

BACHMAN'S SITE LOCATION

Yeamin Faria
Chowdhury, Miranda
Davenport, & Beck
Duggleby

SITE ELEMENTS



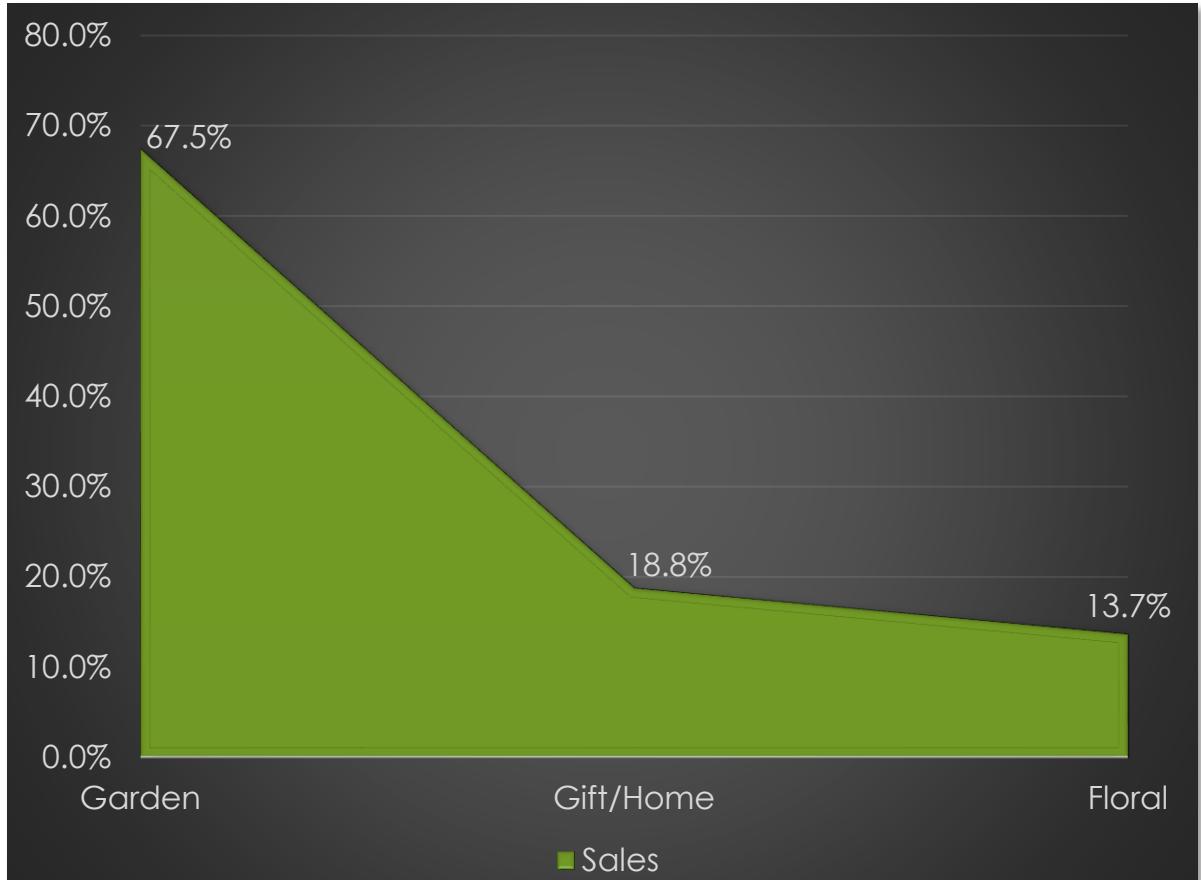
What are the spatial locations of gardening competitors and healthcare facilities?



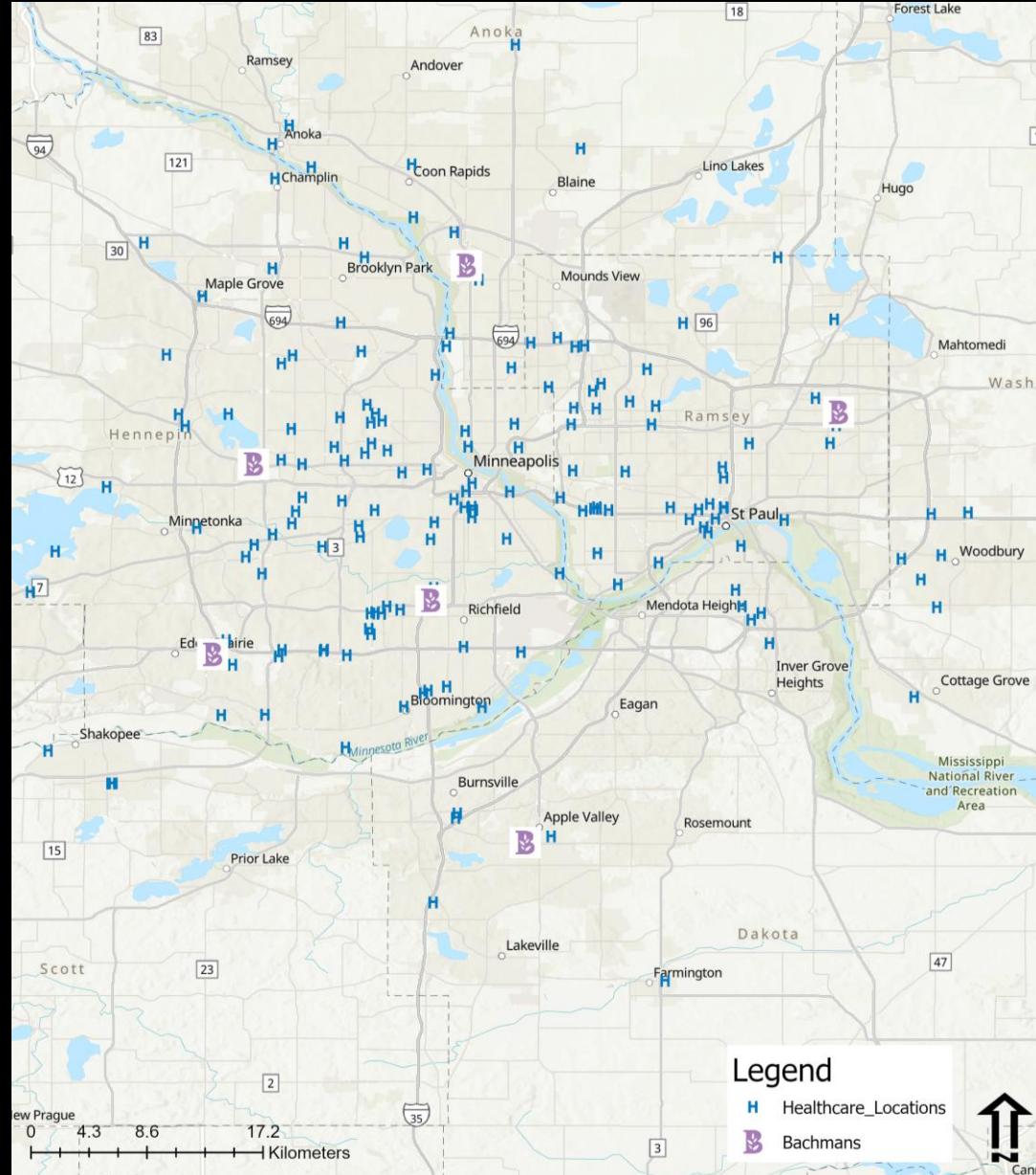
What are the income, age, education, population growth, gardening activity data, and most deliveries for each zip code?



What is the best potential location for a new site considering the locations of competitors, healthcare facilities, and demographic data?



2021 Sales Distribution



Hospitals, Nursing Homes,
& Hospice Locations

Esri, NASA, NGA, USGS, Metropolitan Council, MetroGIS,
Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA,
NPS

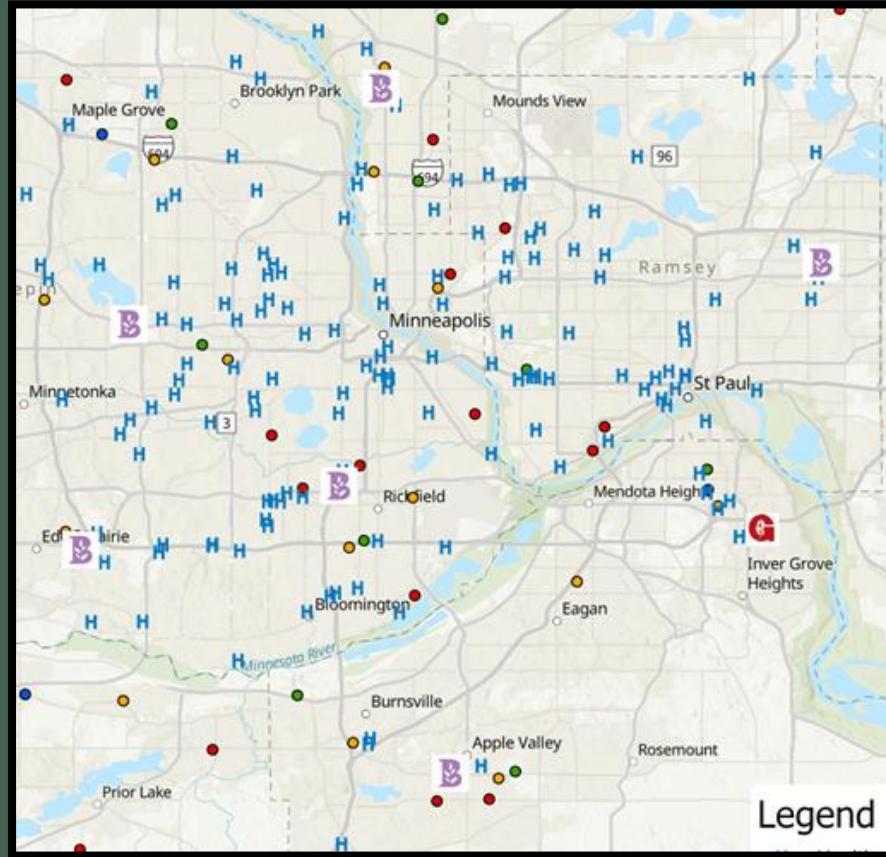
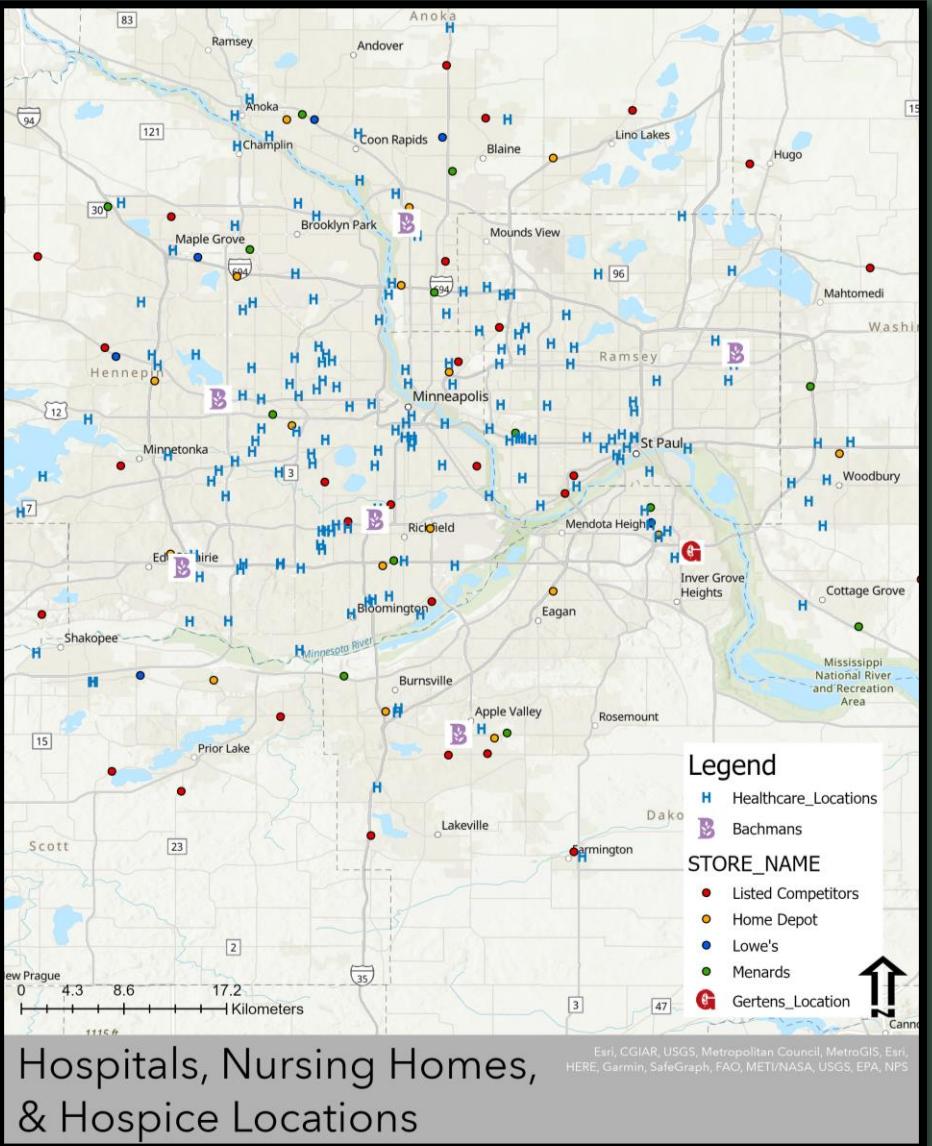
Floral

- Fresh Flowers
- Floral Arrangements
- Indoor Gardens
- Blooming Plants

Gift/Home

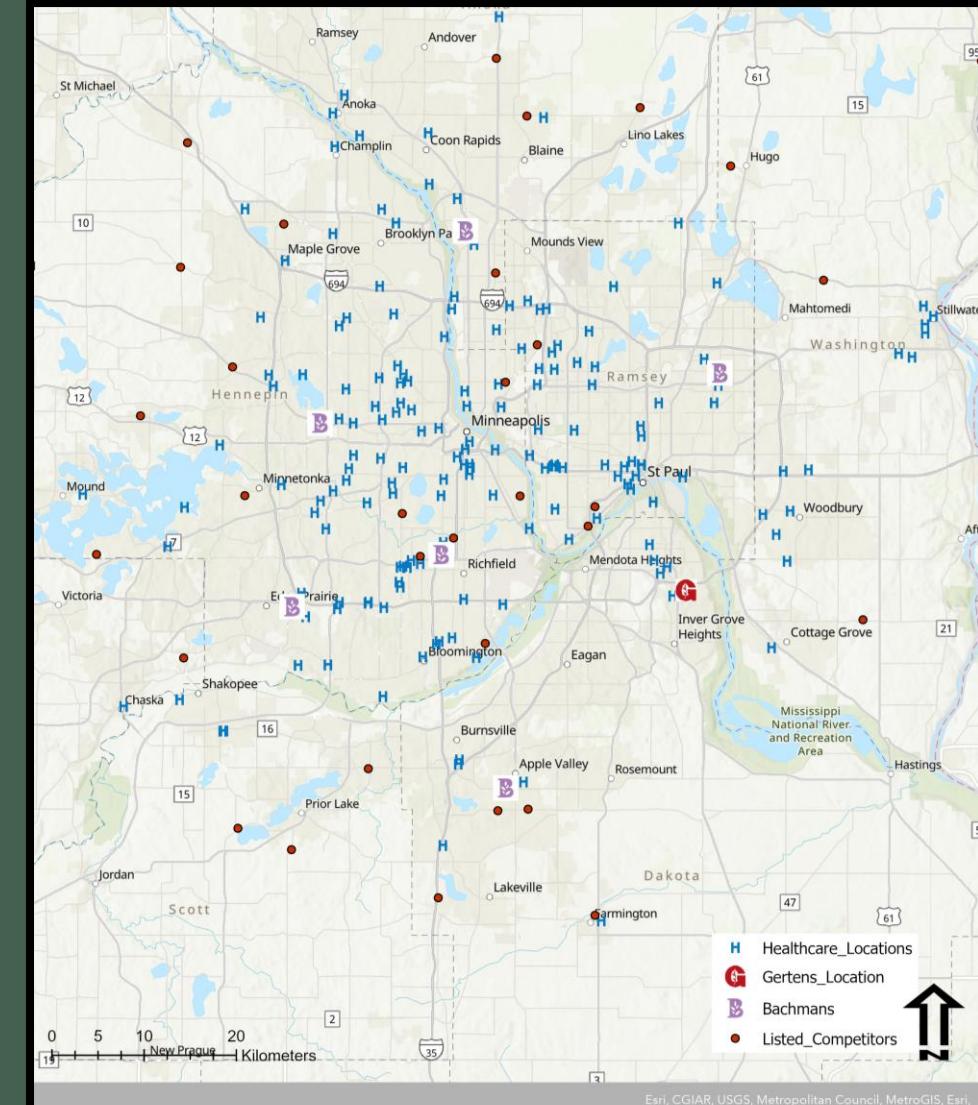
- Seasonal Gift
- Silks
- Greeting Cards
- Gifts
- Home
- Clothing

WHERE ARE GARDENING COMPETITORS AND HEALTHCARE FACILITIES?



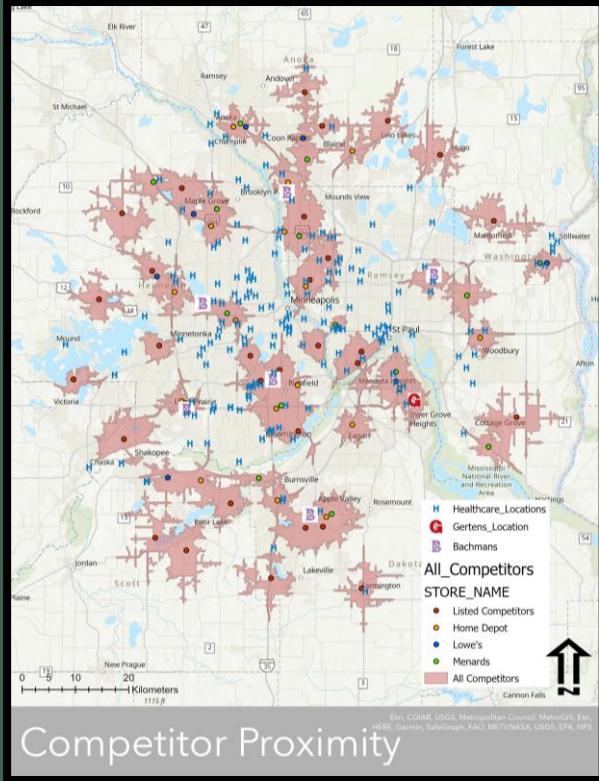
Listed Competitors

NAME	CITY
Pahl's Market	Apple Valley
Malmborg's Blaine	Blaine
Bloomington Garden Center & Landscape Company	Bloomington
The Mustard Seed Landscaping & Garden Center	Chaska
Heidi's GrowHaus & Lifestyle Gardens	Corcoran
Whispering Gardens	Cottage Grove
Farmington Greenhouse	Farmington
Mickman Brothers	Ham Lake
Wagner Greenhouses	Hugo
Gerten's	Inver Grove Heights
Terra Garden Center	Lakeville
Eisele Greenhouse	Lakeville
Waldoch Farm	Lino Lakes
Otten Brothers Garden Center	Long Lake
Lynde Greenhouse & Nursery	Maple Grove
Malmborg's Rogers	Maple Grove
Crabtree's Garden Gate	Marine on St. Croix
Tangletown Gardens	Minneapolis
Gardens of Rice Creek	Minneapolis
Mother Earth Gardens	Minneapolis
Mother Earth Gardens	Minneapolis
Sunnyside Gardens	Minneapolis
Wagner Greenhouses	Minneapolis
Tonkadale Greenhouse	Minnetonka
Dan & Jerry's Garden Center	Monticello
Pletscher's Greenhouse	New Brighton
101 Market	Otsego
Dundee Nursery & Landscaping	Plymouth
Queen Bee'z Lawn & Garden	Prior Lake
Cal's Market & Garden Center	Savage
Sailer's Greenhouse	Shakopee
Twin Orchards	Shorewood
Highland Nursery	St. Paul
Leitner's	St. Paul
Costa Produce Farm & Greenhouse	St. Paul

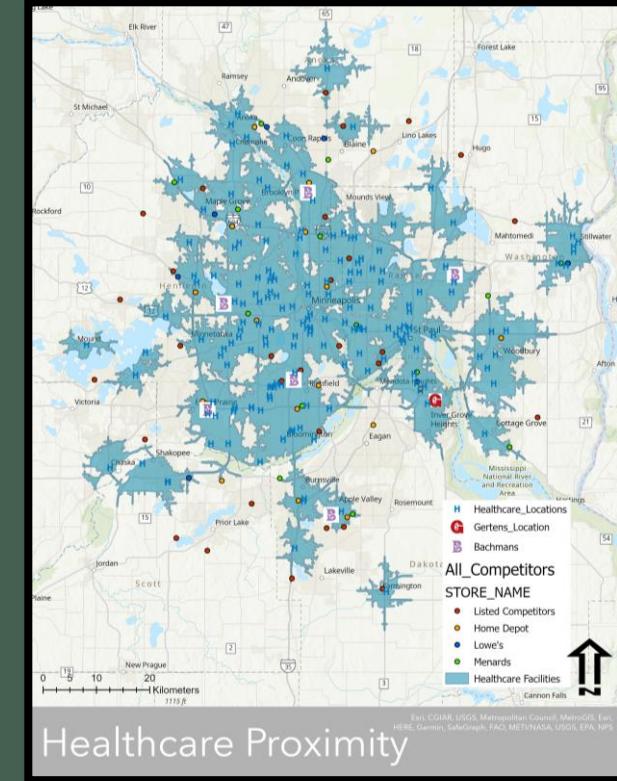
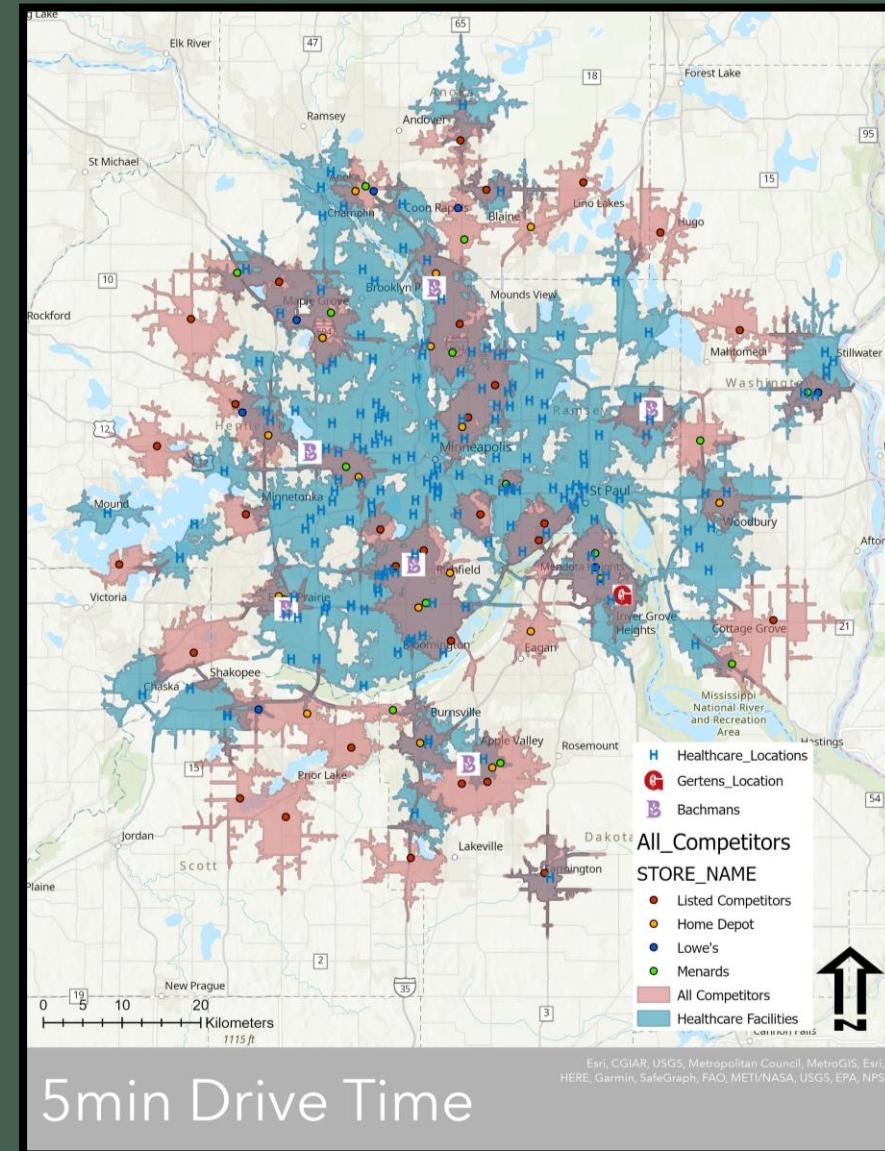


Bachman's Competitors

Esri, CGIAR, USGS, Metropolitan Council, MetroGIS, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS



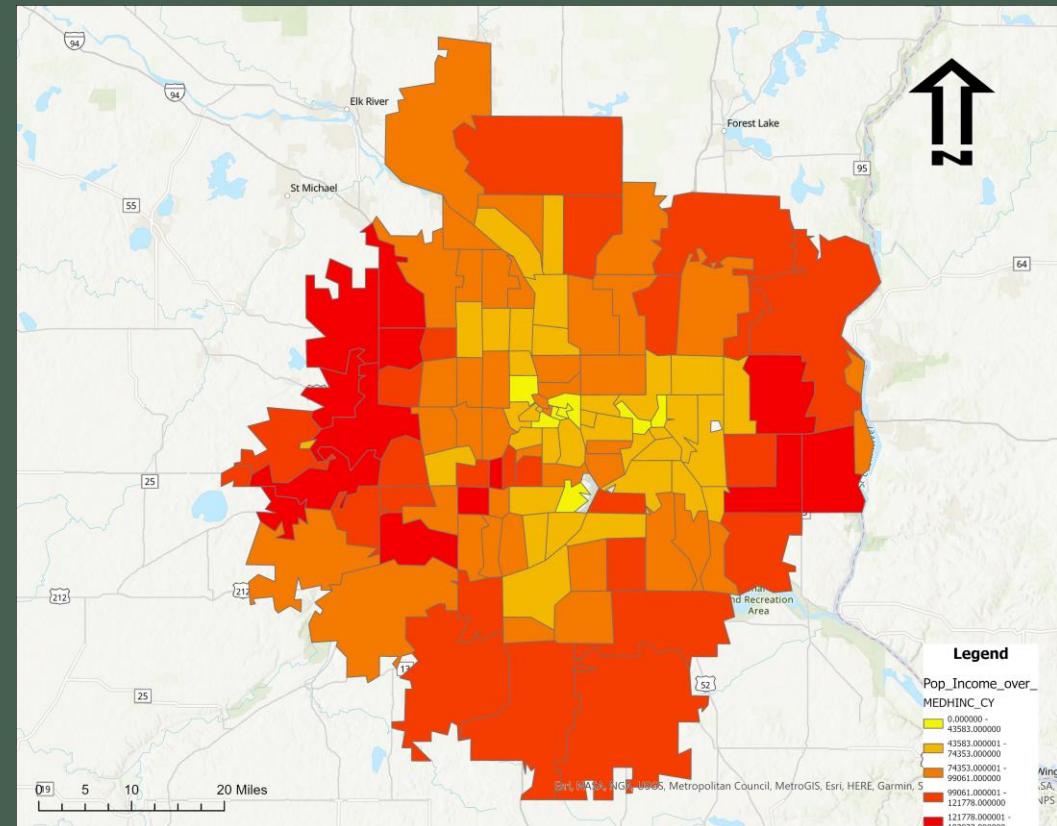
5min Drive Time



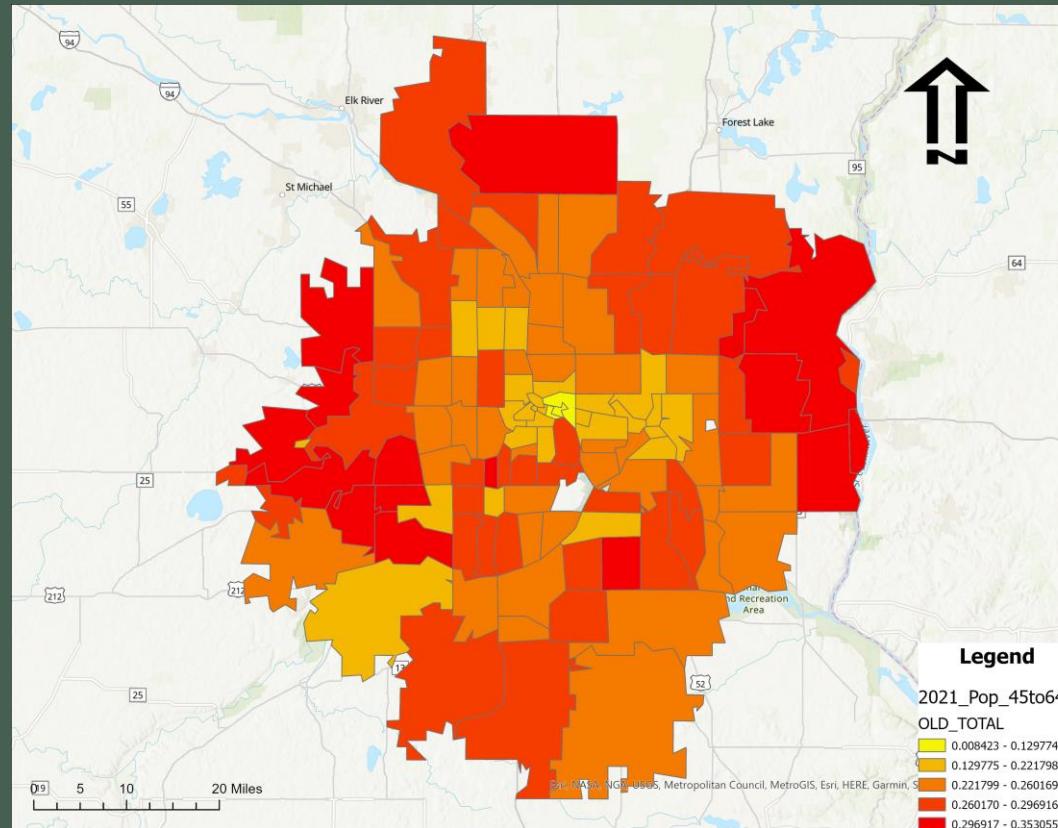
2

WHAT ARE THE VARIABLES
FOR EACH ZIP CODE?

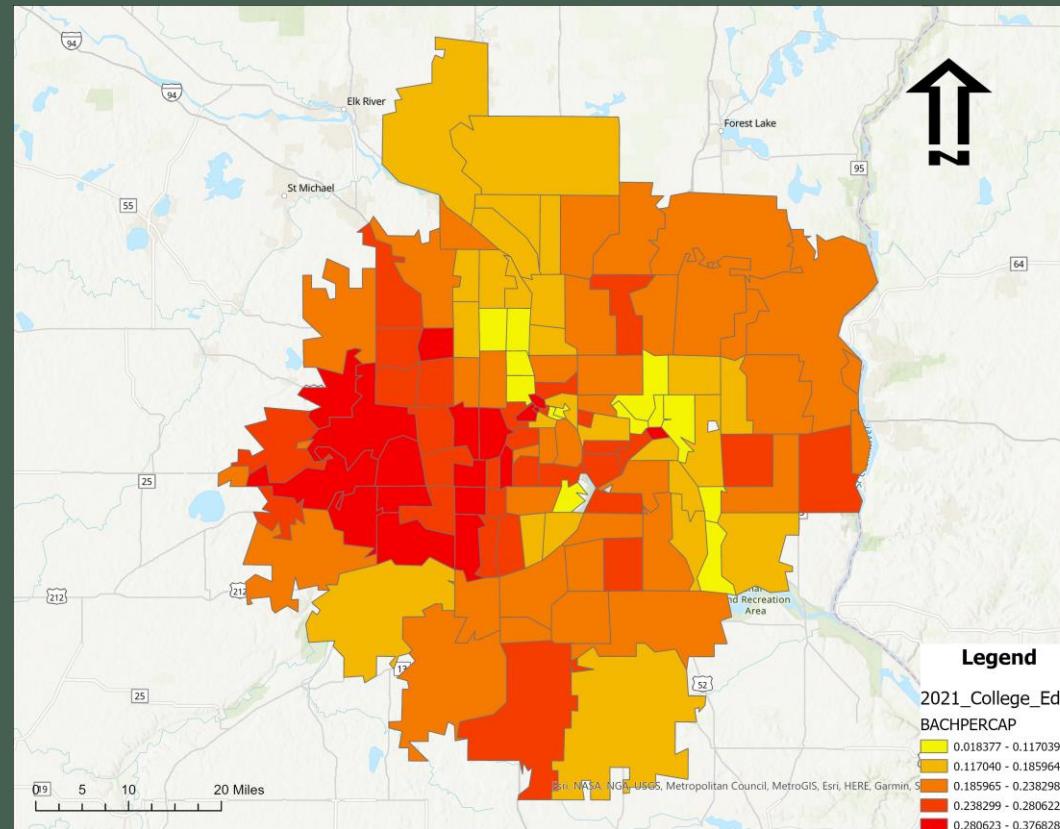
Median household income per capita



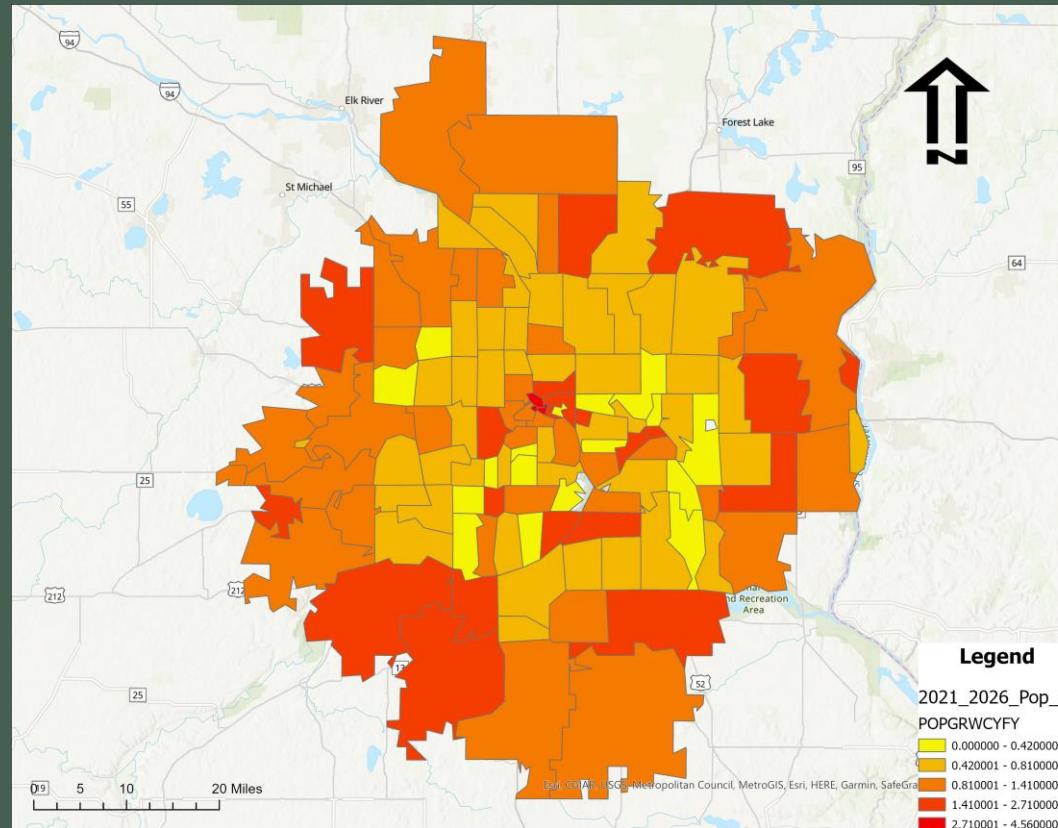
Population aged 45-64 per capita



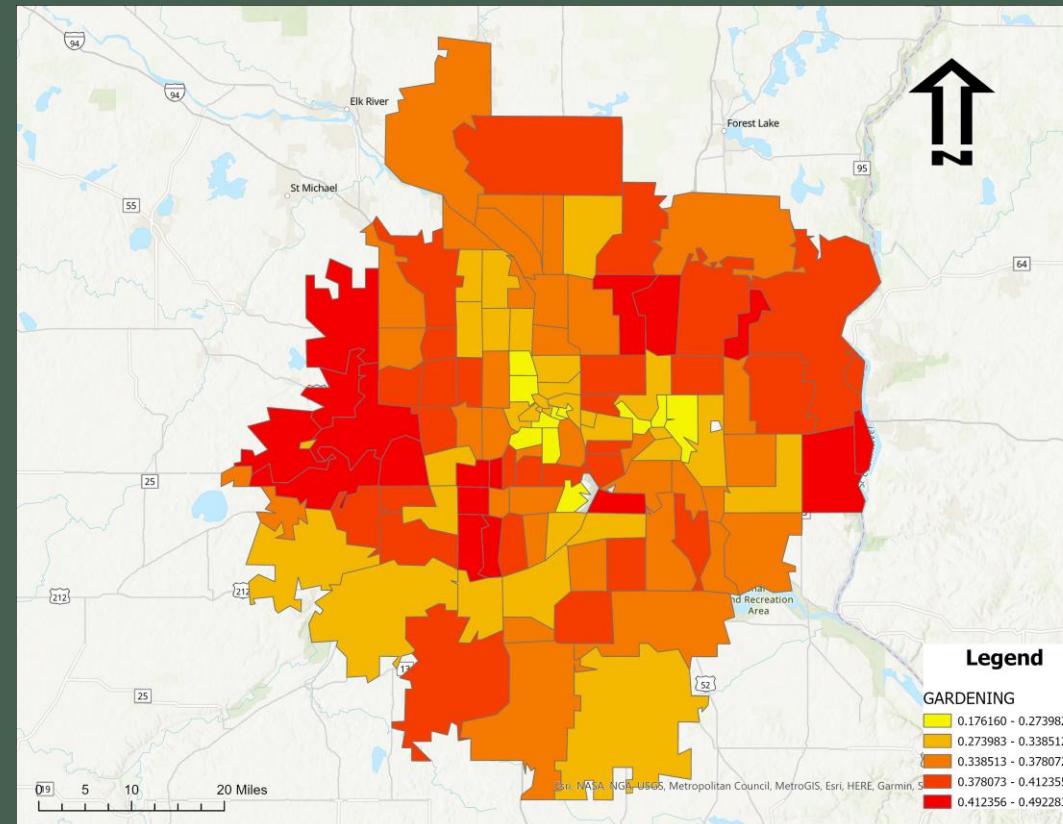
Bachelor's degree attainment per capita



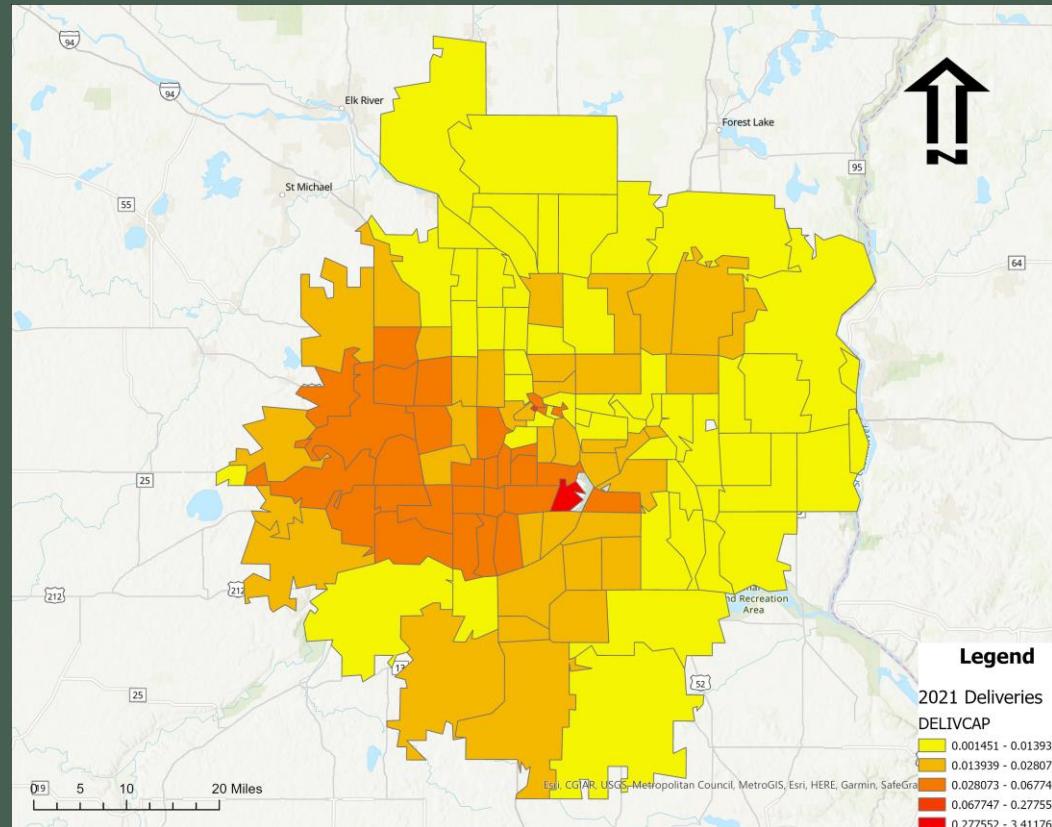
Population Growth per capita



Gardening Activity per capita



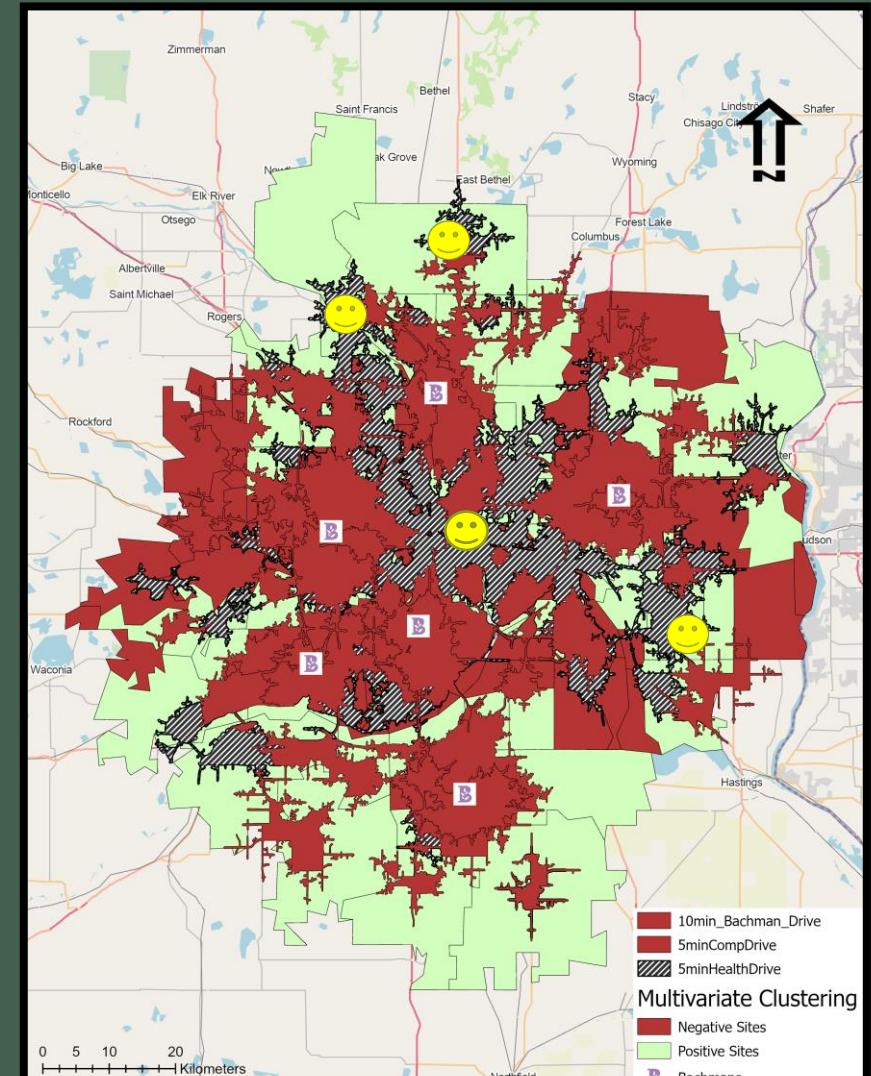
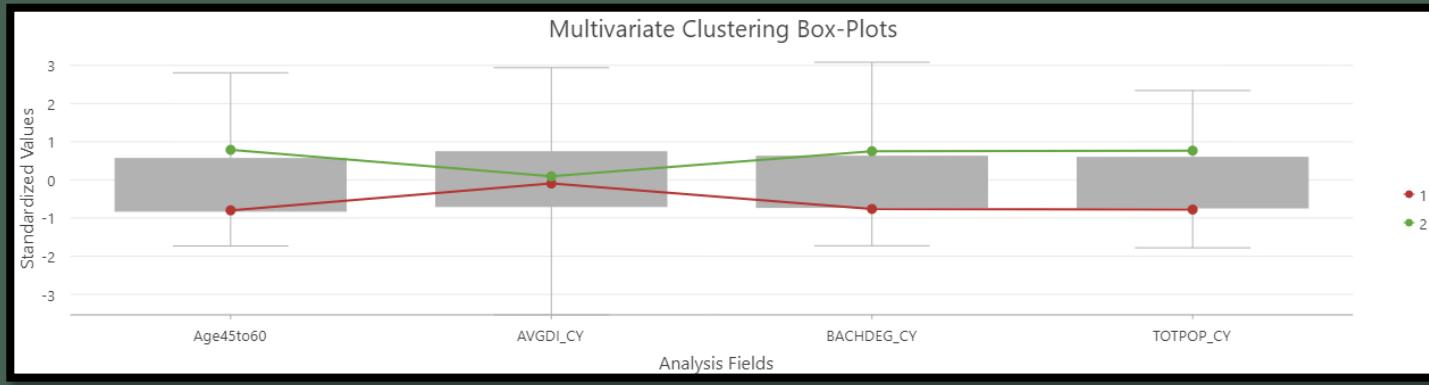
Deliveries per capita



3

WHAT ARE THE BEST POTENTIAL LOCATIONS FOR A NEW SITE?

Multivariate Cluster Analysis



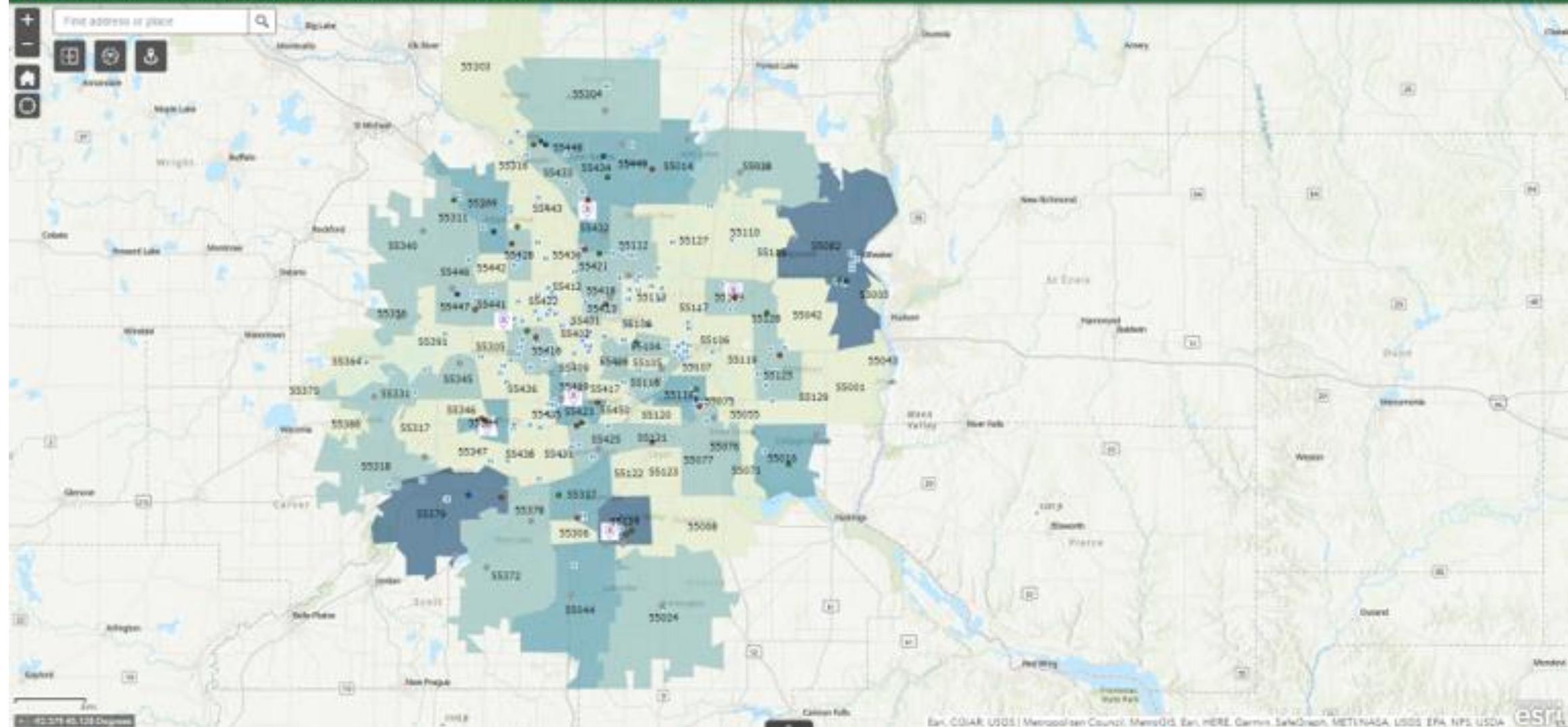
Potential Site Locations



WEB APPLICATION

Bachmann's Location App by Yearmin Chowdry, Miranda Davenport, and Beck Duggleby

with August Web Publishing



Basic Tools

- Legend
- Layer List
- Basemap Gallery
- Attribute Table

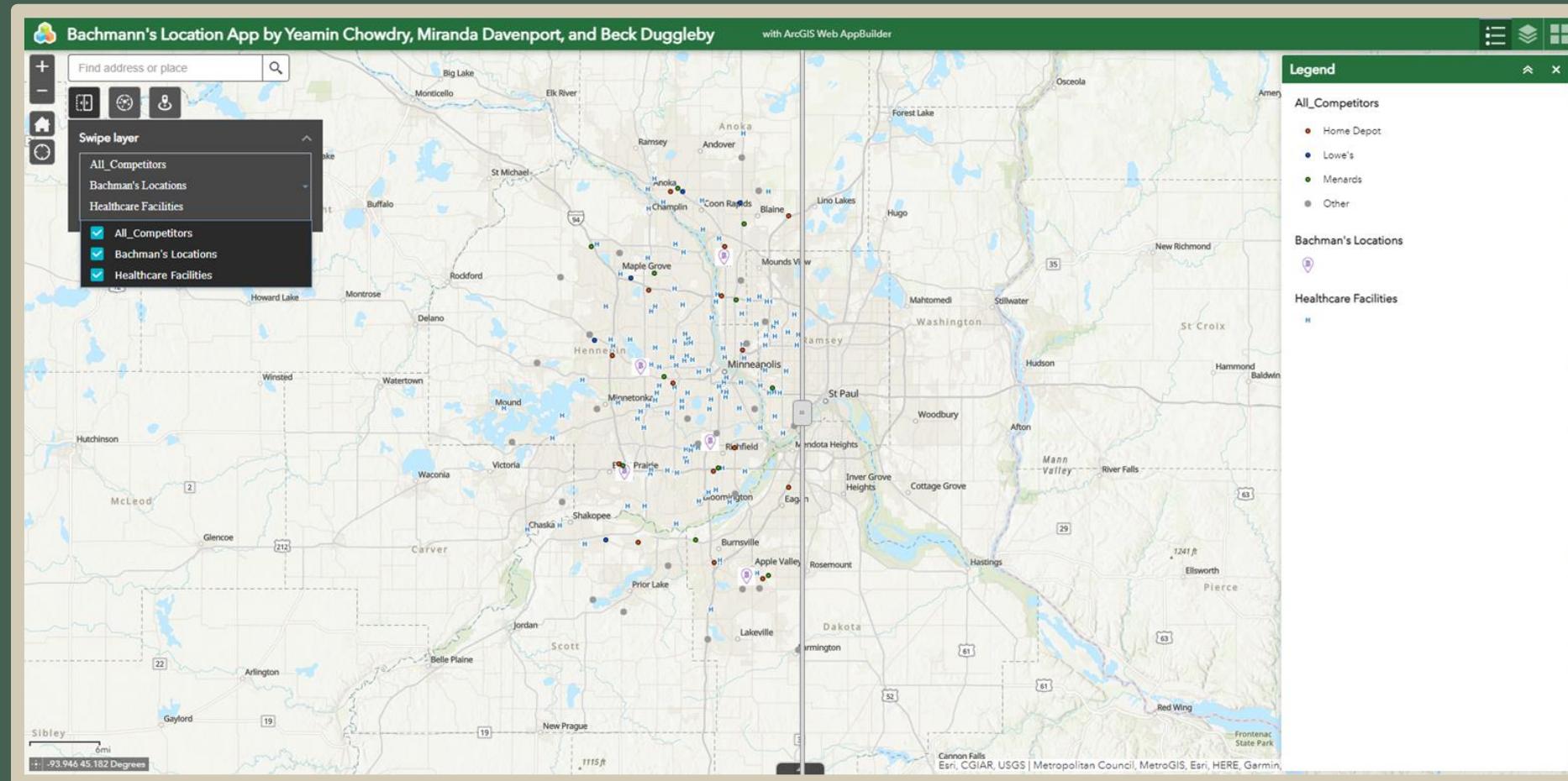
The screenshot displays a map application interface with several floating toolbars:

- Legend:** Shows categories for "All_Collectors" (Home Depot, Lowe's, Menards, Other) and "Bachman's Locations".
- Layer List:** A list of layers including "All_Collectors", "Bachman's Locations", "Healthcare Facilities", and various demographic and spatial data layers.
- Basemap Gallery:** A collection of map styles including Charted Territory Map, Colored Pencil Map, Community Map, Dark Grey Canvas, Firefly Imagery Hybrid, Human Geography Dark, Human Geography Map, Imagery, Imagery Hybrid, Light Gray Canvas, Mid-Century Map, Modern Antique Map, and National Geographic Style.

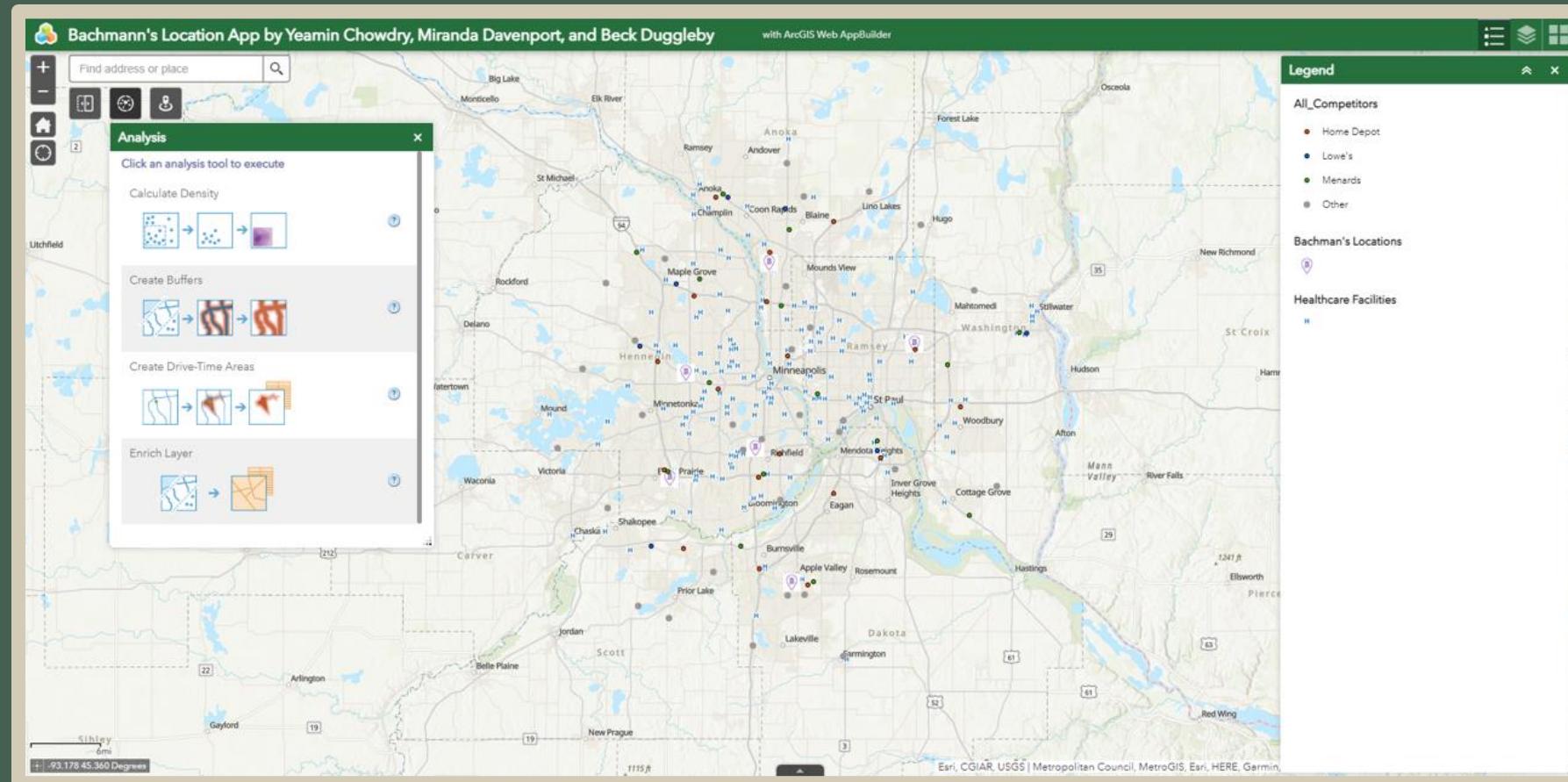
At the bottom, there is an attribute table showing data for Home Depot locations:

STORE_NAME	TOTAL_NAME	NUMBER	STREET	CITY	STATE	ZIP	FID	NAME
Home Depot	Maplewood #2801	2,801	2360 White Bear Ave No	Maplewood	MN	55109	1	Home Depot
Home Depot	Inver Grove Heights #2843	2,843	1300 E Mendota Road	Inver Grove Heights	MN	55077	2	Home Depot
Home Depot	Woodbury #2810	2,810	8334 Tamareck Village	Woodbury	MN	55125	3	Home Depot
Home Depot	Minneapolis Ne #2807	2,807	1520 New Brighton Blvd	Minneapolis	MN	55413	4	Home Depot
Home Depot	Eagan #2813	2,813	3220 Denmark Ave	Eagan	MN	55121	5	Home Depot
Home Depot	Richfield,MN #2845	2,845	6301 Richfield Pkwy	Richfield	MN	55423	6	Home Depot

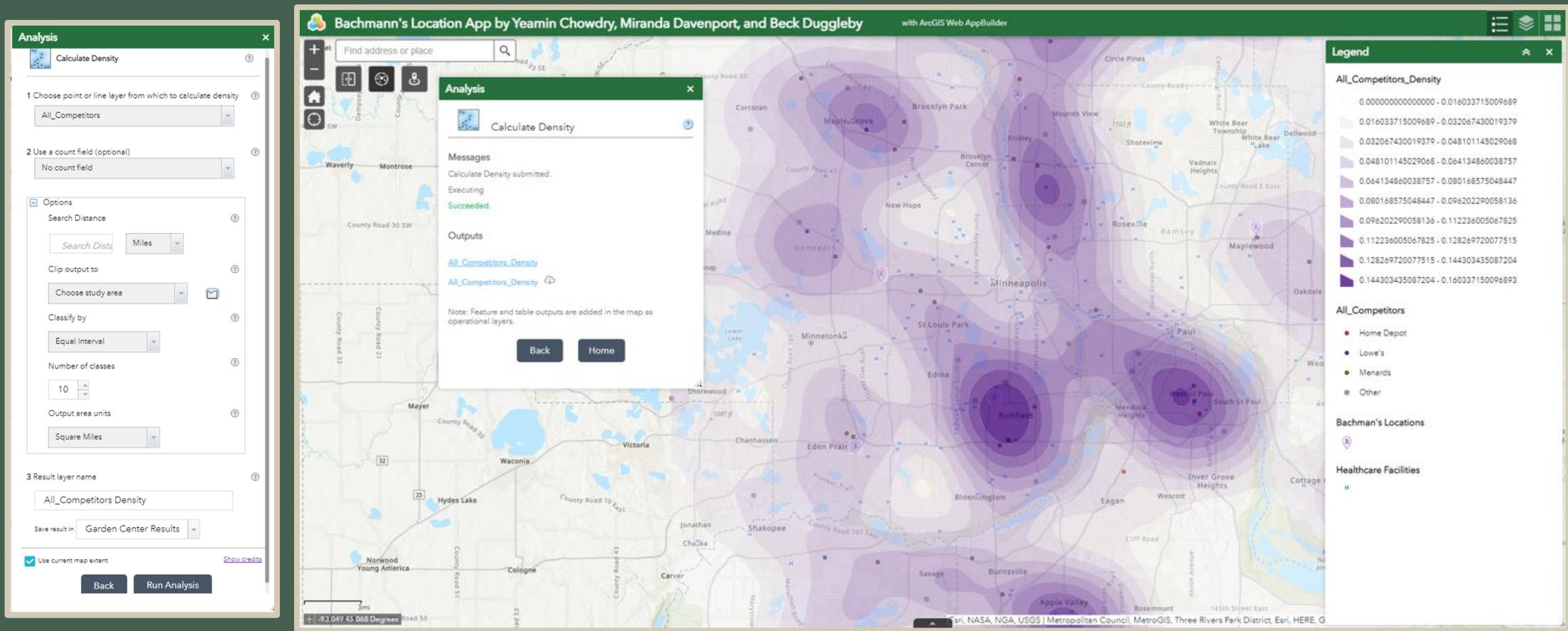
SWIPE



ANALYSIS



Calculate Density



Create Buffers

The image shows the ArcGIS Create Buffers tool interface and its resulting map visualization.

Tool Interface:

- Analysis:** Create Buffers
- Step 1:** Choose layer containing features to buffer
Selected: All_Collectors
- Step 2:** Enter buffer size
Distance: 1 Miles
- Step 3:** Options
Buffer type: Overlap
- Result layer name:** Buffer of All_Collectors
- Save result in:** Garden Center Results
- Checkboxes:** Use current map extent (checked), Show credits
- Buttons:** Back, Run Analysis

Map Visualization:

The map displays the Minneapolis-St. Paul metropolitan area with numerous blue buffer zones centered around various locations. The map includes labels for cities like Minneapolis, St. Paul, and Falcon Heights, as well as lakes like Lake Harriet and Lake Nokomis. A legend on the right side identifies the buffer layers and other data sources:

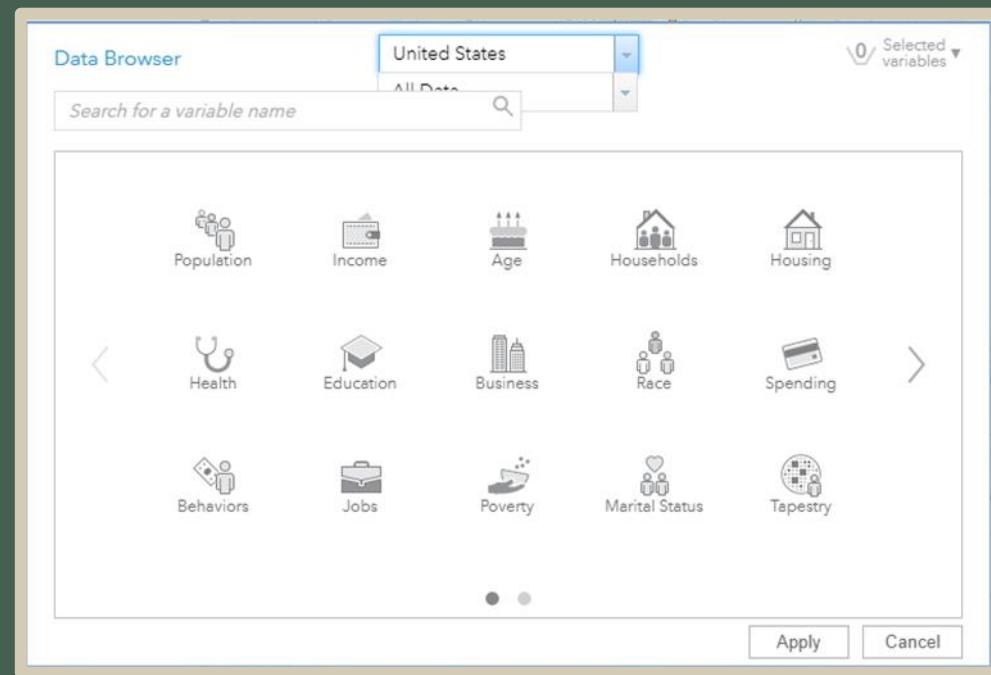
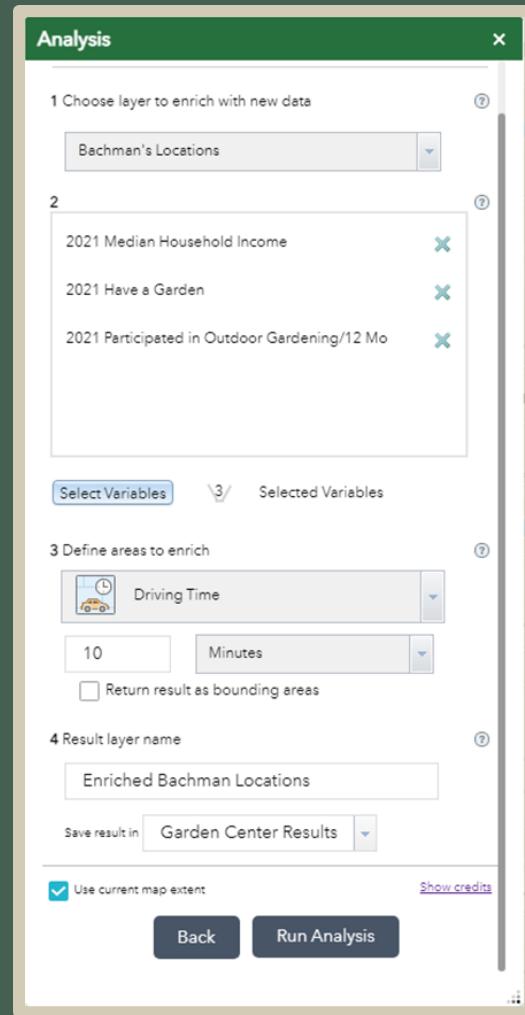
- Legend:**
 - Buffer_of_Collectors
 - All_Collectors
 - Home Depot
 - Lowe's
 - Menards
 - Other
- Bachmann's Locations**
- Healthcare Facilities**

Create Drive Time Areas

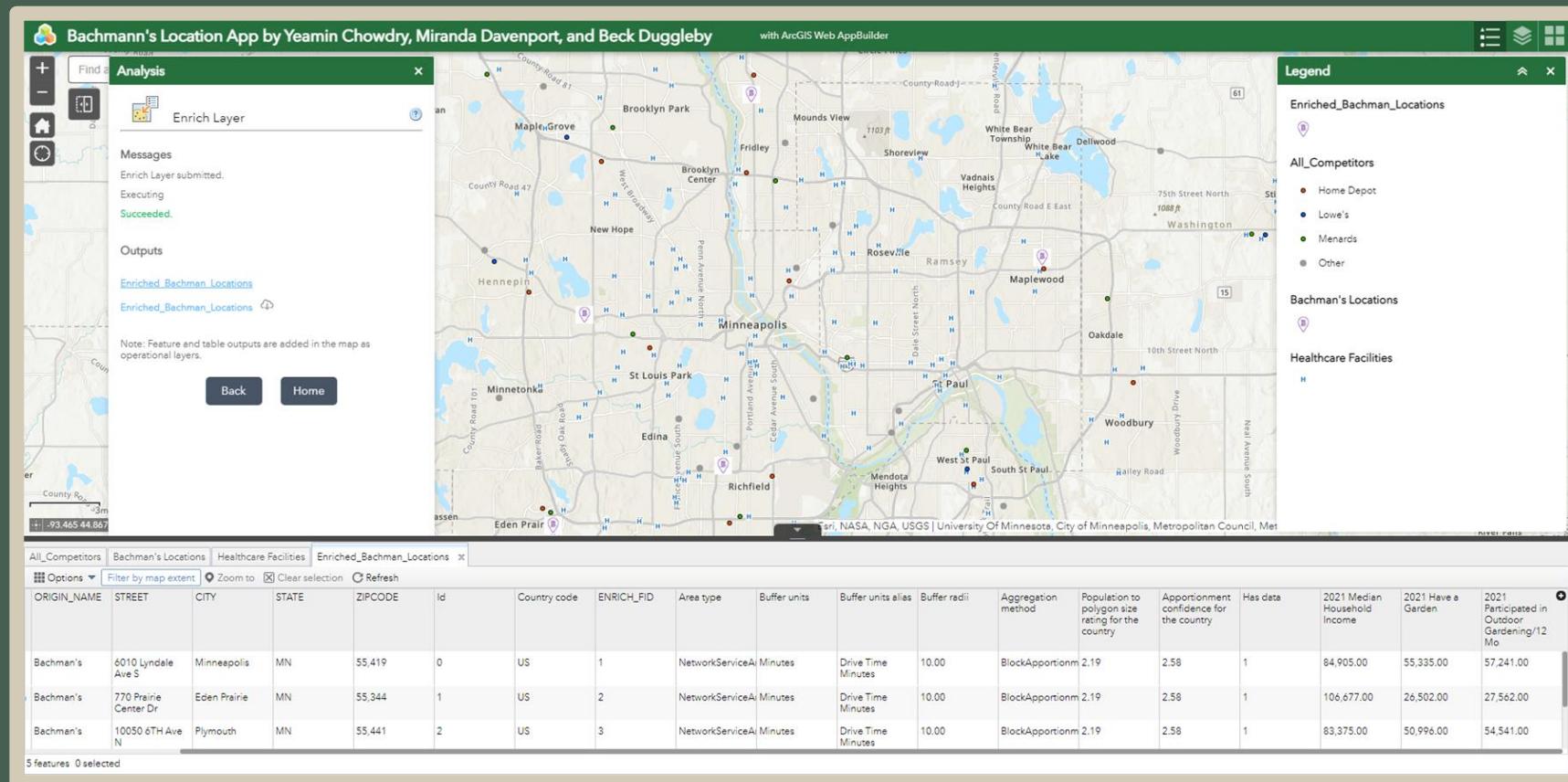
The image displays three screenshots from a GIS application demonstrating the creation of drive-time areas:

- Left Screenshot (Analysis Panel):** Shows the configuration of the analysis parameters. A point layer "All_Collectors" is selected. The measure is set to "Driving Time" with a value of 5 minutes. The "Use traffic" checkbox is checked, and the "Live traffic" option is unselected. The "Traffic based on typical conditions for" dropdown shows "Monday" at "5:00 PM". Under "Travel direction", "Away from Facility" is selected. The "Areas from different points" section includes options for "Overlap", "Dissolve", and "Split". The "Result layer name" is set to "Travel from Competitors (5 Minutes)".
- Middle Screenshot (Analysis Result):** Shows the "Create Drive-Time Areas" dialog box. It displays a message indicating the task has succeeded. The output layer "Travel_from_Collectors_(5_Minutes)" is listed. A note states that feature and table outputs are added as operational layers. The background map shows purple shaded regions representing the calculated drive-time areas.
- Right Screenshot (Map View):** A detailed map of the Minneapolis-St. Paul metropolitan area. Numerous purple shaded regions represent the 5-minute drive-time areas centered on various competitor locations. The map also includes roads, water bodies, and other geographical features. A legend on the right side provides a key for the drive-time areas and lists competitor locations such as Home Depot, Lowe's, Menards, and Other.

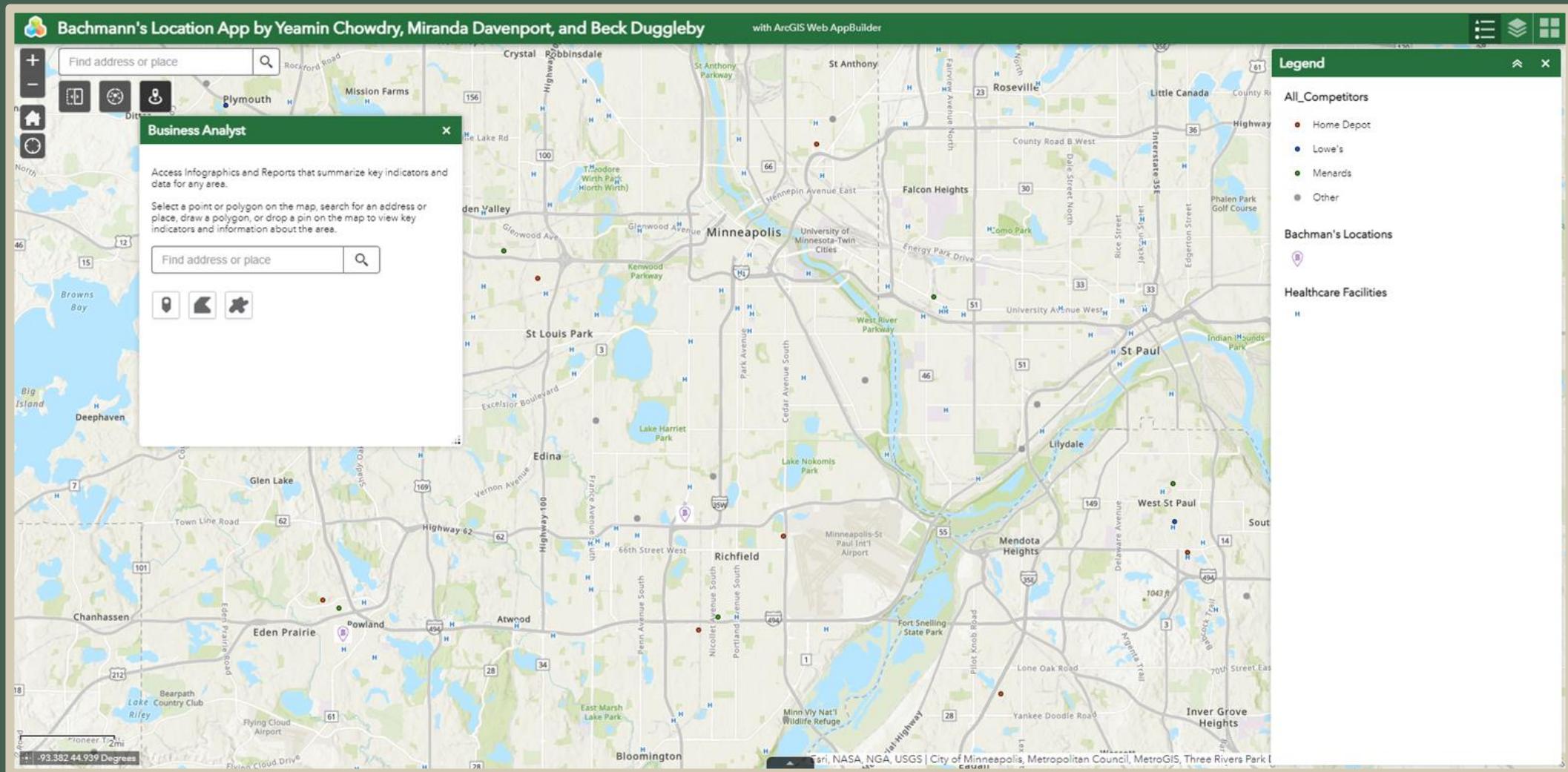
Enrich Layer

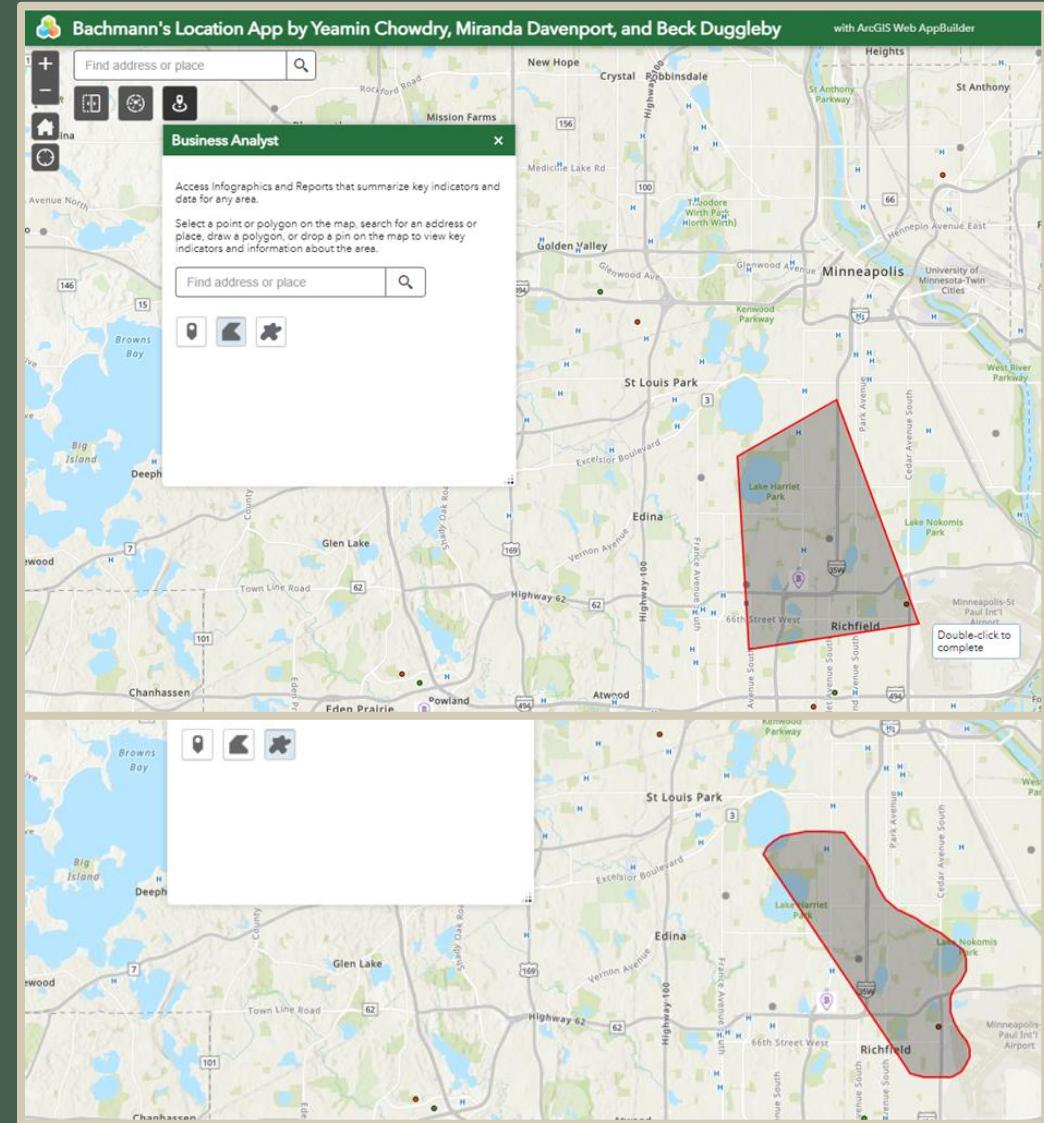
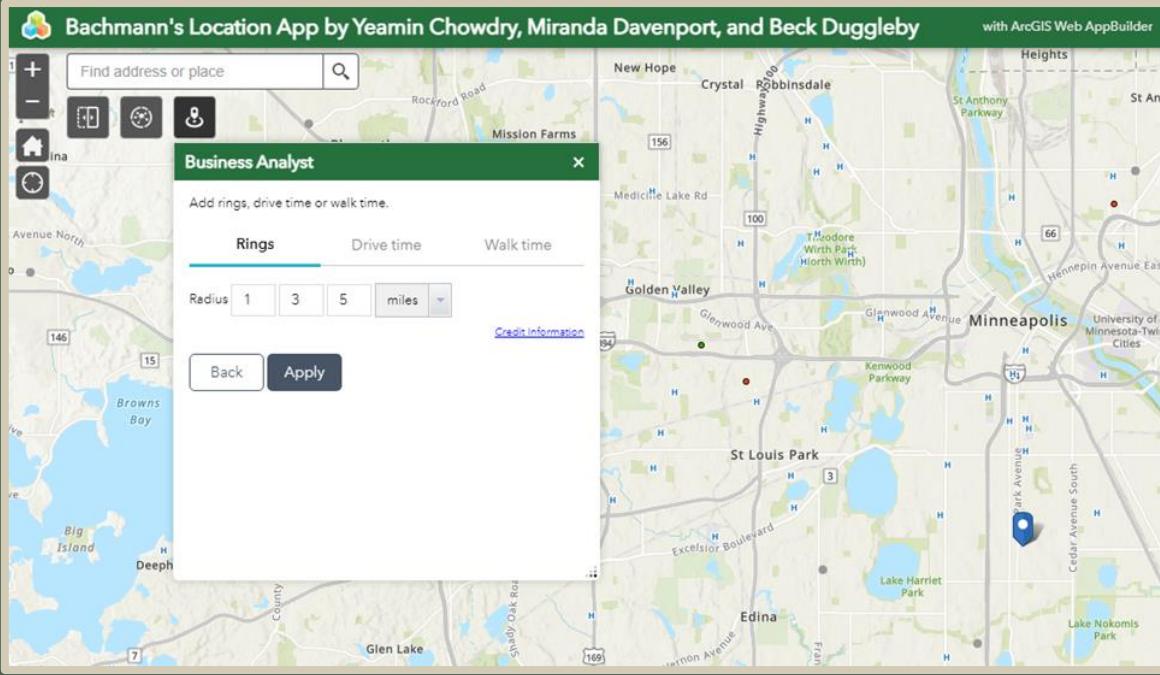


Enriched Results



BUSINESS ANALYST

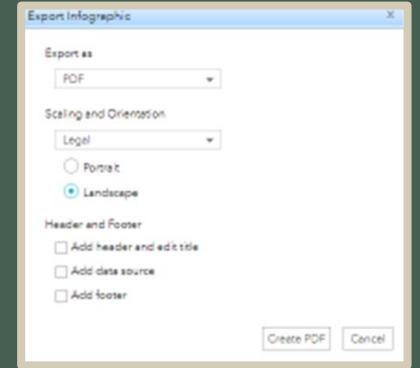
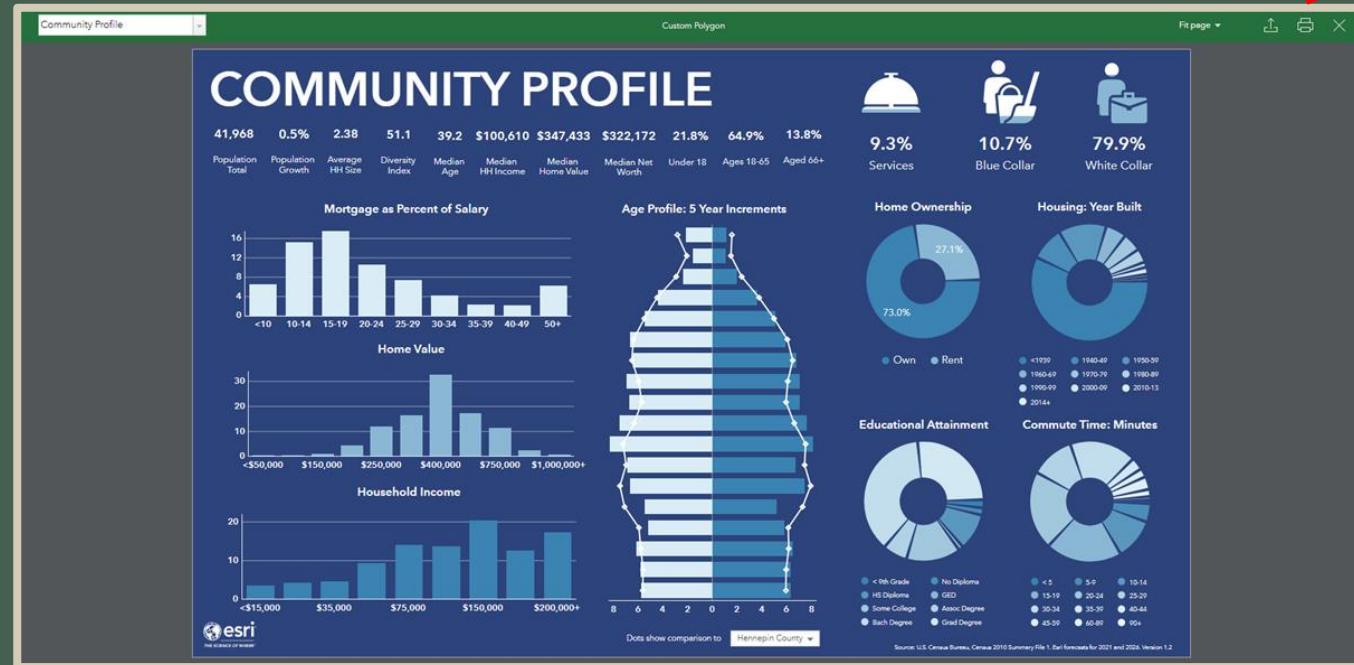
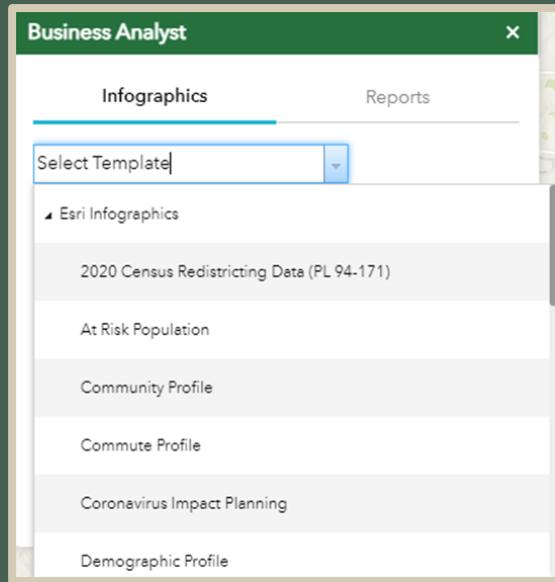




Point, Polygon, or Custom

Export (PDF, Image, Dynamic HTML)

Infographics & Dashboard



Print



<https://utdepps.maps.arcgis.com/apps/webappviewer/index.html?id=a7e4839cbb184c2fb9fe6841c9500754>

Feel free to try it with the results set to be placed in the Garden Center Results folder!