**SITE
TO DO
BUSINESS**
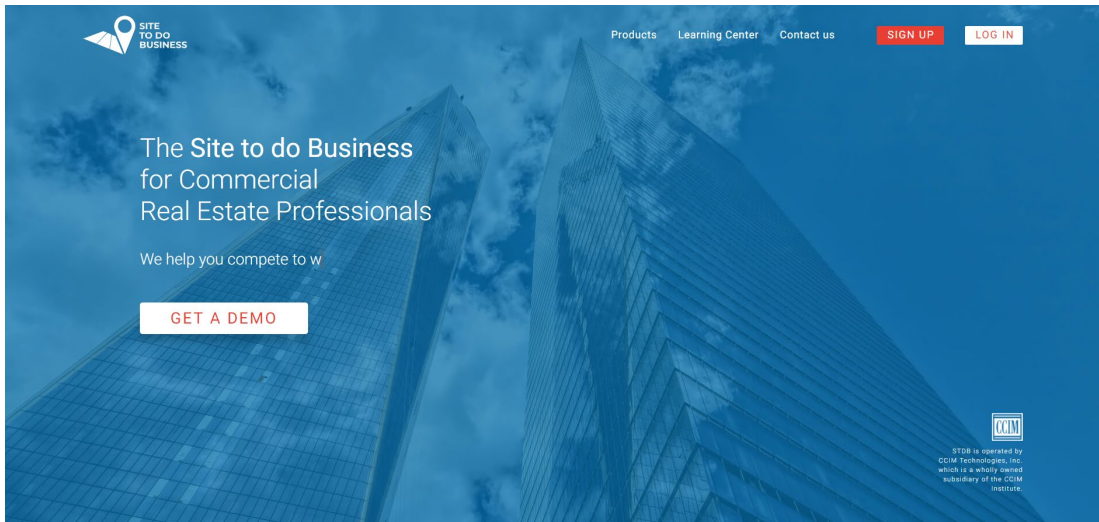Data to Drive Commercial
Real Estate Decisions

Market Analysis with GIS for Commercial Real Estate

Resources

Website: www.stdb.com

Online Resources: STDB Learning Center – Find on www.stdb.com
or www.stdblearningcenter.com

STDB Support

- o support@stdb.com

Business Analyst

If you haven't created a project yet, please do so. Think of projects as filing cabinets for your work.

[Video – Creating Projects](#)

Skills Exercise: Define an area by location and run reports

- Create a market area using your office address and a 5-mile radius
- Run a Housing Profile report
- Determine if there are more renters or home-owners within the 5 mile radius.

Workflow 1. Exploratory analysis - starting point to get an overall glimpse of what is happening in a given market.

[Video – Define Areas](#)
[Video – Run Reports](#)
Define an area by location and run reports
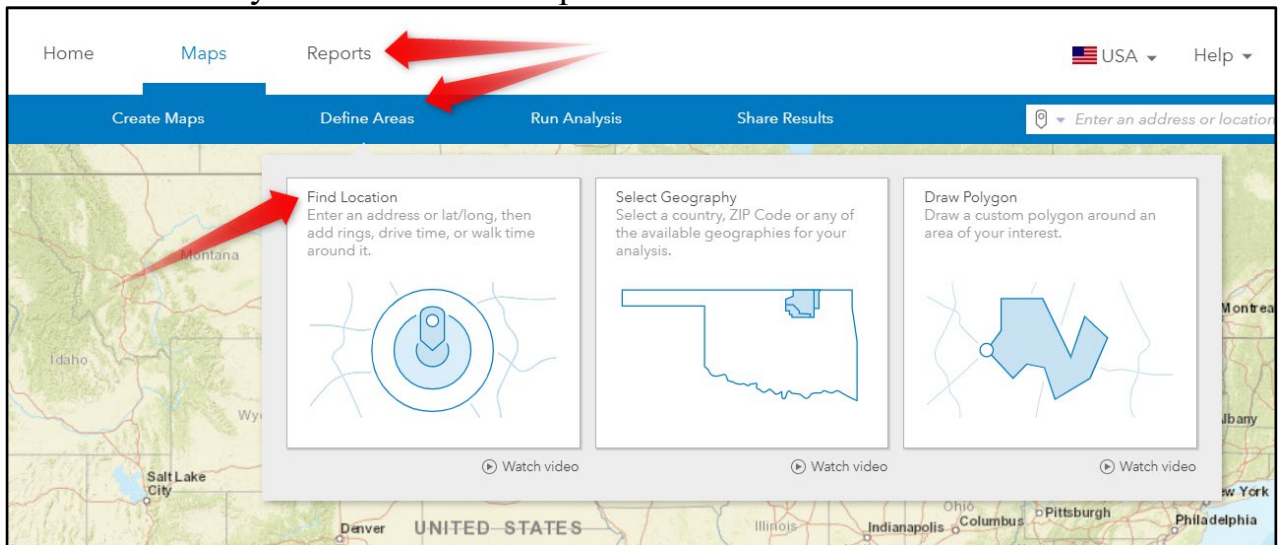
Exercise 1. Find Location – 5080 Spectrum Drive, Addison, TX 75001

Name Location- Spectrum Drive

    a. Add Drive time – 5 minutes

Reports, Standard Reports

1. Select Area
   a. Choose your 5-minute drive time - Spectrum Drive
   b. Double Check that Spectrum Drive is the only Selected Site

2. <u>Go to Reports</u>
    a. Select Run Reports
    b. Select Esri Reports

3. <u>Add Reports</u>
    a. Choose the following reports by checking the box to the left of the report
        - Business Summary
        - Demographic & Income Profile
        - Market Profile
        - Retail MarketPlace Profile
        - Tapestry Segmentation
        - Time Series Profile

4. <u>Run Reports</u>
    a. Select view in one PDF before running
    b. Add report subtitle if desired
    c. Choose Run All

5. <u>View Reports</u> – Open reports individually or in All-in-One PDF.

6. Using the data from the reports, answer the questions below:

    a. Is this area made up of more retail businesses or office using businesses? (Business Summary)

    _____
    _____

    b. By NAICS code, what are the 2 business types that make up the largest percentage in this area? (Business Summary)

    _____
    _____

    c. Is this area projected to grow between now and 2024, and if so, at what rate? (Demographic and Income Profile)

    _____
    _____

d. How does the population growth in this 5-minute drive time compare to the state and nation?

_____

e. What is the total population in this area? (Market Profile)

_____

f. What is the total daytime population? How many workers? How many daytime residents? (Market Profile)

_____

g. Is this area made up of more blue-collar or white-collar workers? (Market Profile)

_____

h. What retail segment shows the greatest leakage by dollar amount from this area? (Retail MarketPlace Profile)

_____

i. What retail segment shows the greatest surplus by dollar amount? (Retail MarketPlace Profile)

_____

j. What is the top Tapestry Segment in this market? (Tapestry Segmentation Area Profile)

_____

k. List 3 interesting facts about this tapestry segment that describes the people who live there? (Tapestry Segmentation Area Profile)

_____

l. What was the change in number of housing units from 2016 to 2017? (Time Series Profile)_____

Group Discussion
What did we learn about this area from out exploratory analysis?

Skills Exercise: Define areas by geographies and run comparison report

- Define a market area using "Select Geography"
- Define the Richmond CBSA and the zip code in which you live
- Create a comparison report to see if the CBSA or your zip code projects the most:
    - Growth between now and 2024 (by percentage)
    - Median Household Income (by dollar amount or number)
    - Percentage of people who attend Major League Baseball events (by percentage)
    - Property Crime by Index (by Index)

[Video – Define Areas](#)
[Video – Comparison Reports](#)

Exercise 2. Define areas by geographies and run comparison report
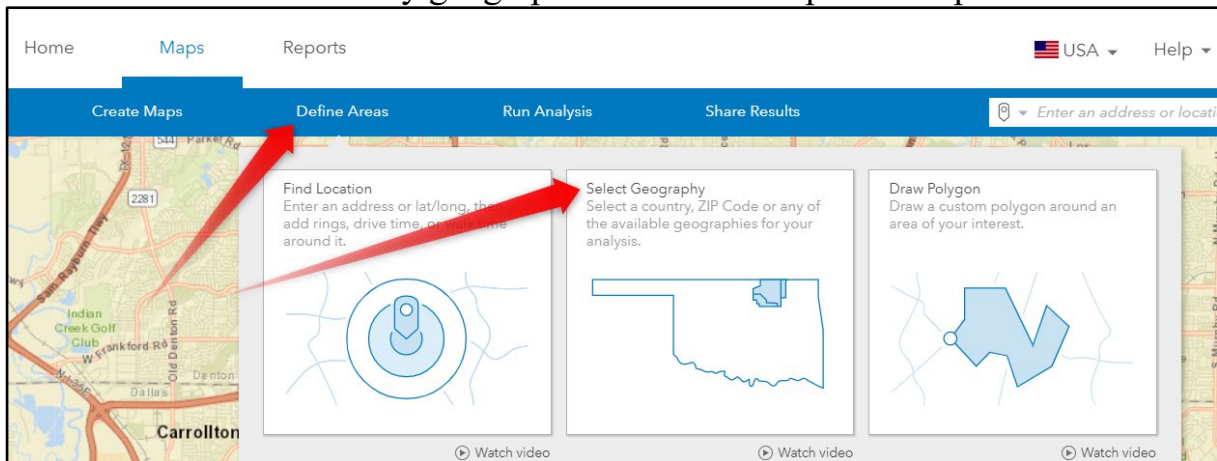
We work in Economic Development for the city of Nashville, TN and are competing with Virginia Beach-Norfolk, VA for a new solar panel manufacturing plant. The incentives and tax credits being offered by both cities are similar, as is access to highways and rail so we need to find other competitive advantages. The company has told us that they want to locate in a metro area with a population of over 1,000,000 that projects healthy growth and low unemployment. They have a need for a pool of STEM educated employees as well as plant workers.

1. <u>Select Geographies</u> – Nashville, TN and Virginia Beach-Norfolk, VA
    a. Metropolitan Area (CBSA) –Select Nashville and Virginia Beach
    b. If you see a prompt asking about combining these markets into one, **answer no as we want to keep them separate**

2. <u>Reports, Comparison Reports</u>
   a. Select Areas to Compare
      - Nashville and Virginia Beach

3. <u>Select variables to use in comparison</u>
   - 2019 Total Population
   - 2019-2024 Population: Annual Growth Rate
   - 2019 Manufacturing Employees – (Category Business then Employees)
   - 2019 Prof/Scientific/Tech Services Employees – (Category Business then Employees)
   - 2019 Unemployment Rate

4. <u>View in Table</u> (Export)
   Based on the data, what would be our pitch to the manufacturing company selling them on the virtues of Nashville? _____
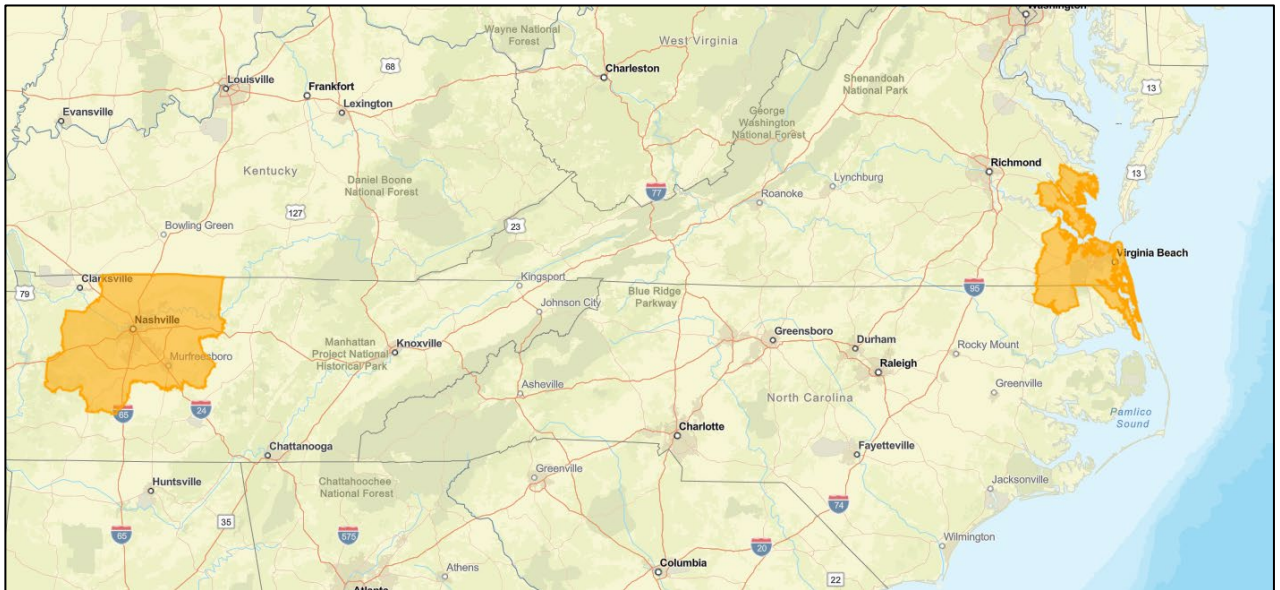
Skills Exercise: Define an area by drawing a polygon, create color-coded map, add businesses and use Infographics.

- Create a small site using lat/long as the center point:
  - Latitude - 37.56703
  - Longitude - -77.47567
  - Create a .25 radius around the site
- Create a Color-Coded Map of the Richmond area. Find the Census Block Group that projects the highest percentage of population growth in the area.
- Add a variable to the map. Add population. Note other Census Block Groups that are showing substantial population and growth.
- Now change the style on the map to Bivariate. If you are looking for areas that show the highest projected growth with a substantial population in the area already, would the original census block group from above still be your target?
- Draw a polygon around an area in Richmond.
- Add businesses to the map. Add Banks,
- Change the businesses mapped to show only in the polygon you drew.
- Create an Infographic named Nearby based on your polygon.

Video – Drawing polygons
Video – Color-Coded maps
Video – Mapping Businesses

Workflow 3. Define an area by drawing a polygon, create color-coded map, add businesses and use Infographics.
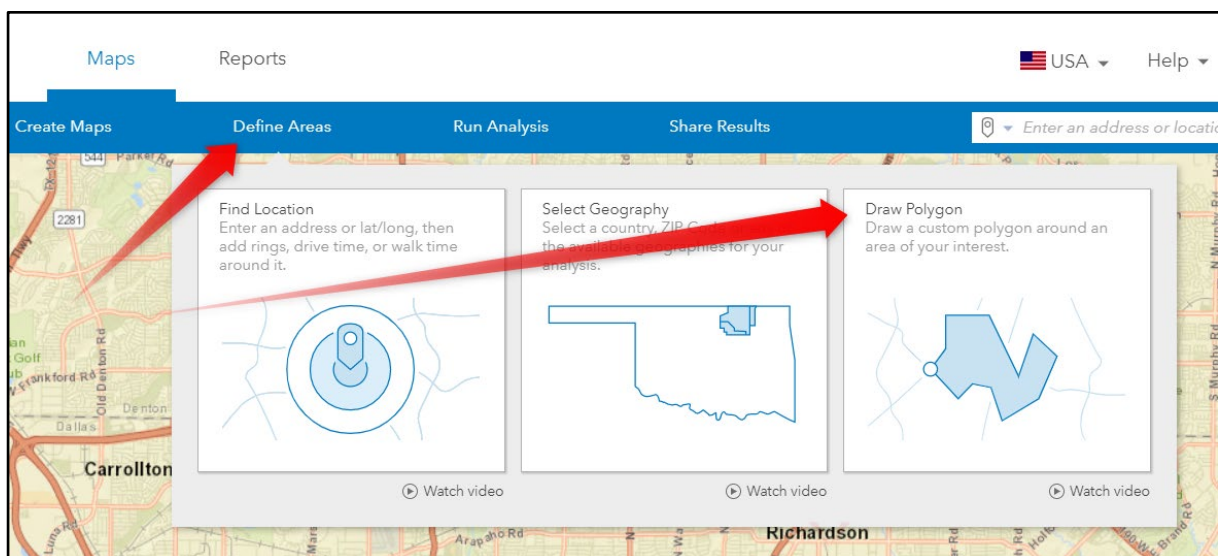
We are working with a multi-family developer who is looking at land south of Overland Park, KS. We have been asked to provide preliminary market information regarding projected growth in the market, lifestyle of the people who live there and proximity to amenities. Since this is raw land, we don't have an address, but we do have lat/long. The location of the site is latitude 38.86952/ longitude -94.64112.

1. Create a site marker by:

- Define Areas for reports
- Find Location, Enter lat/long
- Create radius of .25 mile.

2. Create a color-coded map showing projected growth at the block group level. This is under Create Maps from Data. Is the area around the site projected to grow? _____

Clear color-coded map before proceeding.

3. Local market sources have informed us that the targeted market boundary is:

- W 135th Street - Northern Boundary
- Mission Road – Eastern Boundary
- W 151st St – Southern Boundary
- Hwy 69 – Western Boundary

To create this market area, using the Draw Polygon tool under Define Areas for Reports.
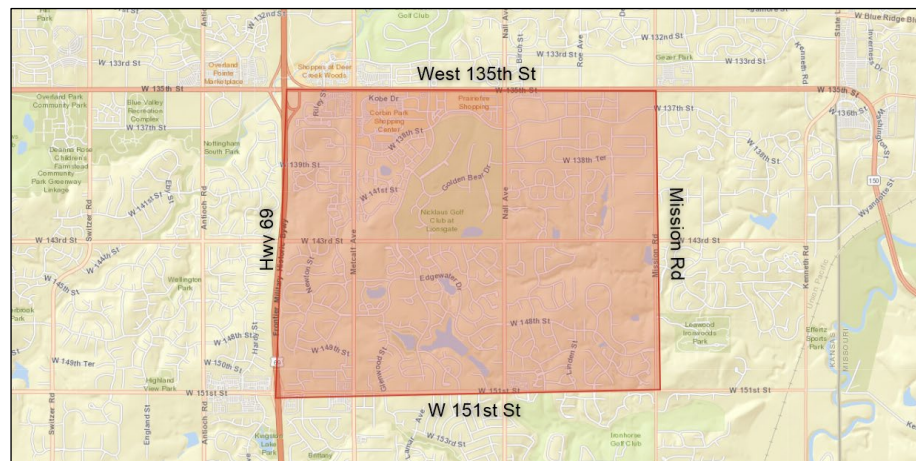
4. Run the Tapestry Segmentation Are Profile report to determine the type of people who live in this market area.

- What is the top segment represented in this area?_____
- Are the residents primarily renters or home owners?_____
- Is this segment well educated? _____
- What types of jobs are they holding?_____
- Where do they like to eat out? _____

5. Using the Business and Facilities search, determine how many banks there are within the market area.

- How many are there? _____

6. Expand the original site marker from .25 mile to 1.5 miles. Using the Infographic titled Nearby Restaurants, find the restaurants. Open the site "bubble" to find Infographics.

- How many restaurants are there in the 1.5-mile radius? _____
- What is the closest restaurant to our site? _____

What is our takeaway from the preliminary market analysis we just performed?
_____
_____

Skills Exercise: Creating a Smart Map

Create Smart Map by Zip Code in the Richmond, VA area using the following variables:

- 2019 Total Households
- 2019 Personal Crime
- 2019 Education: Bachelor's Degree

Manipulate the map to find the areas that have:

- Highest number of households
- Lowest incidence of personal crime
- Highest number of Bachelor's degree

Video – Creating a Smart Map
Workflow 4. Creating a Smart Map
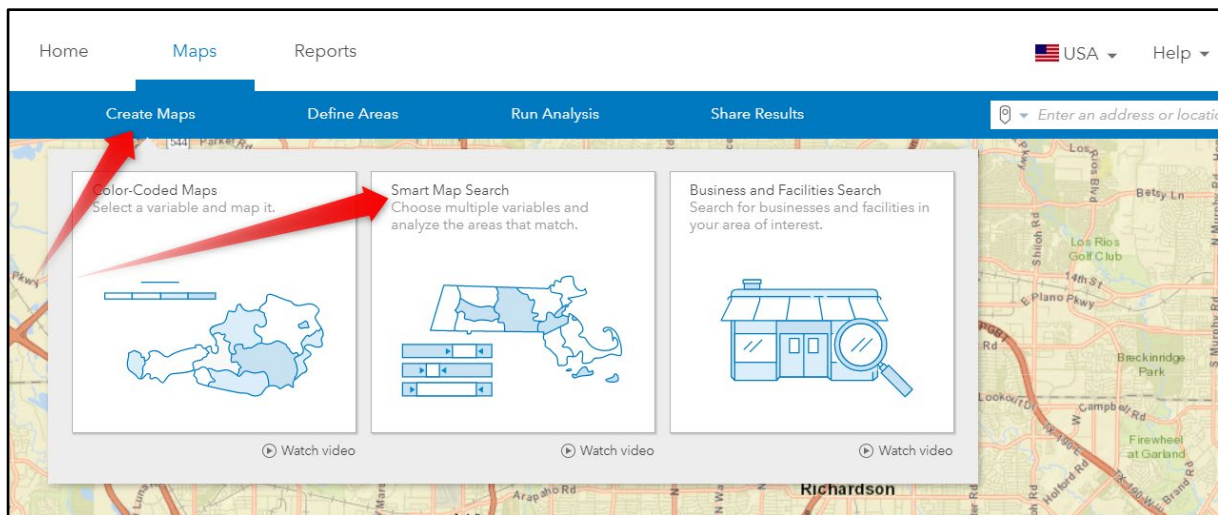
We are a broker assisting our client in site selection for a Chicken Wing concept that is expanding into the Richmond, VA market. We have their top criteria, so we can narrow our search areas by using the Smart Map Search with the following:

- 2019 Median Household Income - $50,000+
- Median Age 25-45
- Index of people who have eaten at a Buffalo Wild Wings -135+

<u>Smart Map Search</u>

Select Create Maps from Data then on Smart Maps. From the list of variables, map:

- 2019 Median Household Income
- 2019 Median Age
- Index of people who have eaten at a Buffalo Wild Wings

Adjust any of the variable ranges along the sliding toolbars to reflect your preferred analysis.

As a reminder, our client has given us the following requirements:

○ 2019 Median Household Income- $50,000+
○ Median Age 25-45
○ Index of people who have eaten at a Buffalo Wild Wings -135+

Can you see areas that have good potential and areas that may not have the demographics for which we are searching? _____
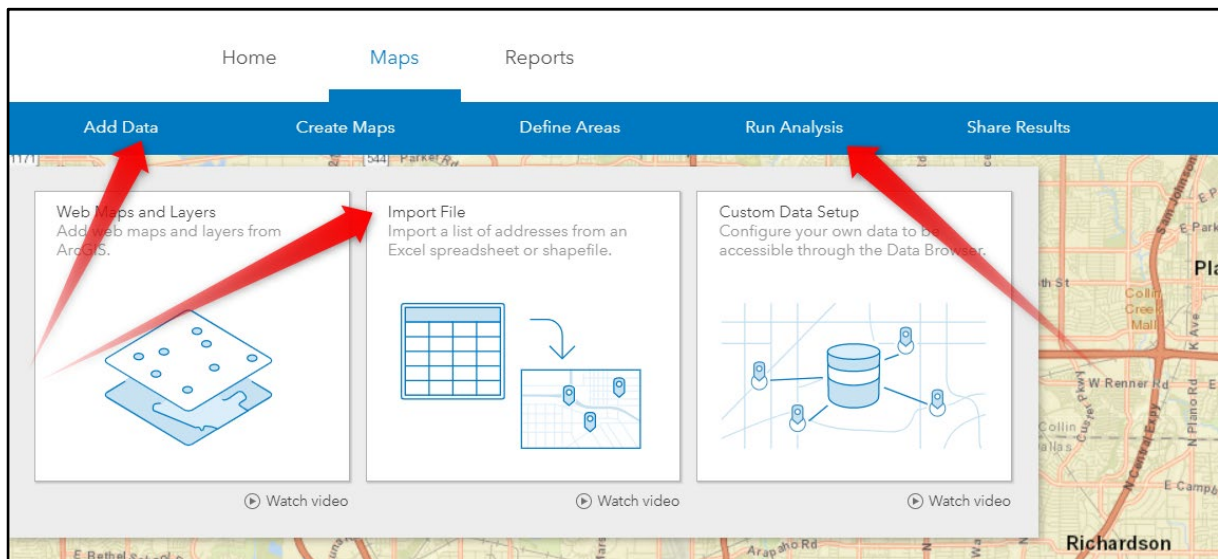
What part of Richmond would you be inclined to start your property search?_____

Skills Exercise: Import Data and perform Suitability Analysis (We will do this exercise together, step by step)

[Video – Suitability Analysis](#)
[Video - Business and Facilities Search](#)

Workflow 5. Import Data and perform Suitability Analysis

As a continuation of the case above, we will conduct a Suitability Analysis to narrow our results, as we begin to focus on individual sites. We have identified 10 sites to show the client which are on the Wings N More spreadsheet located on the Resource page of the Learning Center.

First, we need to import the spreadsheet:

- Go to Add Data and select Import File
- Import Proposed Wings N More Sites spreadsheet
- Create a 5-minute drivetime around each location
- Select Suitability Analysis
- Start with features on the map
- Add data from the data browser
    - Median Household Income
    - Median Age
    - Went to Buffalo Wild Wings in the last 6 months
- Add attributes from site
    - Triple Lease Rate
    - Space Available

Now manipulate the variables to meet the criteria below:

- 20%- Median Household Income - $50,000+
- 20% - Median Age – 25-45
- 20% -Went to Buffalo Wild Wings in the last 6 months - Index 125 (we are easing up a bit on the Index requirement now that we have sites located)
- 20% - Triple Lease Rate – Below 30
- 20% - Space Available – At least 5,000 sf

Based on the criteria, what is our number 1 site to consider:

_____

Our client indicated that they have done well in other areas being near a Subway. Using the Business and Facilities Search, search for Subway in the search window.

Would this change our mind on the number one site to pursue?

_____

Skills Exercise: From your Project, activate the market area we created in Addison, Tx. (5080 Spectrum Drive) Now add an infographic to your site.

Workflow 6. Market Areas and Infographics

Create a study area for the zip code 33166.

Run a Target Market Summary infographic for the study area. Now add 2 additional sites to compare – from neighboring geographies – 33010, 33178.
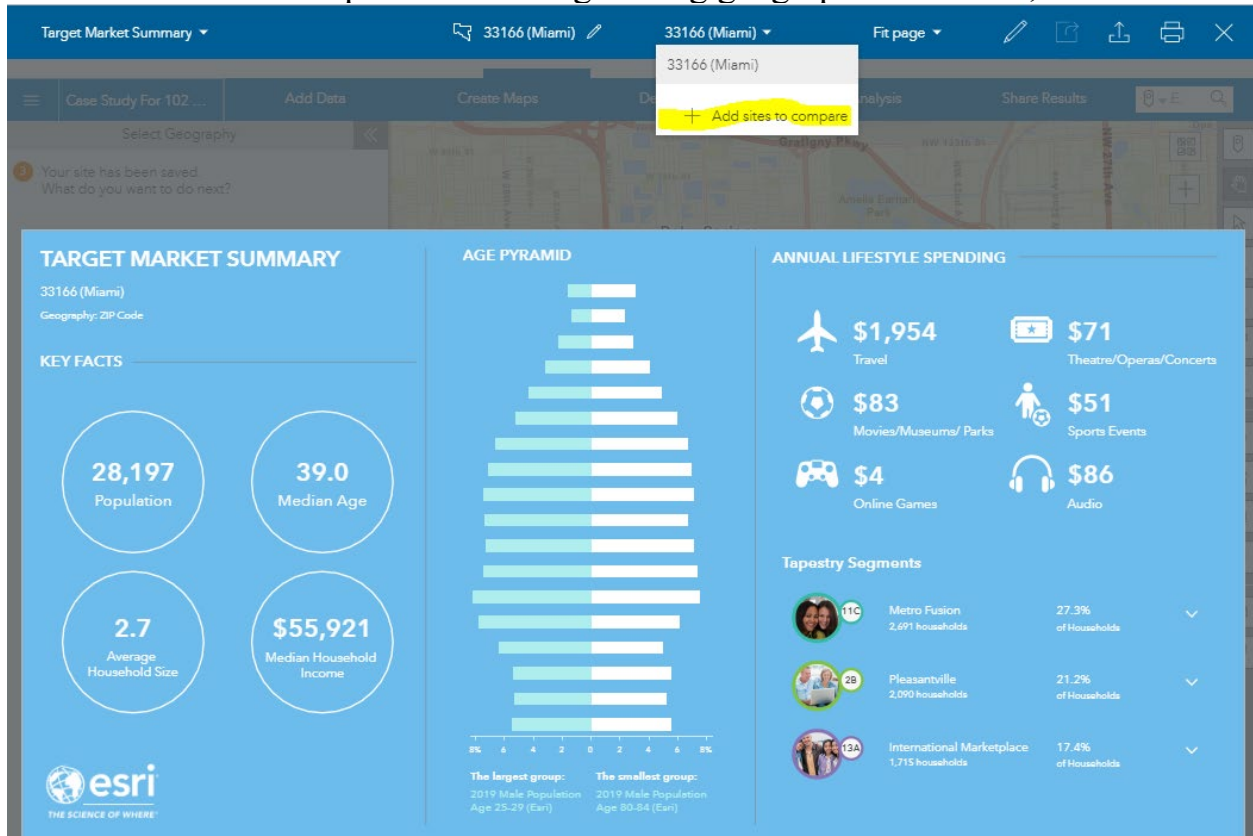
If the goal is to find office space for a travel agency who is interested in locating in an area where households spend the most on travel and have the highest median household income, which zip code would you recommend? _____

Other STDB Tools

Business Lists

1. Produce a prospecting list on 441 Vine Street, Cincinnati, OH 45202, by creating a .1-mile radius around the building and search for all businesses. What type of business is located in suite 2700?

_____

2. Produce a list of accounting firms in Dayton, OH and find the contact name and title for WGS Financial Service.

_____

<u>Pictometry</u>

Generate an aerial image of 201 Presidents Cir, Salt Lake City, UT. What is the date of the most recent image?

_____

<u>RiskMeter</u>

Generate a flood map of 5308 West Plano Parkway, Plano, TX. Approximately how far is this building from the closest flood risk? _____

Question and Answer time about Business Analyst:

Practical Exercises and Case Studies

1. Create a 10-minute walk time analysis area from your home address. Run a Tapestry Segmentation Area Profile report to determine what the population makeup of your neighborhood is.

_____

2. Use the same study area above to create a color-coded map of total population styled by dot density. (Color Coded Map, Change Style)

3a. Business and Facilities Search within Business Analyst. Create a study area as a 3-mile ring around 9645 Granite Ridge Drive, San Diego, CA. How many Pizza Hut; Domino's; Papa John's Pizza locations are within the 3-mile ring. Associate the logos accordingly? _____

3b. Create a study area of the zip code 92115 and find all of the apartment complexes (NAICS code – 531110). Hint – Use Business and Facilities Search inside Business Analyst.   How many are there? _____

4. Create Maps from Data – Color-Coded Maps
Create a study area as the state of California (Define Area -Select Geography), create a color-coded map by county for Median Household Income. Which county in the state has the highest Median Household Income? _____

What about the lowest? _____

5. Create a study area using the address 1450 Ridgeview Dr, Reno, NV and a 3-minute drive time. Run an infographic (Executive Summary + Call Outs). What is the median age?

_____

Change the infographic to "Nearby Restaurants." How many restaurants are in the drivetime?

_____

6. Comparison Reports
Create study areas – Colleton County, Berkeley County, Hampton County and Dorchester County, all in South Carolina. Create a comparison report to determine which county has:

- The highest population _____
- The highest 2019 median household income _____
- The highest median age? _____
- The lowest unemployment rate? _____

7. Suitability Analysis

An insurance company is in the middle of an office relocation and have narrowed their office search to 10 locations. Use the excel file "Insurance Companies" found in on the "resources" page of stdblearningcenter.com to help you determine their best potential location. Use the Suitability Analysis tool in Business Analyst. Create a 1-mile ring around each site. If the 4 criteria for the decision were:

- Size (bigger is better)
- Price per square foot (smaller is better)
- Age of building (newer is better)
- Average commute time (shorter is better)

What is the best location? _____

8. Color-Coded Maps – Tapestry

A Seattle based investment company has found that their primary clientele resides in markets with a strong population makeup of "boomburbs." Find the markets in California (by county) that you might suggest. Create a color coded map seeking out the counties with the highest propensity of "boomburbs."

_____

9. Importing a File – Filtering

A technology firm is considering a secondary office for it's CTO staff in the Indianapolis area. Create a map of the business unit "CTO" and estimate the center point to determine the optimal office location. Upload the file "Employee Zip Code Data" from the "resources page" within stdblearningcenter.com. Choose geographic boundaries for your mapping style (match zip codes). Filter by attributes (CTO).

Mixed-Use Case Study

You own a mixed-use property that has had an insurance company as a tenant in Oklahoma City. This insurance company has another location in the city and has decided to combine the two offices. You, of course, want to convince them that your location is the better choice of the two. The company often considers the following criteria within a 5-mile radius when considering a "new" location. Compare the two sites using the criteria below and answer the questions.

1. At least 75,000 households
2. Projected positive population growth
3. At least 10% of the homes in the area over $300,000
4. Have an index rating over 100 for comprehensive auto insurance

Your property is located at: 3400 Brookend Ct, Oklahoma City, OK

The other office is located at: 716 SW 4th St, Oklahoma City, OK

Which of the two locations comes closest to matching the criteria of new locations:

_____

What is your pitch to combine the two locations into your property?

_____

Senior Living Case Study

You are working with a Senior Living developer who believes that there is an oversupply of ultra-luxury senior-living communities that price a substantial portion of potential residents out of the equation. The company's goal is to specialize in providing safe, affordable, senior-living care in the location where the population has always lived (staying away from typical retirement destinations like Florida, Arizona, and California). The initial market analysis is leading the group into the northeastern United States. Create a smart map that displays by county the following variables:

- 2017 population of 70+ year olds (more than 50,000) (note: custom variable)
- Median net worth under $200,000
- Total Crime (under 100)

Which counties appear poised for a potential new senior living facility?
Answer_____

Retail Case

You own a strip center in Tuscaloosa, Alabama and Winn-Dixie is your anchor tenant. Winn-Dixie's initial term is up in 24 months and while they have done well in this location, they are concerned about whether this site will continue to be profitable if the City Council approves the development of a Walmart nearby. A close-by Publix is the only real competition that Winn-Dixie has had in the last few years.

The address of the development site under consideration is 8600 Highway 69 S, Tuscaloosa, Alabama, 35405. Assume that Walmart will also consider their trade area to be 3 miles.

Step-by-Step:

- Go retrieve a Winn-Dixie logo and a Publix logo and save them on your computer.
- On the STDB Learning Center Resources page, there is a spreadsheet that includes the Winn-Dixie and Publix grocery stores.
    - Upload the spreadsheet, saving the file as points only upon upload
    - Change the point symbols to unique symbols and upload logos that match the stores

- Define a market area by using the address 8600 Highway 69 S, Tuscaloosa, Alabama, 35405 and adding a three-mile radius

    a. Using the measuring tool, determine how far (as the crow flies) the proposed Walmart development is from our Winn-Dixie location?
    _____

6. Run reports that will give you:
    - Information on supply and demand of retail in this market (Retail MarketPlace Profile)
    - Assessment of past and future population growth (Comparison Report)

If you are speaking at the city council meeting against the Walmart development, what is your pitch?
_____ _____

ACS Activity

What is ACS?

_____

_____

Define your city, neighborhood or market and run:

- ACS Housing Summary
- ACS Population Summary

Find some interesting facts about the area you defined that you might not find in a demographic report:

_____