

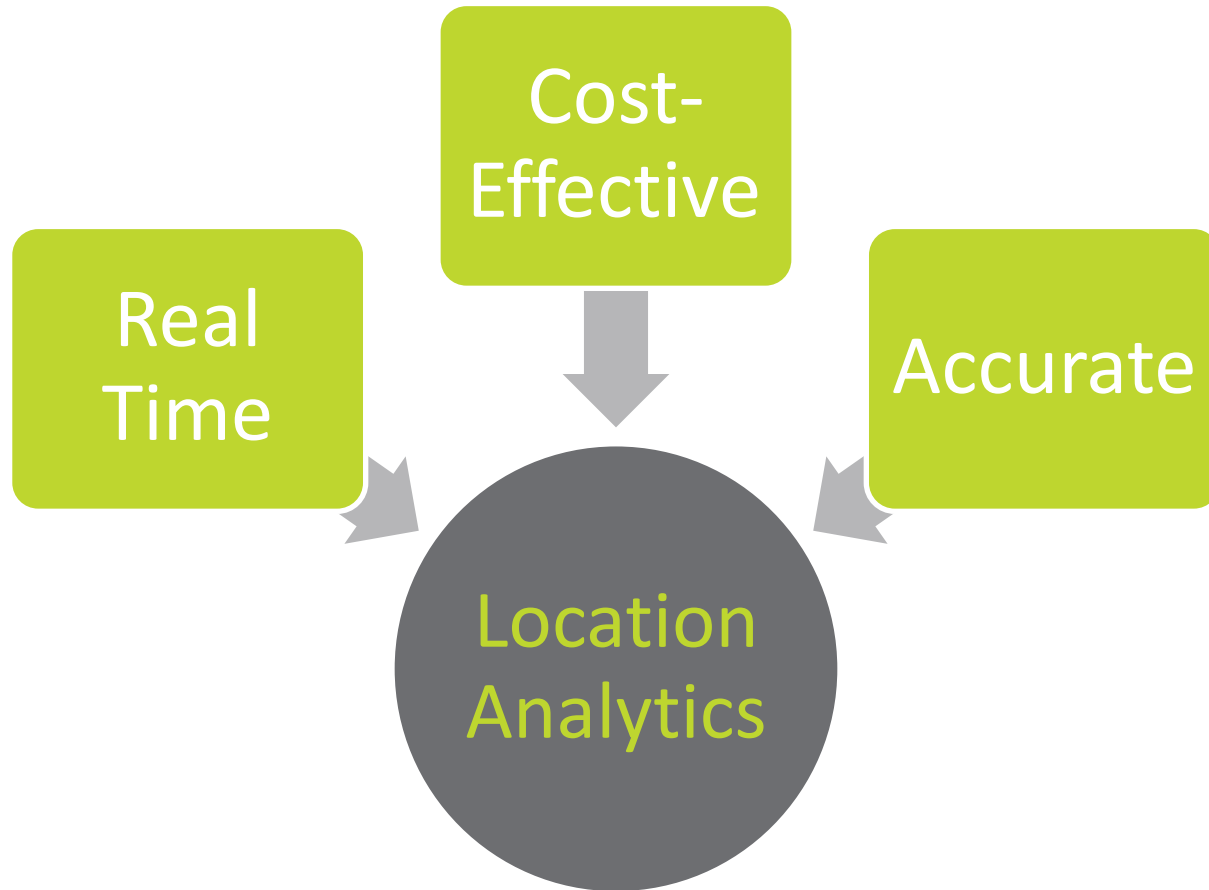


# Placescount: The Hands-Free Approach to Indoor Audience Metrics



January 2016

# What's the Hype?



# WHAT we want to measure



## Number of people

- By location in real time



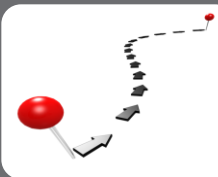
## Dwell time

- By location and time period



## Frequency

- Visits per week and month



## Footpath Analysis

- Relationship within and among locations

# WHERE we want to measure

- Airports
- Malls
- Stations
- Stores
- Campuses
- Stadiums
- Casinos/hotels
- Public squares

I'm going to talk about...

✓ Technology choice

✓ Pilot test

✓ Results

✓ Q & A

# Technology Choice

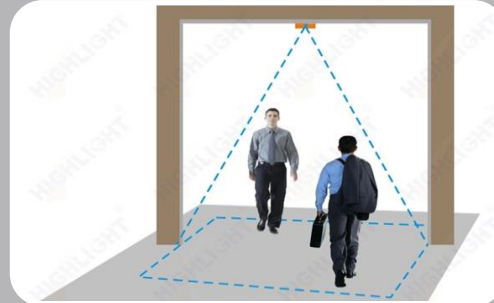


# Technology Considered



## Manual Counts

Paper, clicker or tablet recording



## Static Devices

Infrared beam, video recognition, heat sensing, etc.



## Mobile Technology

Cellular data, Wi-Fi, Beacons

We  
liked  
these

# Considerations: Detection Rate

	Cellular	Wi-Fi	Beacon
Smartphone on	✓	✓	✓
Wi-Fi enabled		✓	
Bluetooth enabled			✓
App installed/open			✓
% Consumers	64% - 70%	39% - 67%	<1% - 22%



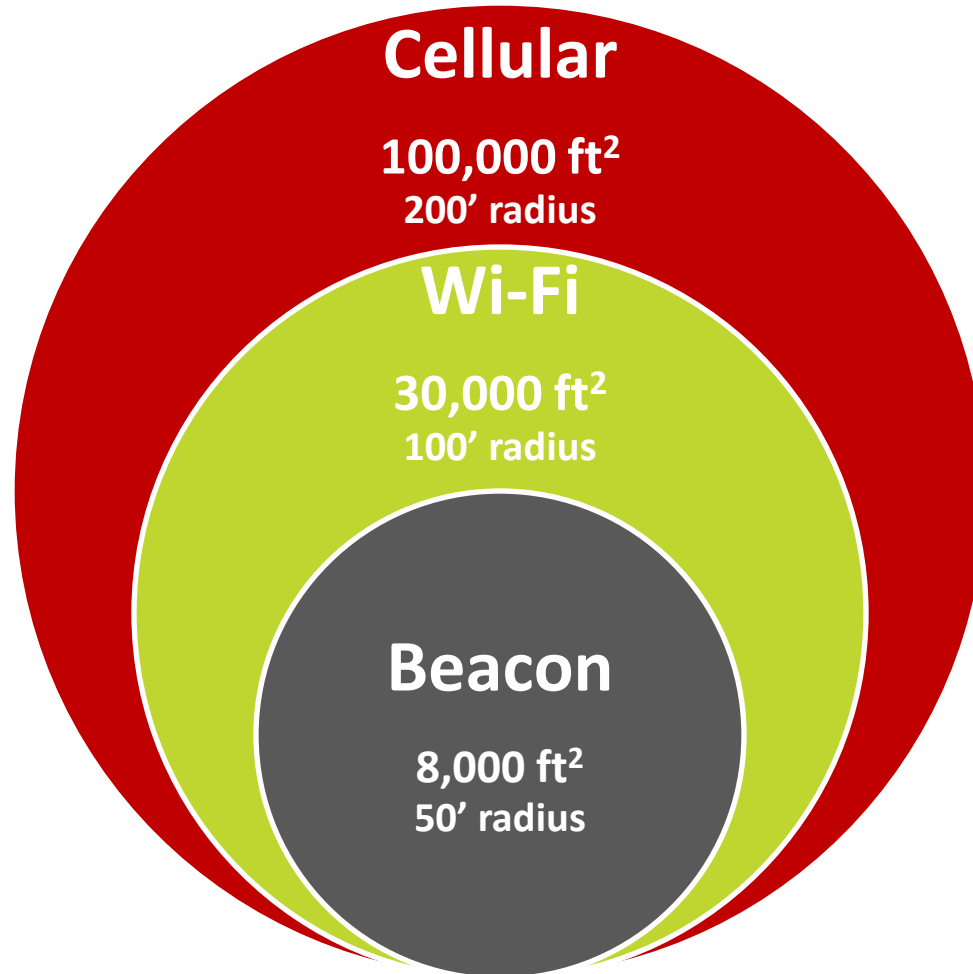
# Considerations: Cost

Cellular \$\$\$  
(data)

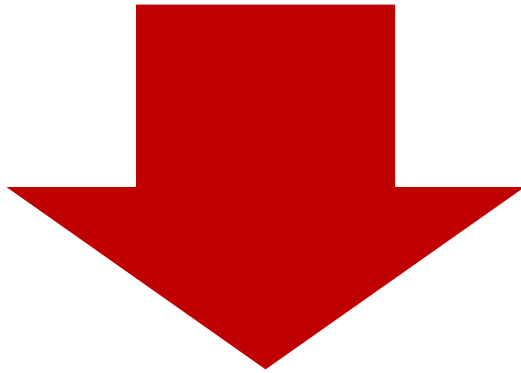
Wi-Fi \$\$  
(routers, Wi-Fi, data)

Beacon \$  
(beacons,  
data)

# Considerations: Granularity



# Considerations: Intrusiveness



Beacons:  
Require opt-in

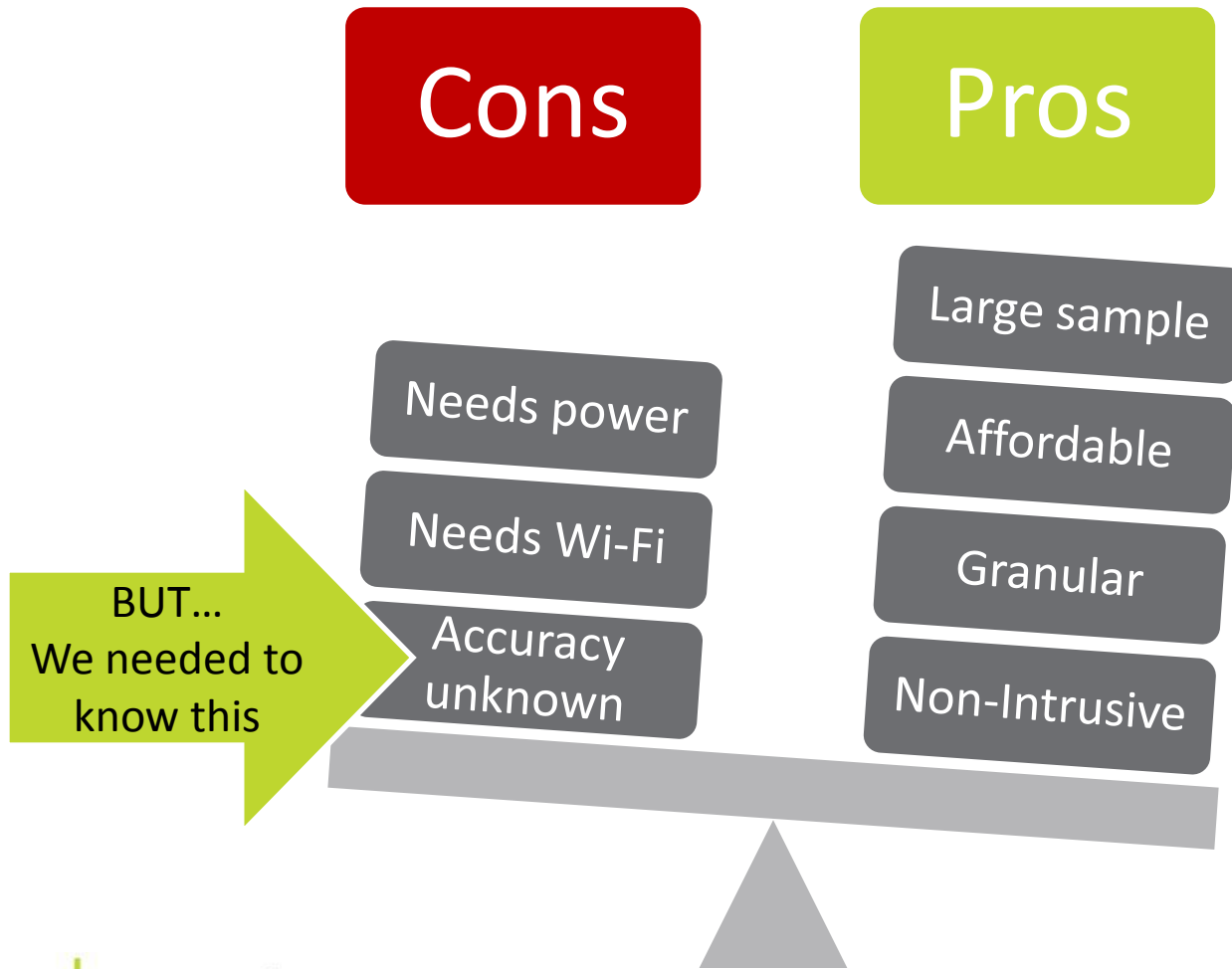


Cellular/Wi-Fi:

Passive and  
anonymous



# Wi-Fi: Selected for Pilot Test



# Shopping Mall Pilot Test



# Test Setup

- **325,000 ft<sup>2</sup>** Community Shopping Centre
- **13 Wi-Fi routers** installed at ceiling height
- Router area is a “location” or point of interest
- Common areas studied; stores excluded

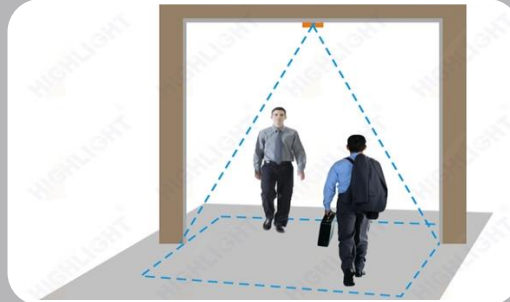


# Data Collected



## Manual Counts

People counts  
at 13 spots,  
various times



## Door Counts

One week of  
mall's data



## Device Detection

5-sec pings  
over 6 weeks

# Data Modeling

**Clean** ping data

**Filter** for location

**Expand** sample





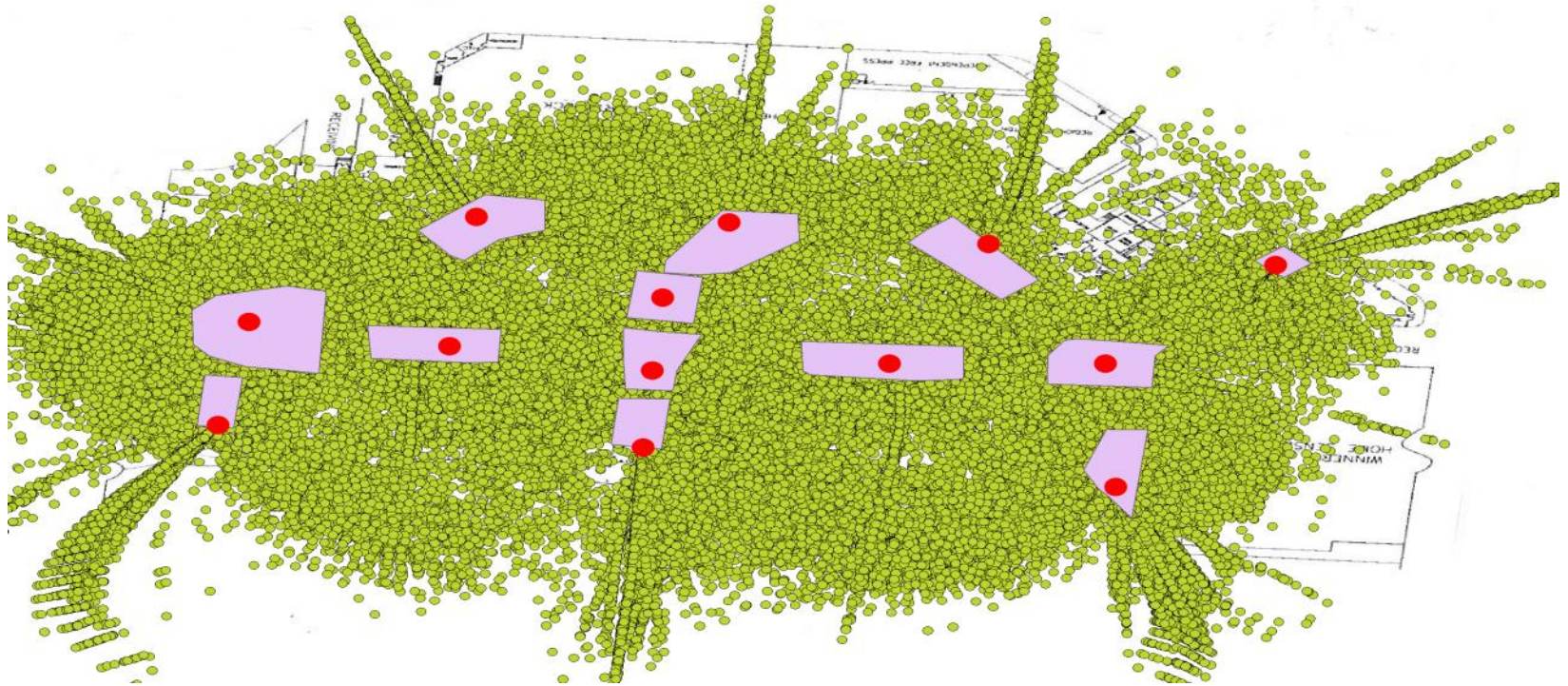
# Clean Ping Data

- Raw data are noisy; require **filtering** and **cleaning**
- **Remove** static devices, staff, after-hours pings, single pings, weak signals
- **Consolidate** multiple pings from same device and location



# Filter for Location

Geofenced polygon areas defined

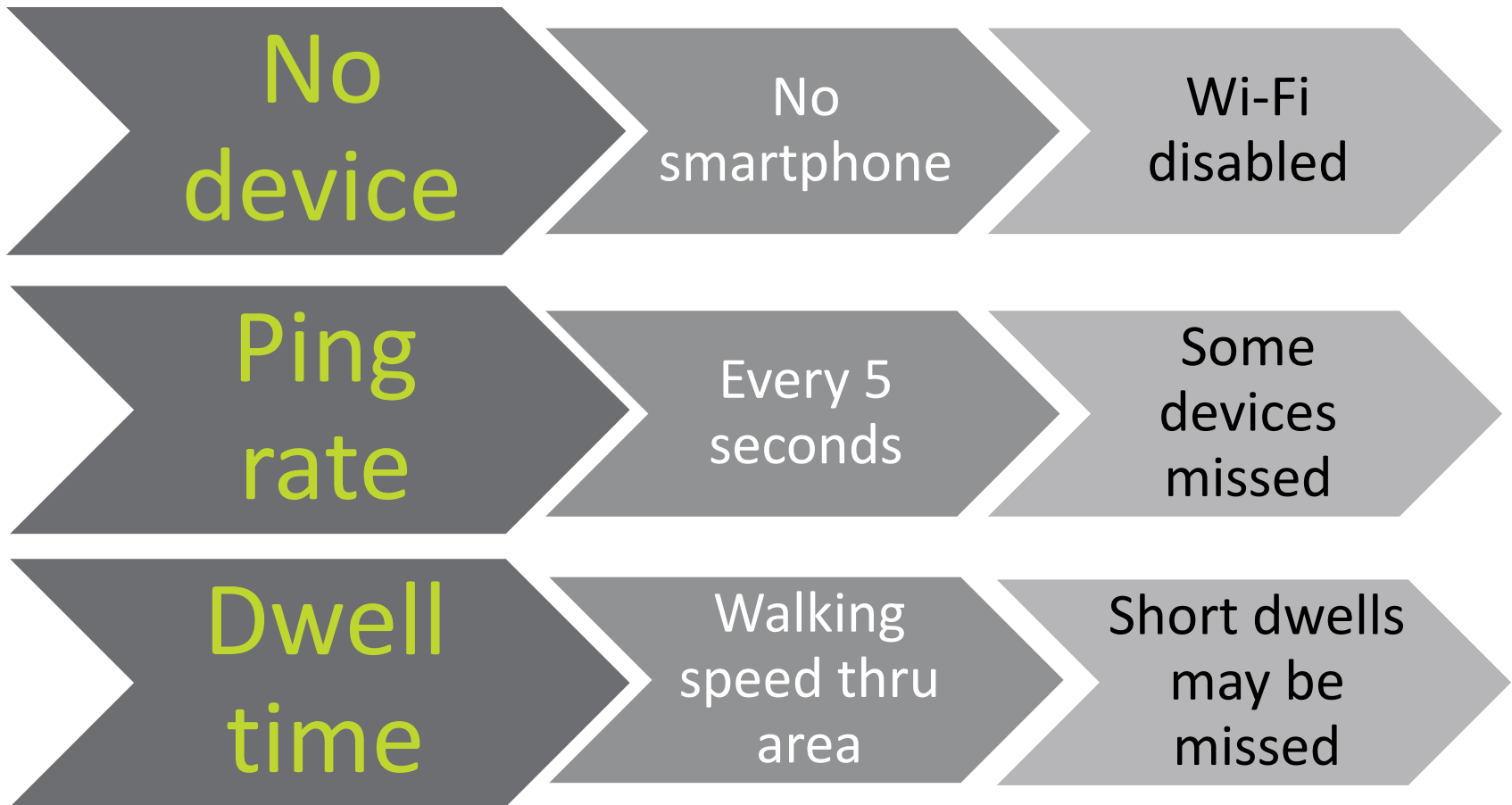


# Filter for Location

Geofenced polygon areas defined



# Expand Sample

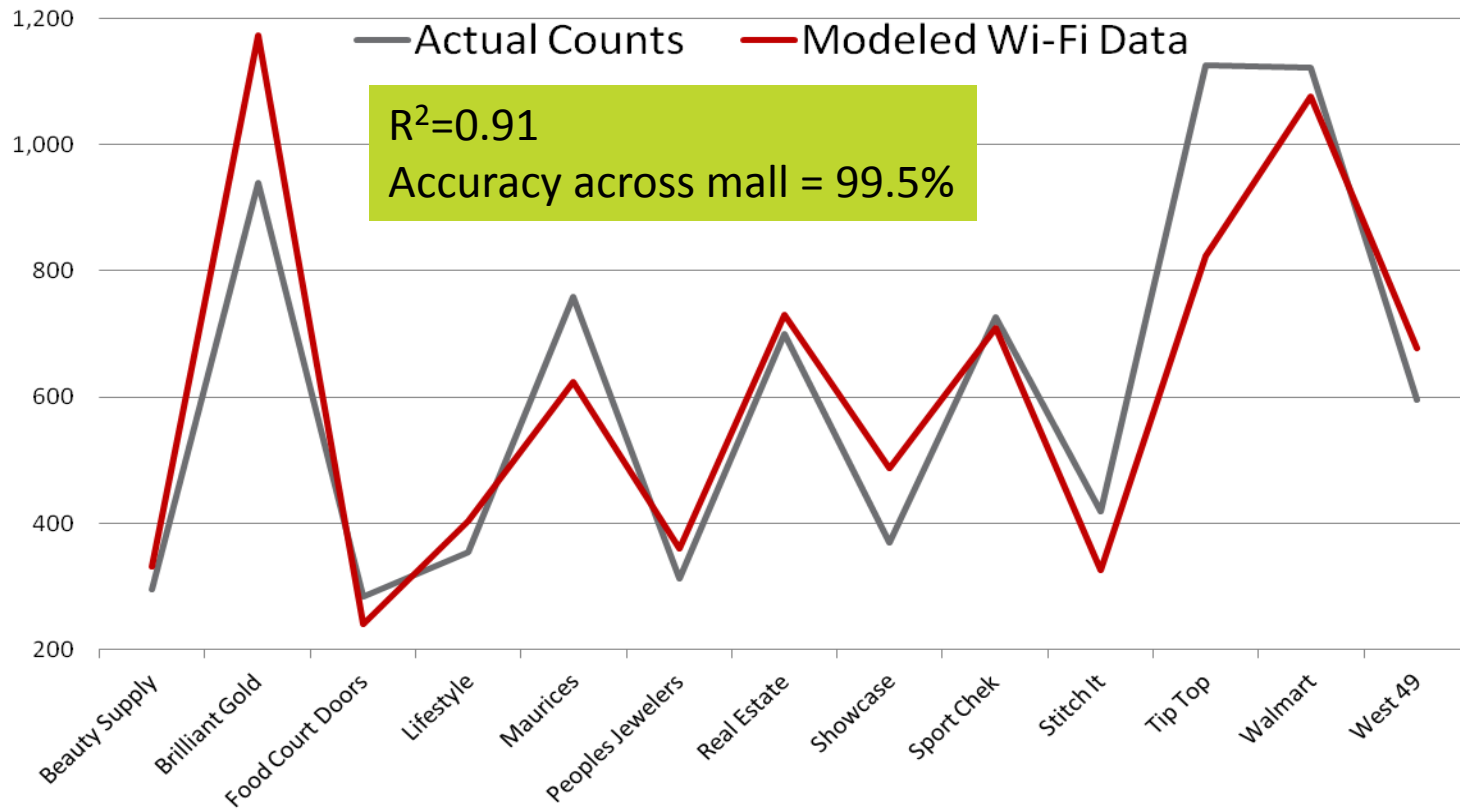


# Results



# Foot Traffic Measures

## Actual Counts vs Independent Wi-Fi Data



# Other Measures



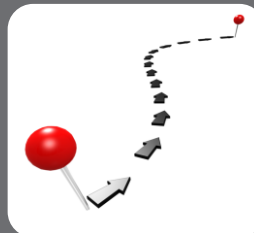
## Average Dwell time

- 50 minutes



## Average Frequency

- 1.3 visits per month



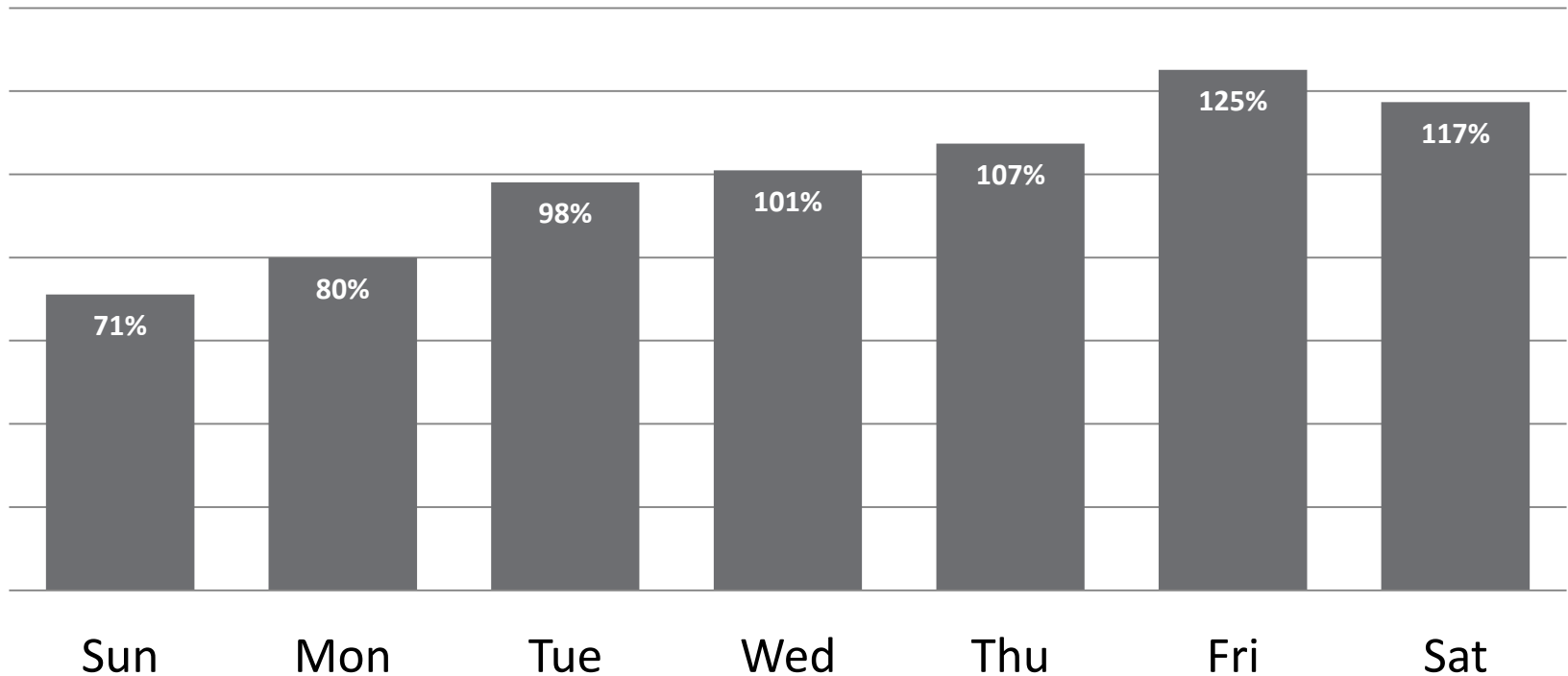
## Footpath Analysis

- 2.4 locations in mall per visit



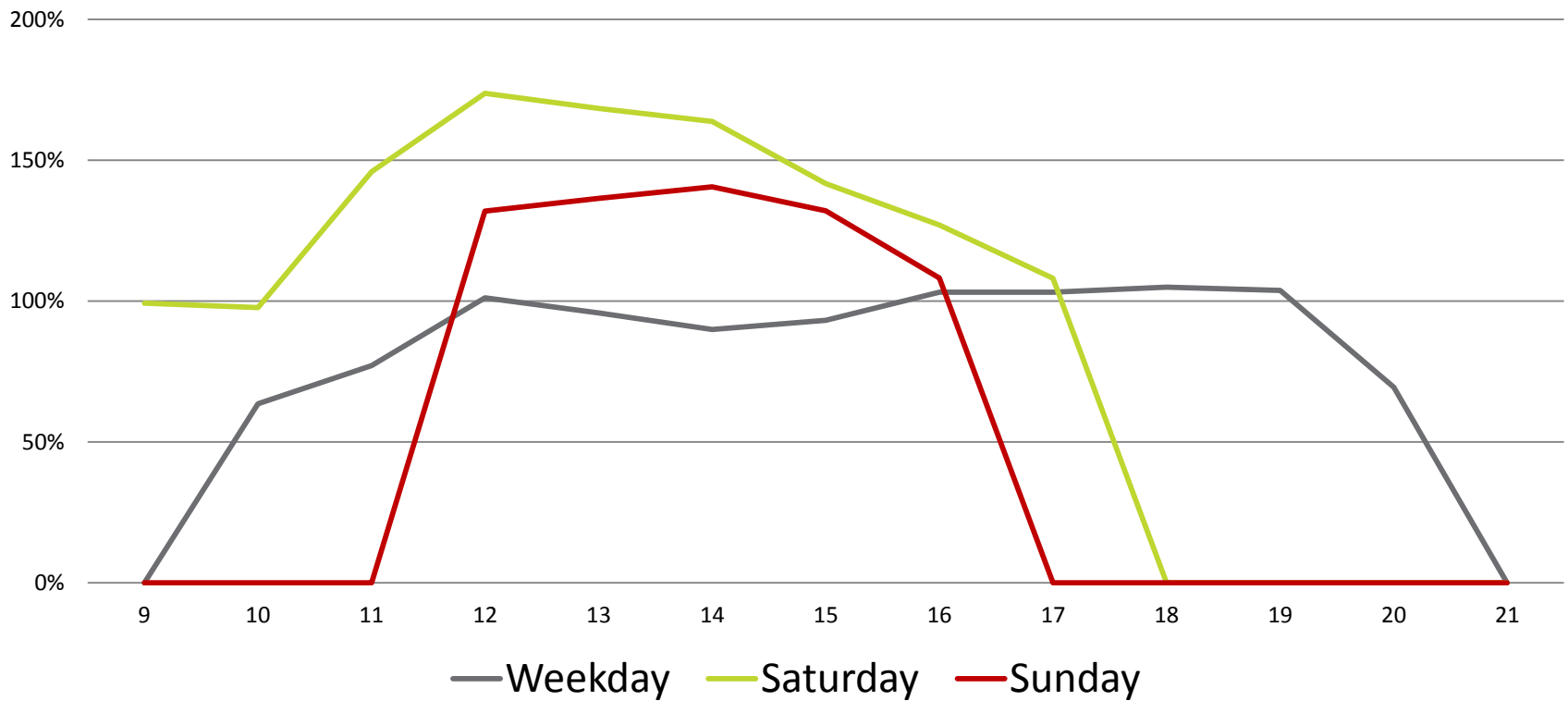
# Daily Variation

## Daily Reach as % of Average Day



# Hourly Variation

## Hourly Foot Traffic as % of Average



# Conclusions

Wi-Fi as a location analytics tool is:

- Viable, accurate and affordable

Potential metrics include:

- foot traffic – historical and real time
- seasonality and day-parting
- dwell time
- reach-frequency
- footpath analytics

# Potential Applications

- Indoor OOH/DOOH/Place-based media metrics
- Outdoor OOH/DOOH audience metrics (if Wi-Fi available)
- Retail analytics
- Leasing and building management
- Free Wi-Fi as audience or customer amenity

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Good research  
tells a story  
Do you know yours?

peoplecount

The logo for Peoplecount features the word "peoplecount" in a sans-serif font. The word "people" is in a light green color, and "count" is in a dark grey color. Below the text is a graphic consisting of a grid of dots. The dots are arranged in two rows of 12 dots each. The dots in the top row are a mix of light green and dark grey, while the dots in the bottom row are all dark grey.