

April 19, 2023 | 2:00-3:00 pm ET

USING TECHNOLOGY TO MEASURE PARK USE

MODERATOR



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ACCREDITATION AVAILABLE FOR:



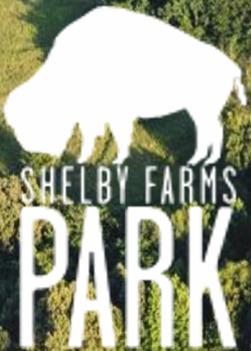
Landscape Architecture
Continuing Education System™

NEW!
General CEUs



SHELBY FARMS
PARK

**ONE OF AMERICA'S
GREAT URBAN PARKS**



4,500 acres of green space in Memphis, TN

SHELBY FARMS PARK | visitors



Eco-Counters

BENEFITS

Valuable for estimating visitor counts and usage

CHALLENGES

Only counts cars, bicycles, or people that pass them

Visitors could be counted multiple times

Doesn't capture demographics, geography or other descriptors

Technology Goals

VISITOR USAGE

More accurate counts of who, when, where and where from

BEHAVIORS + NEEDS

Demographics, socioeconomics and personas

Perceptions and levels of knowledge about the Park

Who isn't coming to the Park and why? What are their barriers?

Values-Driven Technology

TIED TO OUR CORE VALUES

Visitors are the heart of our work

Collaborate with community

Honor all voices

Feedback is a gift



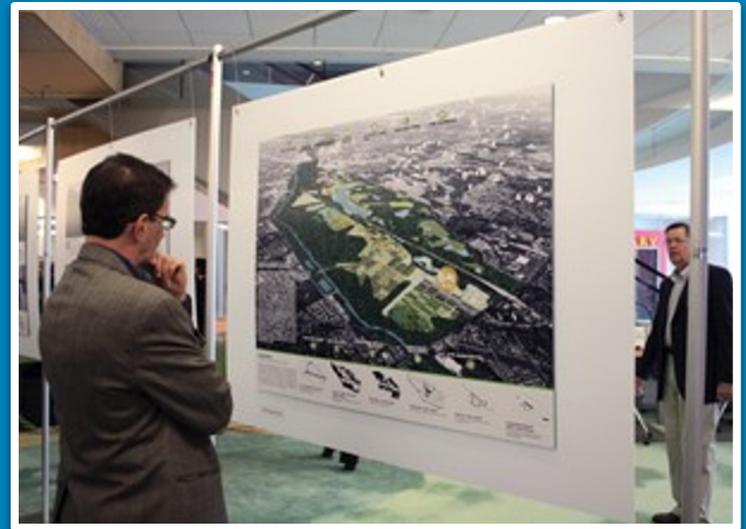
With and For the Public

Ambitious public outreach and input efforts

Wide cross-section of Memphis and Shelby County residents

Both visitors and non-visitors

Ensure that Park growth and enhancements align with community needs and wishes



Values-Driven Technology

VALUES & MISSION MATTER

How will better understanding our visitors:

Create better park experiences for them?

Help connect them to the nature in our care?

Build visitors up into supporters, volunteers and advocates?





Technology Partnership

Collaborate with our local convention and visitors bureau, Memphis Tourism

Geofences around Memphis-area sites – including Shelby Farms Park

Anonymous cell phone location data for more accurate visitor counts

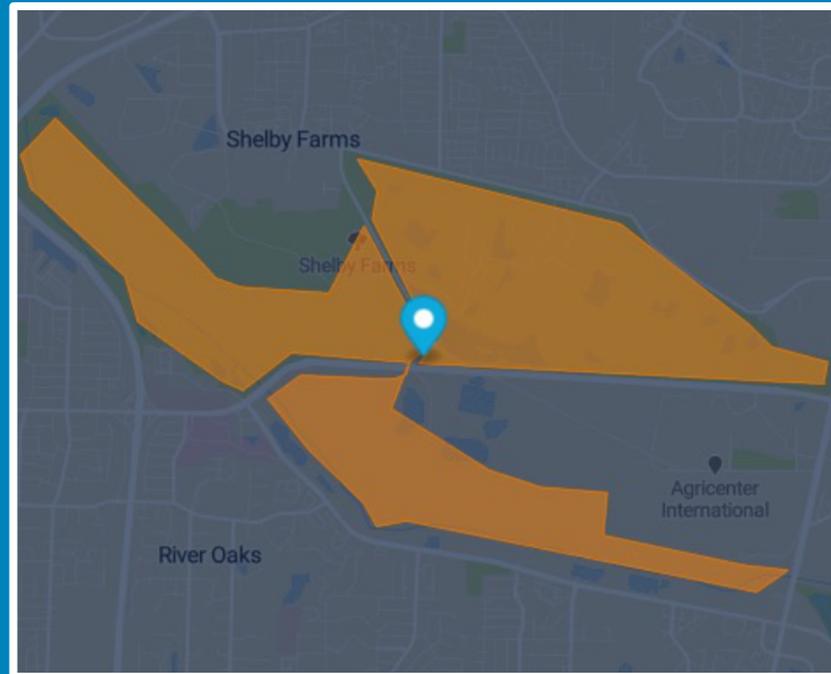
Upscaled with Census Bureau data





What is a Geofence?

Virtual geographic boundary, defined by GPS





What is a Geofence?

Triggers a “count” when a mobile device enters or leaves a particular area, tracked and organized by software

Upscaled with estimated Census Bureau data

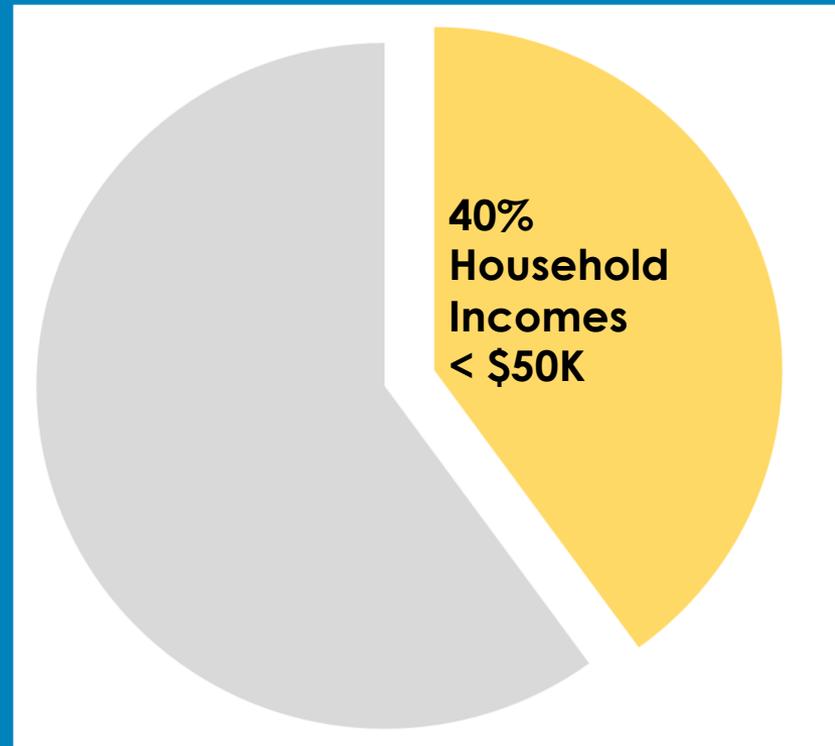
Anonymous + Protected (not tied to specific individuals)

Does not capture every cell phone, but instead pulls a sample



Preliminary Data Estimates

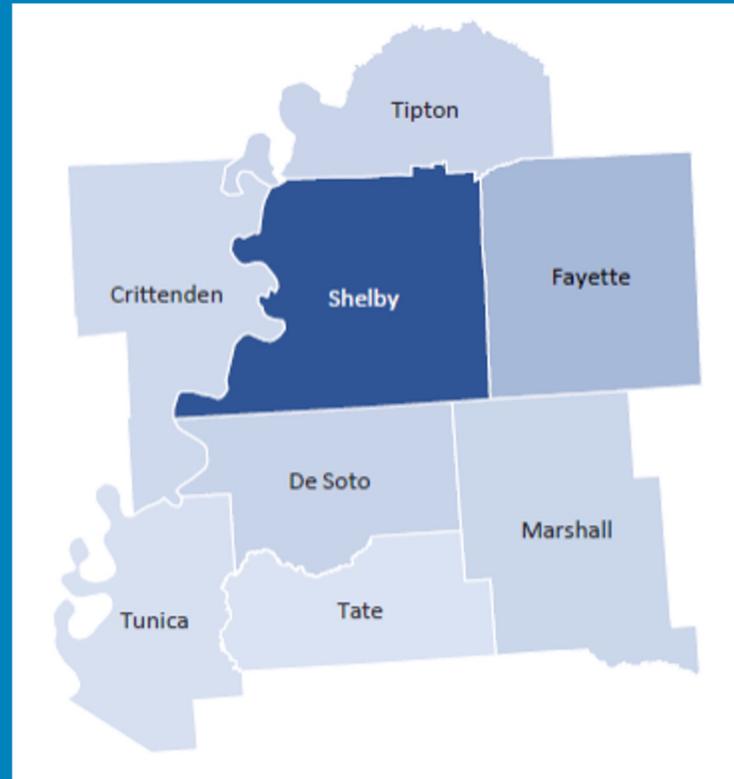
Example:





Preliminary Data Estimates

Example:



Daily Avg:
6,200+
Visits



BLENDED APPROACH

IN-HOUSE DATA

Donors, event attendees + Park Friends membership program

Park visitors from every ZIP code in Memphis and Shelby County

OBSERVATIONAL DATA

Conducted by the local Rhodes College faculty and students

Park used by a racially diverse group of people, with ages ranging from young children to the elderly

Transitional Phase for Tech

An aerial photograph of a modern campus or park area. The scene features a large, winding lake with several small islands. A paved road curves through the landscape, bordered by green grass and trees. In the center, there is a large, white, rectangular building. The background shows a mix of green fields and some distant structures under a clear sky.

Next: Focus on igniting action

Gathering, analyzing and strategizing about how we interact with visitors, supporters and others in a way that inspires them to do something:

*Visit more
Volunteer
Donate*

*Spend money
Attend an event
Engage + share*

ENDLESS POSSIBILITIES

DOUBLE-EDGED SWORD

Offers tons of visitor data, which is great. But it can be like drinking out of a fire hose.

THOUGHTFUL APPROACH

Need to be strategic about which data points are most impactful and actionable. Weigh our capacity to act on data and build strategies we know we can accomplish and that will deliver the most meaningful results for our visitors and community.

GEOFENCING LIMITS

Doesn't capture every cell phone.

Excludes international phones, people 16 or younger, and phones with location services turned off

Difficult to capture a narrow or winding area by itself, such as with a trail

High cost

Not a "magic bullet" solution

ENGAGEMENT-BASED LEARNING

Blend qualitative and quantitative
to create a complete picture

Use qualitative tools (e.g. surveys)
to assess and understand what
technology alone can't tell us:

Perceptions

Knowledge

Wishes + desires for the Park



TIPS + TAKEAWAYS

DO YOUR HOMEWORK

Who else do you know who uses tech like this? Talk to them.

Explore all tech options. Haggle and ask for things like nonprofit discounts from vendors.

PARTNER

Is there an option like *Memphis Tourism* in your city?

TIPS + TAKEAWAYS

SET EXPECTATIONS

Understand that tech is not a “magic bullet.” You’ll need to blend with other research to create a full picture.

PLAN

Create a strategy at the beginning so you know what data you need and how you want to use it. This will tell you what tools you’ll need.

TIPS + TAKEAWAYS

IMPLEMENT IN PHASES

It's easy to get overwhelmed, so take your time and roll it out at a pace you can manage.

It's OK if you're between phases – we are!

LET'S CONNECT!

Ben Nemenoff,
Shelby Farms Park Conservancy
Director of Development

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**THANK
YOU!**





DETROIT RIVERFRONT CONSERVANCY
FOR EVERYONE. FOR 20 YEARS.

Rachel Frierson,
Senior Director of Programs and Public Spaces
Rachel.Frierson@detroitriverfront.org

An aerial photograph of a modern waterfront pavilion at sunset. The pavilion features a large, white, tent-like canopy supported by several tall, thin poles. The structure is situated on a paved plaza with some outdoor furniture. In the background, a large body of water stretches to the horizon under a golden sky. The sun is low on the left, creating a lens flare effect. The text "BEAUTIFUL, EXCITING, SAFE, ACCESSIBLE..." is overlaid in the center in a bold, white, sans-serif font, flanked by two horizontal white lines.

**"BEAUTIFUL, EXCITING,
SAFE, ACCESSIBLE..."**

**...WORLD-CLASS
GATHERING PLACE...**



A wide-angle photograph of a public plaza on a bright, slightly cloudy day. In the foreground, a large water fountain with many small jets of water is active. Numerous children and adults are playing and walking around the fountain. The plaza is paved with light-colored tiles. In the background, there are several modern buildings with glass facades and curved architectural elements. A large, curved glass structure is prominent in the center. The sky is blue with scattered white clouds. The overall atmosphere is lively and urban.

...FOR ALL"



FOUNDING PARTNERS



THE
KRESGE
FOUNDATION





ATWATER STREET



CULLEN PLAZA



DEQUINDRE CUT



DEQUINDRE CUT



THE DETROIT RIVERFRONT

— EXISTING RIVERWALK — PARKS & GREENWAYS



WOODBIDGE

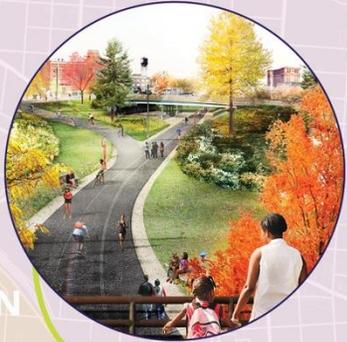
POLETOWN EAST

CORE CITY

MIDTOWN

EASTERN MA

McDO



RALPH C. WILSON, JR. CENTENNIAL PARK

SOUTHWEST GREENWAY

WEST RIVERWALK

ROBERT C. VALADE PARK

DENNIS ARCHER GREENWAY

UNIROYAL PROMENADE

SOUTHWEST

DOWNTOWN

ELMWOOD

LAFAYETTE PARK

SOUTHWEST GREENWAY

DEQUINDRE CUT

DENNIS ARCHER GREENWAY

BELTLINE GREENWAY

RIVERTOWN

RIVERSIDE PARK

RALPH C. WILSON JR. CENTENNIAL PARK

WEST RIVERWALK

HART PLAZA

GM PLAZA

CULLEN PLAZA

MILLIKEN STATE PARK

ARETHA FRANKLIN AMPITHEATER

ROBERT C. VALADE PARK

STROH RIVERPLACE

HARBORTOWN

MT. ELLIOTT PARK

UNIROYAL PROMENADE

GABRIEL RICHARD PARK

AMBASSADOR BRIDGE

BELLE ISLE

COMPLETING THE VISION

EXISTING RIVERWALK FUTURE RIVERWALK

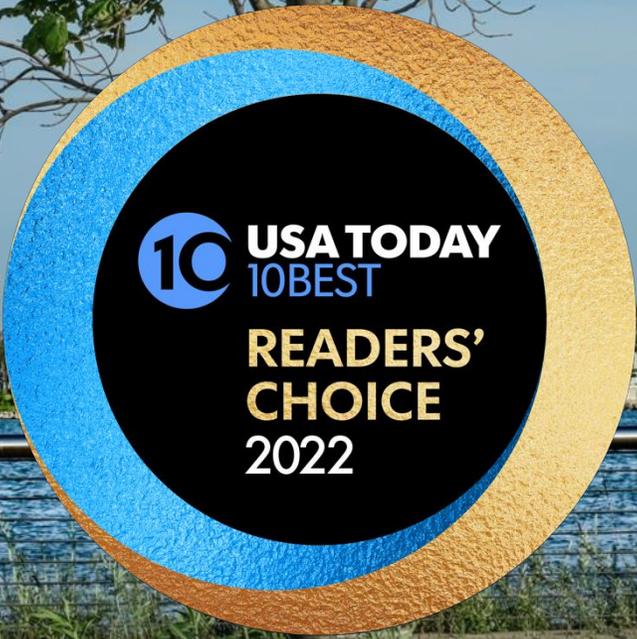
PARKS & GREENWAYS



DETROIT RIVERWALK BEST IN THE USA



10 USA TODAY
10BEST
**READERS'
CHOICE**
2021

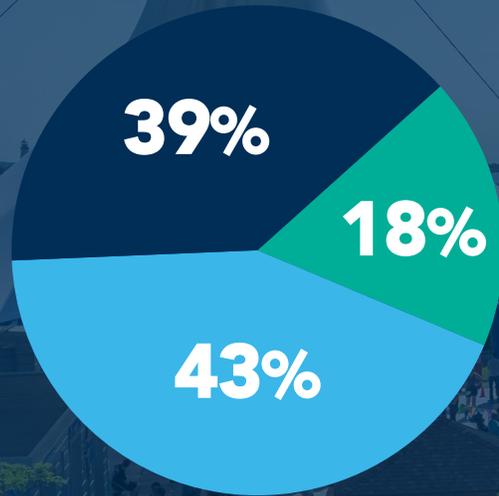


10 USA TODAY
10BEST
**READERS'
CHOICE**
2022



10 USA TODAY
10BEST
**READERS'
CHOICE**
2023

DETROIT RIVERFRONT COMMUNITY



39% Detroit

43% Southeast Michigan

18% Other Michigan, USA & International

3,000,000+

Annual Visitors

320,000+

Program Participants

84% of Detroiters

Have visited the Riverfront in the past year.



MEASURING USE THROUGH EXISTING INFRASTRUCTURE

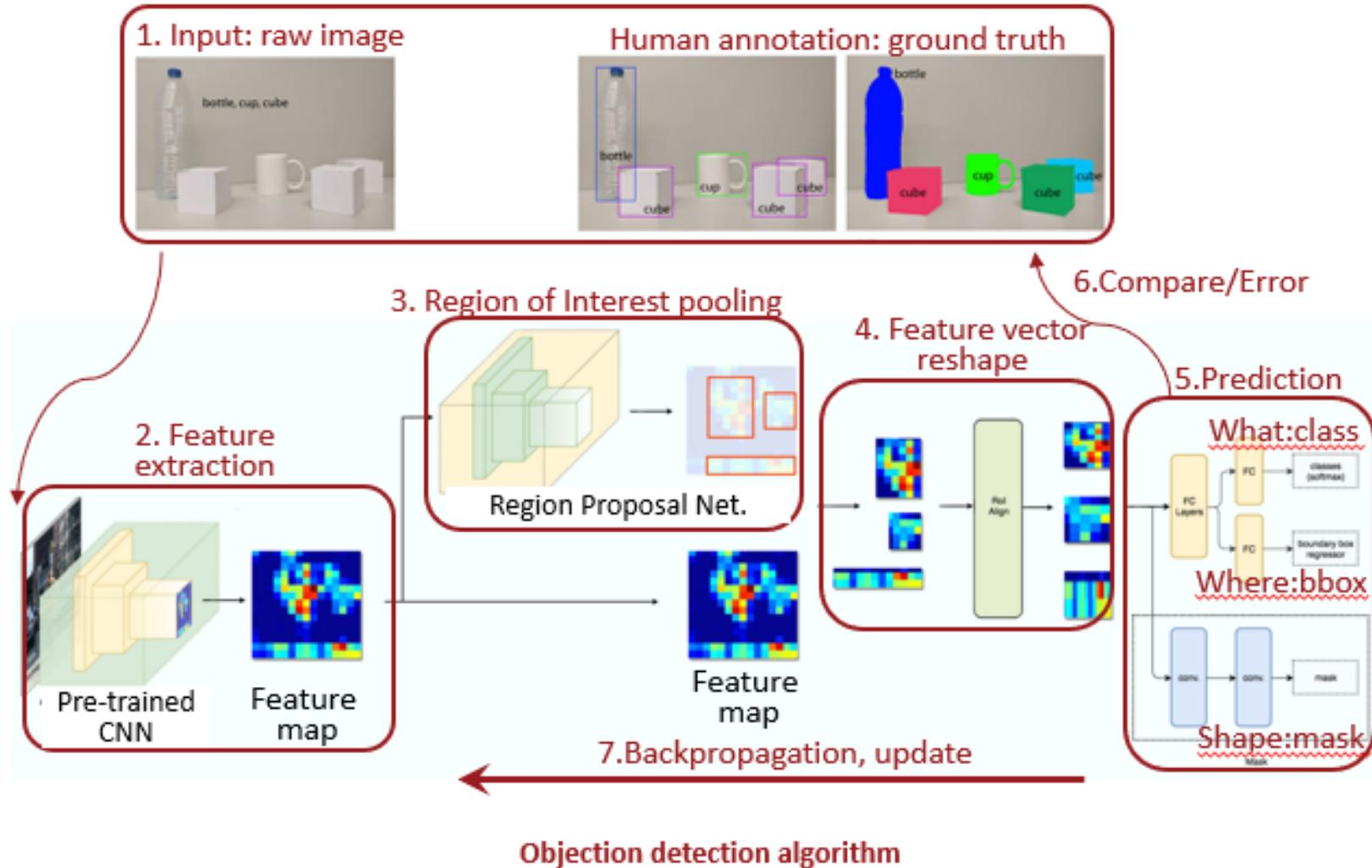


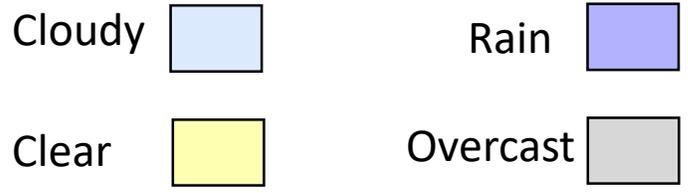
DETROIT
RIVERFRONT
CONSERVANCY

A photograph of two students, a woman on the left and a man on the right, working together outdoors. They are both wearing blue hooded sweatshirts. The woman is leaning over a small black electronic device placed on a light blue plastic Adirondack chair. The man is sitting on another similar chair, looking at the device. The background shows green trees and a building under a clear sky. A semi-transparent dark blue banner with white text is overlaid across the middle of the image.

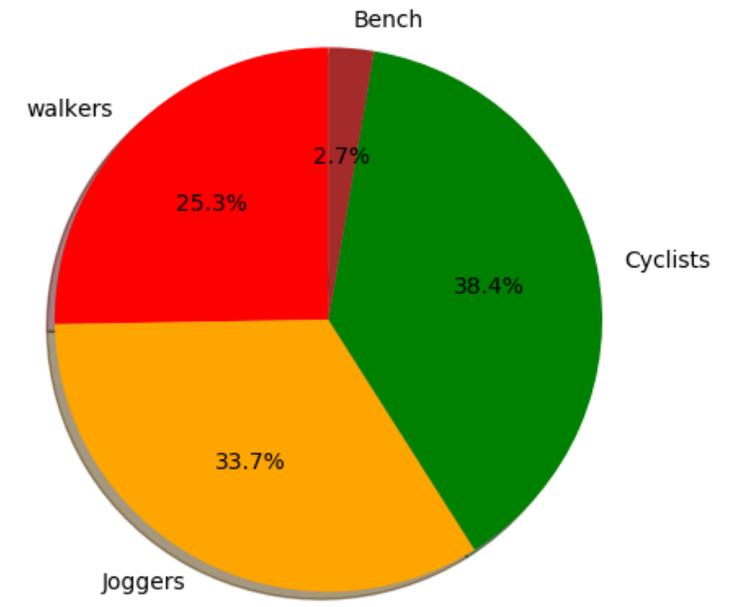
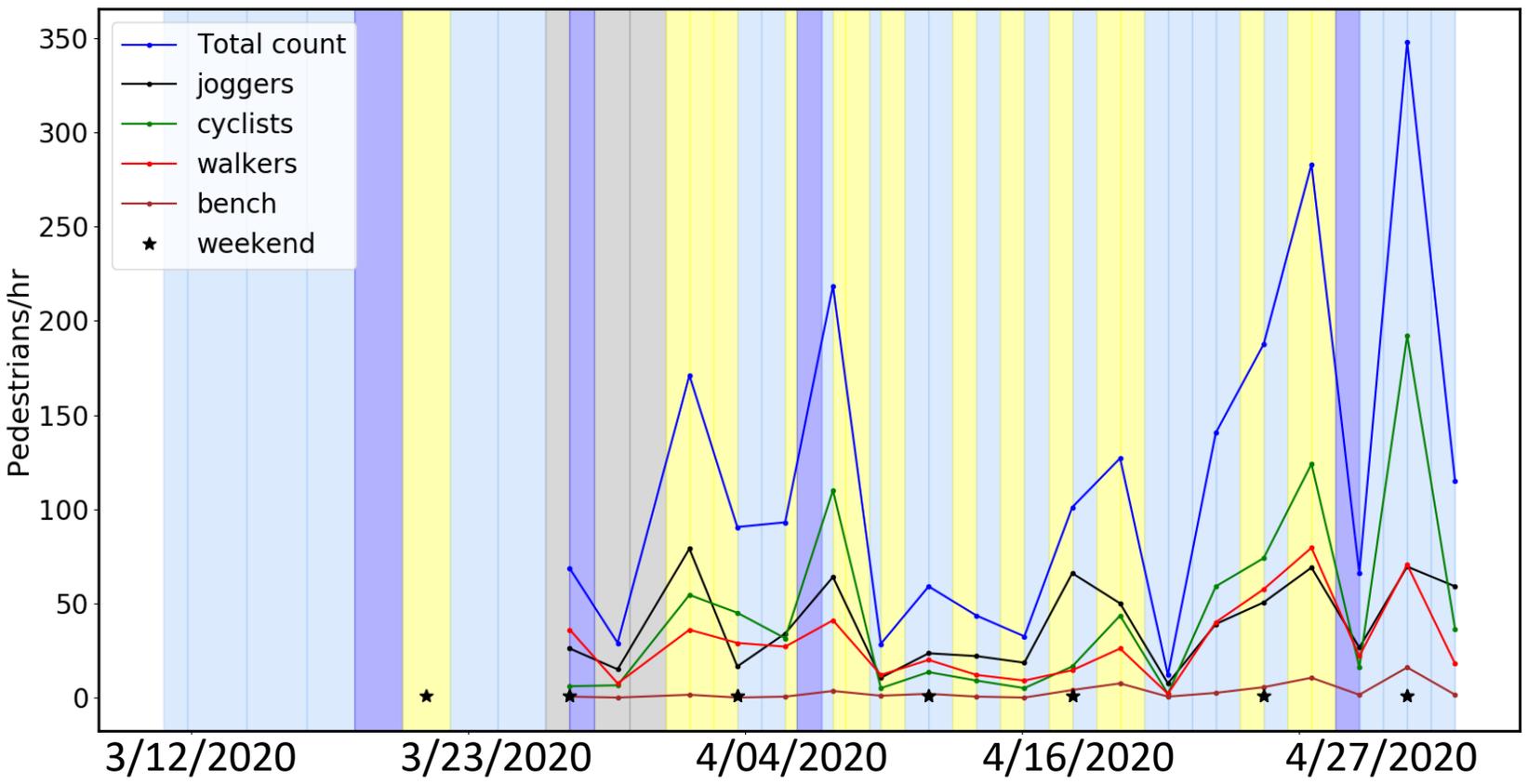
UNIVERSITY OF MICHIGAN PARTNERSHIP

TRAINING STAGE: ALGORITHM

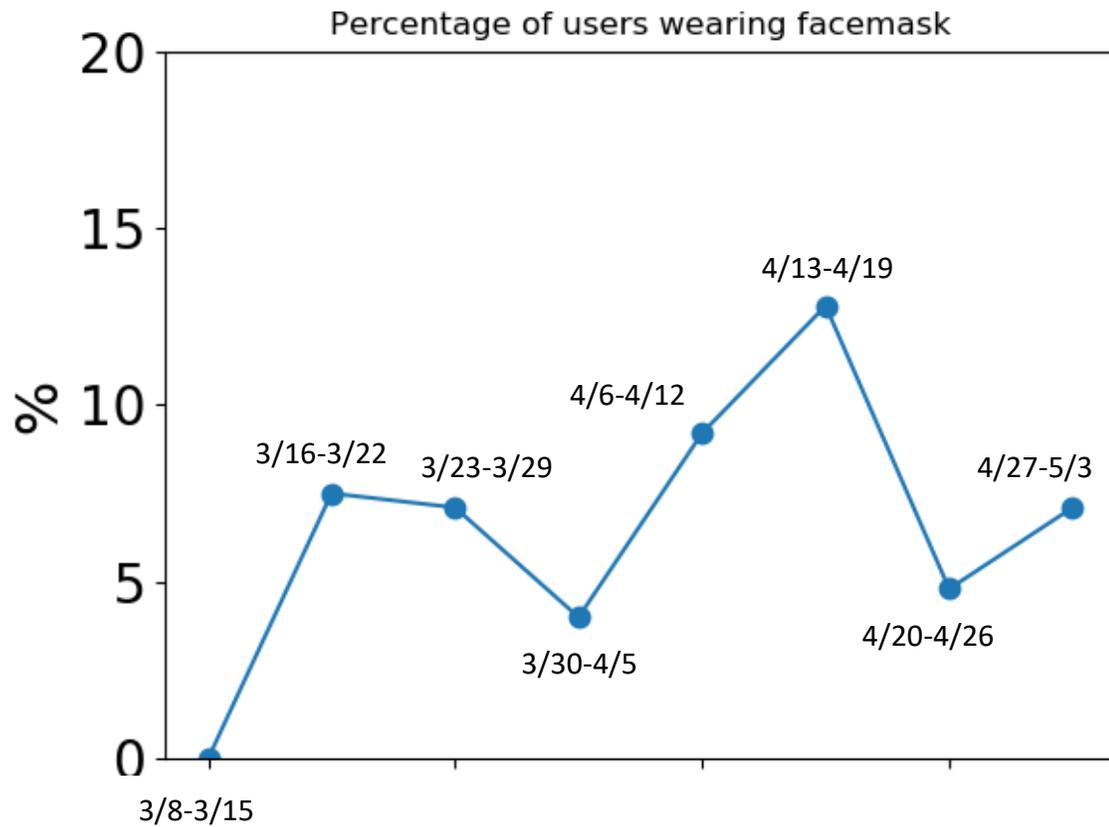




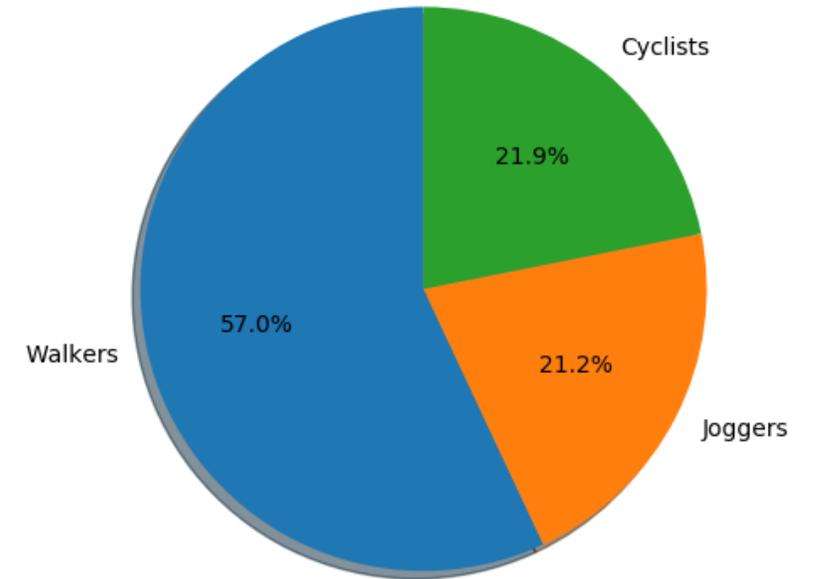
Evening



TOOLS DURING THE PANDEMIC



Who is wearing the detected masks?





ARCHER GREENWAY

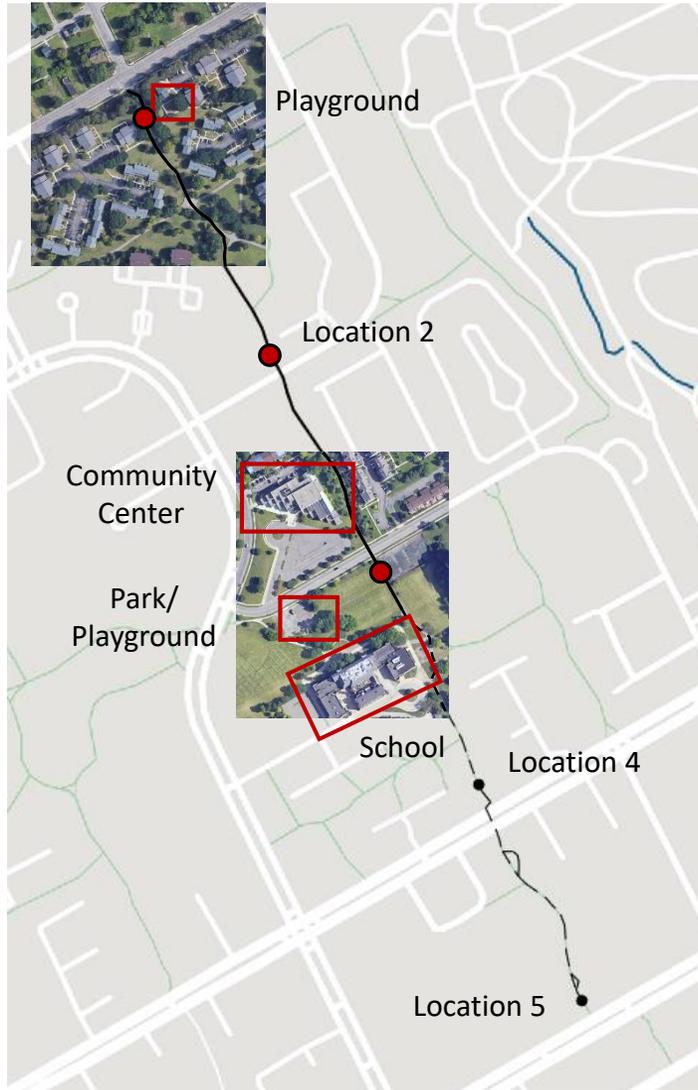


STOP

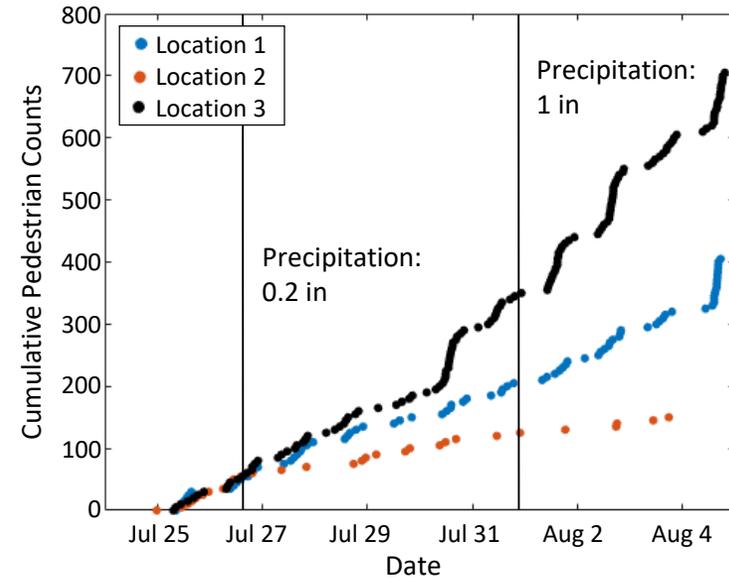
NO
MOTOR
VEHICLES

EMERGENCY

JOS CAMPAU GREENWAY - 2019



Jos Campau Cut



Source: Katherine Flanigan

Location 2

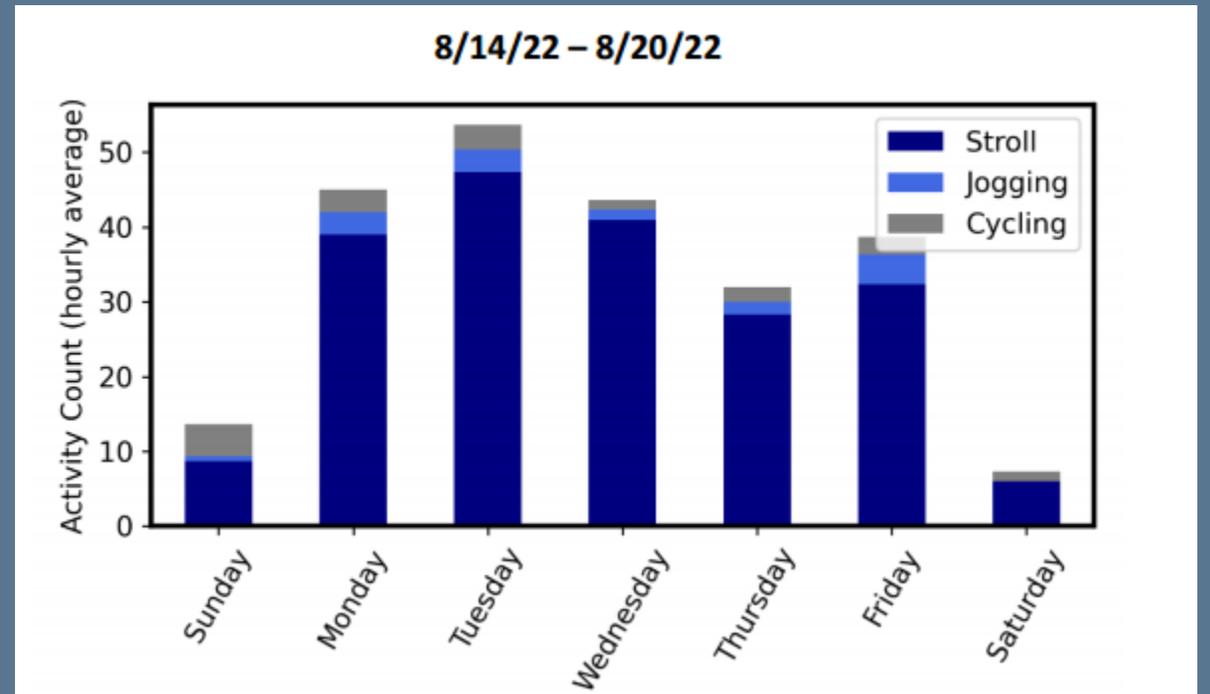
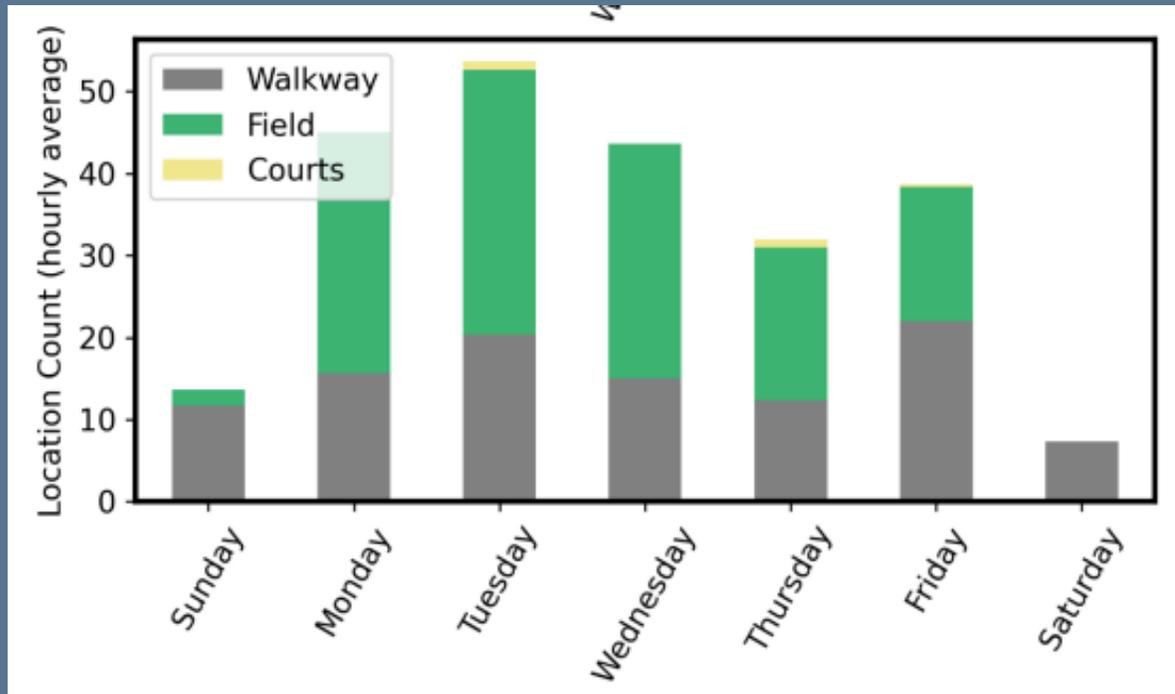


Source: Katherine Flanigan

Location 4



ARCHER GREENWAY + UM DATA



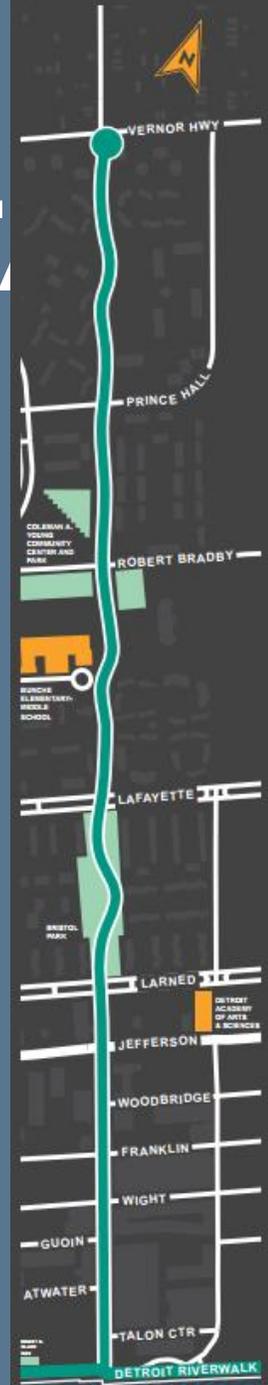
INTERVENTIONS



Greetings from the
**MAYOR DENNIS W.
ARCHER GREENWAY**



**DETROIT
RIVERFRONT
CONSERVANCY**

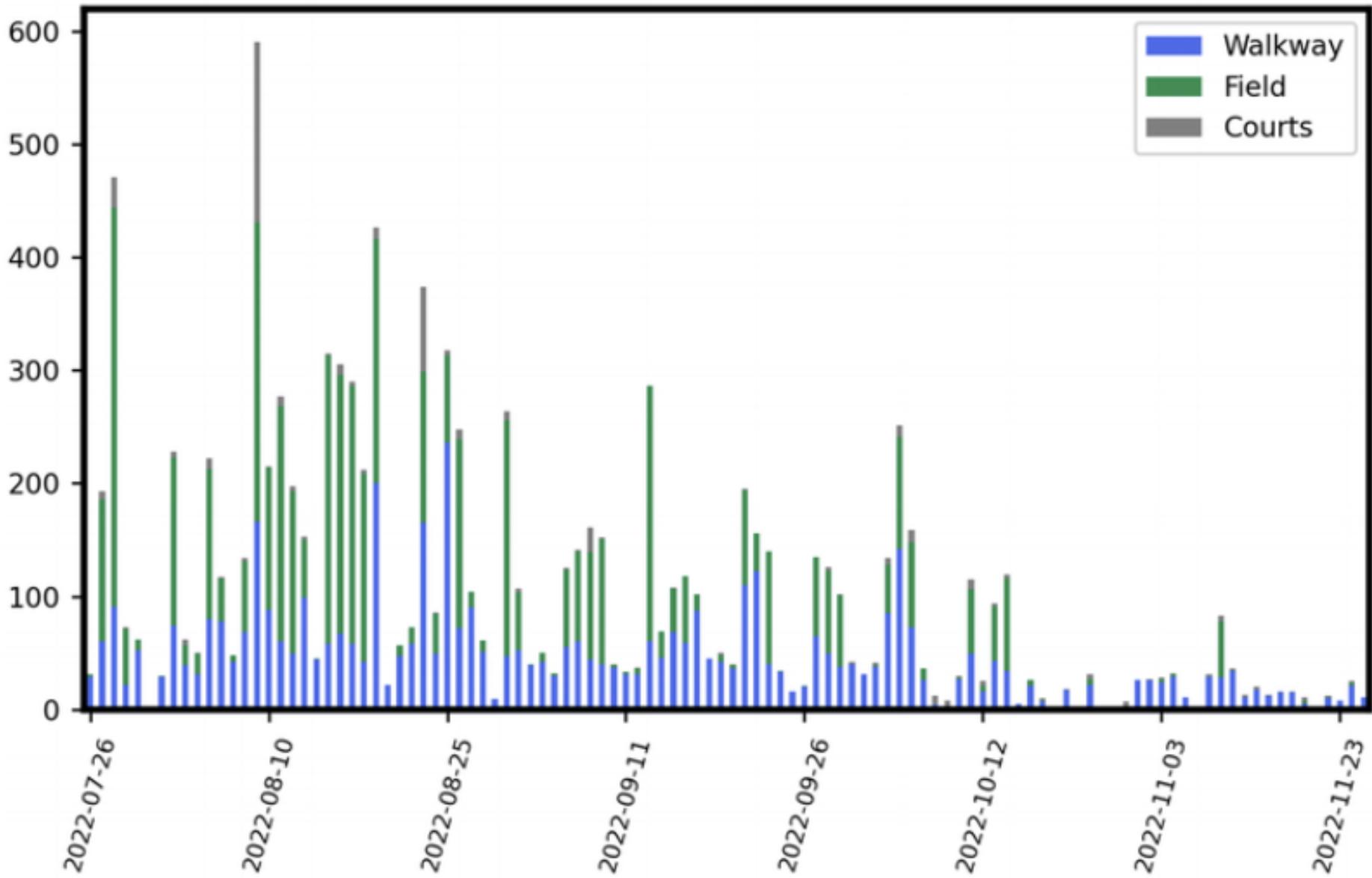




Detroit Riverfront

83K followers • 394 following





Ice cream:

Walkway 14 days prior: 695 patrons
 Walkway 14 days after: 1057 patrons
52% increase

Mailer:

Walkway 7 days prior: 270 patrons
 Walkway 7 days after: 298 patrons
10% increase

BUILDING A SOCIABILITY FRAMEWORK

Movement layer: Stroll, Jog, Standing, Sitting (w/ dog/stroller), cyclist

Location/furniture layer: Dining, Plaza, Bench, Bike lane, river view fence, fountain, etc.

Social layer: Passive, Fleeting, and Enduring relationships

Social Activity report:

ID4: Enduring stroll in Plaza (with ID 3)

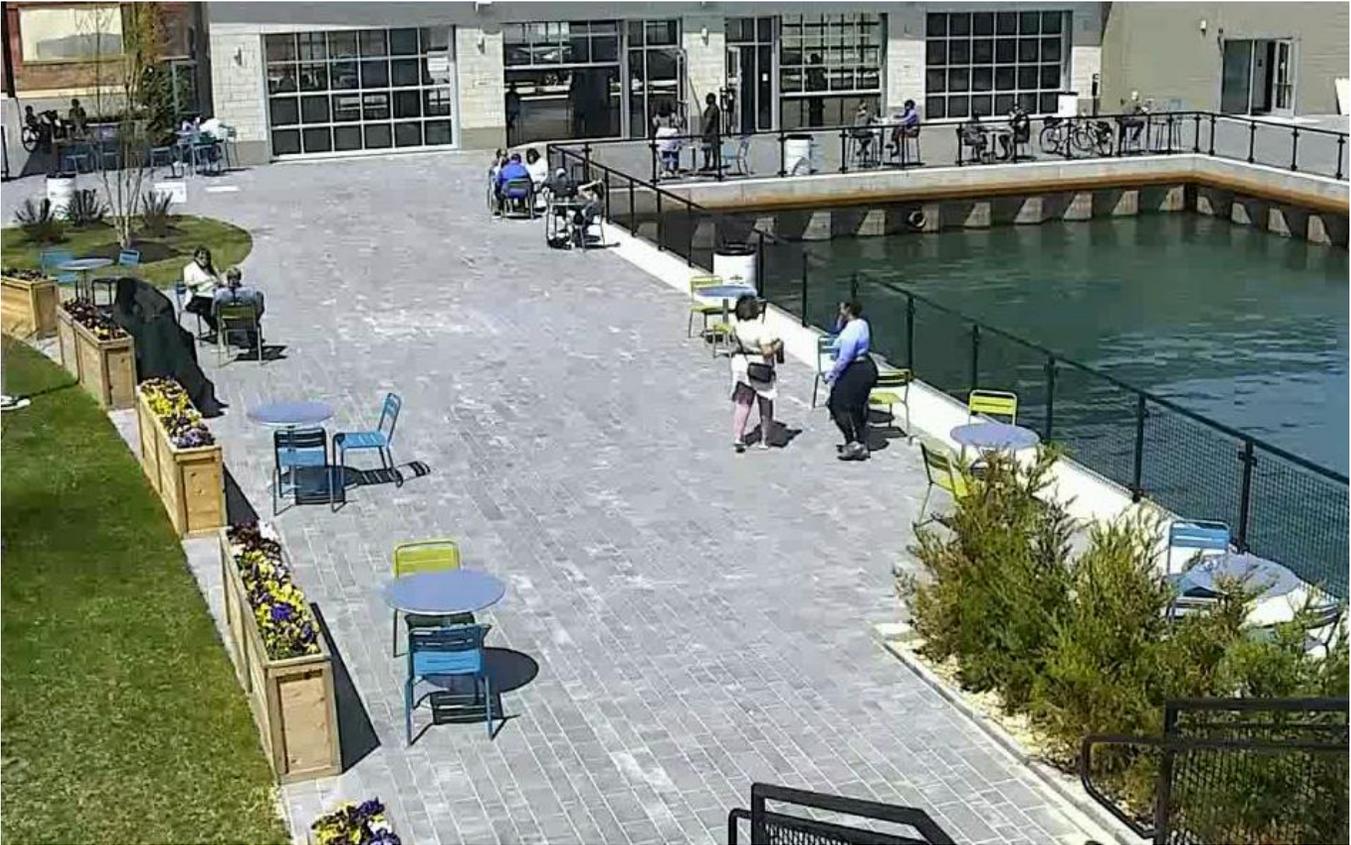
ID1: Enduring sitting in dining area (with ID 2)

ID6: Passive stroll with dog in Plaza



MEASURING SOCIALIBILITY

```
JSON
├── Valade Park
│   ├── Date
│   │   ├── 5/24/21
│   │   └── Time
│   │       ├── 2:00 PM
│   │       └── People
│   │           ├── 1
│   │           │   ├── Class : "Person"
│   │           │   ├── Activities
│   │           │   │   ├── Stroll
│   │           │   │   │   ├── location : "Plaza"
│   │           │   │   │   ├── Social : "Enduring"
│   │           │   │   │   └── Ass_Id
│   │           │   │   │       └── 0 : "2"
│   │           │   └── 2
│   │           │       ├── Class : "Person"
│   │           │       ├── Activities
│   │           │       │   ├── Stroll
│   │           │       │   │   ├── location : "Plaza"
│   │           │       │   │   ├── Social : "Enduring"
│   │           │       │   │   └── Ass_Id
│   │           │       │   │       └── 0 : "1"
│   │           └── 3
│   │           └── 4
│   │           └── 6
│   │           └── 7
│   │           └── 11
│   │           └── 23
│   │           └── 28
│   │           └── 34
```



What we've learned

- Find a good research partner or service
- Ask big questions
- Physical counts vs Social counts
- How data explains the importance of parks



THANK YOU



DETROIT
RIVERFRONT
CONSERVANCY



Thanks for joining us!

USING TECHNOLOGY TO MEASURE PARK USE

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