Investigations in Demographics, Consumer Behavior, and Businesses with Community Analyst / Business Analyst Web

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Daily geo-dose: twitter.com/josephkerski

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Data book and blog: spatialreserves.wordpress.com

Workshop Overview

- Introduction to Community Analyst / Business Analyst Web

- Why teach and do research with Community Analyst / Business Analyst Web

- Demographic Analysis

- Consumer Preference Analysis

- Business Location Analysis

- Discussion

- Wrap-up

What is Community Analyst / Business Analyst Web?

- CA/Business Analyst Web is a Web-based **application.** It is part of the ArcGIS platform. **Apps** can be grouped as follows:

Field
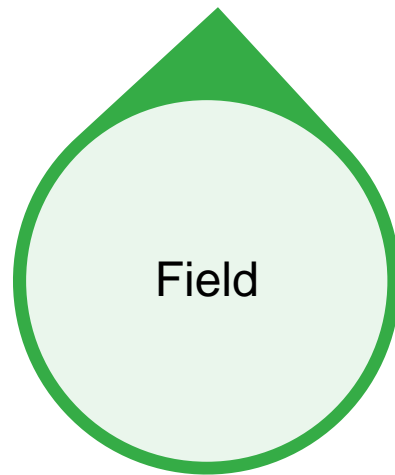
- Collector
- Explorer
- Survey123
- More…
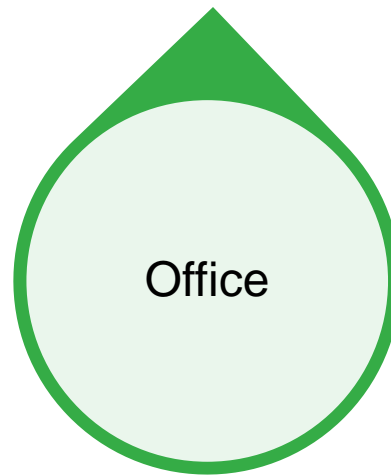
Office

- Esri Maps for Office
- Business Analyst Web
- Community Analyst
- ArcGIS Earth
- ArcGIS Pro
- More…

Community

- Crowdsource Reporter
- Story Maps
- ArcGIS Open Data
- Photo Survey
- More…

What is CA/Business Analyst Web?

- CA and Business Analyst Web (BAW) is a Web-based **application** that allows people to view and analyze demographic and third-party sources of data to better understand the overall community in question and make better policy decisions.

- CA/BAW contains--(1) data; (2) maps; and (3) tools.
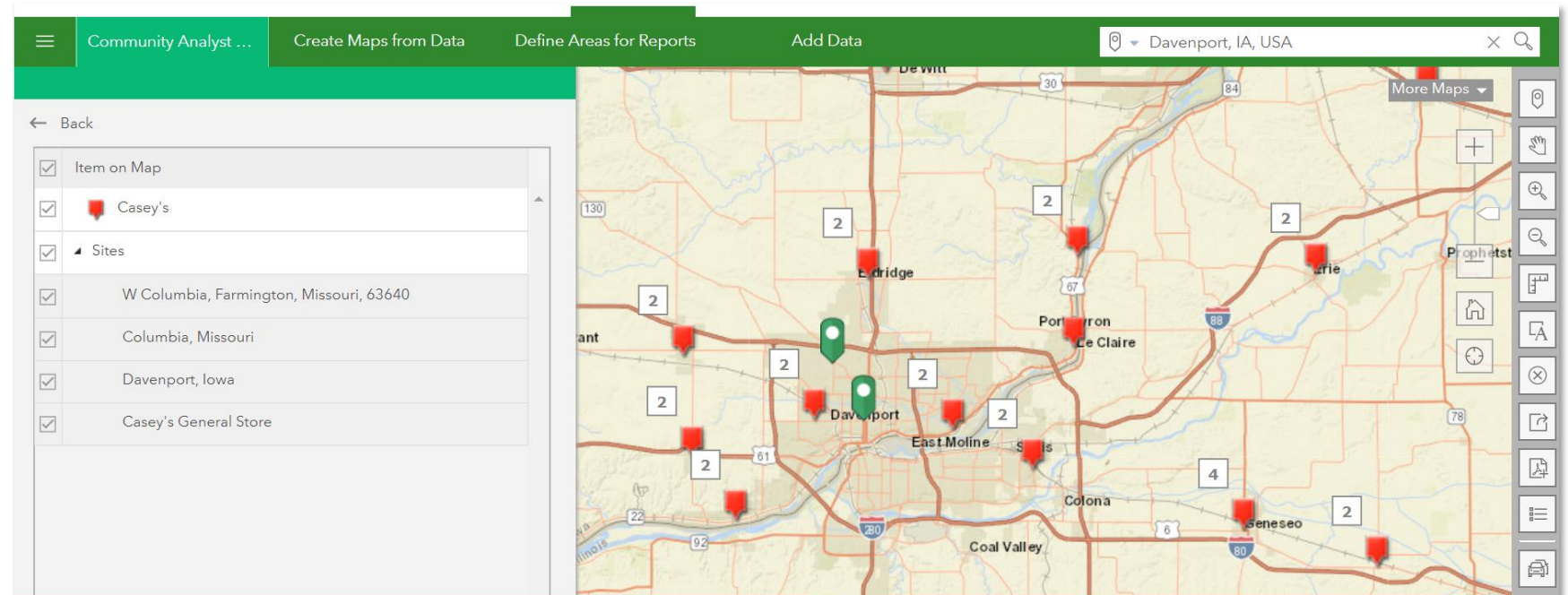
Why teach and do research with CA/Business Analyst Web?

- 1. No GIS prerequisite skills necessary (helpful but not required). Thus provides an excellent toolkit for colleagues in your own discipline who are not currently using GIS, **and** for colleagues in other disciplines (in particular, sociology, business, and health).

- 2. Included in Esri free school software bundle, and in university enterprise wide licenses.

- 3. Run entirely online; nothing beyond a web browser needed.

- 4. Offers the ability to quickly and easily analyze data: Creating choropleth maps, charts, graphs, and infographics; creating buffers and routes, more; with intriguing analysis tools that exist in no other product.

- 5. Offers the ability to move data **from** ArcGIS Online and **to** ArcGIS Online.

- 6. Wide variety and volume of data – 1000s of businesses, consumer behavior, and detailed **one-stop** demographic data. For **multiple** countries.

- 7. Excellent for teaching **and** research.

Accessing CA/Business Analyst Web

- You obtain access through your ArcGIS Online account: www.arcgis.com

In that account, your organization administrator needs to make sure you have access to CA or Business Analyst Web.

You need a Level 2 membership as Administrator, Publisher, or User. The Publisher or Administrator role is required to be able to create new projects - in the User role, many functionalities in the app will be accessible to you only if others in your organization have shared project(s) with you.

Logging into CA/Business Analyst Web

- You log into BAW using this URL and with your ArcGIS Online organizational account credentials:
https://bao.arcgis.com
https://communityanalyst.arcgis.com

- If you don't have an ArcGIS Online account, get a free CA/BA Web trial here: https://www.esri.com/en-us/arcgis/products/arcgis-business-analyst/trial
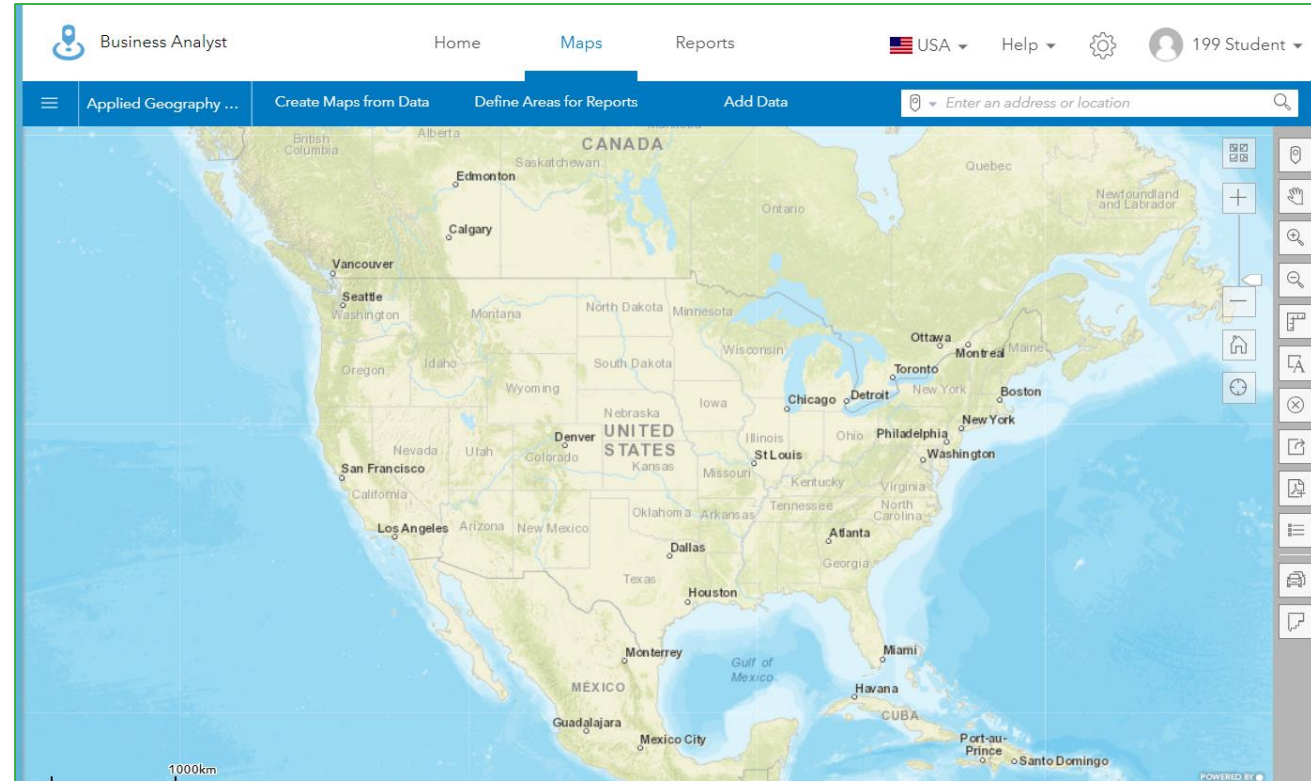
What can you do with CA/Business Analyst Web?   Selected Activities

- 1. Analyze demographic data: Color coded maps, filters.

- 2. Illustrate multi-variate analysis.

- 3. Analyze consumer behavior.

- 4. Create reports and infographics.

- 5. Analyze business locations.

- 6. Create drive time buffers.

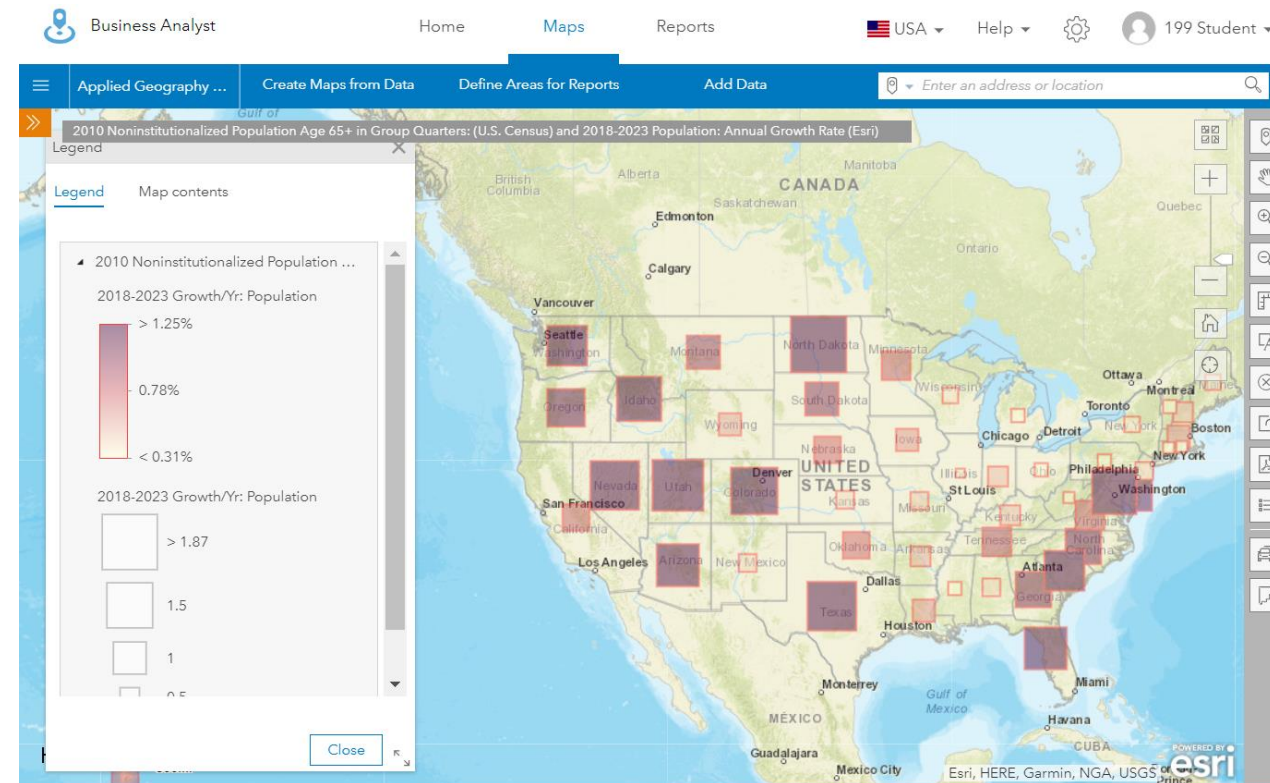- 7. Move data back and forth between BAW and ArcGIS Online.

Activity 1: Create Maps from Data

- 1. Create maps from Data > Color-coded maps > Population, annual growth rate.

Discuss:

- # vs Index

- Scale and locking scale

- Style, legend, classification method

- Data table, Export

- Add variable: Group Quarters.

Activity 2: Smart Map Search

- 1. Pets and pet spending

- 2. Construction and insurance

Activity 3: Mapping Businesses

- 1. Analyze 2 regional businesses.

- 2. Site suitability analysis in 1 community.

- 3. Create Infographics
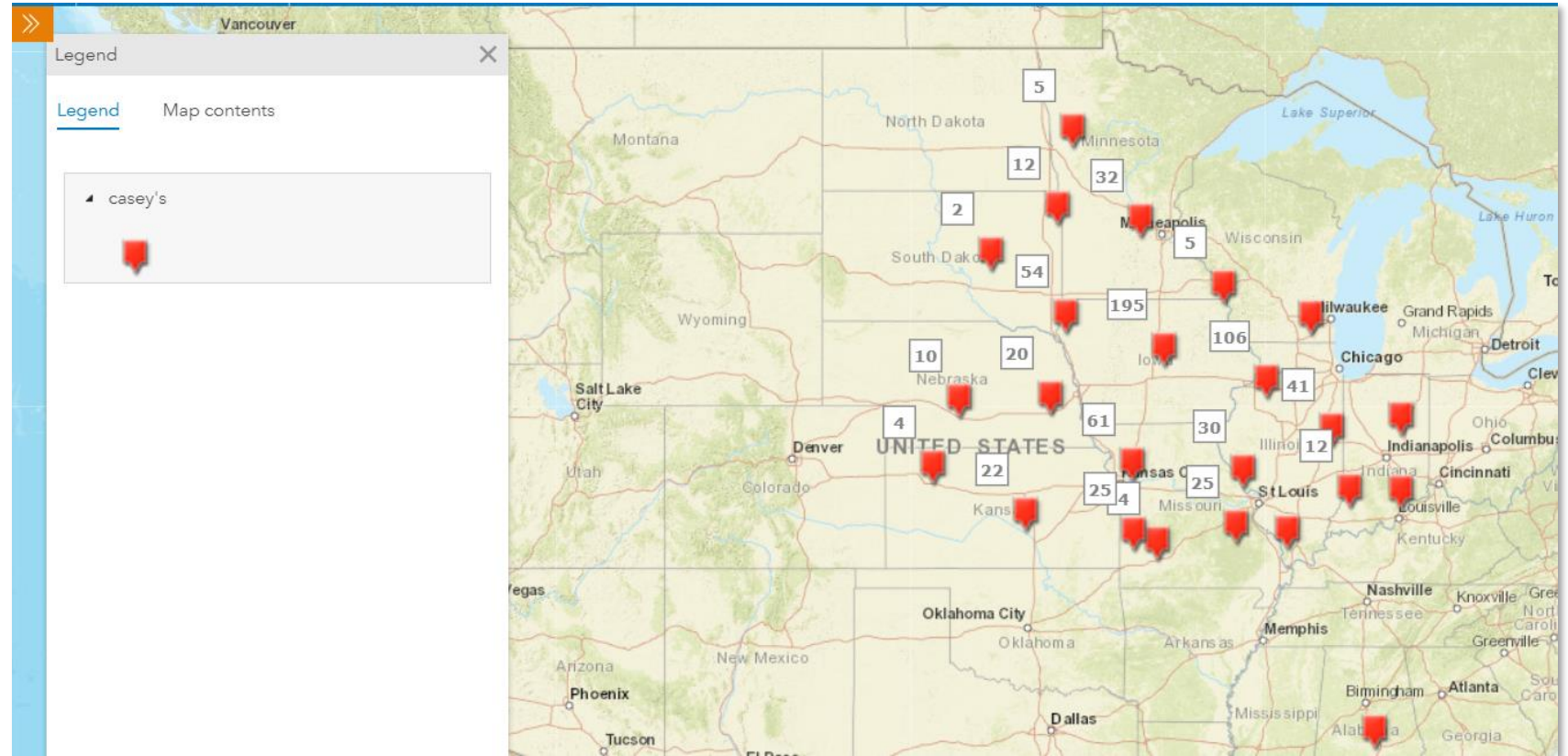
KEY FACTS

6,021
Population

2.5
Average Household Size

31.7
Median Age

$50,602
Median Household Income

EDUCATION

9%
No High School Diploma

20%
High School Graduate

30%
Some College

40%
Bachelor's/Grad/Prof Degree

BUSINESS

512
Total Businesses

5,619
Total Employees

EMPLOYMENT

White Collar — **63%**

Blue Collar — **17%**

Services — **20%**

4.0%
Unemployment Rate

INCOME

$50,602
Median Household Income

$24,529
Per Capita Income

$36,981
Median Net Worth

Households By Income

The largest group: $50,000 - $74,999 (20.9%)
The smallest group: $150,000 - $199,999 (1.7%)

| Indicator ▲	Value	Difference
<$15,000	11.4%	-1.4%
$15,000 - $24,999	9.0%	-1.1%
$25,000 - $34,999	11.5%	+1.8%
$35,000 - $49,999	17.3%	+3.5%
$50,000 - $74,999	20.9%	+3.0%
$75,000 - $99,999	12.9%	+0.1%
$100,000 - $149,999	13.3%	0
$150,000 - $199,999	1.7%	-3.1%
$200,000+	2.0%	-2.9%

Activity 4: Add data from CSV

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  - Add data from CSV file for baseball tournament; analyze patterns.

-
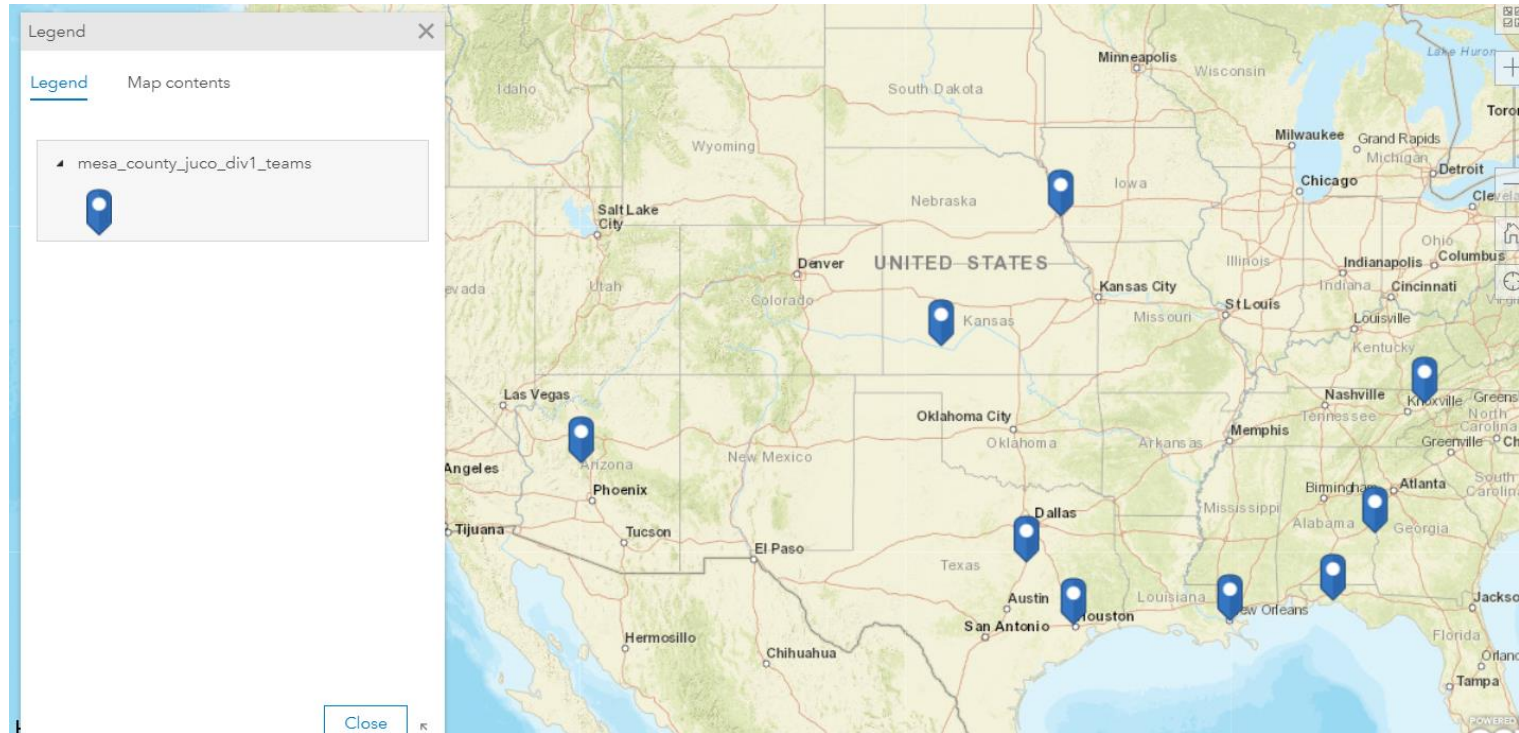
Activity 5: Add data from ArcGIS Online

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- Add data from ArcGIS Online:
  Sparta Elroy Trail – so that you can use it to determine optimal location for new bike-ski rental and sales shop in the vicinity.   Add bike-ski rental shops. Buffer the trail by 5-10-15 miles. Add consumer behavior: purchased bicycle recently.

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Infographics
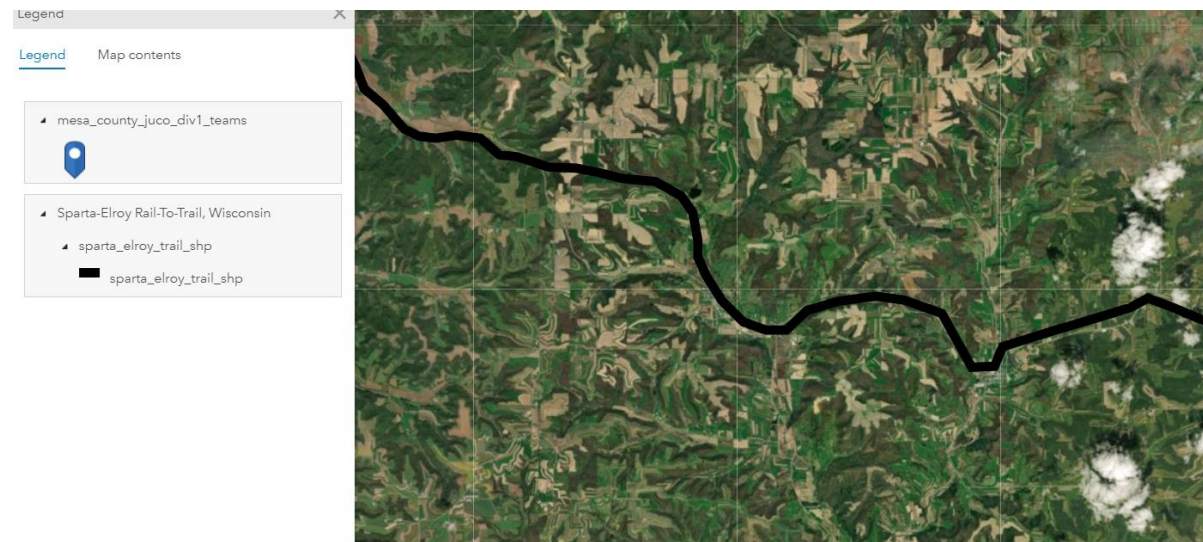
https://www.esri.com/arcgis-blog/products/product/business/business-analysis-infographics/
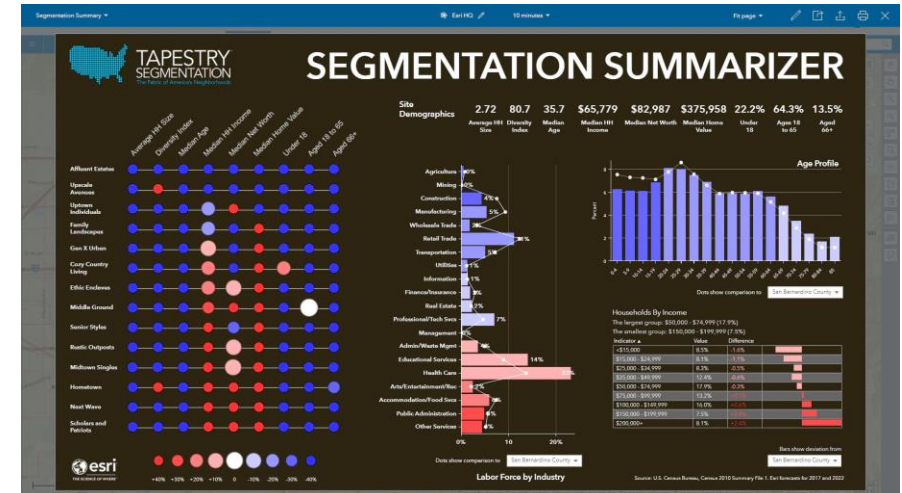
3 Last but Important CA/Business Analyst Web points

- 1. In addition to the United States, data and reports are available for more than 135 countries.

- 2. **To bring your own data into Business Analyst Web:**

    (A) Via Excel spreadsheet of addresses or lat-long locations using Maps > Define Areas for Reports > Import File.

    (B) Import a shapefile polygon and point data via Maps > Define Areas for Reports > Import File.

    (C) Via a web map from ArcGIS.com, then access your map for analysis within Business Analyst Web Maps via More Maps > Web Maps.

- 3. Community Analyst is the same product as Business Analyst Web. Only the colors and a few terms are different.

Questions? Concerns?

- Feel free to contact: jkerski@esri.com

Esri Education: K12, Universities, Informal Education, Community College:

www.esri.com/education

Other Education Related resources:
- GIS in education on GeoNet Community:

https://geonet.esri.com/community/education
- Spatial Data and Societal Issues:

http://spatialreserves.wordpress.com
- 4,500 geo-ed-STEM-place-space-GIS videos:

www.youtube.com/geographyuberalles

CA/Business Analyst Web: Additional Resources

- Esri GeoNet place for Business Analyst Web: https://community.esri.com/groups/business-analyst

- Business Analyst FAQ: https://doc.arcgis.com/en/business-analyst/web/faqs.htm

- Business Analyst Web licensing tips: https://www.esri.com/arcgis-blog/products/apps/business/the-way-you-manage-your-esri-business-analyst-web-app-licenses-has-changed/

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