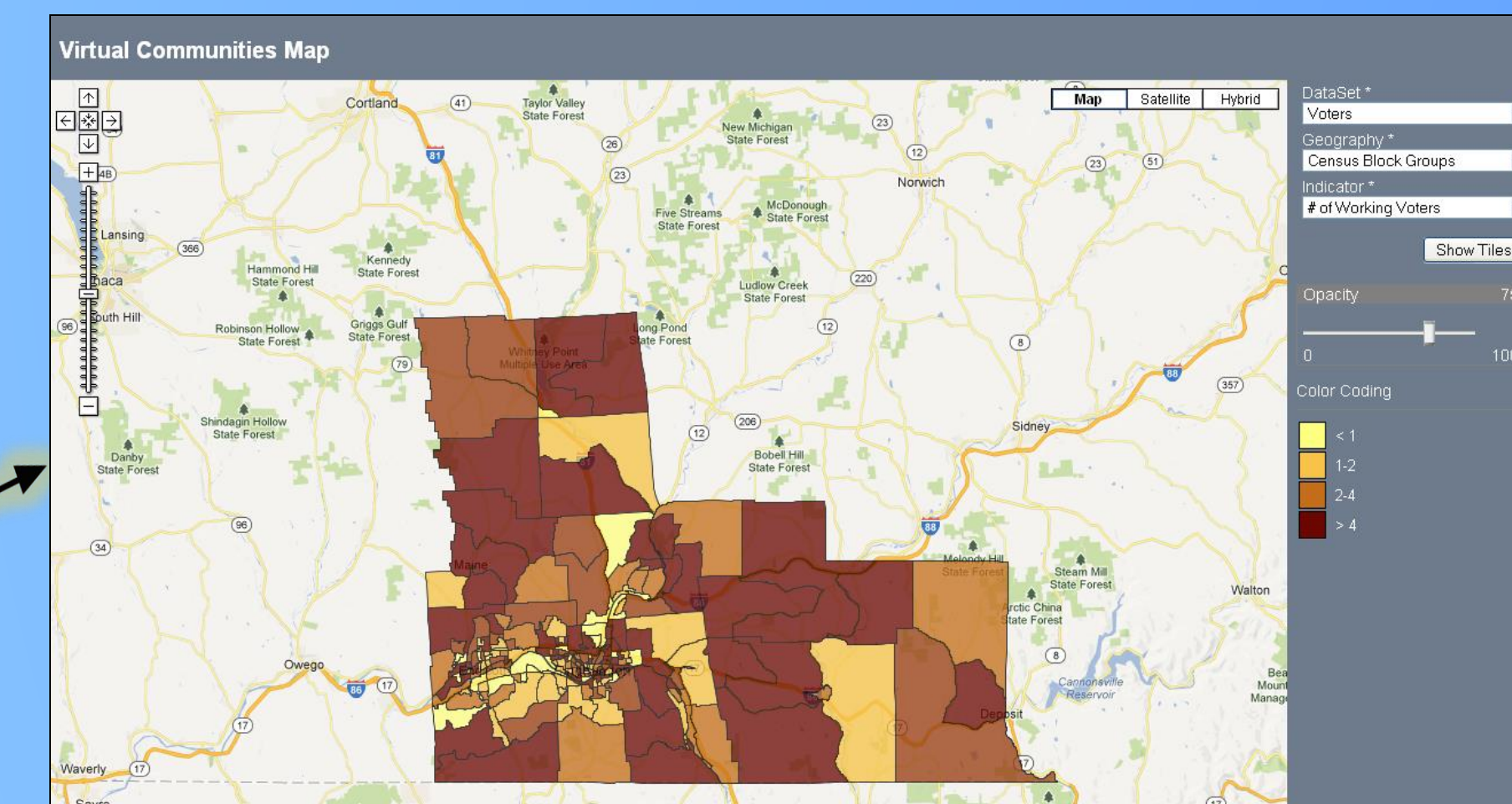**Over 300 people served!!**

Applications:

-Campus Map
Using ArcGIS Online, the facility developed a web mapping application that is superior to the current campus web map offering. The web map has a wealth of information at your fingertips including links to department websites, on demand Google Streetview, floor plans of buildings, and a variety of clickable layers including bus stops and routes, food places, athletic locations, parking lots, and more. The application also offers the ability to print as well as a geolocation function for smartphones. We are still working with the administration to replace the current web map with this new one.
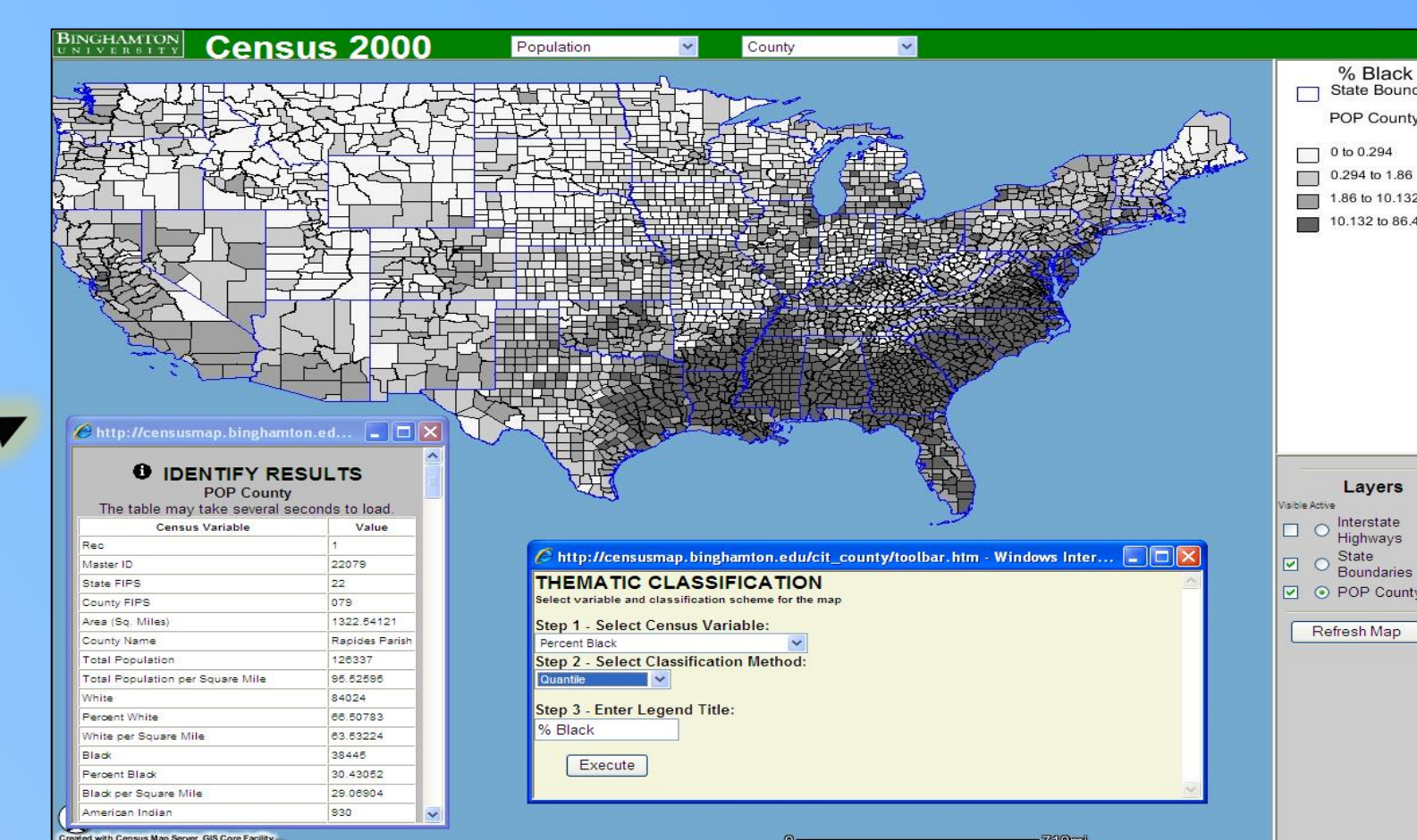
-Virtual Communities
Under the guidance of Pam Mischen (Public Administration) and programming skills of Madhusudhan Govindaraju (Computer Science), this application features local Broome County datasets such as DSS, Voting, Education, and Census Data. The data can be mapped at 4 geographic levels. This will aid local agencies in their decision making process.
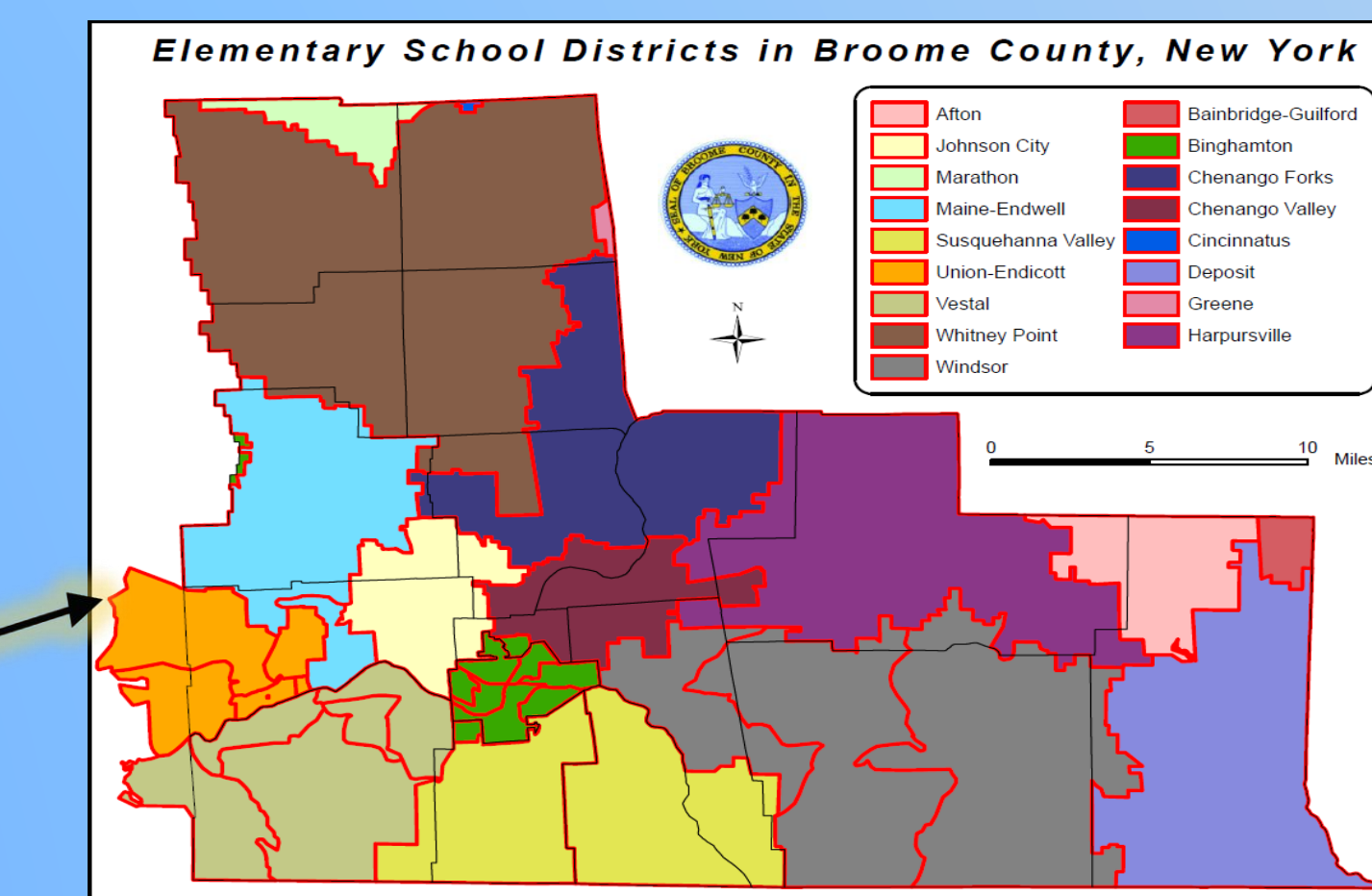
-U.S. Census 2000 Map Server
The United States Census of Population and Housing is an example of a widely used but very large and difficult to use research database. This application allows the user to select Census variables and map them for any part of the country.
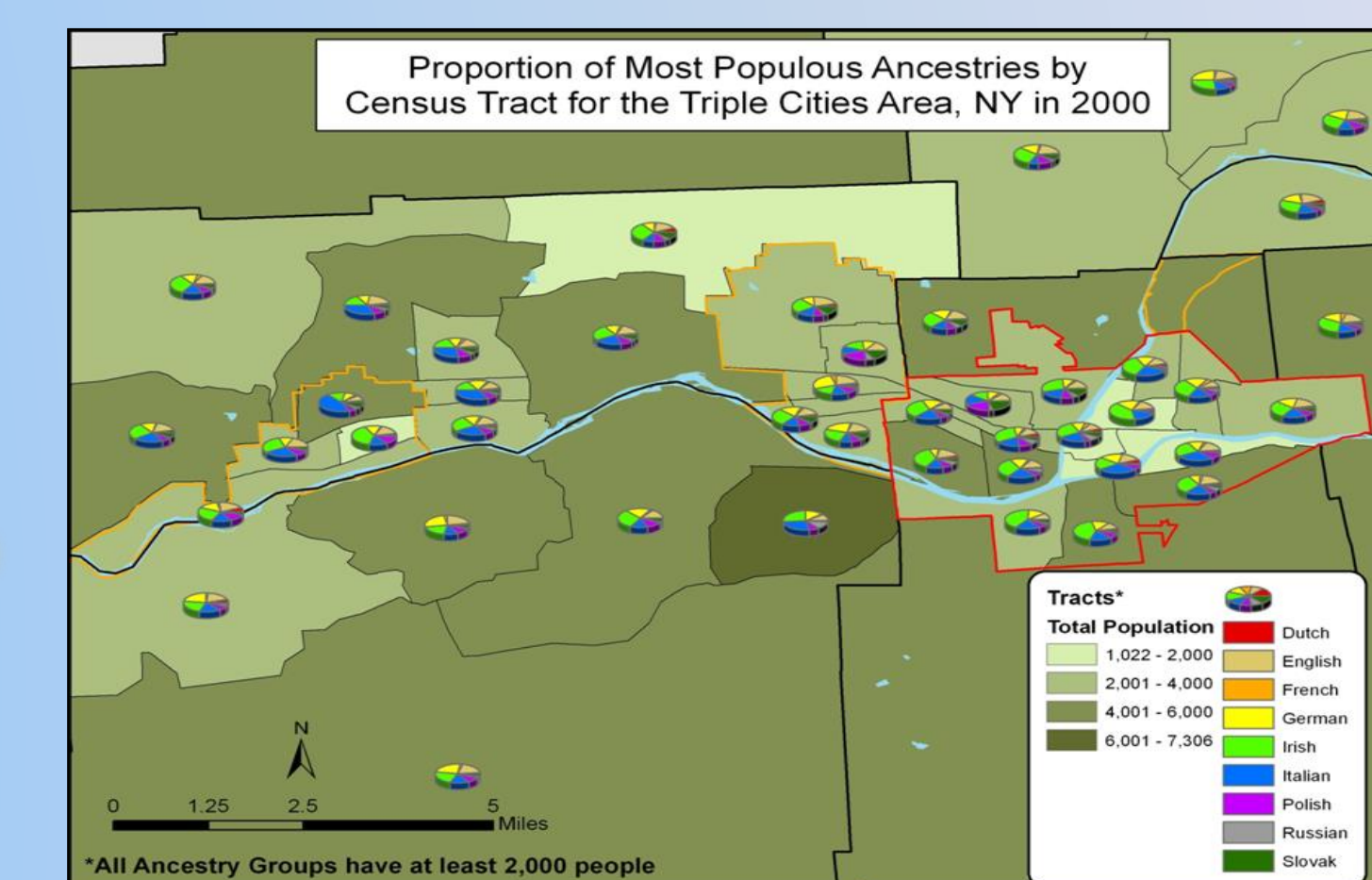
Sample Grant Activity and Publications:

-Virtual Binghamton
This grant work with Dr. Pam Mischen (Public Administration) and others culminated with a web application that had maps, charts, and displayed local datasets. This sought to help local agencies in their decision making processes.
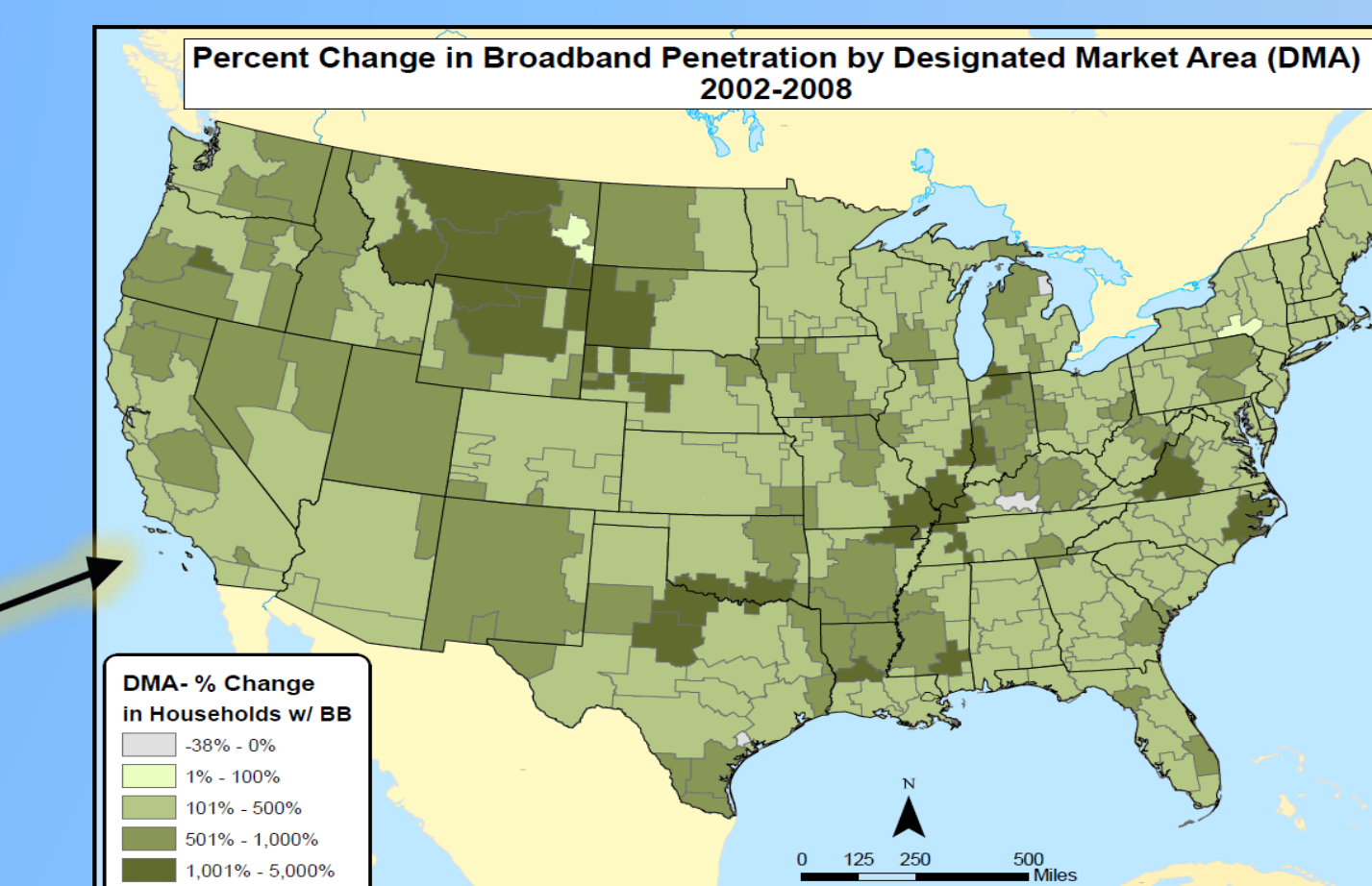
-Local Immigration and Ancestral Population
This work with Dr. Nadia Rubaii-Barrett (Public Administration) collected and analyzed current and historical immigrant populations in Broome County.
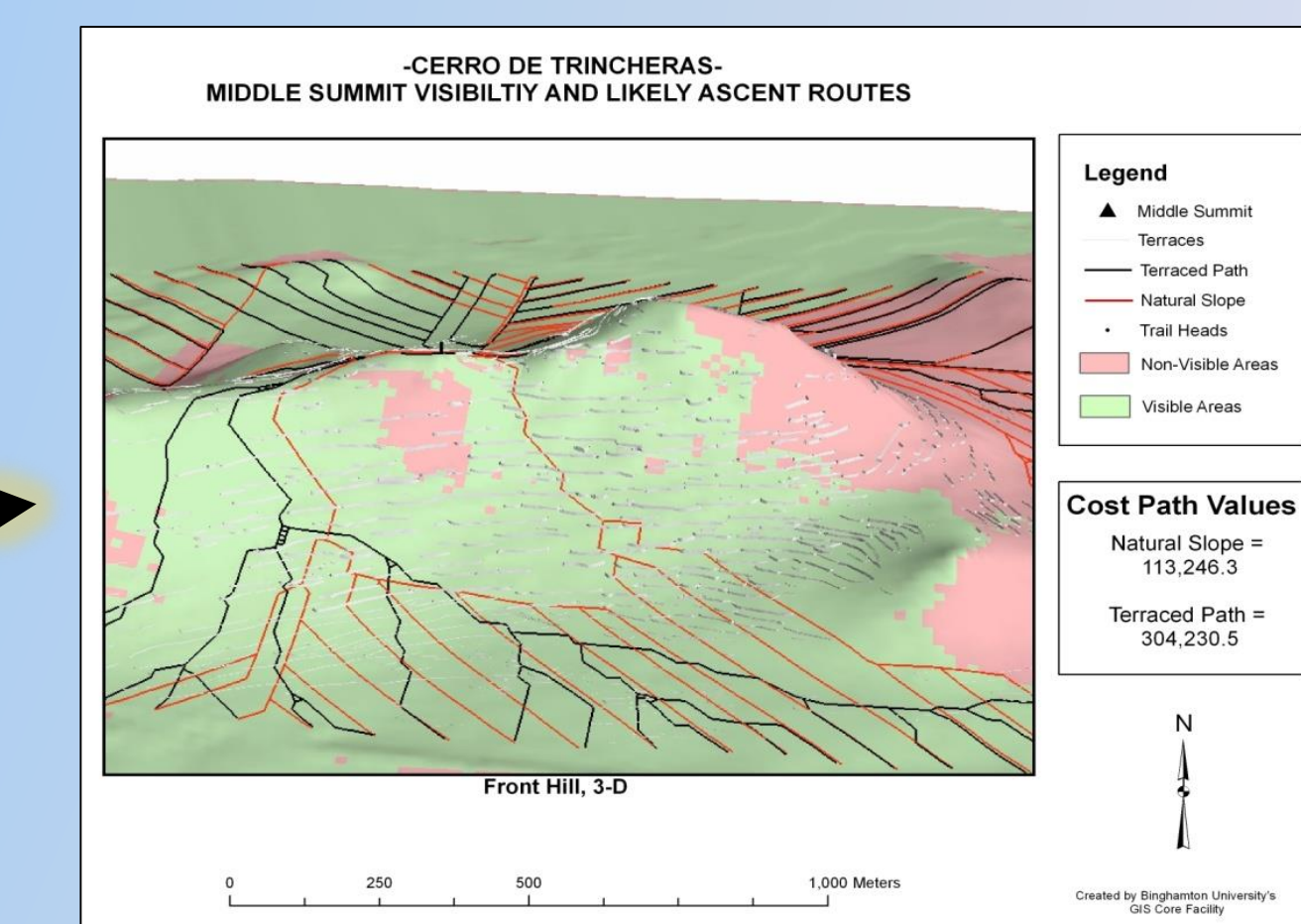
-Market Penetration of Technologies
This grant work with Dr. Hiroki Sayama (Engineering) and Dr. Manoj Agarawal (Management) mapped and modeled survey data from CENTRIS that describes technology adoption over time.
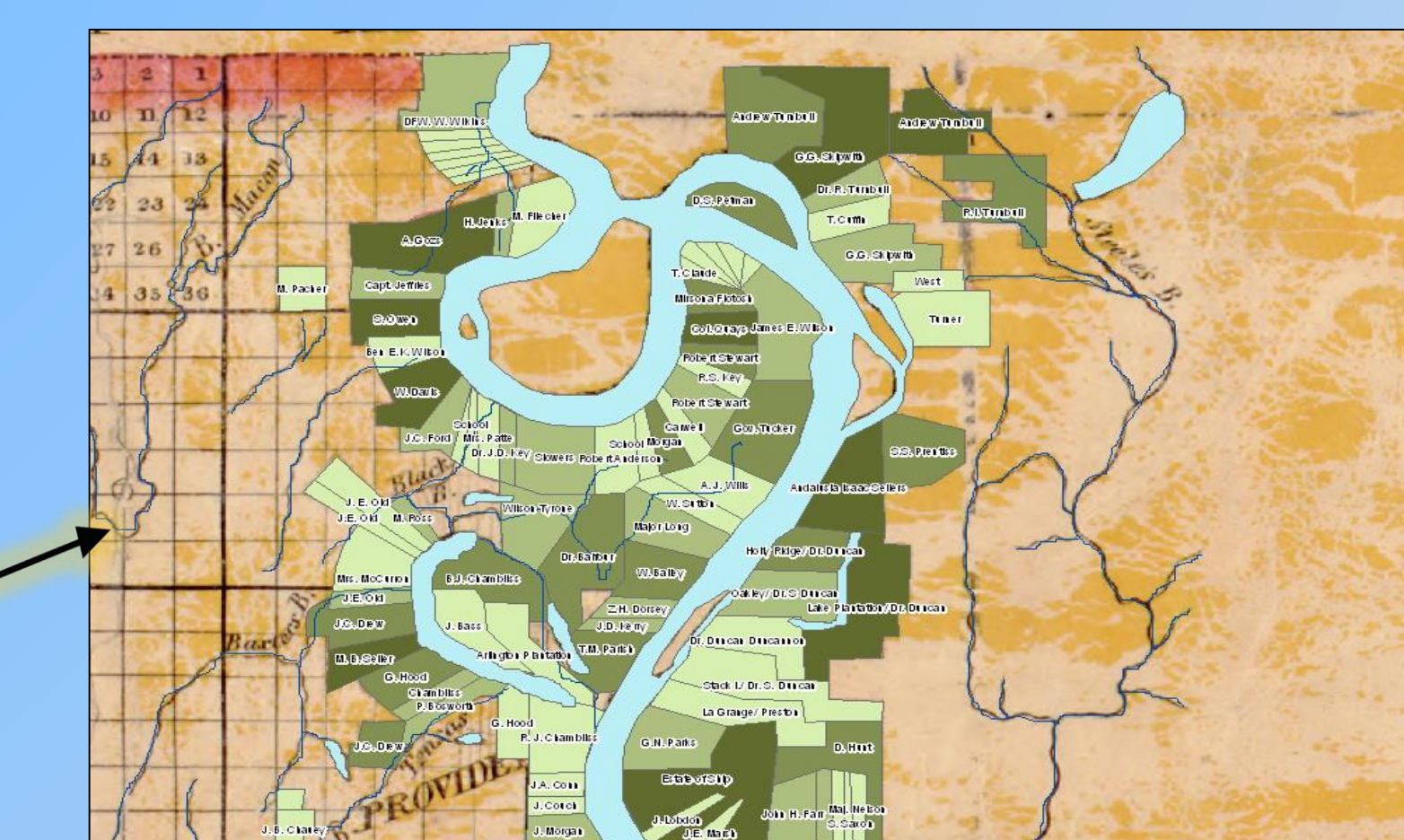
-The Cerros De Trincheras & Defense Project
This grant received by Anthropologist Dr. Randy McGuire sought to analyze the idea that terraces built on hills in prehistoric Sonora, Mexico were primarily used for defense.
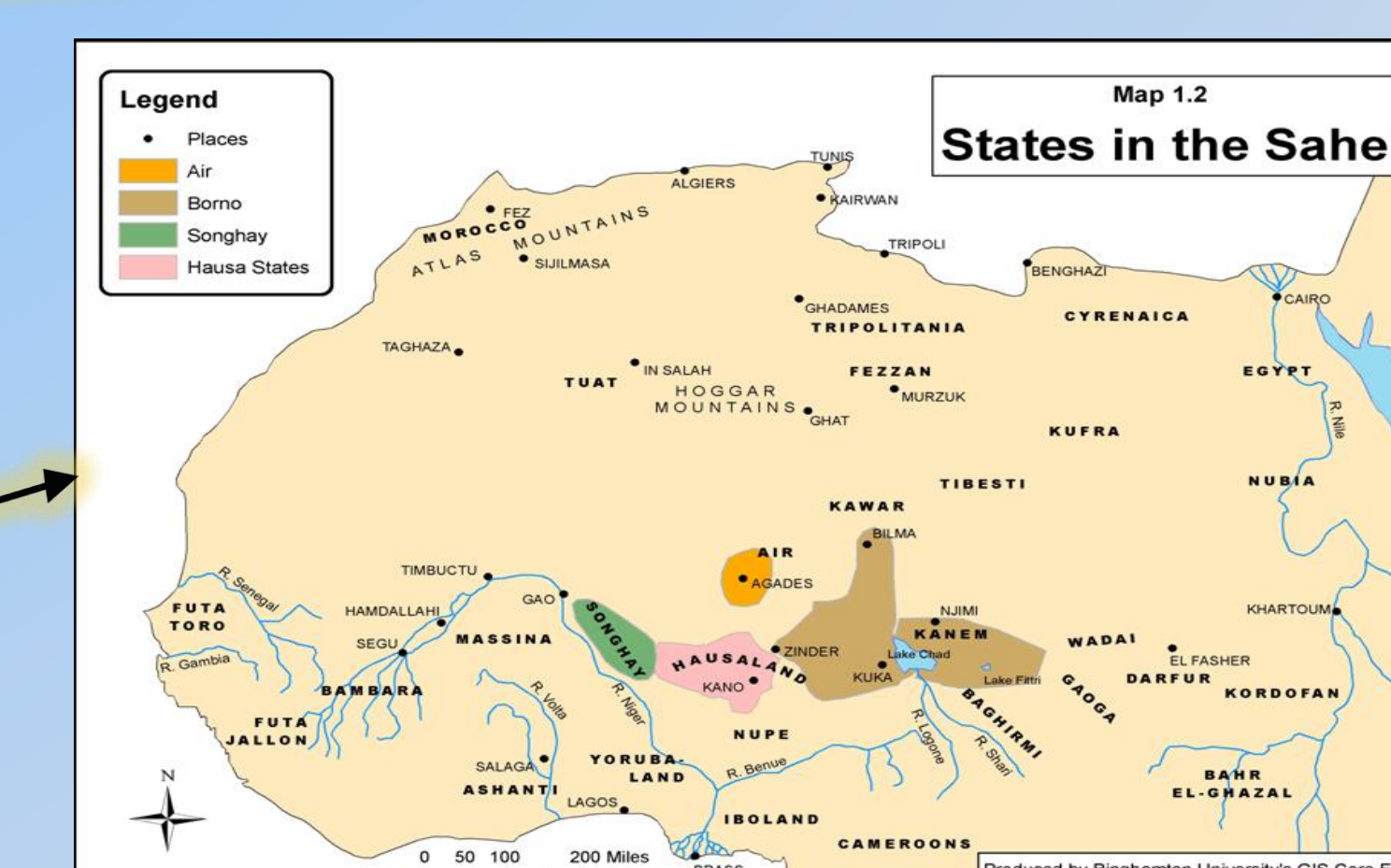
-La Tourette, LA Map Project
This work with Dr. Dale Tomich (History) aimed to recreate historic landowner maps by Parish in mid-1800's Louisiana.
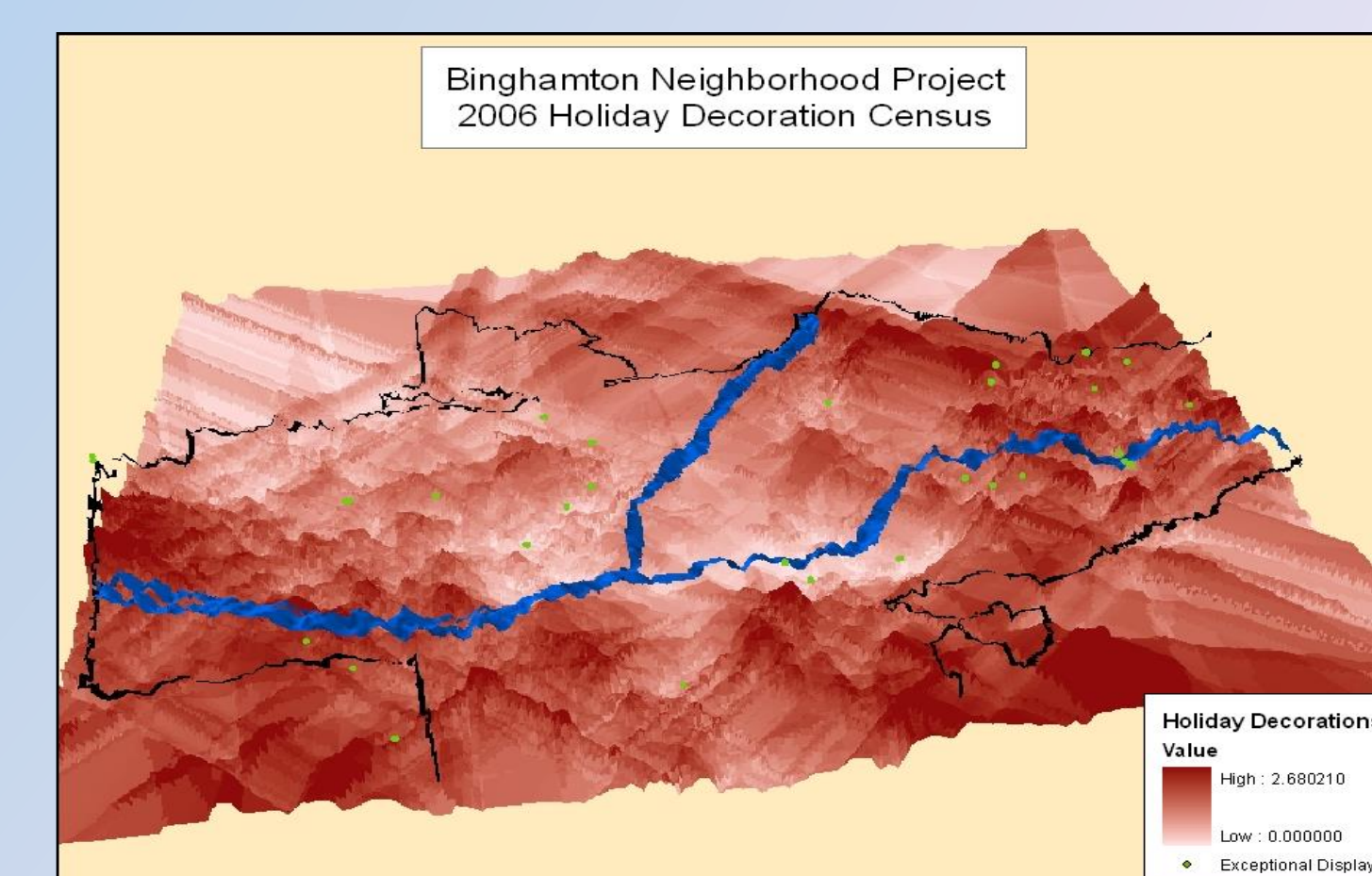
-Binghamton Neighborhood Project
This on-going work with Dr. David Sloan Wilson (Biology) seeks local datasets from various agencies and employs students to collect unique data.

-Borders, Nationalism, and the African State
A map for this publication shows African states and the domain of prehistoric kingdoms.

Departments Assisted

Alumni Relations----------Anthropology----------Biology----------CCPA----------Economics----------Engineering
Environmental Studies----------Geography----------Geology----------History----------Library----------Nursing----------OCCT
Office of Institutional Research----------Office of the Vice President----------Physical Facilities----------Political Science
Public Archaeology Facility----------Sociology----------Woman, Gender, and Sexuality Studies----------and MORE!

Off Campus Entities Assisted

Albany County District Attorney----------Broome County District Attorney
Binghamton Metropolitan Transportation Study----------Binghamton Police Department
Binghamton Regional Sustainability Coalition----------Center for Technology and Innovation
City of Binghamton Planning----------Cornell Cooperative Extension----------Joint Landowners Coalition
Roberson Museum----------New York City Department of Environmental Planning----------New York State Police
Southern Tier Regional Economic Development Council----------SUNY Albany----------Tioga County
University of Tennessee----------West Side Neighborhood Project----------and MORE!