ArcGIS Online Analysis Tools

AN INTRODUCTION BY SHARON JANZEN

BROCK UNIVERSITY GIS DAY 2024

Before we get started:

- Who am I?
  - Sharon Janzen, Map Library Associate/Geospatial Data Coordinator
- Demo/Do Format
- Land Acknowledgement

Land Acknowledgement

- I acknowledge the land on which I live is the traditional territory of the Haudenosaunee and Anishinaabe peoples, many of whom continue to live and work here today.

- This territory is covered by the Upper Canada Treaties and is within the land protected by the Dish with One Spoon Wampum Agreement.

- Today this gathering place is home to many First Nations, Metis and Inuit peoples and acknowledging reminds us that our great standard of living is directly related to the resources and friendship of Indigenous people.

- As I journey on this land, I endeavor to meet, listen and engage with indigenous people and activities to show my support and desire for reconciliation.

- To learn more, go to **https://native-land.ca** **and**

- **https://brocku.ca/aboriginal-education-council/about/**

Background

- What is GIS?
  - Geographic Information Systems
  - Software + people
- What is ArcGIS Online?
  - A 'light weight' modern web GIS
  - Display, analyze, present 'geo' data
  - "Objects that know where they are"
- Today's scenario:
  - Parents need infant child care! We're going to assess a neighbourhood in St. Catharines for existing childcare by displaying point features, filtering, running drive time analysis and enriching the areas of interest with family and income statistics.

Task #1

▶ Using Chrome web browser, go to arcgis.com

▶ Sign in using your Brock sign in credentials:

 ▶ Click '**Your ArcGIS Organization's URL**'

 ▶ Enter '**brock**' to complete the URL

 ▶ Click **Brock University** (this takes you to Brock's authentication page)

 ▶ Sign in using your Brock credentials

▶ Text "I'm in!" in the chat

Task #2

- Open a new tab and go to "Niagara Open Data"
- Search 'child care'
- Select **Licensed Child Care**
- Click title for the **ArcGIS GeoService** entry
- Right click the URL and select **copy link address**

- Text "Copied!" in the chat

Task #3

- Go back to **ArcGIS Online** tab
- Click **Map** to open the Map Viewer
- Click [≋ Add | ⌄] > add layer from URL
- Use **Ctrl-V** to paste the URL from the clipboard
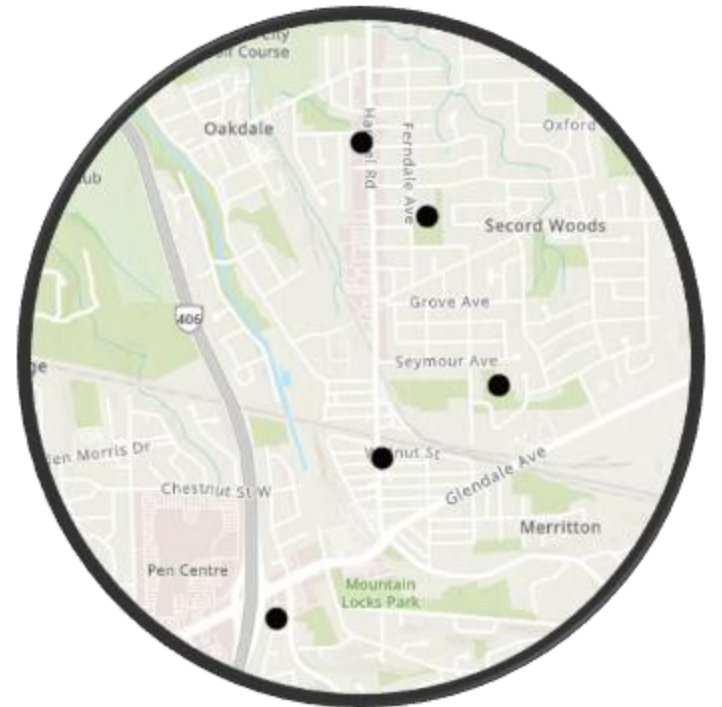- Click **Add to Map**

- Text "Added!" in the chat

Task #4

- Filter ▽ > **+Add new**
- **Municipality** is **St. Catharines** (temp result)
- Zoom to St. Catharines area
- Make a bookmark 🔖
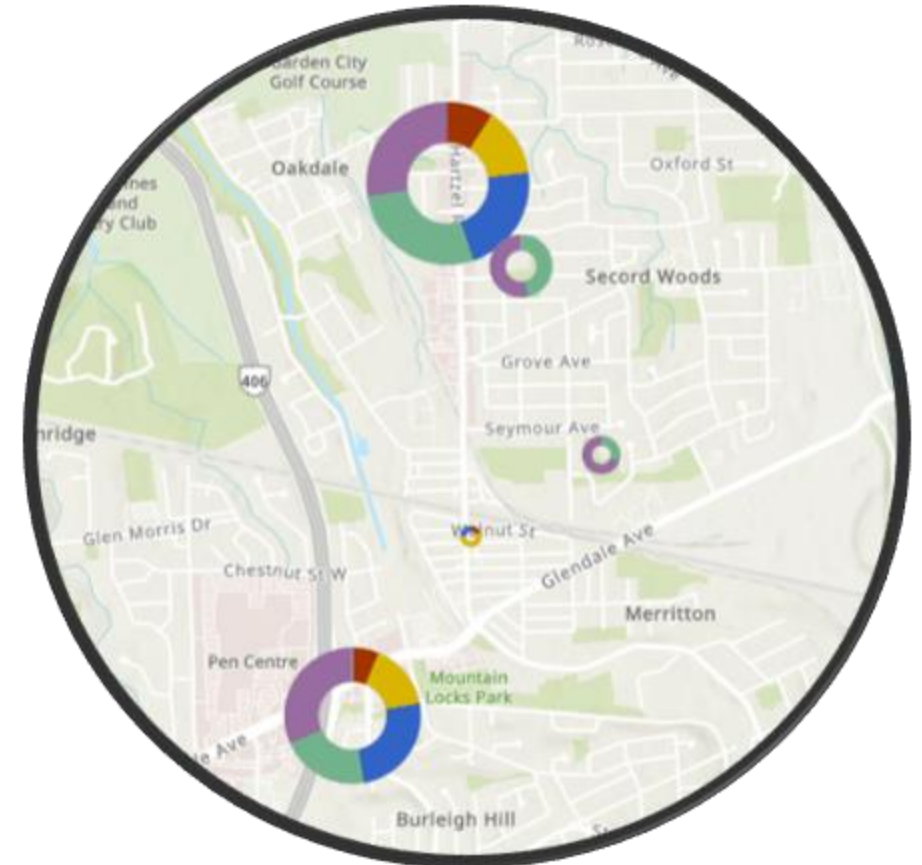- Save map

- Text "Got it!" in the chat

Task #5

- Analysis tools 📑 > **Select** → "Find by attributes and location"
- **NBH_ID = ST8** (neighbourhood i.d.)
- Provide output name "ST8 child care centres"
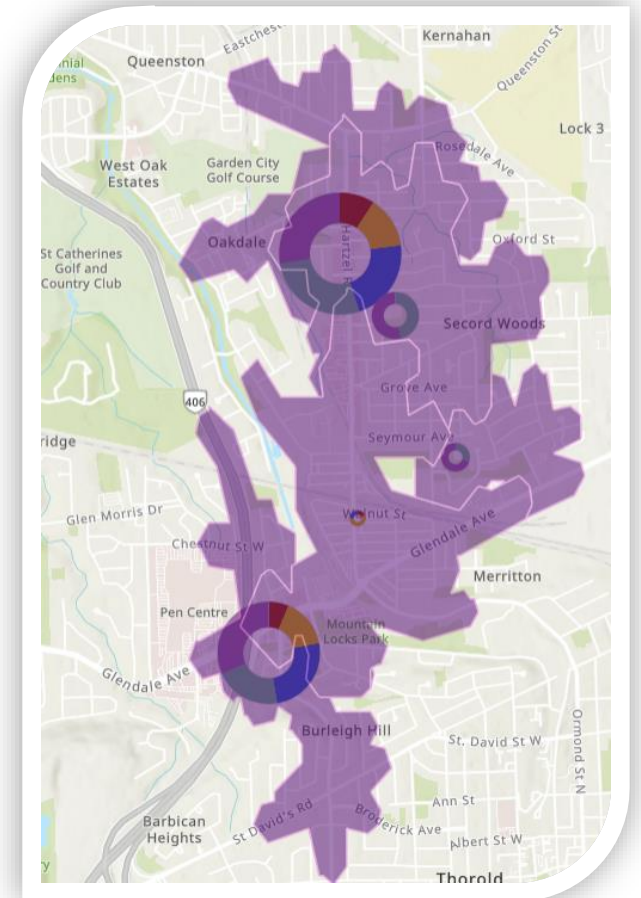- Estimate credits, then **Run**

- Text "Running!" in the chat

Task #6

- Select newly created layer
- Click **Styles** ⊠
- Remove default **Category X**
- Add fields representing age groups
  - Infant, toddler, preschool, etc
- Click **Charts and Size** > Style options
  - **Charts (color) Style Options**
- **Shape**, slide to make donut
- Click **Done** and **Done**

- Text "Styled!" in the chat

Task #7

- Analysis tools > "**Drive**" → "**Generate travel areas**"
- Input layer > ST8_child_care_centres
- **Cutoffs** > **2, +Add** (2 minute drive time)
- **Result Layer** >
  - Output name "ST8_drive2min"
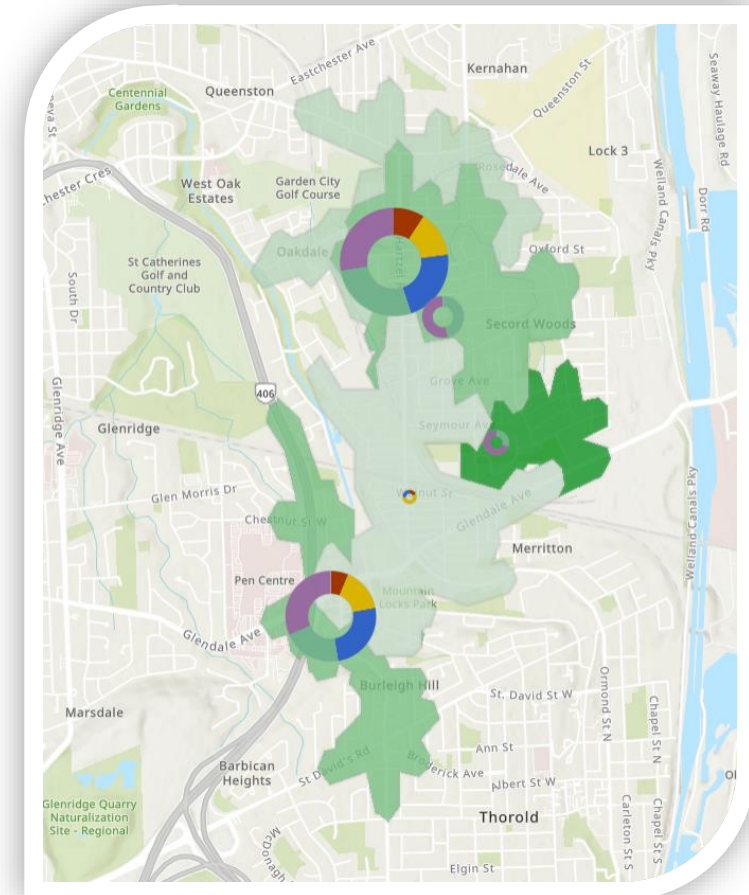- Estimate credits then **Run**

- Text "Driving!" in the chat

Task #8

- Analysis Tools > **Enrich → Enrich layer**
- Input features > "ST8_drive2min"
- **+Variable →** Enrich data, select **Canada**
  - Households → 2023 Children at Home: Under 5
  - Income → 2023 Household Median Income (current year $)
- Result layer > Output name "ST8_enrich"
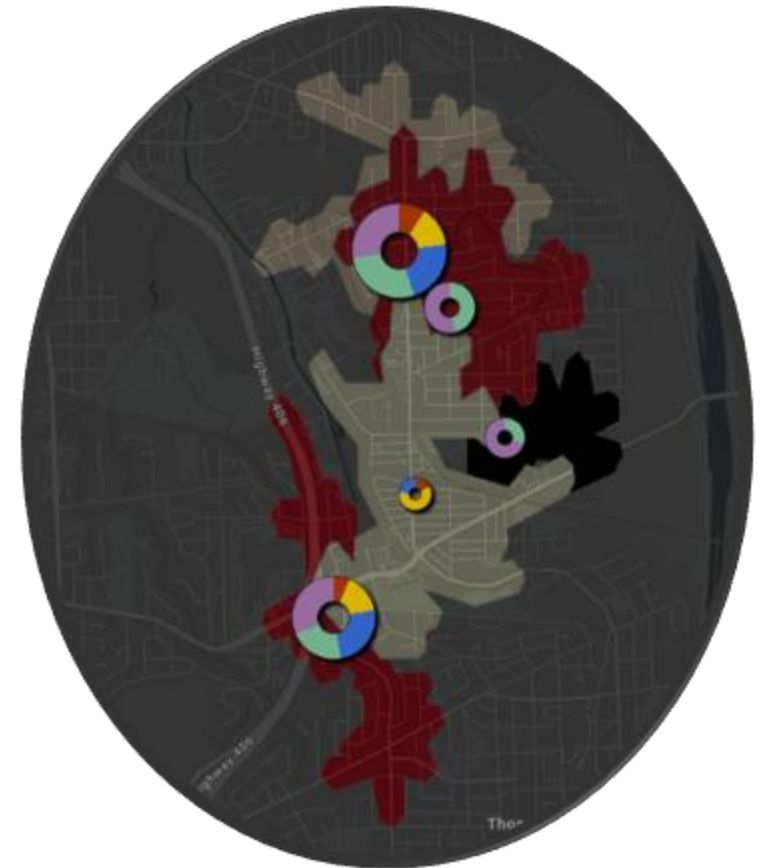- Estimate credits then **Run**

- Text "Enriching!" in the chat

Task #9

- Style the enriched layer
- Select the layer from the left
- Click styles
- Add field > children at home
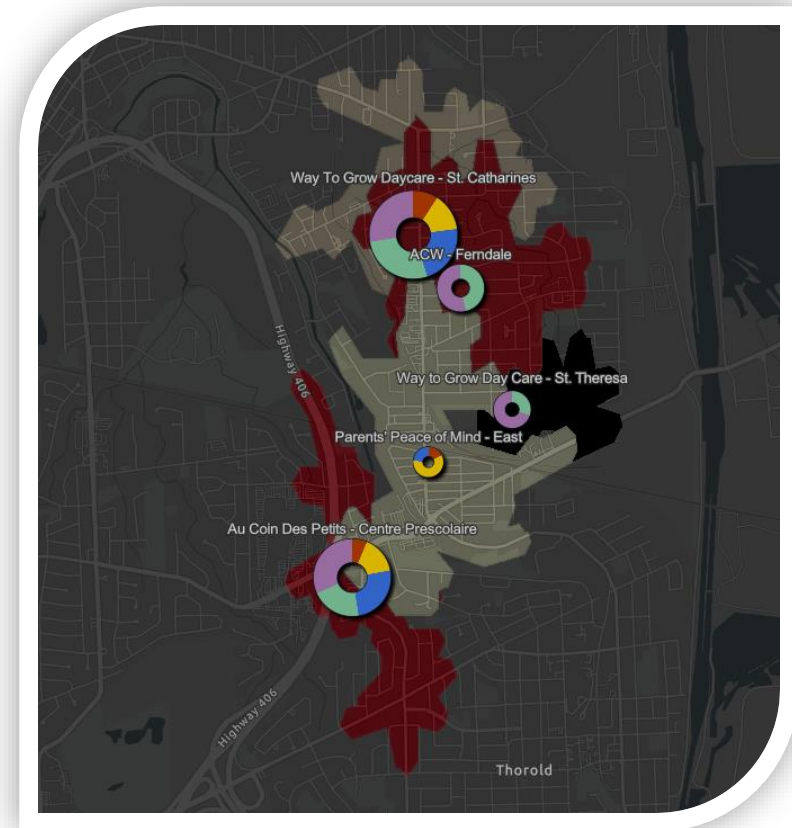- Adjust style colour if you like

- Text "Done!" in the chat

Task #10

- Make it "pop"!
- Change basemap > Dark Gray Canvas
- Select point feature layer (ST8)
  - Drag up to top
  - Click **Effects** ✦
  - Toggle on **drop shadow**
- Select the Enriched layer
  - Properties > Blending > Contrast > **Overlay**

- Text "Pop!" in the chat

Task #11

- Select layer ST8_child_care_centres
  - Click **Labels** 🏷️
  - Toggle "Enable labels"
  - Select label field "Program"

- Text "Labels!" in the chat

Task #12

▶ Clean up the layers

▶ Remove unwanted layers

▶ Re-order layers

▶ Rename layers

▶ Save map

▶ Text "Cleaned up!" in the chat

Task #13

- Share > Everyone (Public)
- Update sharing of all layers

- Text "What's next?!" in the chat

Task #14 (OPTIONAL)

▶ Create an Instant App

▶ CHOOSE **Basic**

▶ Enter **Title**, **Tags**, click **Create**

▶ There are many options but we'll just click **Publish**

▶ Copy link then **Launch**!

▶ Paste your link in the chat or simply text "I did it!"

Closing Remarks

▶ In today's workshop you:

  ▶ Became familiar with ArcGIS Online tools

  ▶ Accessed some open data

  ▶ Ran some analysis

  ▶ Discovered a whole new world of enriched data

  ▶ And made an instant app!

▶ Next steps?

  ▶ Explore Esri E-learning https://www.esri.com/training/catalog/search/

  ▶ Email sjanzen@brocku.ca