

# STDB<sup>®</sup>

Exercises and Case Studies

## Business Analyst - Short Exercises

1. How many Walgreens locations are within a 15 minute walk time of 430 North Michigan Avenue, Chicago, IL?

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2. What is the 2015 median household income for a 10 minute walk time from the address 9400 Brownsboro, Louisville, KY? \_\_\_\_\_

3. An investment opportunity for a large parcel of land is coming onto the market in southern Florida. The address is 3800 South Flamingo, Davie, FL. A potential buyer is trying to determine what direction the growth is likely to occur. Create a color-coded map at the zip code geographic level to determine which two zip codes are expected to incur the most significant growth. \_\_\_\_\_

4a. A business associate just informed you of a Radio Shack that was closing in Tucson, AZ. Since you represent a tenant in expansion mode that has previously had a great deal of success in old Radio Shack locations, you are interested in finding out more. The associate could not remember the address but indicated that the store was in the 85730 zip code. What is the address? \_\_\_\_\_

4b. Your client is in the beer, wine and liquor business. Assuming his usual trade area is a 5 minute drive time and using the old Radio Shack address above, what would be your initial reaction to the retail opportunity based on the Retail MarketPlace Profile? \_\_\_\_\_

If your client's typical trade area was a 10 minute drive time, would your opinion change? If so, why? \_\_\_\_\_

4c. Map the other businesses in the beer, wine, and liquor NAICS code within the 10 minute drive time. Where are they located in relation to the subject property? \_\_\_\_\_

5. Create a 1 mile ring around your home address. Run a tapestry segmentation area profile for the study area. Determine the top tapestry segment and determine the different occupations by earnings. \_\_\_\_\_

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6. You have been working with a law firm whose primary clientele has a median household income over \$200,000. You have located office space for them previously in Atlanta and Houston. They are preparing to open a new office in Denver. Can you use the color-coded mapping tool to determine which zip code contains the largest percentage of households in segment 1A (Top Tier). \_\_\_\_\_

7. A local real estate professional has a 15 property real estate portfolio in the Dallas, TX area. She is ready to sell the whole thing and move to the beach. She wants a potential client to be able to visualize the locations and “attributes” of the different sites (name, sales volume, square footage, property type, etc.) and be able to present the information professionally. The excel file is available at [stdblearningcenter.com](http://stdblearningcenter.com), on the trainings page “Retail Portfolio.” Can you help her? \_\_\_\_\_  
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8. You are working with a developer who believes that there is a market in the state of Virginia for a new senior living development. Research has led you to believe that in order to be successful the location must be in a county that meets the following criteria.

- 1.) 2015 population of over 70+ year olds (more than 25,000) (note: custom variable)
- 2.) Total spending on health insurance over the national average (index)
- 3.) More than 75,000 households

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

9. You are in the process of developing a new industrial warehouse and want to locate it near other manufacturing businesses in the city of Albuquerque, NM. Map all of the business’ that are in the NAICS code 31,32 to determine where the manufacturing in Albuquerque occurs. What part of town makes the most sense for the development?  
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## **Office Submarket Analysis for a Potential Acquisition**

Your client is analyzing a potential office investment for acquisition in suburban Boston, MA in the Waltham-Watertown submarket. The property is vacant but based upon the design and existing finish-out it, she believes it would be a good fit for a biotech / life sciences company. She would like for you to assess the existing demand potential for this type of use and to locate companies in the area who could be contacted about the property. She also wants to know if biotech / life sciences companies are concentrated near the targeted office investment, which is located on 240 Bear Hill Road in Waltham, MA.

In order to accomplish these tasks, you will need to:

1. Using the Business Summary report, determine if Professional, Scientific, and Technical Services employment sector is a significant portion of overall submarket employment.
2. Conduct a Business and Facilities search to determine how many Professional, Scientific and Technical Services companies (NAICS codes 541711 and 541712) are in the submarket.

Using the measuring tools, determine how many existing Professional, Scientific, and Technical Service businesses are within 3 miles of the subject property that could be targeted as tenant prospects.

Now using the DataBase USA tool within STDB, create and download a list of potential tenants that you can begin prospecting immediately. Rumor has it that Glen Rose Instruments is considering a move to a more energy efficient building. What contact name would you ask for when making the appointment?\_\_\_\_\_

Based on the initial criteria you were given, does this site/area meet the client's requirements?\_\_\_\_\_

## Residential Development Site and Location Analysis

You have identified an available multi-family development site for sale in Carlsbad, CA that you believe has very good demand potential. The location of the site is latitude 33.178468 / longitude -117.321103. Local market sources have informed you that your targeted market area is bounded by: Highway 78 to the north; College Boulevard to the east; Carlsbad Village Drive to the south; and I-5 (San Diego Freeway) to the west.

In order to assess this site, using the Housing Profile report, Tapestry Segmentation Area Profile report, the Business and Facilities Search tool and the Color Coded Mapping tool, you need to determine:

1. What is the percentage of households in the market area that are renters?  
\_\_\_\_\_
2. What is the range of home values in the market area? \_\_\_\_\_
3. What is the existing vacancy of housing units in the market area? \_\_\_\_\_
4. Assess the location of restaurants and banks within the market area and their proximity to your identified site. Your findings:  
\_\_\_\_\_
5. Using the color-coded mapping tool, determine how the overall crime rate in the immediate area compares to national averages. Your findings \_\_\_\_\_
6. Based upon the Lifestyle (Tapestry) report, what would be your recommended marketing strategy to draw tenants that could afford premium rents? \_\_\_\_\_

## Retail Trade Area Demand Potential for a New Store Location

Your client wishes to open a new auto supply store in Lexington, KY and has located a site that seems promising near the intersection of Nicholasville Road and Harrodsburg Rd (US-68). He believes that most of his customers will be located within a 5-minute drive time of his new location.

Using the traffic count map and the Retail Marketplace Profile and Retail Market Potential reports, determine if the new location is suitable based upon the following criteria:

1. A minimum of 50,000 cars per day passing through the intersection. \_\_\_\_\_
2. Based on the Retail MarketPlace report, there should be no more than 2 other competing auto supply stores within the trade area. \_\_\_\_\_
3. A positive supply-demand gap for sales of auto parts, accessories and tire stores. \_\_\_\_\_
4. Consumers in the trade area which are more likely than the national average (MPI > 100) to have had a tune-up within the last 12-months. \_\_\_\_\_
5. The nearest AutoZone must be at least 2 miles away. Is it?  
\_\_\_\_\_

What would your recommendation be to the client based on this initial analysis?

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## **Industrial Case Study**

### **BW Consumer Electronics, Inc.**

BW Consumer Electronics is a manufacturer of consumer electronic products. Their products are sold through retail consumer outlets such as Best Buy. BW currently has distribution centers (DCs) in:

- Cranbury, NJ
- Atlanta, GA
- Ft. Worth, TX
- Ontario, CA

Supply chain executives, tasked with reducing these costs, have concluded that transportation costs can be reduced with the addition of a fifth DC. After a computer analysis of trucking costs.

#### **Site Requirements**

- Serves at minimum of 10,000,000 households within a 300 mile radius
- Has a 300 mile radius that does not overlap the radii of any of their current DCs
- If radii overlap, households in overlap area must be subtracted from the target households
- Is near the intersection of major north/south and east/west interstate highways
- Is in an area with an adequate supply of trained labor
- Is in a metropolitan area served with FedEx hub airport
- Is within two miles of a four way ramp into a controlled access highway
- Has access to north/south and east/west rail lines

1. Map all existing locations, creating a 300 mile radius around each
2. Locate Midwestern cities with a FedEx hub (list is on the training page)
3. Analyze any overlaps to prevent cannibalization

Answer the following questions:

1. How many households are there within 300 miles of Chicago?

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Does any of that overlap with existing BW distribution points and if so how much? What are the net households served?

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2. How many households are there within 300 miles of Memphis?

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Does any of that overlap with existing BW distribution points and if so how much? What are the net households served?

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3. How many households are within 300 miles of Indianapolis?

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Does any of that overlap with existing BW distribution points and if so how much? What are the net households served?

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4. Based on household requirements, what is the preferred location for BW's new distribution center?

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You have found a manufacturing plant in Indianapolis that is currently vacant and fits BW's site requirements. The address is 7551 W Morris St, Indianapolis, IN.

1. Using a layer from ArcGIS Online titled USA Railroads, determine if there is close rail access
2. Use the Color Coded Map to determine if there is a sufficient supply of trained labor within the industry of manufacturin and within a reasonable commute distance from the site.

What is your recommendation to the client?

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## ArcGIS Online/BA – Exercise

1.) Map the 4 locations of an existing high end grocery store in ArcGIS online. Create 5 minute drive time analysis areas around them and enrich the analysis areas with data and share it to the Business Analyst platform. This advanced technique will allow you to create “smart maps” based on an analysis area that you have created (drive times, rings, walktimes) instead of generic geographies like census blocks, zip codes, counties or states. The process is explained below.

- a. Use the CSV file located in the [stdblearningcenter.com](http://stdblearningcenter.com) training page entitled 4 locations.
- b. Save the file somewhere where you can easily find it (desktop). Drag and drop the file onto the ArcGIS map.
- c. Add the layer to the map. Click on the arrow next to “Change Style” in the top left hand corner.
- d. Click on the “Perform Analysis” button, then “Use Proximity,” next click on “Create Drive-Time Areas,” choose 5 minute drive times then “Run Analysis.” This may take a few moments. Once they have mapped you should see drive times around the existing points.
- e. Click on “Perform Analysis” again, this time select “Data Enrichment” and then “Enrich Layer,” “Select Variables,” Choose Income → 2015 Median Household Income, then Population → 2015 Total Population, then Education → 2015 Population 25+: Bachelor’s Degree. Click Apply. Save As. Title, Tag, Summarize the Map, Save it in a Folder.
- f. Log into BAO, Create Maps from Data, Web Maps, My Content, Find the Map that you just created, add it to the map.
- g. Create Maps from Data, Smart Maps, Browse All Variables, Web Map Data, Click Drop Down, Choose the 3 variables (2015 Population, 2015 Median Household Income, 2015 Population 25+: Bachelor’s Degree). Use the Smart Map to isolate the most/least desirable locations.

2.) Which location best fits the criteria? \_\_\_\_\_