



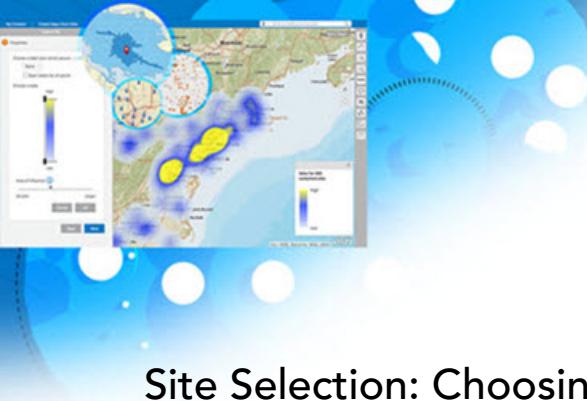
Exercise

Site Selection: Choosing the Right Location

Section 3 Exercise 1

10/2017





The Location Advantage MOOC

Site Selection: Choosing the Right Location

Instructions

Use this guide and ArcGIS Business Analyst to reproduce the results of the exercise on your own.

Note: Business Analyst is a dynamic mapping platform. The version that you will be using for this course may be slightly different from the screenshots you see in the course materials.

Time to complete

Approximately 30-45 minutes.

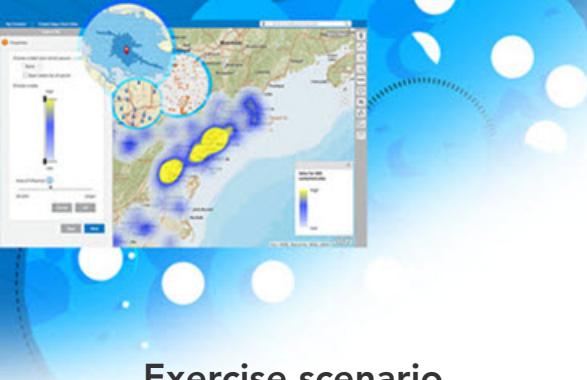
Technical note

To take advantage of the web-based technologies available in the Business Analyst, you need to use a fairly new version of a standard web browser, such as Google Chrome, Firefox, Safari, or Internet Explorer. Older web browsers may not display your maps correctly.

Note: For information on supported browsers, visit <http://doc.arcgis.com/en/arcgis-online/reference/browsers.htm>.

Introduction

In this week's lecture, you learned about evaluating sites to identify the ideal location for a new or expanding business. There are multiple business questions associated with this situation, and you can answer many of them using geospatial techniques and the four-step **question-model-analyze-interpret** workflow. In this exercise, you will use the analysis tools available in the ArcGIS Business Analyst mapping platform to support decisions related to business site evaluation and selection. You will visualize data variables on a map to match your target characteristics, and you will then identify the best location.



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Exercise scenario

In this scenario, you are a business analyst at Natural Foods, a fictitious natural and organic grocery store. Corporate management has asked you to find the **best site for a new store location in the San Bernardino area of California**. You have been provided with a list of the parameters that the Natural Foods company typically uses for its new stores, and you will need to consider these criteria in your site optimization analysis. The new store site should be located in an area that has these attributes:

- A high percentage of residents with a bachelor's degree or higher
- Appropriate commercial zoning
- Space for a 25,000-50,000 square feet store
- Space for 100-250 parking spaces (4-5 parking spaces per 1,000 square feet of store)
- A cost range of \$3-7/square foot/year (roughly between \$10,000 and \$20,000/month)
- Above-average household incomes and home values
- High traffic volumes for better site visibility

In this exercise, you will **use Business Analyst to perform these tasks**:

- Create a web map to show the demographics of an area, including household income, home values, education level, and propensity to shop for natural/organic foods
- Search for possible competition in an area
- Import map layers with city zoning and real estate information
- Create a report with extra information, such as traffic counts

Note: Business Analyst requires a subscription. While you are enrolled in this course, you have access to Business Analyst at no cost.

If you would like to continue using Business Analyst after the course ends, you need to purchase it. For more information, visit <http://www.esri.com/ba>.

Approach

You will again use the question-model-analyze-interpret workflow for decision making so you can standardize the approach to optimizing business decisions.



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Question Model Analyze Interpret



Note: The Resources section in Udemy for this lecture includes a downloadable version of the four-step decision-making workflow.

Formulate the Question

Using location information can help you with almost any business decision. For this exercise, Natural Foods' management needs you to recommend a location for your next store. You know that location information and geospatial techniques can assist you, so the first step is to frame the larger business decision by identifying a business question. You can frame the question for this scenario in this way:

Within a chosen area, what is the ideal location for your business?

Model the Solution

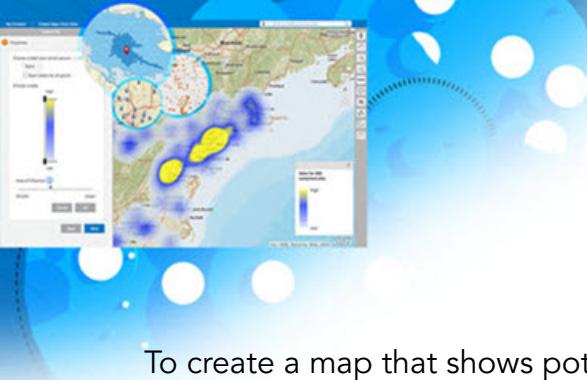
Modeling the solution to this question consists of gathering the data (including the locational component that you need) and identifying techniques to use to answer the question.

What is the locational component?

As you evaluate different sites for your business, you will find yourself asking questions that have a location component. These questions might include asking where people who might shop at your business live, where a store or business can be located with regard to zoning, where areas with heavier traffic to increase a store's visibility to potential customers are, and so on. The location component is the "where" in each question.

What data do I need for my map?

Site optimization involves a large amount of data to model, analyze, and learn about the areas and the consumers who may live in those areas where you want to locate your business.



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To create a map that shows potential sites for locating a Natural Foods store that meet the management's new store criteria, you will need several types of data:

- Demographic information about the population around San Bernardino, California
- City zoning information
- Information about the competition (other grocery stores) in the same area
- Available real estate leasing information
- Traffic information

Where can I get the data I need?

Most of the location information you need for this type of analysis is demographic and competitor information that is available in Business Analyst. Zoning districts are available from government agencies, and this data can be uploaded to ArcGIS Online. Recall that your ArcGIS Online content is accessible from Business Analyst. The Natural Foods Real Estate department has already acquired real estate information. It is in a hosted feature layer which was created from a shapefile, and stored online as a .zip file. A URL has been provided for importing it into Business Analyst Web. A shapefile is a storage format for geographic features, like a spreadsheet of tabular data with point locations that have already been geocoded and are ready to place on a map.

Which techniques will I use?

To inform your decisions related to site selection for a business, you will use several techniques, such as visualization and overlay. You will use the Color-Coded Map tool to learn about the region, followed by the Smart Map Search tool to identify areas that match important parameters that have been specified in the list of new store criteria. You will then analyze areas with commercial zoning, locations of competitors, and buildings available to lease for the areas that meet your criteria.

Perform the Analysis

The analysis will provide you with the information you need to help answer the business questions and make decisions related to the selection of a site for a new store. Obtaining the best, most complete answers sometimes requires an iterative approach to your analysis. Following your initial results, it may be necessary to refine the methodology or modify the variables. During your analysis, always think about anything that can be modified with the modeling, within the specified parameters of upper management decisions, to refine or improve your final results.

In this exercise, you will create a map of the San Bernardino/Redlands area, which has been targeted as a desirable area through a market planning effort that was previously performed by Natural Foods. You will use the tools in Business Analyst to locate the best sites in that area



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based on the company's criteria for a new store. You will examine the local consumer population. Then, you will analyze the level of competition in the area. Finally, you will add additional layers to your map for analysis, including zoning districts or areas, and real estate information, such as available leases (with cost, square footage, parking, and so on). The results of the analysis can be reviewed and interpreted as part of the larger decision about where to locate a new store.

Interpret the Findings

After following the analysis workflow steps to reveal your findings, interpret the resulting information to help inform decision-making efforts. You will be armed with accurate and useful information about the location, potential customers, and competitors.

Analysis Workflow Using Business Analyst

Step 1: Log in to Business Analyst Web

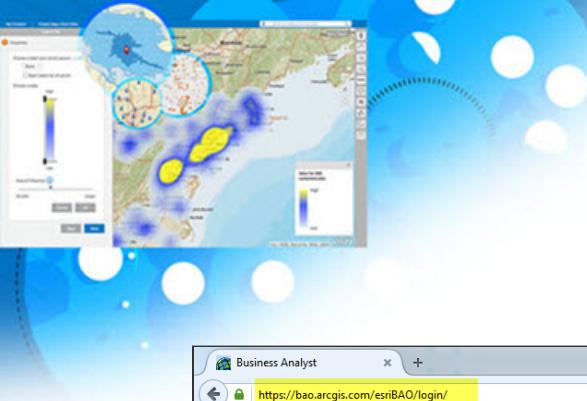
The Business Analyst Web app is a part of Esri's cloud platform that includes business and demographic data, along with different mapping and analysis tools.

- a Open a new Internet browser tab or window.
- b Sign in to Business Analyst Web using the same credentials you have been using to access ArcGIS Online.

Note: The *Section 1 Exercise 1 PDF* explains how to determine your ArcGIS Online credentials (username and password) for this course. If you have trouble signing in, email GISTraining@esri.com for assistance.

The complete URL to access Business Analyst for the purposes of this course is <https://bao.arcgis.com>.

The user name and password are the same as for the ArcGIS Online organizational site. Because Business Analyst Web is available as an extension to ArcGIS Online, it uses the same login information, although it has its own web address.



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Business Analyst [FEATURES](#) [MOBILE APP](#) [PRICING](#) [SUCCESS STORIES](#) [FAQ](#) [BLOG](#)

Log into Business Analyst

Sign In esri

Username

Password

Keep me signed in

SIGN IN

[Forgot password?](#) [Forgot username?](#)

OR

Sign in with [ENTERPRISE ACCOUNT](#)

Sign in with

Hint: Check the Keep Me Signed In check box to stay logged in longer.

Step 2: Create a new project

You will begin your site optimization analysis by creating a project to contain your new maps and analysis.

- a In Business Analyst, click **Get Started Now**.
- b If you checked the box to skip the Projects dialog during the last exercise, at the top left of the Business Analyst window, click the Project Manager icon.
- c Click **Create Project**, and give it a name similar to **Natural Foods Southern California**.
- d Click **Save**.
- e If necessary, open the newly created project, and then close the Project Manager pane at left.

After the project is created and opened, the **Maps tab** opens with a preselected basemap. You will configure the map to show the area of interest (in this case, the San Bernardino/Redlands area of southern California).

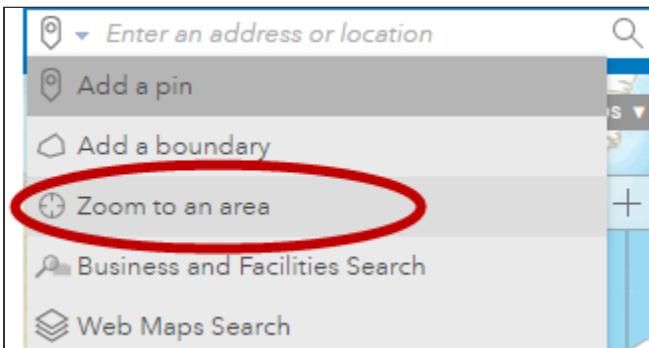
- f Above the search box at the top right, verify that the country dataset for the USA is selected.



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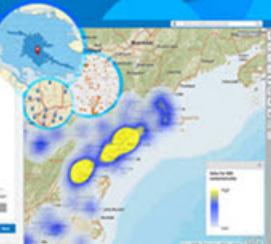
- g In the search box, on the left, click the drop-down arrow and select **Zoom To An Area**.



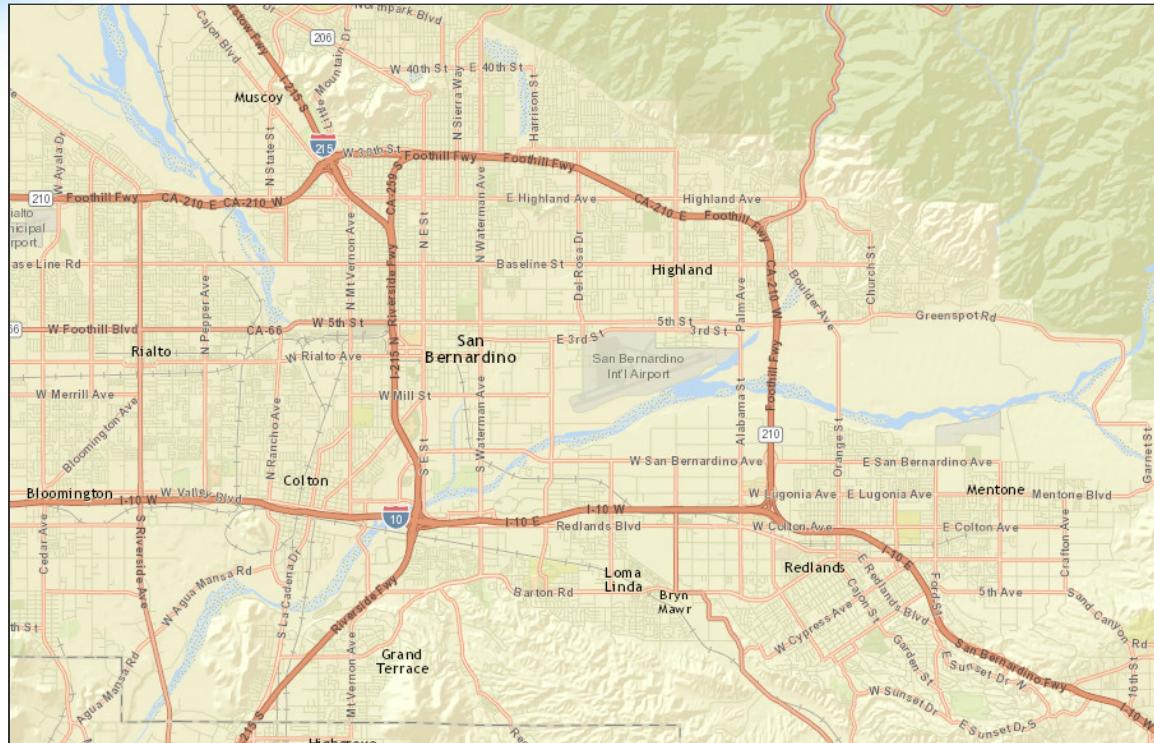
- h In the search box, start typing **San Bernardino, CA**.



- i Select the San Bernardino, California, United States result from the drop-down list to zoom to that area on the map.



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Natural Foods has conducted some initial market planning and analysis to discover potential areas for a new store. The area bounded by San Bernardino, California, to the west (to the left on the map) and Redlands to the east has been identified as most desirable out of the greater southern California region. This area is most likely to contain a site that meets all of your criteria. You will start with this area and narrow it down to the best actual site locations through the process of site evaluation and selection.

First, you will learn a little more about the San Bernardino/Redlands area that Natural Foods selected as the location to focus on.

Step 3: Create a Color-Coded Map

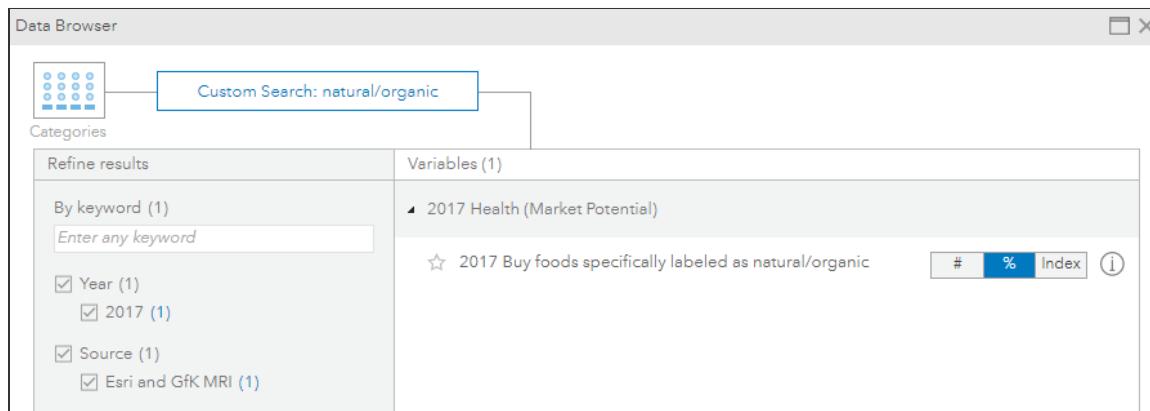
The Color-Coded Map tool can show differences in one data variable, or parameter, over an area, using your choice of statistical methods to categorize the data and visually explore the area. You will examine a variable that shows where people who buy foods labeled as natural or organic live, which is the best single criteria to show your target market.

- On the Maps tab, click **Create Maps From Data**, and choose **Color-Coded Maps**.
- In the search box in the left pane, type **natural/organic**, and press Enter to search.



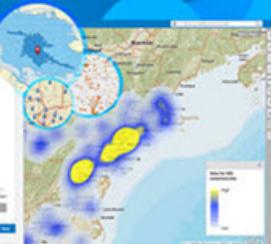
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- c If necessary, in the Data Browser that opens, expand the one result in the Variables column on the right labeled 2017 Health (Market Potential).
- d For the 2017 Buy Foods Specifically Labeled As Natural/Organic variable, click the percent button to map the variable as a percentage instead of a quantity.

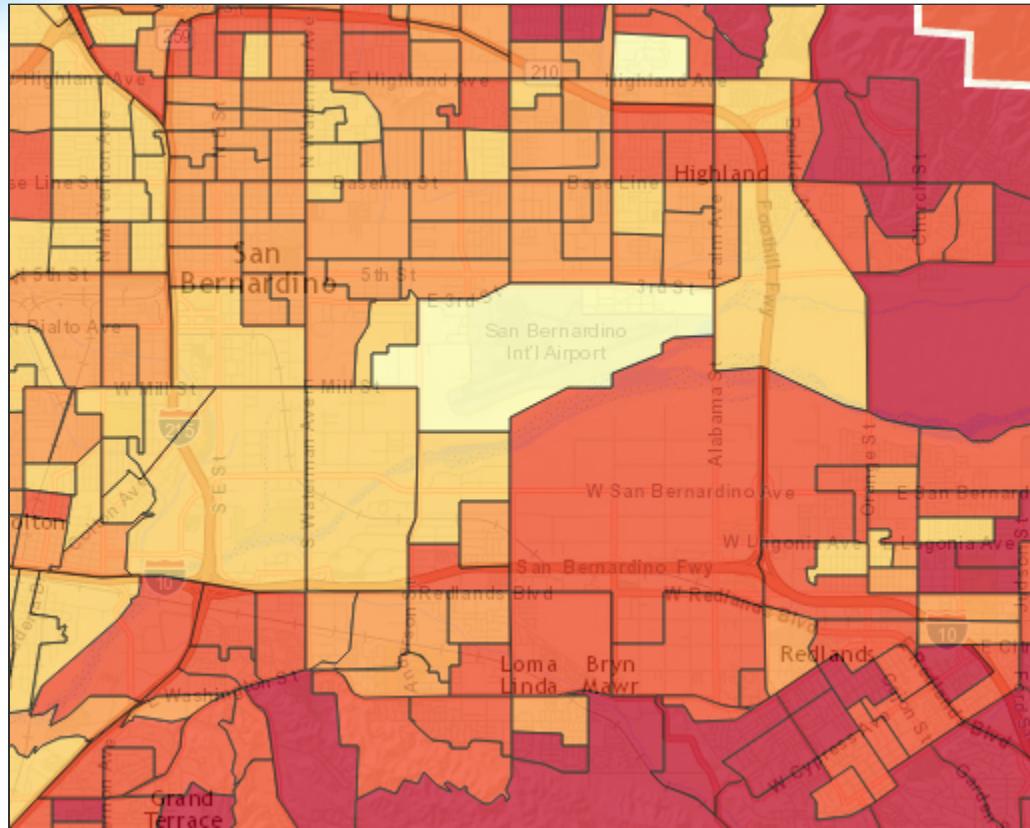


- e Click in the row on the variable name to create the map.

The map now shows the percentages of people who buy natural/organic foods, symbolized by color.



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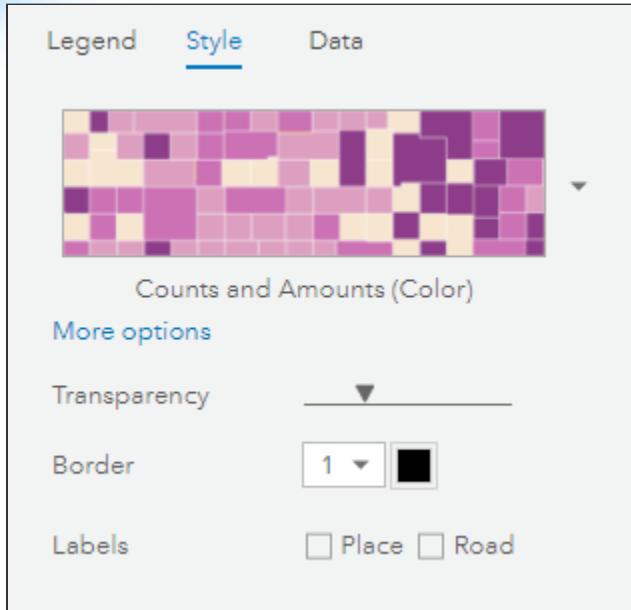
You can now see how this area does have consumers who buy natural or organic foods, which is the exact demographic you are looking for, particularly to the east (to the right on the map) and southeast. The information from this map agrees with the market planning analysis, supporting the decision to choose a location in this area. Further, it suggests areas that may be the best places to start.

Note: If you ever lose your map, or have to log out and log back in, you can still access your latest work. In the Project Manager, click Manage Items for the project, or open the project and click the project name at the top. This area contains all your recent sites and other layers, saved automatically every time you make an update.

Step 4: Refine the map's appearance

The Color-Coded Map tool includes a number of settings that you can use to change or refine the appearance of your map.

- a In the left pane, click the Style link.



- b Change some settings, such as the symbolization or transparency of the overlay, and see how the settings affect the map display.

You can also click **More Options to change the Method**, which is the statistical method used to classify the data. Classifying data means breaking it out into classifications or categories so that different symbols or colors can be used to visualize the data on a map. Most methods used to create the classification schemes consider a statistical property called the distribution of the dataset to best show the differences or similarities among values in the areas on a map. Business Analyst allows you to classify the data in three different ways: natural breaks, equal intervals, and quantiles.

Note: To learn more about using classification methods, refer to the [Business Analyst product help](#).

- c Finally, check and uncheck the Place and Road labels check boxes to show labels over the data and the basemap. These labels can help you get oriented or help with a demonstration.

Note: You may want to remember these settings for later when you prepare a map to save, print, or share.

Step 5: Add zoning areas to your map

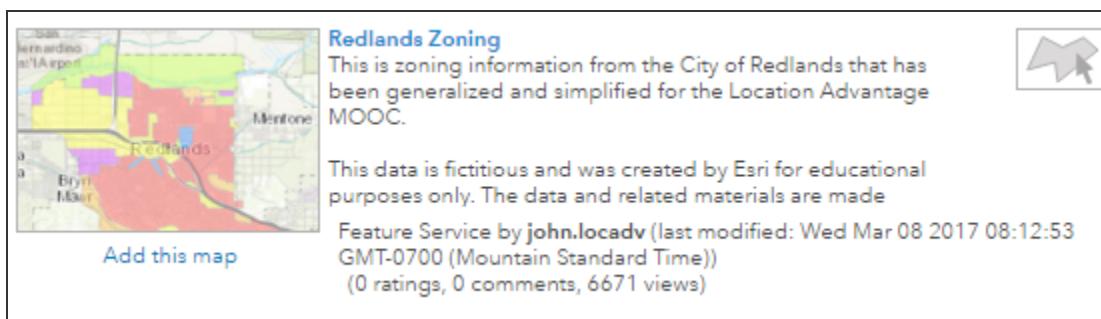
A possible next step in a site selection study like this scenario would be to examine the zoning in the area, to determine where a store may or may not be allowed to be located. You have

obtained zoning district data from the City of Redlands and added the data as a feature layer in ArcGIS Online. You can import this layer into Business Analyst Web.

- a From the toolbar on the right, click **Clear Map**.
- b Select the Color-Coded Map from the list and click **Clear**.
- c On the **Maps** tab, click **Add Data**, and then click **Web Maps And Layers**.

This option will show you items in your Business Analyst and ArcGIS Online content, along with shared items from your organization and the general public.

- d At the top of the Browse dialog box, click **My Groups**, and choose the group named **Section 3**.
- e Locate the **Redlands Zoning** feature layer and hover over it.



- f Click the **Add This Map** link below the thumbnail picture.
- g Zoom in and re-center as necessary to see the different zoning classifications.

Zoning data is available from the City of Redlands according to their open data policy. Many government agencies publish location data under similar open data policies, and this data is becoming widely available on the Internet.

Note: Open data refers to the growing practice of providing data for others to use, without restrictions, to stimulate the furthering of knowledge in science or increase transparency and accountability in government, for example. Location data is useful in all of these scenarios, just as it is useful in business. You can easily obtain this data to further increase your location advantage.

Esri facilitates the distribution of open data with this website, which is the one used by the City of Redlands: <https://hub.arcgis.com/pages/open-data>.



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Zoning Service

Custom License 8/21/2015 Spatial Dataset 1,556 Rows

Zoning for the City of Redlands

Attributes

CATEGORY Text	CODE Text	DETAILMAP Number	Shape.area Number	Shape.len Number	ZONING Text	SHOW MORE 3 Attributes
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About

City of Redlands Open Data
Shared By: tresh
Data Source: gis.cityofredlands.org

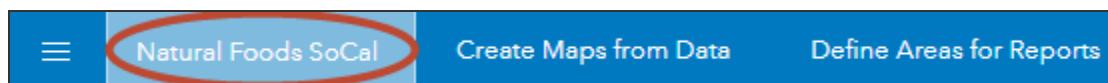
[View Metadata](#)
[View in ArcGIS.com](#)
[Create a Story Map](#)

Found In

[City of Redlands Open Data](#)

For the purposes of this exercise, the dataset has been simplified to eliminate needless complexity and to allow clearer conclusions. However, you can download the real zoning data yourself to see the full details if you are interested.

- h** After adding the zoning data to your map analysis, you can increase the transparency.
- i** At the top, click the project name to manage the project items.



- j** Expand Other Layers, and the Redlands Zoning map layer.
- k** Next to the Redlands Zoning data layer, click the ellipses icon and drag the Transparency slider to the right.

Name Date ▾

- Point Locations (Sites)
- My Point Locations 09/29/2017
- No data
- Polygons (Sites)
- My Polygons 09/29/2017
- Geographies (Sites)
- My Geographies 09/29/2017
- Other Layers
- Redlands Zoning** 09/29/2017
- RedlandsZoning**

Transparency ▾



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After examining this new information, you are closer to knowing where the best areas for your new store might be. The good candidate areas meet these criteria so far:

- More consumers with a propensity to buy organic or natural foods
- Zoned for commercial use (shown in yellow)
- Near residential areas (shown in red)

Having identified and mapped some of the criteria for a new store location and narrowed down the search a bit, you will continue, and learn about the amount of potential competition in the area.

Step 6: Search for competition

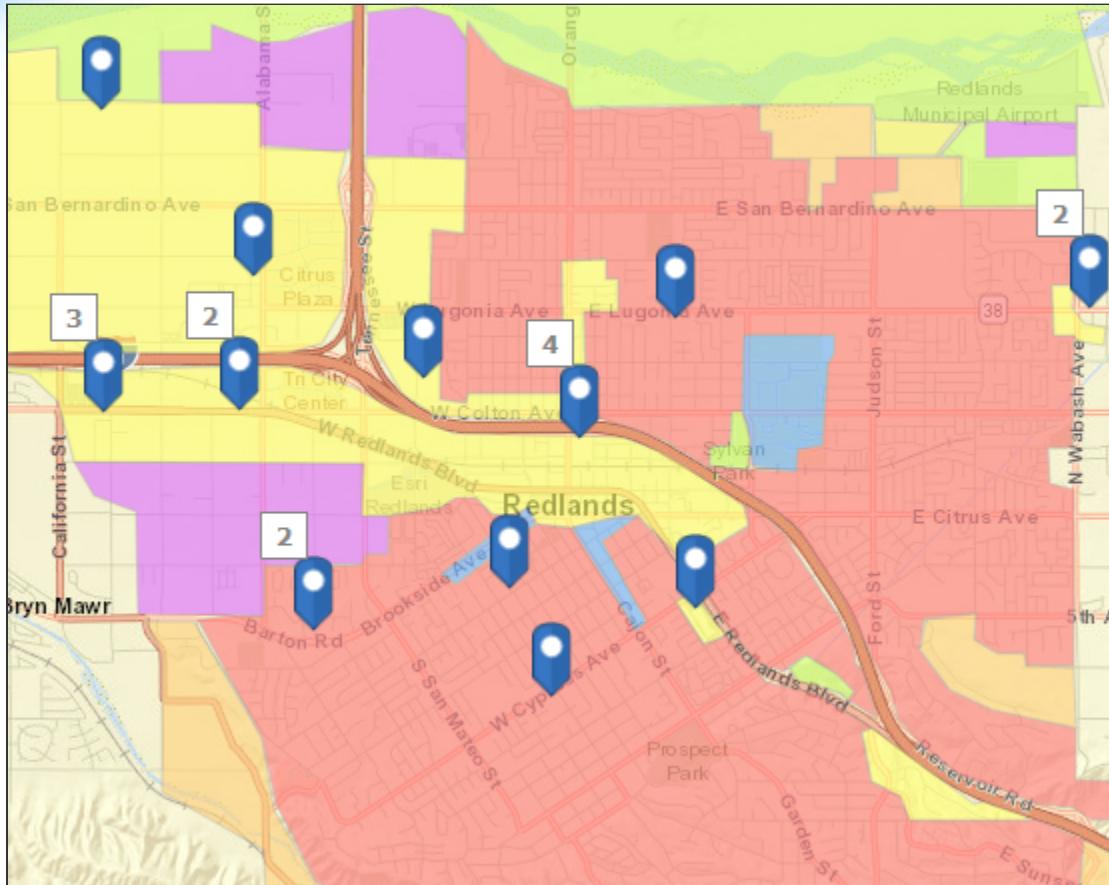
Another variable you could investigate in a site selection study like this would be to see if there are similar businesses already near locations you are interested in. If there are many similar stores competing for the same customers, that market might be too saturated, and you should consider looking in a new area. Or, as discussed in this week's lecture, a follow strategy would actually encourage you to locate stores near competitors' stores. It all depends on your overall business goals and strategies, and other factors, such as supply chain details (coming in Section 5), or risks of natural or man-made interruptions (coming in Section 6).

You will create a search for grocery stores in the area to learn more about the possible competition.

- a On the Maps tab, click Create Maps From Data, and then choose Business And Facilities Search.
- b In the search box, type grocer, and then click Go or press Enter.

Your map display will update, and you can see that there seem to be several potential competitors in the area.

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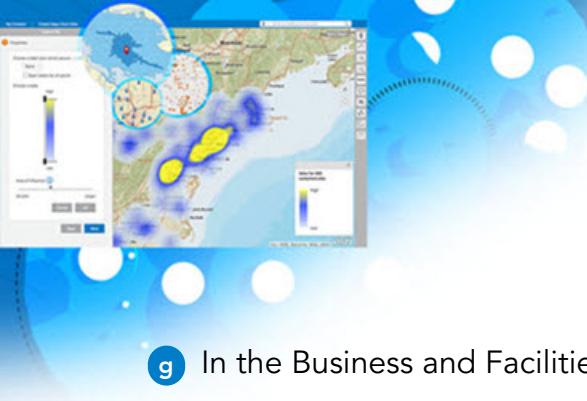


In the list of filters on the left, you can scroll down through different categories for filtering the data. Under Business Name, notice that you could filter out grocery stores that you know do not have a focus on natural/organic foods. And using Number Of Employees and Sales Volume you could find just the stores that are most similar to Natural Foods in size.

- c At the bottom of the Business And Facilities Search pane, click Next, name the layer **Grocer Competition**, and click Save.
- d If you receive a warning about credit consumption, click OK, and then click Continue.
- e If you have download capabilities, click **Export to Excel to see the competition layer with full attribute information**. Save the spreadsheet locally on your computer where you can find it.

Note: If you do not have download capabilities or do not have access to Microsoft Excel, continue to step 6h.

- f On your own, examine the Excel spreadsheet to discover details related to your competition.



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- g In the Business and Facilities Search pane, click Done.

Next, you will add real estate information from the Real Estate department within Natural Foods, to locate some available leases in the area.

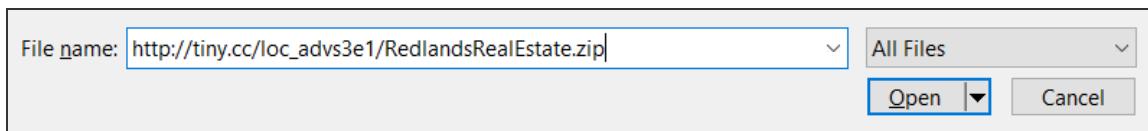
Step 7: Import real estate data

You have provided the Natural Foods Real Estate department with a description of what you need: a building with 25,000-50,000 square feet of space, with somewhere between 100 and 250 parking spaces, based on a requirement of between four and five spaces per 1,000 square feet of store space.

Your colleagues have found a handful of listings that meet all of these requirements, but some sites are more expensive than others. There are also variations in available space and amounts of parking. The group has provided you with the listing data in the form of a shapefile. You will import the map to see where the property locations are and which of them might be the best possibilities.

- a From the Maps tab, click Add Data, and then click Import File.
- b In the Import File pane, click Browse.
- c In the Open dialog, type or copy and paste this link into the File Name text field:

http://tiny.cc/loc_advs3e1/RedlandsRealEstate.zip



Note: Steps and graphics for different operating systems and web browsers may vary.

- d Click Open.
- e In the Import File pane, click Import.

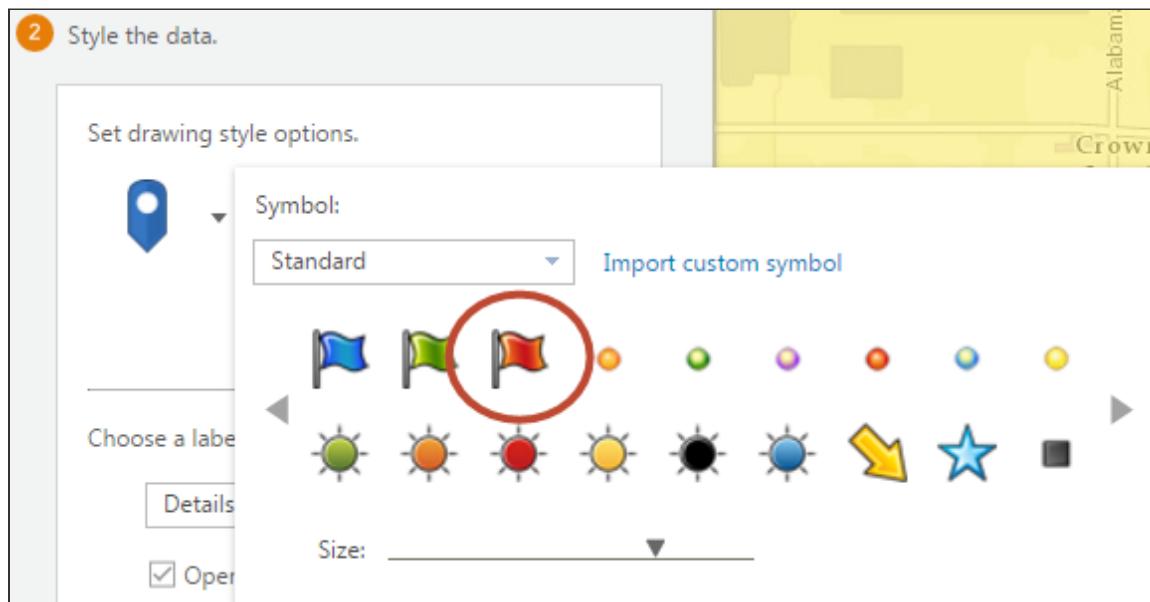
Note: If you have problems importing this shapefile, you can import the data from ArcGIS Online. Follow the same steps that you used to import the zoning layer, from the Section 3 group in ArcGIS Online. The title of the zoning layer is RedlandsRealEstate. The limitation is that only one web map layer can be imported at a time, so it will replace the zoning layer in the map.

There are several ways you can bring external data layers into Business Analyst:

- You can import data [from a local source](#) such as a shapefile, spreadsheet, or .csv file, similar to how you imported the banks layer to ArcGIS Online in the exercise in Lesson 1.
- You can import a feature layer or a web map from ArcGIS Online containing the feature layer, as you did with the zoning map.
- You can import the data as a custom data setup, which would allow you to access the data as a variable for Color-Coded Maps, reports, and more. For more information about custom data setups, you can refer to [this Help page](#).

Because the blue and white default symbol is already being used by the grocery store competitors layer, [you must change the symbol for the real estate locations](#).

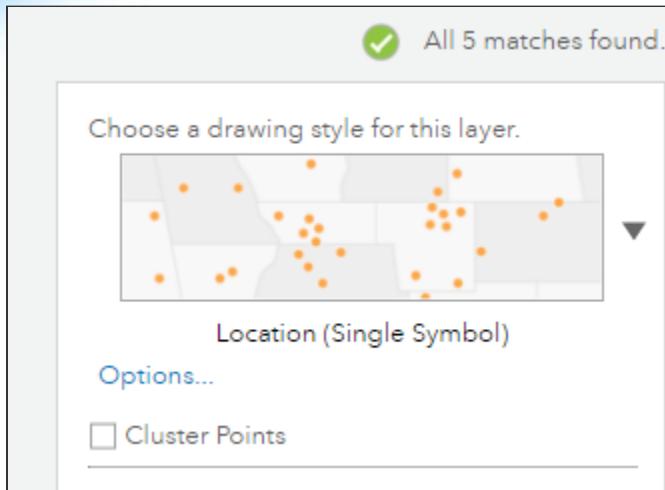
- f Under the [Location \(Single Symbol\)](#) drawing style, click [Options](#).
- g Next to the symbol, click the drop-down arrow, and scroll through the symbol options until you find the red flag symbol.



- h Choose the red flag symbol, and click OK.

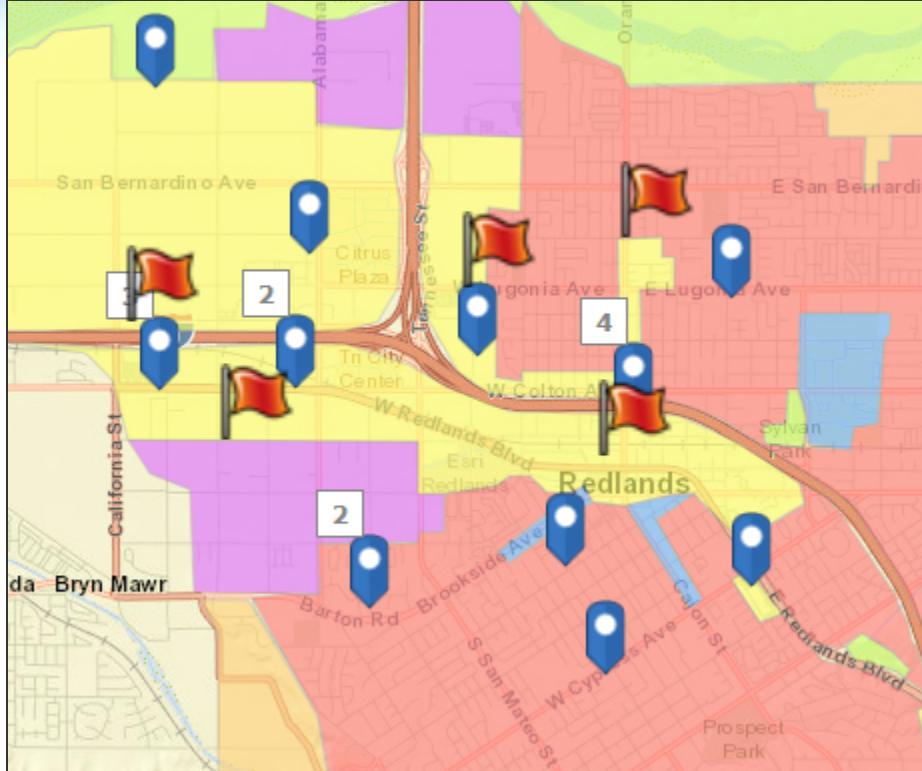
You may need to click outside of the Symbols dialog to close it and see the OK button.

- i In the Import File pane, turn off [Cluster Points](#).



- j In the **Choose A Label (Site Name)** Column drop-down list, choose **Details**.
- k Click Next.
- l Leave the default to save only points for now.
- m For the layer name, type **Leasing Info**.
- n Click **Apply**, and then click **I'm Done**.
- o If necessary, zoom out to see all five locations in context.

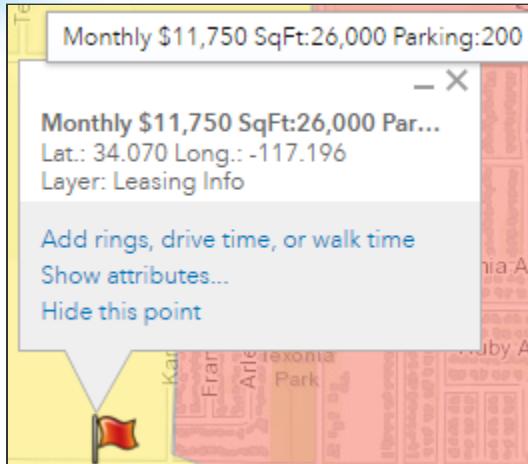
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Examine where the real estate locations fall on the map, and how they relate to both the zoning areas and the competition. Look for sites that are located in or near the areas noted earlier as being both close to the target customers and within an area that is zoned for commercial use. Which sites should be analyzed further? Can any be ruled out?

- p Click each point to view the information in the pop-up. Compare the sites on criteria: leasing costs, size, and amount of parking. Recall that you need between 25,000 and 50,000 of square feet, under \$20,000 per month in cost, and at least 100 parking spaces.

Note: You may need to *hover over the title of the pop-up* to see the full details.



The real estate information gives you more information for your search. There are more tools for comparing the areas, with more parameters. In addition to the attribute information on these real estate points, **you can use the point locations to create areas, or sites, for further analysis.**

- q Close any open pop-up windows.

Step 8: Create sites from real estate points

The real estate data contained attributes, such as leasing costs and square footage, for each point. **Using additional data variables, you can learn more about the areas around each point by creating sites based on the real estate data.**

- a On the Maps tab, click **Create Maps From Data**, and then click **Suitability Analysis**.
- b If necessary, on the first screen in the Suitability Analysis pane, click **Get Started**.
- c Click **Start With Features On The Map**.
- d In the Select Sites dialog box, select the Leasing Info layer you added and click **Apply**.

To create sites from point data, you can create rings with **a set radius** from each point. You can also create sites based **on drive times for cars** or delivery trucks from each point, or **on walk times**. For this scenario, you are interested in learning more about the immediate areas around each potential store location that can be reached with a short walk.

- e In the Suitability Analysis pane, change the method for sites to be created from **Rings to Walk Time**.



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- f Change the first Time text box to **15**, and delete the times in the second and third boxes so that the only walking time area calculated will be 15 minutes.

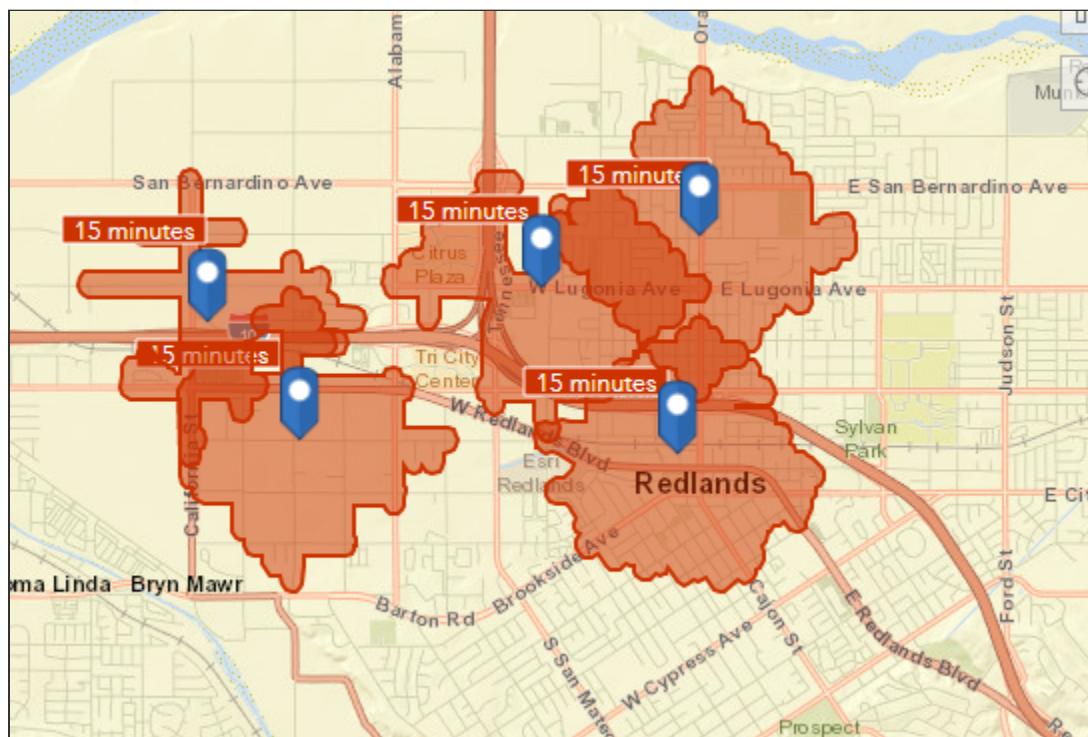
2 Create sites for selected points

Rings Drive time **Walk time**

Time: **15** minutes ▾

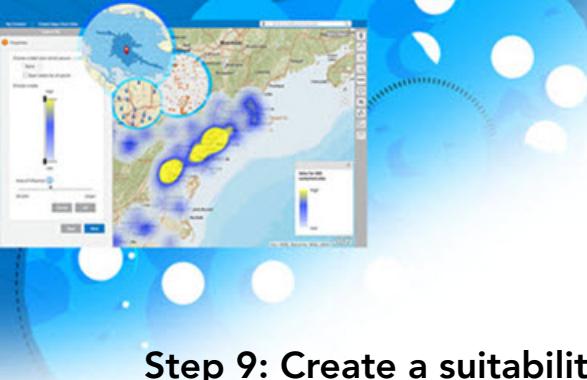
Use bands ⓘ

- g Click **Apply**.
- h If necessary, zoom and pan the map display to see all five sites.



With the Suitability Analysis tool, you can now use multiple data variables to gain more insight into the possible locations to lease within the different zoning areas.

- i Click **Next**.



Step 9: Create a suitability analysis

In this step, you will continue with the Suitability Analysis tool and add demographic variables to learn about the five sites.

A suitability analysis is an optimized way to target areas that meet your business criteria. It is effective for comparing areas based on multiple parameters or data variables, allowing you the ability to change the weights for each one.

The Smart Map Search, from the previous exercise, is similar to a suitability analysis. You can use a Smart Map Search to target geographical areas and then filter the levels of the multiple different data variables added from the Data Browser. The main difference between a suitability analysis and a Smart Map Search is that the Smart Map Search uses general geographic areas like counties or block groups, whereas a suitability analysis uses sites from your project. The result is that the areas analyzed are more customizable and specific to your project.

- a In the Suitability Analysis pane, click **Add Criteria**, and select **Add Variables From Data Browser**.
- b Add the following data variables:
 - From the Income category, add **2017 Median Household Income (Esri)**.

Hint: Use the Income category icon, and look in the popular variables.

- Add **2017 Median Home Value (Esri)**.

*Hint: In Categories, search for **home value**, and look under the 2017 Home Value result.*

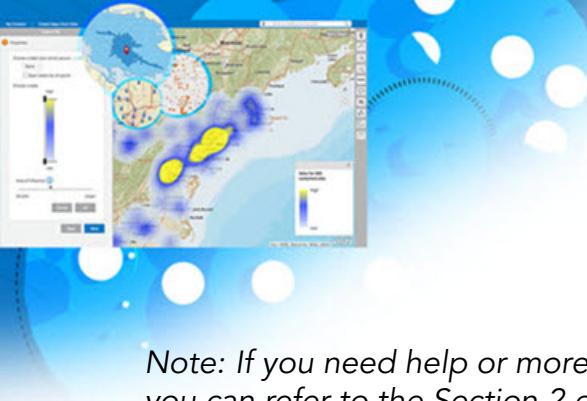
- Add **2017 Education: Bachelor's Degree (Esri)** as a percent (%).

Hint: Use the Education category icon, and change the type to percentage before checking the box.

- Add **2017 Buy Foods Specifically Labeled As Natural/Organic** as a percent (%).

*Hint: In Categories, search for **natural/organic**, and change the type to percentage before checking the box.*

Above-average income and home values, along with a higher than average amount of education and the higher percentage of people who prefer natural or organic foods, are representative of the more detailed characteristics in the population that Natural Foods wants near the site that it chooses.



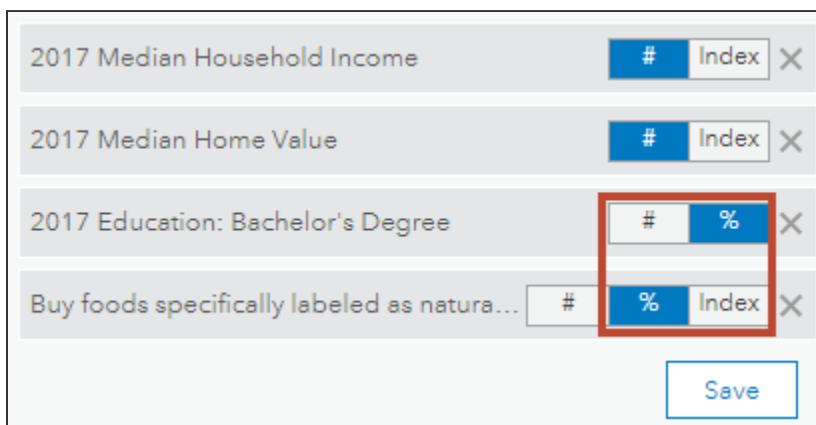
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Note: If you need help or more detailed steps for finding variables using the Data Browser, you can refer to the Section 2 exercise.

After you add these data variables, the Selected Variables count in the Data Browser should show four selected variables.



- c Click the Selected Variables count and verify that you have the correct variables, including the college-educated people and people who buy foods specifically labeled as natural/organic as percents (%).



- d Click Save.
- e In the Save Criteria dialog box, name the list Natural Foods suitability.
- f Click Save, and then in the Data Browser, click Apply.
- g If necessary, zoom or pan the map display to see all of the sites.

The default color ramp shows darker colors for the more desirable sites, which refer to the 15-minute walk-time areas around each real estate point.

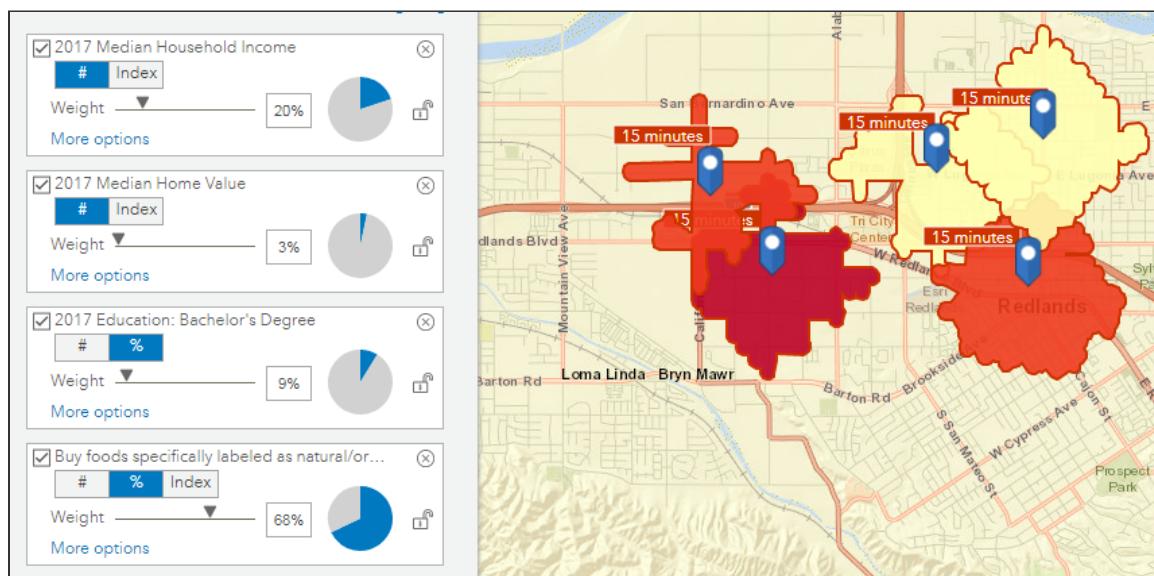
- h If necessary, expand the Suitability Analysis Results table at the bottom to learn about the weighted and final scoring for each site. Hovering over a row in the table highlights the area on the map.
- i In the Suitability Analysis pane, move the sliders for each of the four criteria.

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Note: You can use either the sliders or the text boxes to set the weights. For the latter, you may need to use the number keys at the top of your keyboard instead of the keys on the number pad.

- j) Notice the changes in both the features in the map and the scores in the table.

You can see that increasing the weight of one variable automatically decreases the weights of the others, so that they always add up to 100%. The weights are what make some areas appear more desirable than others. For example, increasing the weight of the median home value variable shows that the areas to the east are more desirable. If Natural Foods places an importance on the percentage of natural/organic food shoppers and higher household incomes, however, the areas to the west appear more desirable.



You can also click More Options under each variable for more settings, or use the lock icon to lock a variable, so that it won't automatically adjust.

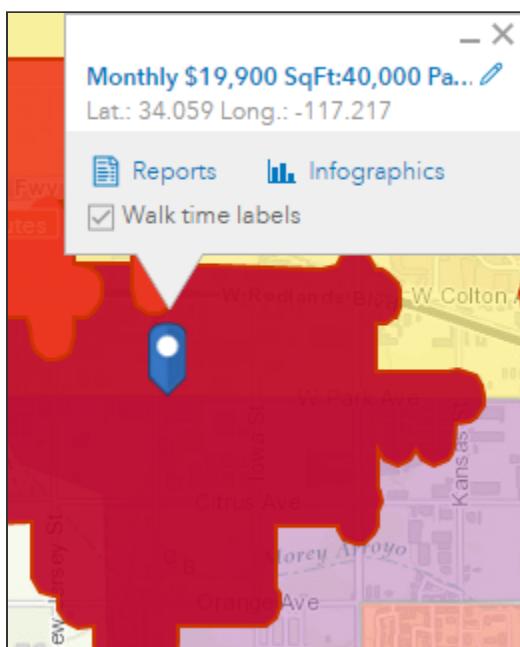
You now have more information about which specific areas around each of the real estate opportunities may or may not be ideal for your new store location.

An additional factor that could help the final decision on the best location for a new store is traffic information in the prospective areas. On average, how many people drive by a particular location in one day? You can use this information to gauge how many potential customers may visit your store, and you can find it by creating a traffic count report.

Step 10: Create a standard report

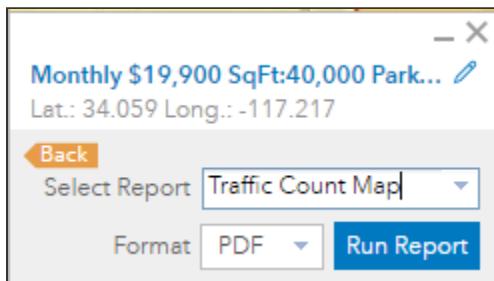
Business Analyst has multiple reporting functions, including standard, comparison, and custom reports, and infographics. In the last lesson, you created a comparison report for the Toronto bank expansion scenario. In this next step, you will **run a report to show the traffic count at the prospective store location you think is best**.

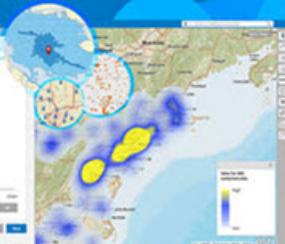
- a On the map, click the point that seems like the best possible site to you for a new store location. It can be any of the five points.



The area selected in the graphic does not have to be the one for which you choose to create a report.

- b In the pop-up, click **Reports**.
- c In the Select Report drop-down list, scroll all the way down and select **Traffic Count Map**.





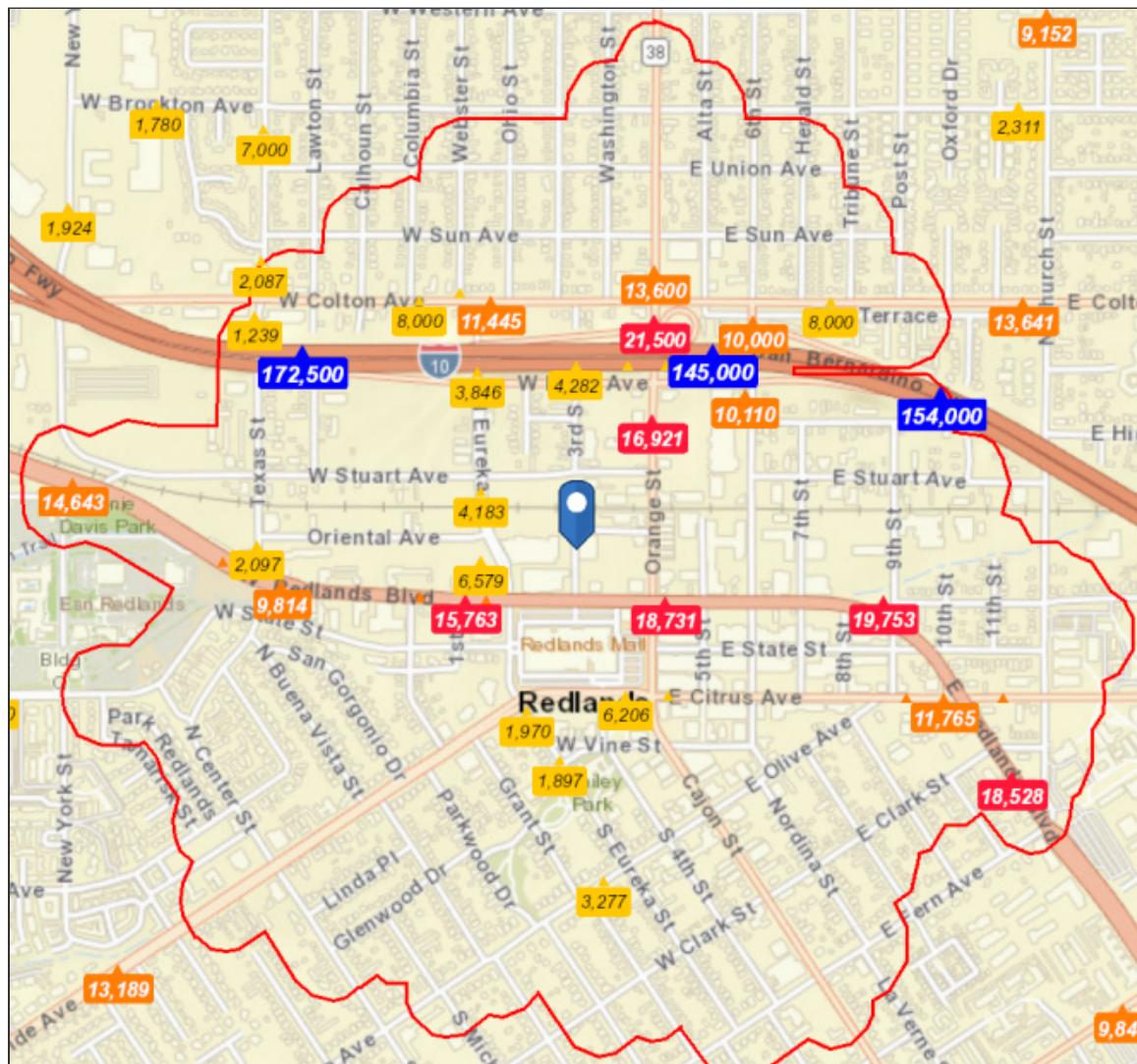
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- d Leave the default format of PDF, and click Run Report.

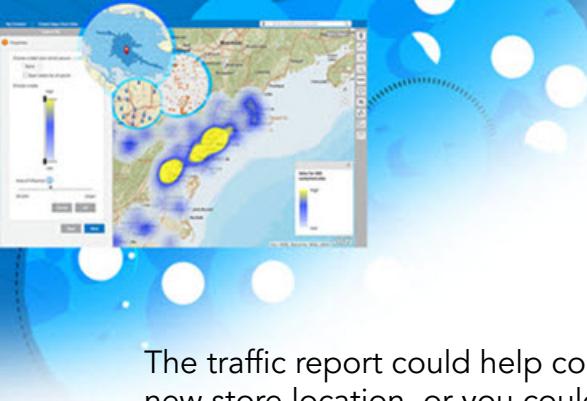
The report is saved to your project in Business Analyst and also to your BA-My Reports folder under My Content in your ArcGIS Online organization.

- e When the report finishes processing, click **Open Report**.

The report will open in a new web browser tab as a fully formatted PDF document. The numbers represent the **average number of cars that pass a location in a day**. Higher values are shown in blue, and lower values are shown in yellow.



You can print or save this report along with the map image that you saved earlier.



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The traffic report could help confirm your thinking that this is the best potential place for a new store location, or you could run reports on another site for more information.

As you interpret the findings, you should **build a case for management about which site you believe is most suitable, and why**. Do the combinations of existing parameters put one site ahead of the other, such as lower cost, more parking, or more favorable demographics? There are usually even more factors that you must consider when making such a big decision. What other possible criteria can you think of? **Remember to look to the future:** there is a commuter train planned for this area by 2020. That information could give weight to a location that is near a future train stop. Consider ease of access to transportation: how close is each location to the nearest highway off-ramps, and **which side of the street** is each location on when traveling from those access points? Here are some additional variables that management might also want to consider:

- Location of large employers
- Location of schools
- Farmer's market location, which brings pedestrian traffic
- Visibility
- What else?

Step 11: Sign out of Business Analyst

When you have finished the activity and are done exploring Business Analyst, you can sign out.

- a At the top of the Business Analyst window, click your name, and then click **Log Out**.

Conclusion

In this exercise, you looked at evaluating sites for a new location for a business. There are many factors to consider with a potentially high-profile, high-cost decision like this. As you have learned, **considering quantitative variables, like costs or traffic counts, can help provide a solid basis for a recommendation**. You can find many different datasets in Business Analyst that cover a wide range of demographic, business, and consumer characteristics to explore.

What further variables do you think could be useful in performing site optimization? There are probably **also more qualitative, harder to measure variables to consider** in a search like this, such as neighborhood feel, sense of place, perceived relative noise, or other factors. How can you take this a step further? You are encouraged to take these tools, access the data, and see what other information you can derive, or what other things you can learn.



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Again, you began this exercise with a business question: where are the best locations for my business? You used information available in Business Analyst. You modeled the solution by combining the data with techniques to answer the question. You can apply the techniques you used to other similar situations, as well:

- Locating a military or college recruiting agency near wherever the potential recruits or students live
- Locating a food delivery business in an area where people tend to have more disposable income but fewer cars
- Locating a different part of the business, such as a manufacturing plant, farther from consumers, but near where potential workers live
- Locating the best place for a new office complex, which would need parking spaces, zoning, restaurants in the vicinity, etc.

Most importantly, take action on your findings. Do not let your findings simply be documented in reports and archived (although those are good ideas, too). Your analysis results should also be integrated where possible. The datasets and maps can be added to reports or dashboards in your business intelligence systems to be made accessible or distributed, for example. This is how to use this new information to increase your competitive advantage: the location advantage.