Georgianna Strode

Florida
Resources &
Environmental
Analysis
Center
(FREAC)

GStrode@admin.fsu.edu

- My Research Background:

Our organization works with Geographic Information Systems (GIS).
I started as a computer programmer and along the way became a geographer.

Words I can relate to:
- Maps
- Data science
- Visual analytics

- How I'd Like to be Involved in a Smart Cities Project:

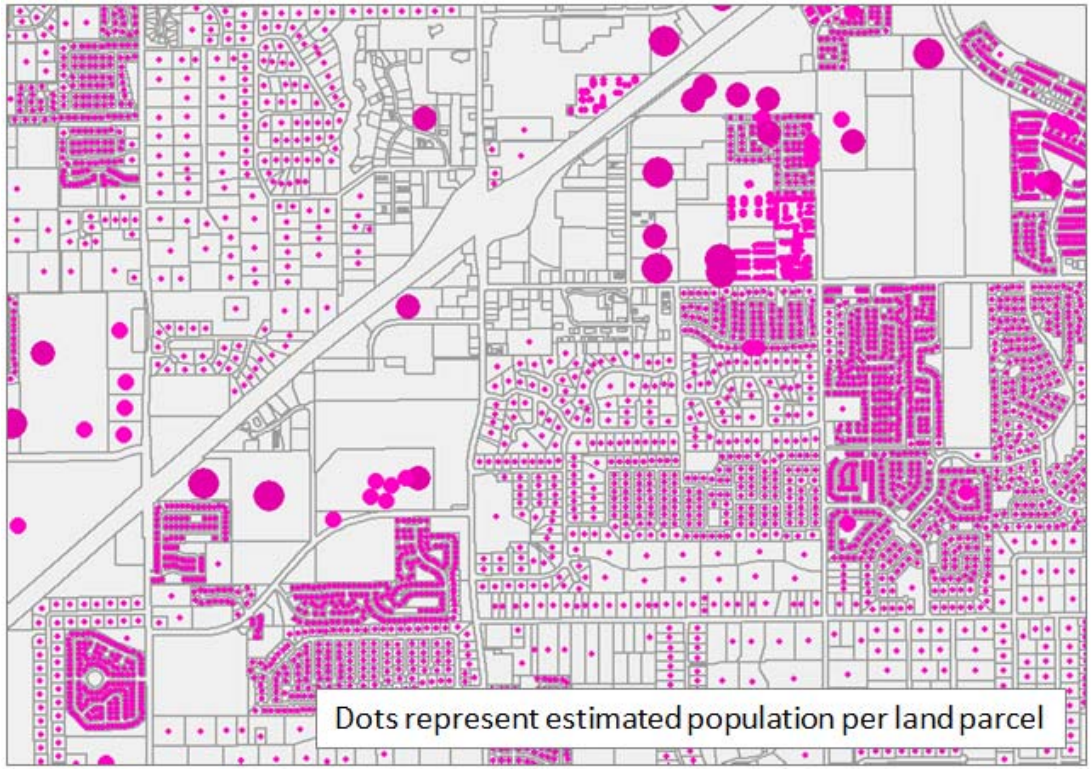
Our organization is an applied research group.

We provide **technical support** for campus organizations,
local and state governments, private agencies, and non-profits.

We have developed **high-resolution population data** by mixing census data with the Florida Department of Revenue's property tax database. The result is an estimated population for all of Florida's 9 million land parcels.

Population Estimate for Every Land Parcel in Florida

Census Data Combined with Property Appraiser Data



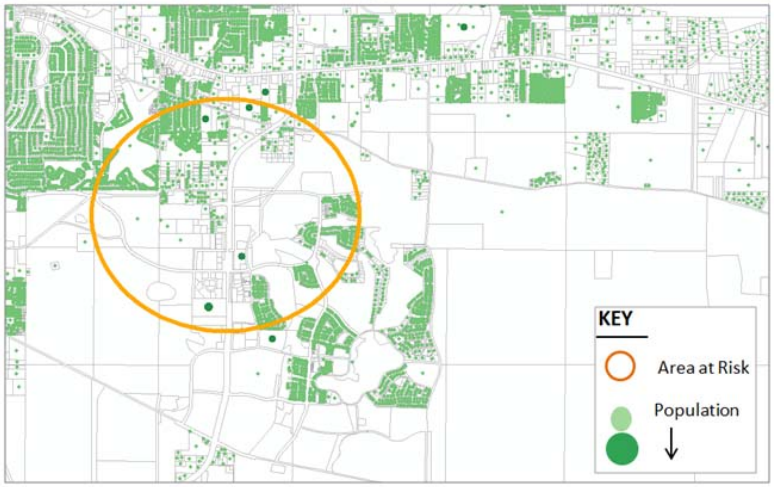
Traditional Population Methods Can Result in an *Undercount !!*

Two Ways to Calculate Population

Census Block Group Data

Population is assumed to be spread evenly across an area. Calculating the number of people at risk in an event is done through a ratio of the size of the risk area and the size of the census area (e.g. 20% of the land area and area assumes 20% of population).

Population at Risk
In this example: 3,688

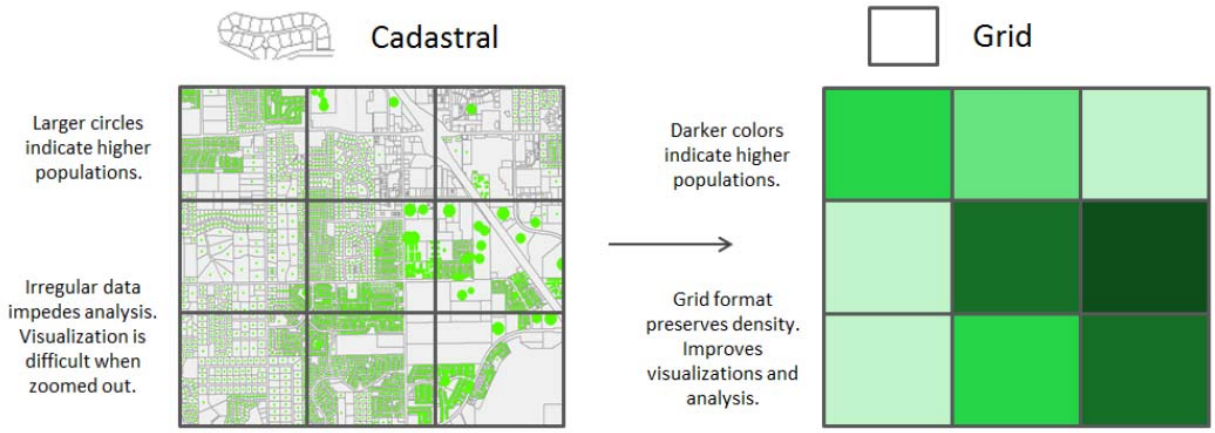


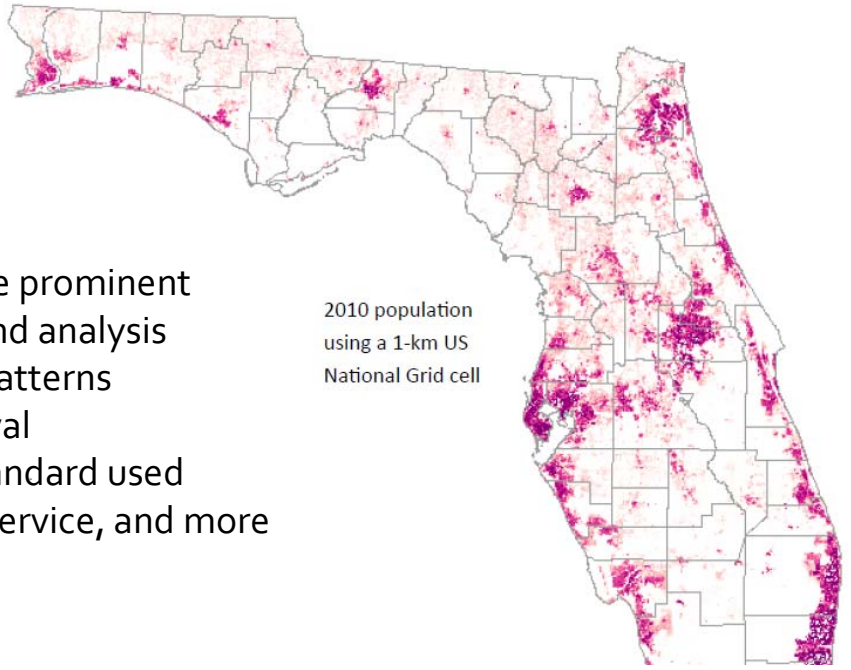
Dasymetric Parcel-based Estimations

Population is estimated for each land property parcel. Calculating the number of people at risk in an event is done by summing the estimates for all parcels within the area at risk.

Population at Risk
In this example: 5,267

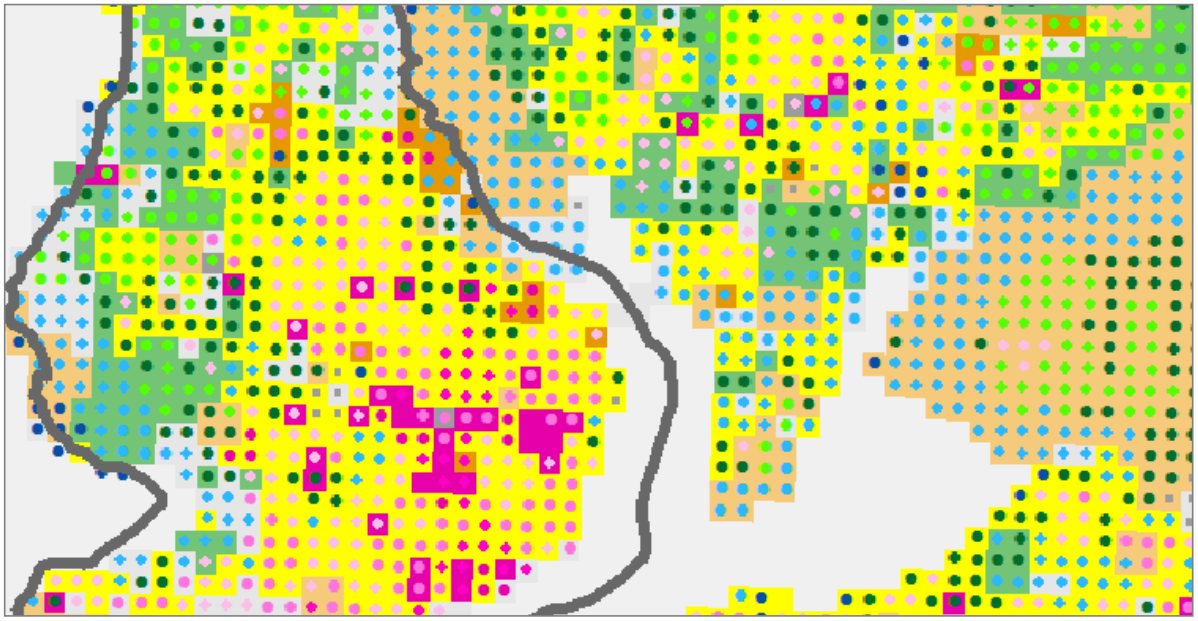
U.S. National Grid (USNG)



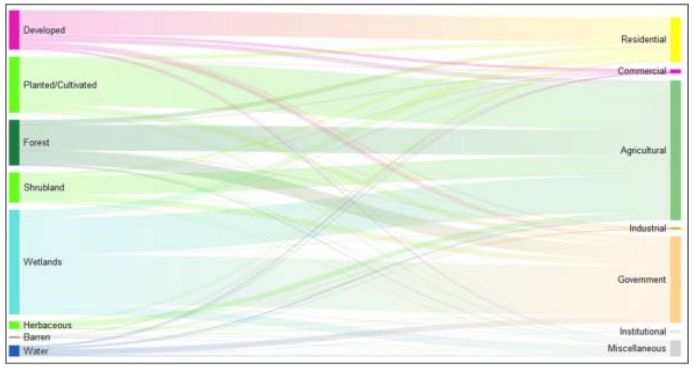


- Preserve data density
- Important features are prominent
- Facilitates statistics and analysis
- Does not mask data patterns
- Perfect for data archival
- USNG is a national standard used
  By FEMA, US Park Service, and more

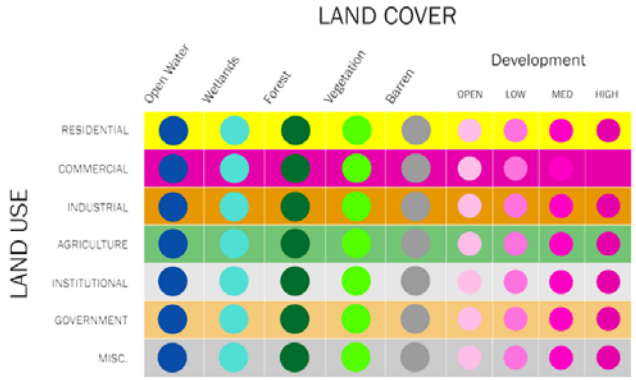
Sample Using Land Use and Land Cover Data



Land Cover



Land Use



Georgianna Strode
Florida Resources and Environmental Analysis Center (FREAC)

gstrode@fsu.edu
644-5886

freac.fsu.edu
fl-usng-gis.org

For More Information

Population Using Public & Private Drinking & Wastewater Infrastructures