



# ***Community Asset Mapping Strategies to Support STEAM Learning***

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# Goal of session

**Explore how two types of tools or strategies can be used to learn:**

- **Who your library is actually serving**
- **How to best support learning in your community**



## **Rethinking your library service area**

Who has a defined “library service area”?

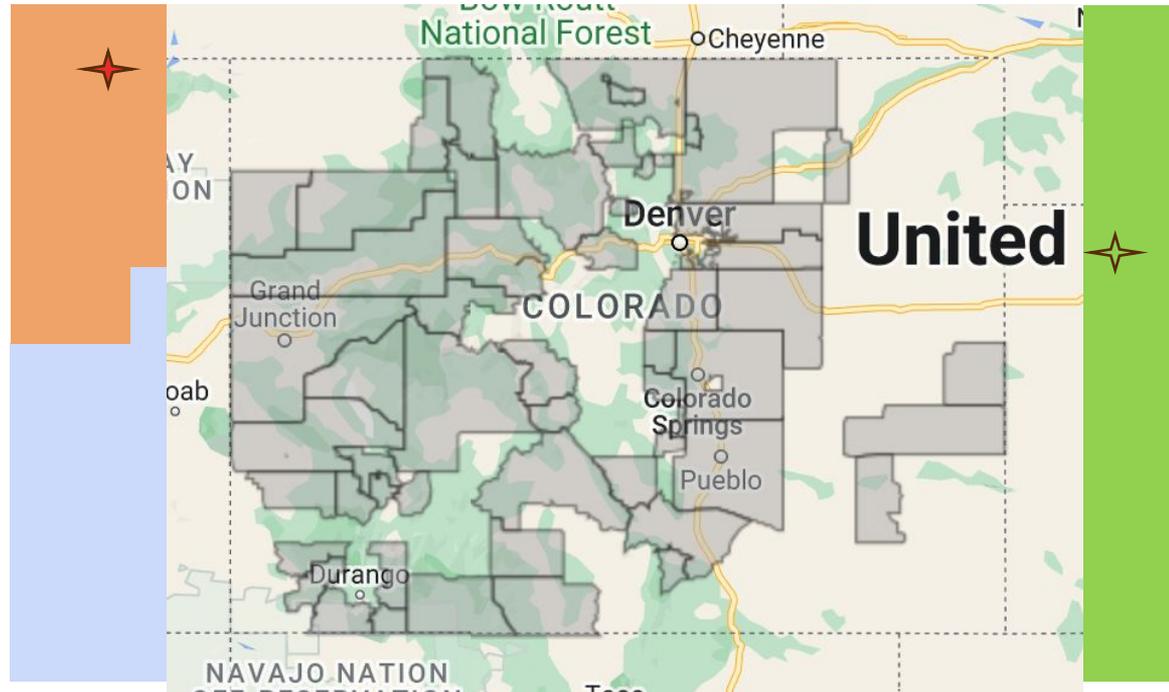
Who has visitors from outside of this service area?

Who has visitors from outside of your county?

Who has visitors from outside of your state?

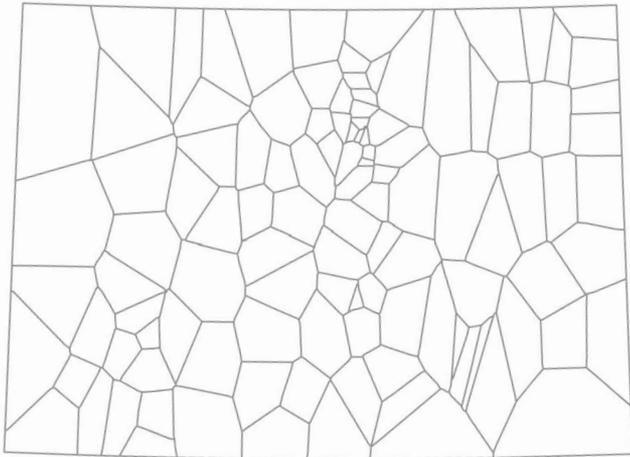
# How do we define a library district?

Library service area boundaries are not always comprehensive and do not represent *who* actually uses library services

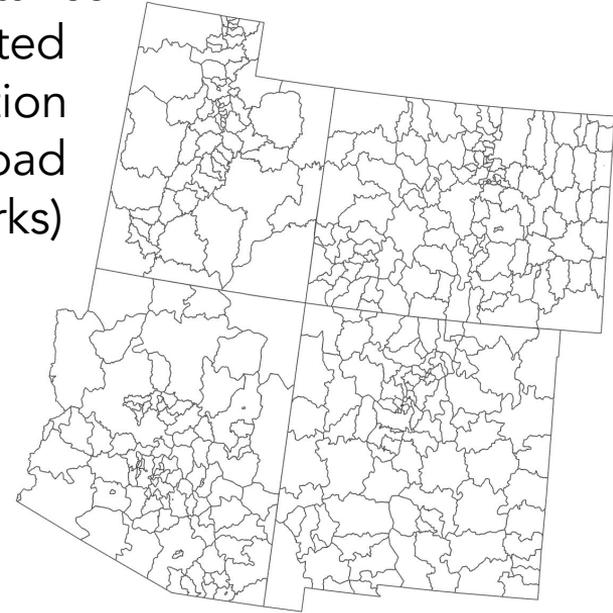


# How do we define a library district?

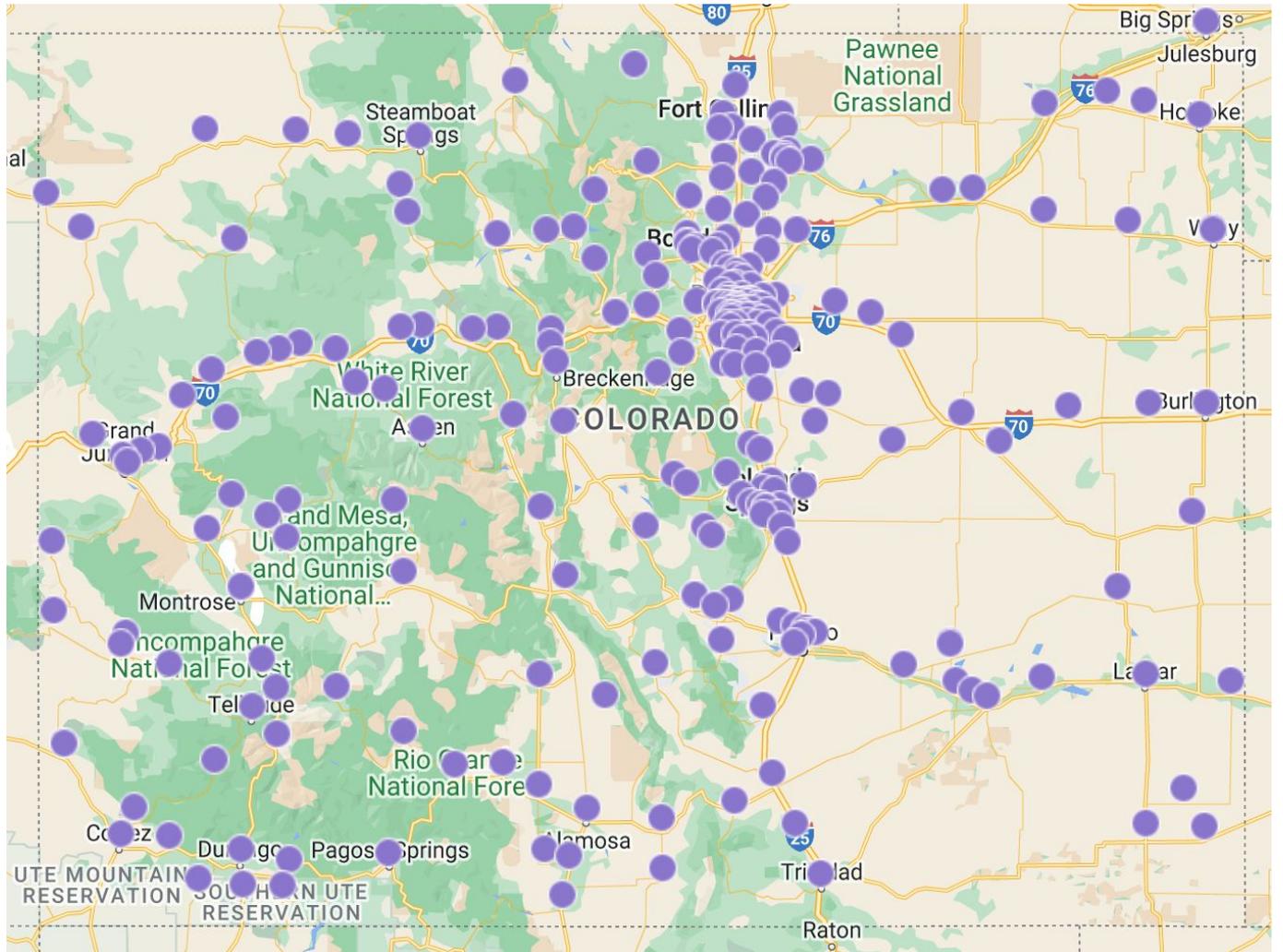
Straight Line Distance Allocation



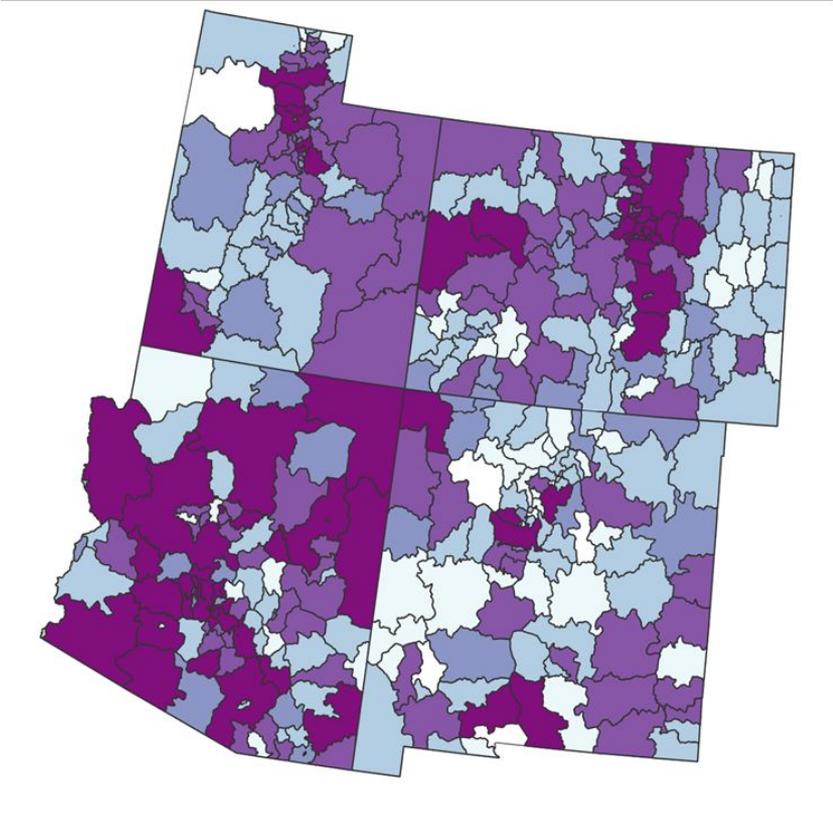
Cost Distance  
Weighted  
Allocation  
(with road  
networks)



Library branches  
in Colorado  
(2023)



# 2013 LSA Population





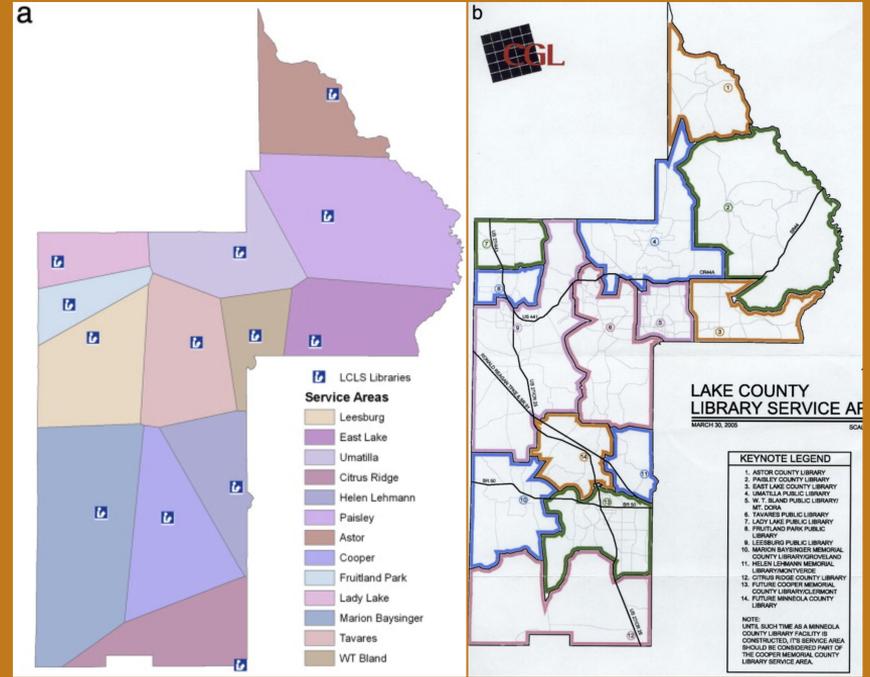
## **Discussion**

What might draw in patrons from outside of your defined library service area?

## Measuring public library accessibility: A case study using GIS (Park, 2012)

- Uses geospatial analysis to investigate public library accessibility
- Recognizes the importance of road networks over straight line distance
- Recognizes that people visit libraries outside of designated service area
- Only looks at circulation
- Limited study area and private data

Library service areas created by Park (a) and actual library service areas (b) in Lake County, Florida



Park, 2012

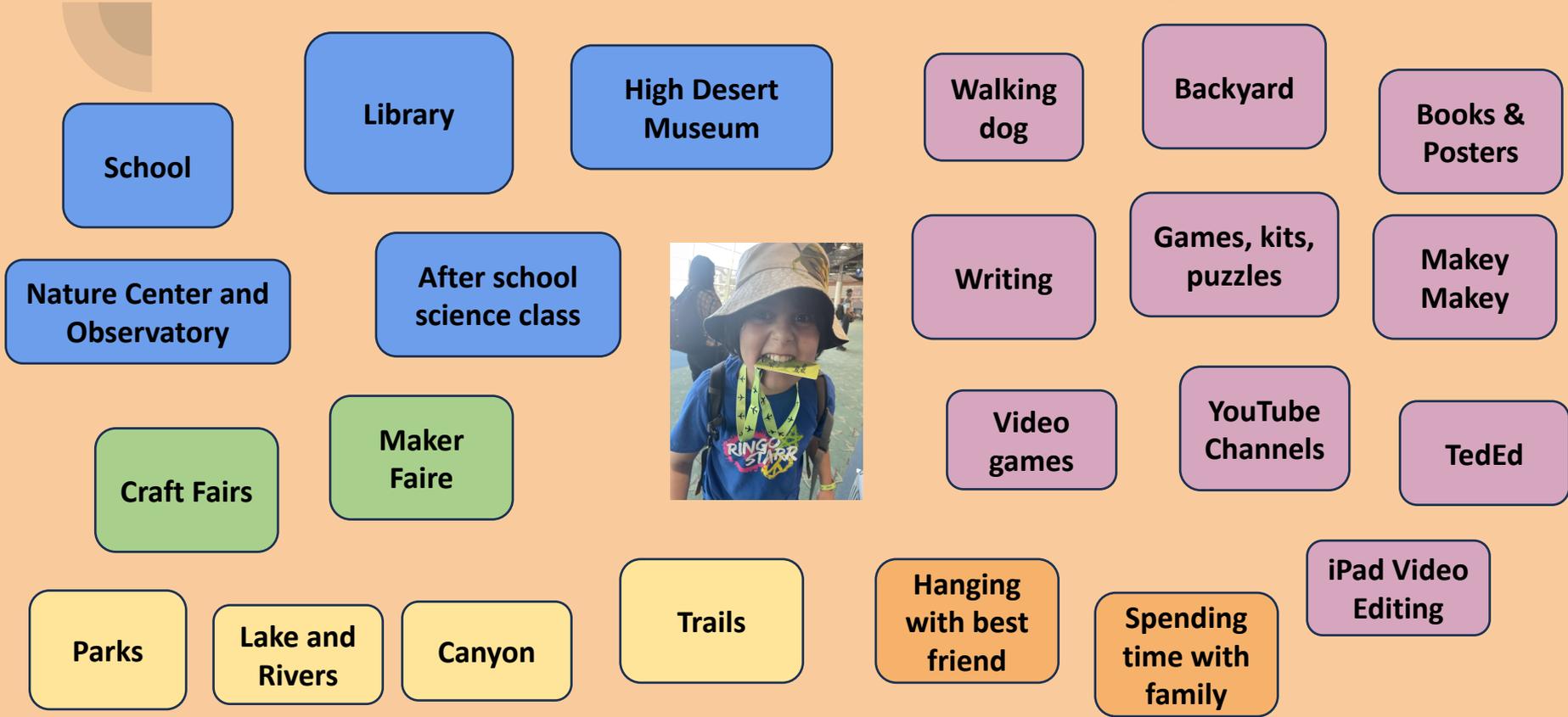


# Brainstorm

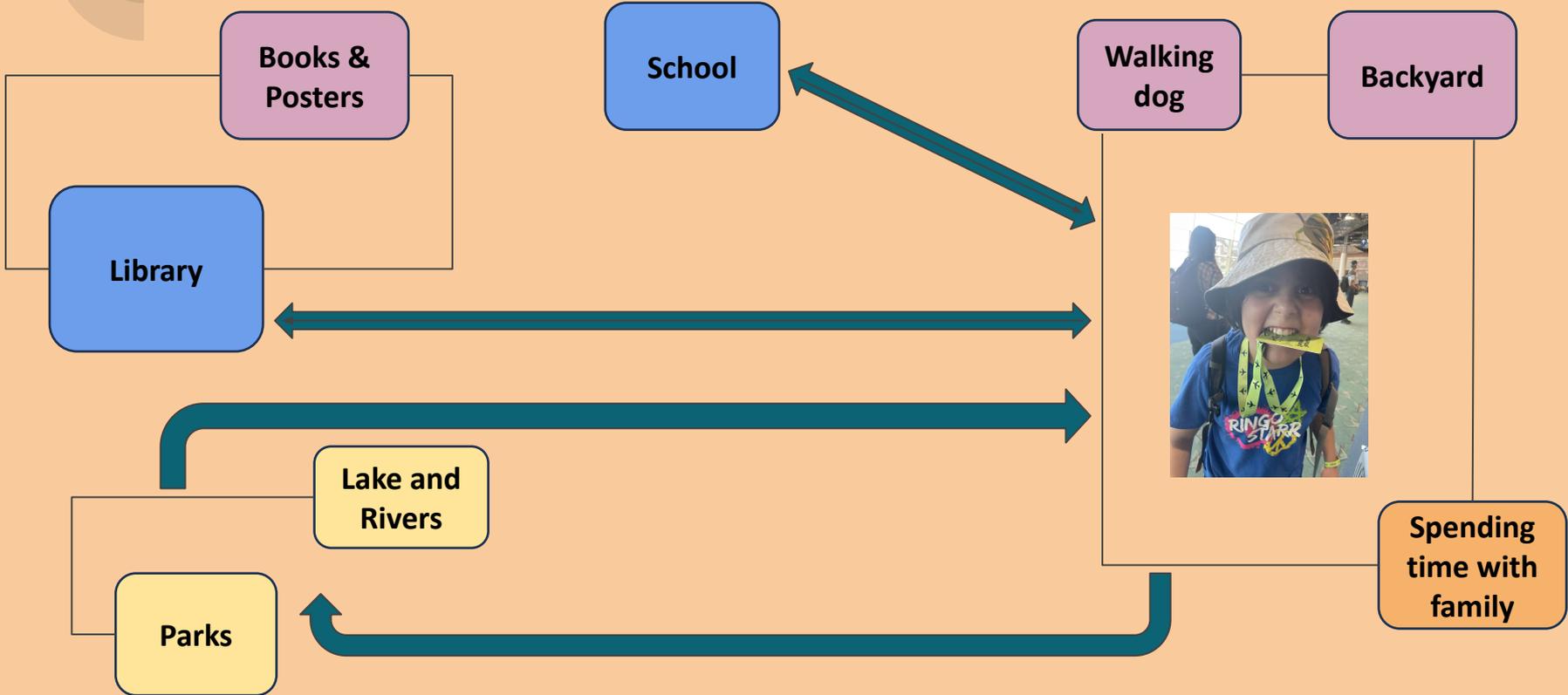
*Where does STEAM learning take place in your area?*



# A Tween Navigating a Local STEAM Learning Ecosystem



# An Example in Action: STEAM Learning Ecosystem





# **Activity:**

## **Create a Community STEAM Learning Asset Map**

*Thinking about your area, where might tweens engage in STEAM learning?*





# Using Data and GIS to Enhance Your Community Asset Mapping

- Plotting out your community asset map can help you visualize:
  - School locations
  - After-school / club locations
  - Potential partnership locations (museums, parks, businesses, etc.)
  - Locations to advertise/market your programs (look for clusters!)
- Providing digital options, but don't be afraid to get out a map and use markers and push-pins!



CULTURAL ASSET MAP OF WILLOWBROOK AND ADJACENT AREAS | MAP BY ROSTEN WOO (2013)  
Created by the Local Initiatives Support Corporation. Taken from:  
<https://www.lisc.org/our-initiatives/creative-placemaking/main/creative-placemaking-toolkit/asset-mapping/>



# Mapping Tools

- Simple:
  - Google Maps (Free)
  - Census Demographic Data Map Viewer (Free)
  - Scribble (\$)
  - ArcGIS Online (\$\$)
  - MapHub (?)
- Advanced:
  - ArcGIS Pro (\$\$)
  - QGIS (Free)
  - Tableau (Free)
  - GeoDa (Free)
  - Google Earth Pro (Free)

**If you are just plotting out points, don't get bogged down with too much tech!**



# Data Sources

- IMLS' Public Library Survey Data
- [Data.census.gov](https://data.census.gov)
- State Education Department
- Search: “[Your State]” + “Geospatial Data Collection”
- [aam-us.org/about-museums/find-a-museum](https://aam-us.org/about-museums/find-a-museum)
- [astc.org/find-a-science-center/](https://astc.org/find-a-science-center/)
- [aza.org/find-a-zoo-or-aquarium](https://aza.org/find-a-zoo-or-aquarium)

**Your own library data will hold a treasure trove of potential analysis opportunities.** I am happy to chat with you about possibilities!

# Supporting STEAM Learning Among Tweens

- Seek out and listen to tweens' perspective of their local STEAM learning ecosystem
- Learn about spaces/resources tweens use
- Identify gaps and opportunities for STEAM learning

# Discussion

- **How have you been learning about local tweens' perspectives of local STEAM learning opportunities?**
  - **What successes and challenges have you faced?**
  - **What have you learned?**
  - **How have you responded to learning about their perspective?**

# Exit Ticket

How might you use these strategies or tools to better support learning among tweens in your community?

Any Questions?

# Get in touch with us!



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