# Accessible Exercise: Improving Parks and Recreation in the City of Pontiac

OAKLAND UNIVERSITY
Honors College

Corey Rowe
Presenter

Dr. Jennifer Lucarelli
Project Mentor, Interdisciplinary Health Sciences

# Introduction

- Community-engaged public health research
- Encourage physical activity among the disabled
- Goal: **Identify specific barriers to accessibility through visual and location-based evidence**

# Gathering Existing Data

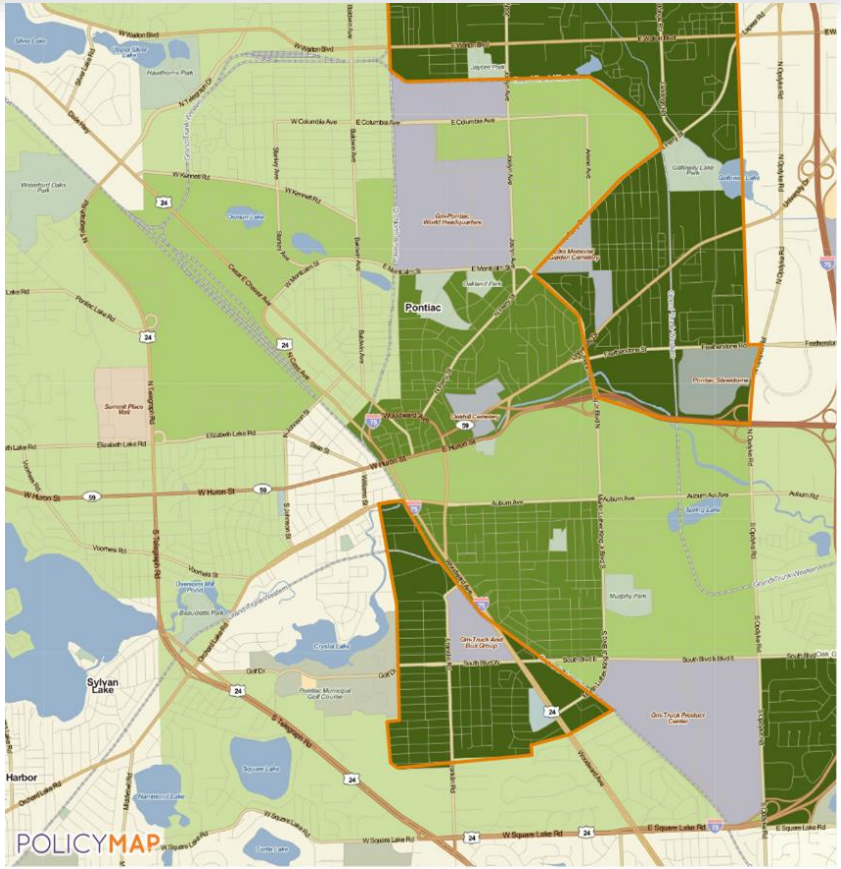

(Michigan Department of Natural Resources, 2016)


(Oakland County, 2017)


(Reinvestment Fund, 2017)

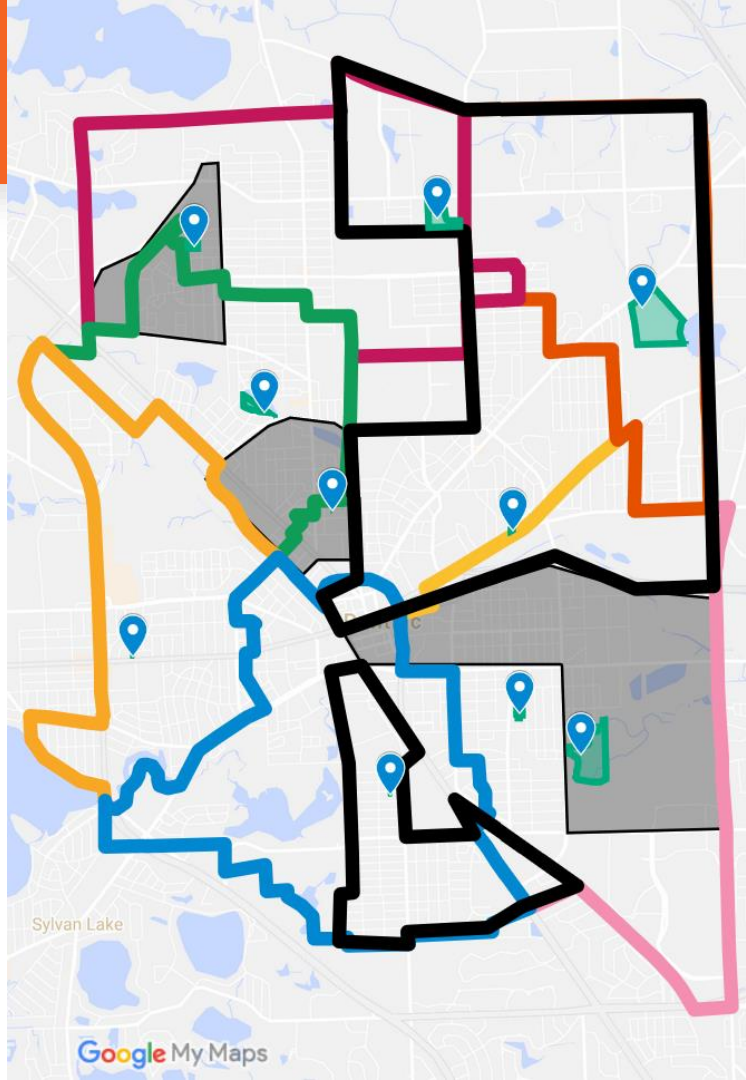
# Data: PolicyMap

- Provides demographics from 2010 U.S. Census
- Used heavily by Oakland County's Economic Development & Community Affairs Department
- Filter through population data

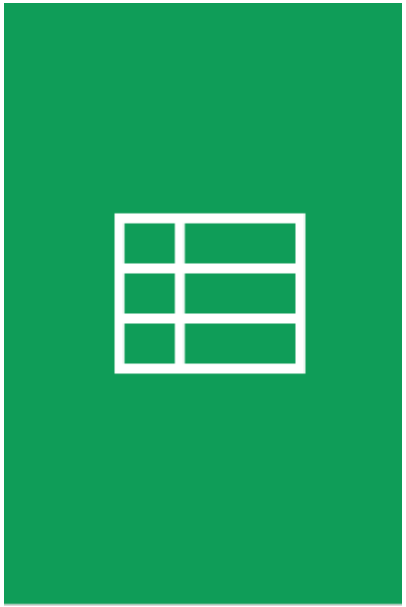


# Data: The Plan

- Prepare a composite map
- Select parks methodically
- Represent all seven council districts



# Collecting Data, Part 1: Taking Inventory



**Before visiting a park:**
Record park information, including:

- Name
- Date
- Location
- Park Type

**During a park visit:**
Record presence of park facilities and accessibility features, including:

- Wheelchair transfer stations and access ramps
- Quality of ground surfaces
- Condition of park seating and entranceways

# Collecting Data, Part 2: Waypoints and Pictures


During a park visit, **several pictures were taken at each facility** recorded on the inventory sheet.

Whenever a picture was taken, **a waypoint was marked** at the location.

After visiting a park**,** waypoints, tracks, and images were **exported to a computer.**

# Collecting Data, Part 3: Organization

**Google Earth Pro**

- “Visualize, manipulate and export GIS data” (Google, 2017)
- Data cleaning

**Why use a geographic information system (GIS)?**

- Standard format
- Easy to share collected data

# Results: Building the Map



**Figure 1.** A portion of the data as seen in Google My Maps. Data is organized by waypoint number.

# Results: Park Facilities

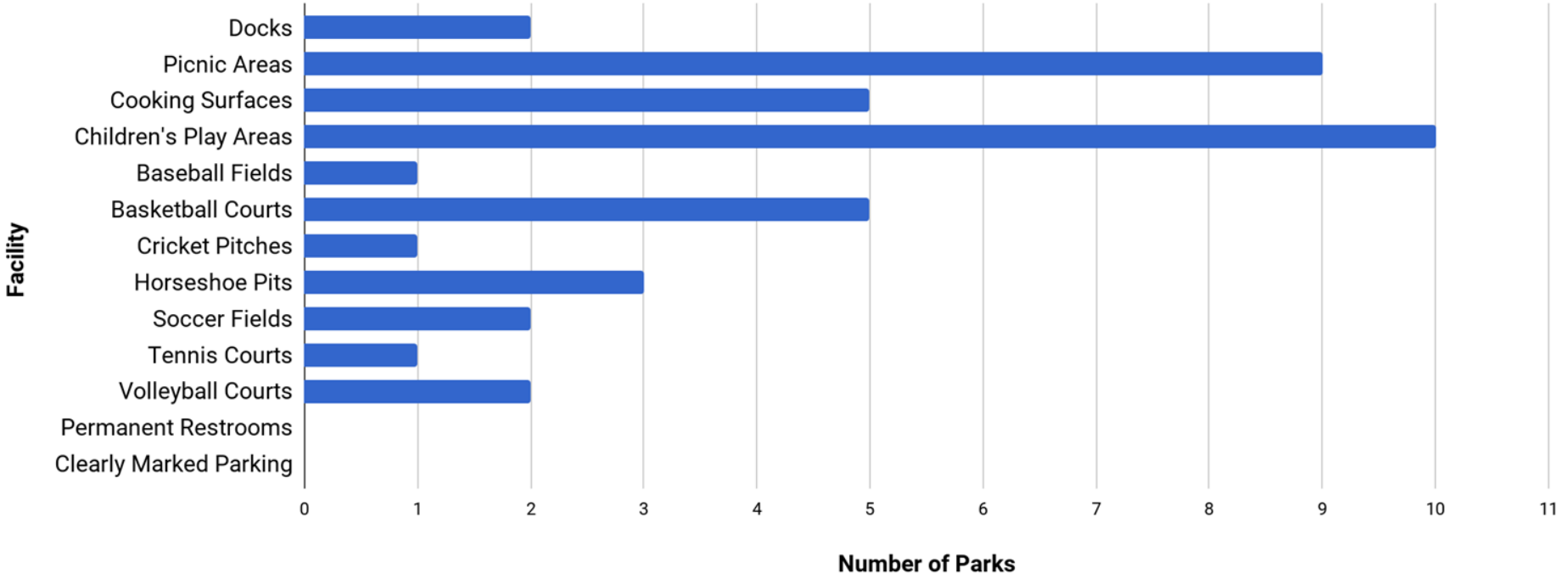
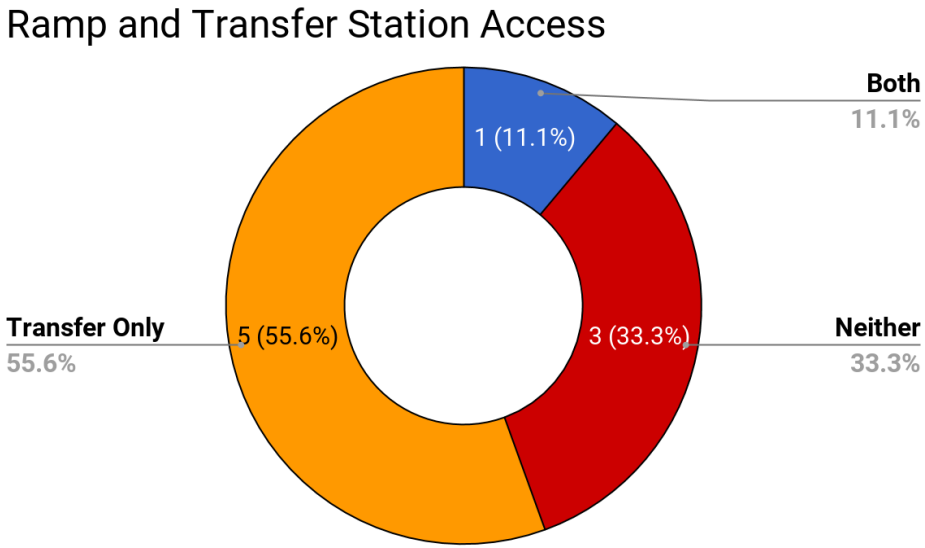
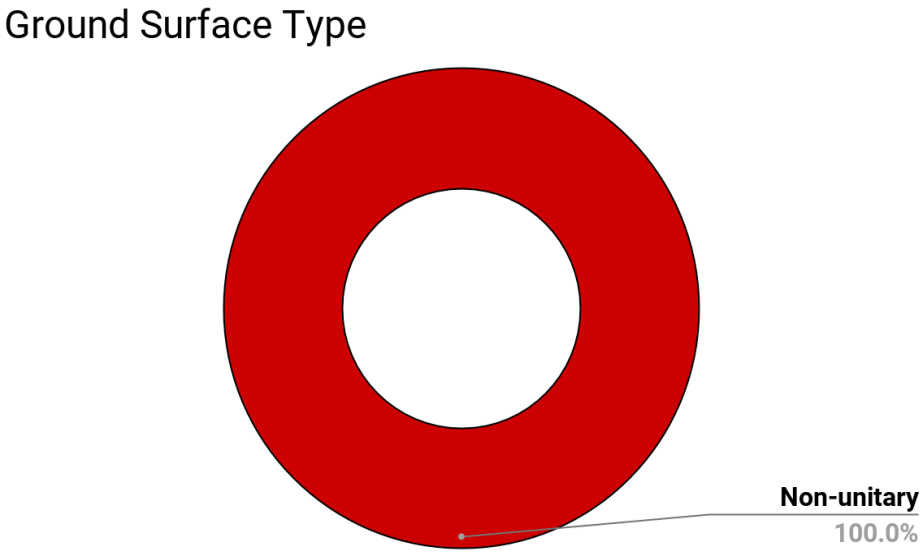



**Figure 2.** A summary of facilities in the city parks surveyed.

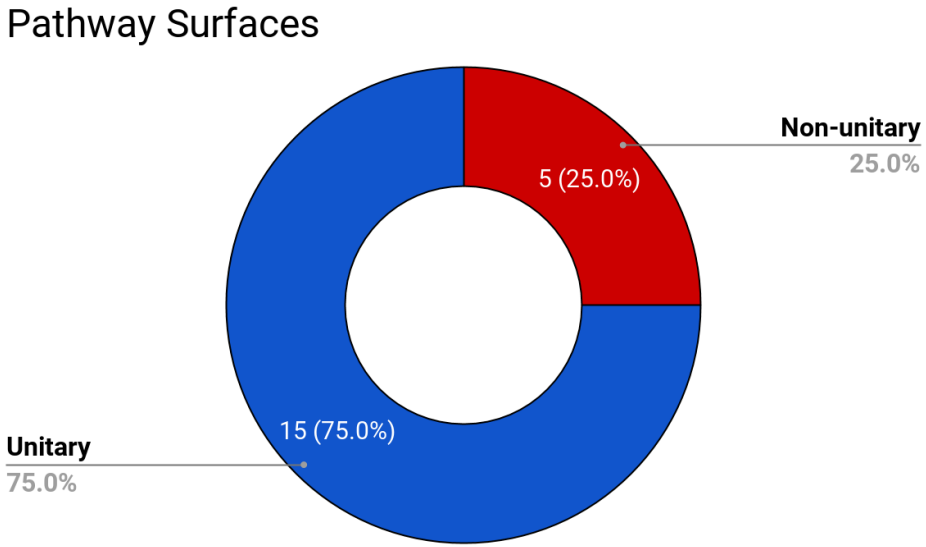
# Results: Accessibility

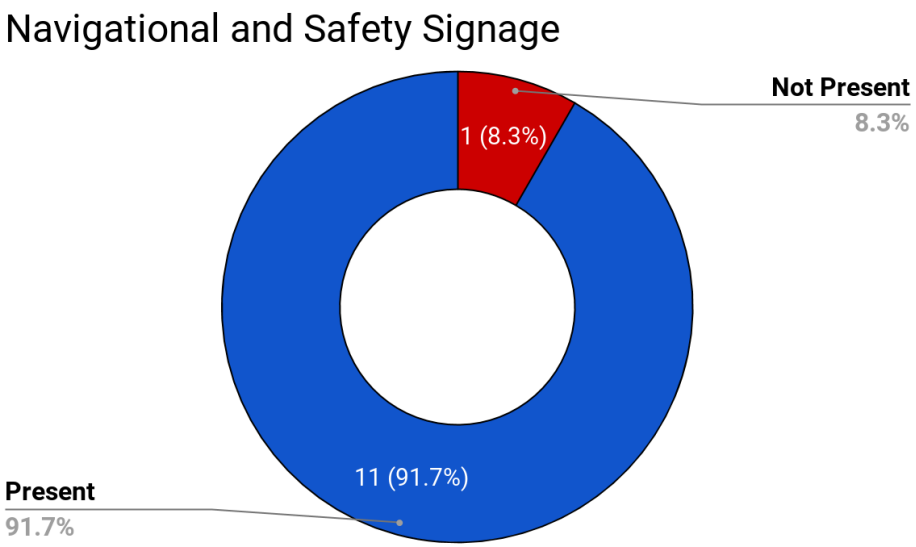



**Figures 3 and 4.** A summary of the accessibility of children's play areas.

# Results: Accessibility (continued)




**Figures 5 and 6.** A summary of the accessibility of pathways and signage.

# Results: Children's Play Areas

**Figures 7 and 8.** Entrances to the Cherrylawn Park play area. [GPX: 003, 016]

# Results: Ground Surfaces

**Figures 9 and 10.** Most play areas in the city rest on non-unitary surfaces, such as grass or wood chips.  [GPX: 033, 059]

# Results: Pathways

**Figure 11.** Pathways to park facilities have become unusable. [GPX: 088]

# Results: Wheelchair Access

**Figure 12.** Accessing park facilities by wheelchair is not possible in many cases. These baseball stands, for example, are accessible only by stairs. [GPX: 114]

# Results: Picnic Areas

**Figure 13.** A great example of an accessible picnic table. Although it does not have wheelchair seating, the surface surrounding and leading to the table is clear, level, and unitary. [GPX: 077]

# Results: Parking

**Figure 14.** A lack of designated parking spaces and paved lots may prevent disabled individuals from reaching park facilities entirely. [GPX: 089]

# Discussion: Findings

**Children's Play Areas**

- Most effective potential improvement

**Pathways and Facility Access**

- Short-term: Repair or weed existing pathways
- Long-term: Connect unreachable facilities

# Discussion: Findings (continued)

**Parking**

- Propose designated accessible parking spaces

**Navigation**

- Maintain navigational signage

# Conclusion and Future Plans

**Barriers Identified**

- Many issues can be corrected without major efforts
- Some long-term solutions will require further investigation to determine cost and feasibility

**Using the Results**

- Updating the Parks and Recreation Master Plan
- Encouraging involvement of those with disabilities

**Improving the Project**

- Longer data collection window, additional researchers
- Potential replication
- Quality of existing data

# Thank you!

**Project Data and Complete Report**
https://accessibleparksproject.org

## Questions?


Corey Rowe
Presenter
**cjrowe@oakland.edu**

Dr. Jennifer Lucarelli
Project Mentor, Interdisciplinary Health Sciences
**lucarell@oakland.edu**

Kristen Wiltfang
Economic Development & Community Affairs, Oakland County
**wiltfang@oakgov.com**

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