

Bike Activity in Hampton Roads

Presented by Uros Jovanovic
To Active Transportation Subcommittee
April 26, 2019



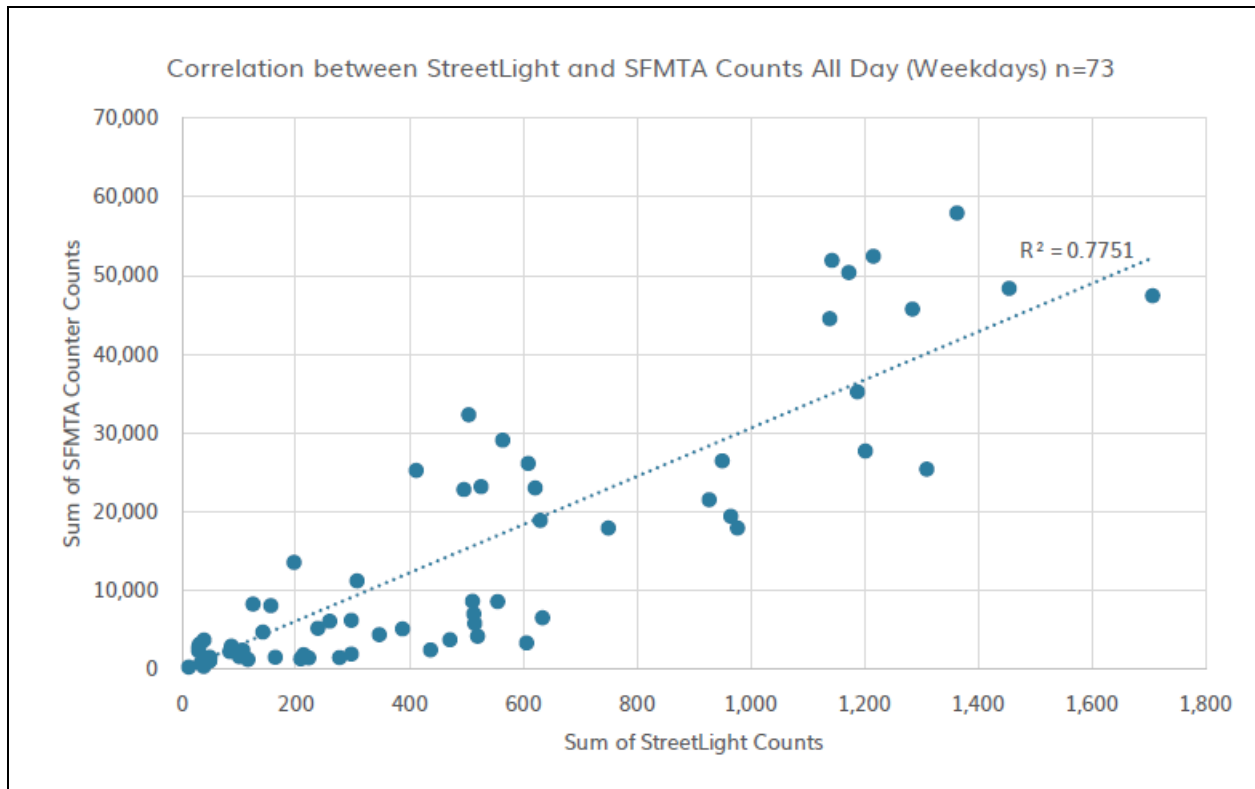
Data source

- StreetLight Data

- Cell phone apps that record location
- New ability to identify bike mode
 - “We experimented with over 30 features including **time, distance, speed, acceleration, jerk, circuitry and angular velocity** for each ping as well as for its preceding and subsequent pings, day of week, hour of day, etc.”
 - “Some of the **training data** came from **surveys that had volunteers wear a GPS** device and record various trips and tag them with the travel mode as they went about their daily activities.”
 - “To validated data at a “micro” level we **compared bike volume counts** for May 2017 and June 2018 at specific roads to permanent bike counters across [San Francisco].”



Data source



For 73 permanent bike counters in San Francisco, there is a **high correlation** between StreetLight's estimate of bike trips and the counter counts.

StreetLight Inputs

Project: Bicycle Usage in Hampton Roads | Type: Zone Activity Analysis

General Information

Info

Name: Bicycle Usage in Hampton Roads

Country: US

Folder: HRTPO- Rob Case

Type: Zone Activity Analysis

Data Source (Travel Type): Location-Based Services with Pass-through (Personal - Bicycles)

Calibration Type: Without Calibration

Zones

Zones

Search

Zone Name	Pass-through	Direction	Bi-directional
HRTPO CBGs - Polygon Set with 1141 Zones.			
510731001001	No		No
510731001002	No		No
510731001003	No		No
510731002011	No		No

Options

Standard

Data Period(s)

May'17, Jun'17, May'18, Jun'18

Specific Date(s)

Day Types

Average Day: M-Su

Average Weekday: M-Th

Average Weekend Day: Sa-Su

Zoom to enable OSM

Show OSM Layer

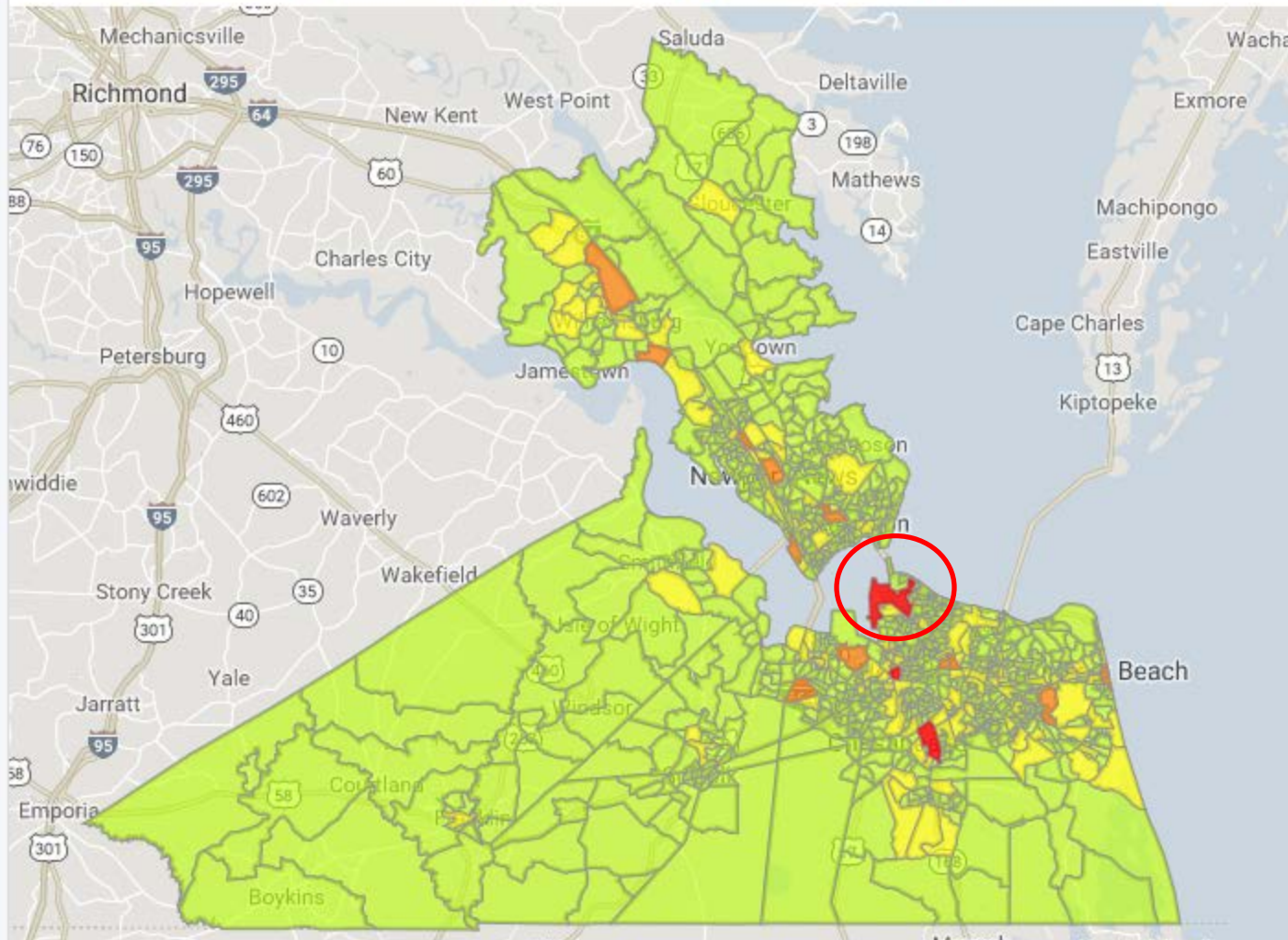
Blockgroups

Bicycle Usage in Hampton ... | Zone Activity Analysis

Average Day (M-Su) | All Day (12am-12am) | All Devices | Zone Activity StreetLight Trip Index

Colors indicate the StreetLight Trip Index to and from each Zone during the selected time period.

Insufficient Trips 1 - 1,115 1,116 - 3,634 3,635 - 7,562 7,563 - 15,045

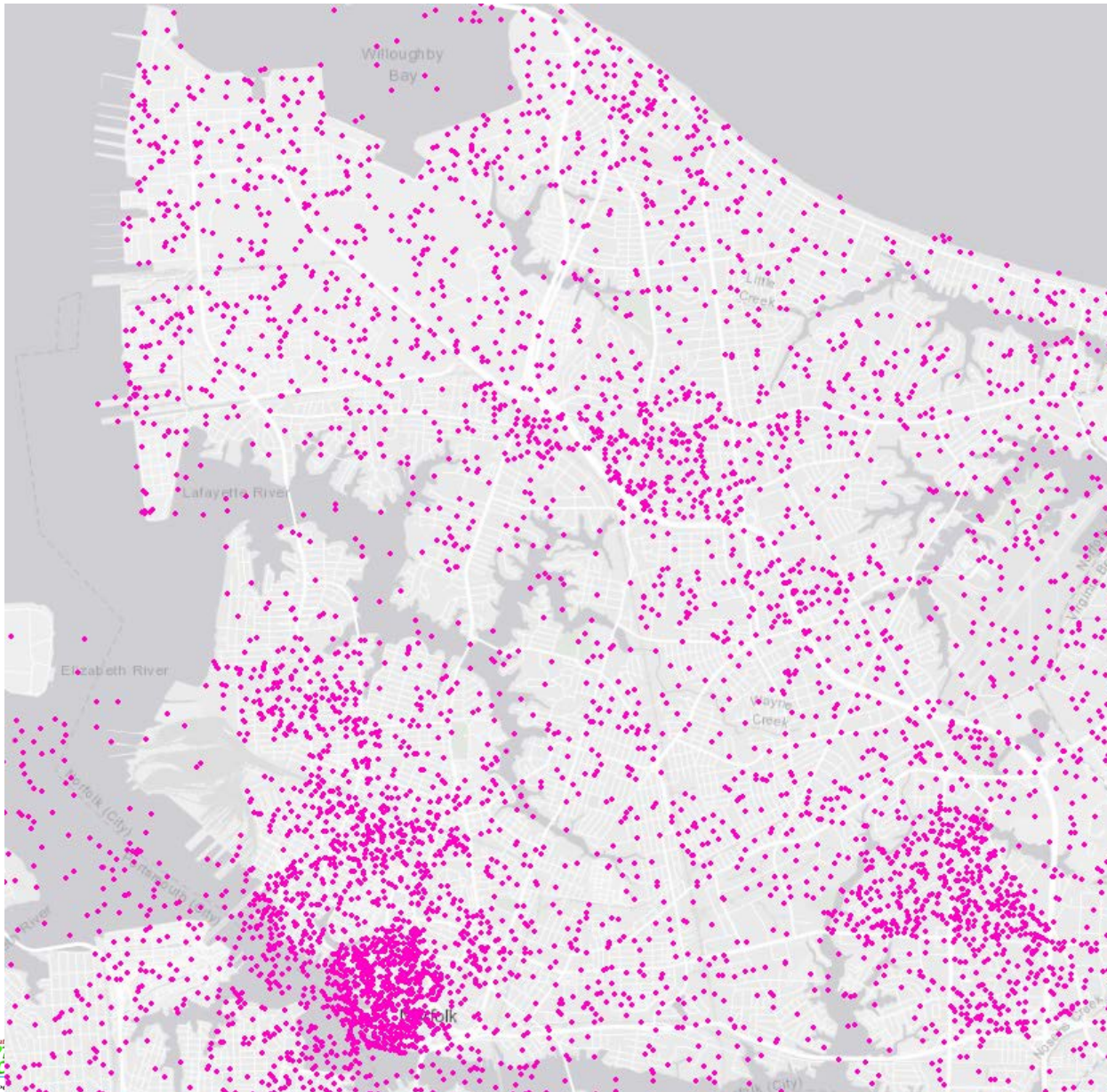


Note:
StreetLight's
visualization tool
creates maps
based on
**number of
trips**—not trip
density.

Is Naval Base a
site of **intense
bike usage**, or
**simply a big
zone**?

Use GIS to find
out.

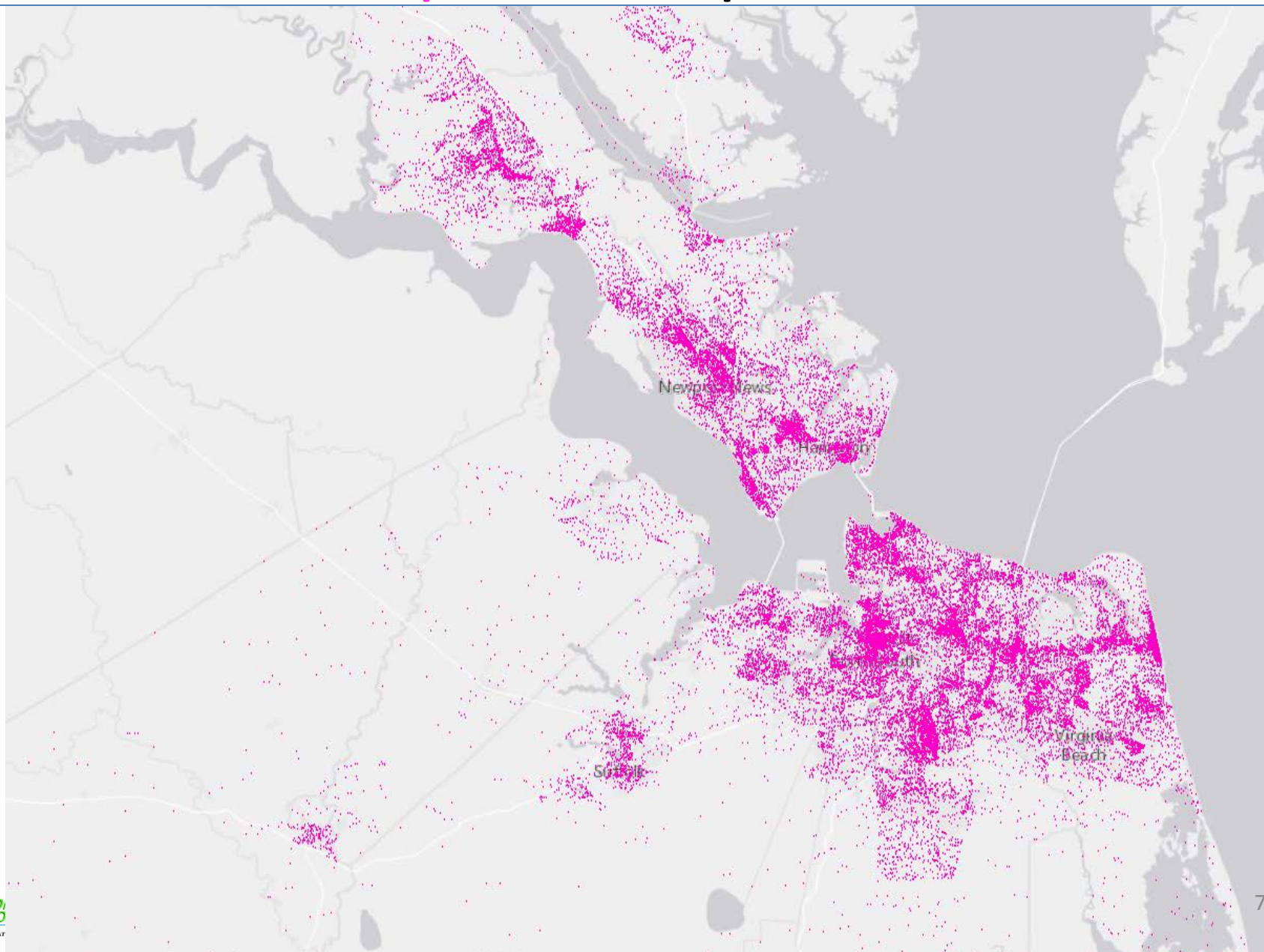
Bike Trips - Naval Base vs. Downtown



Naval Base is
NOT a site of
intense bike
usage; **it's
simply a big
zone.**

Therefore, **use
GIS to map
StreetLight
activity data.**

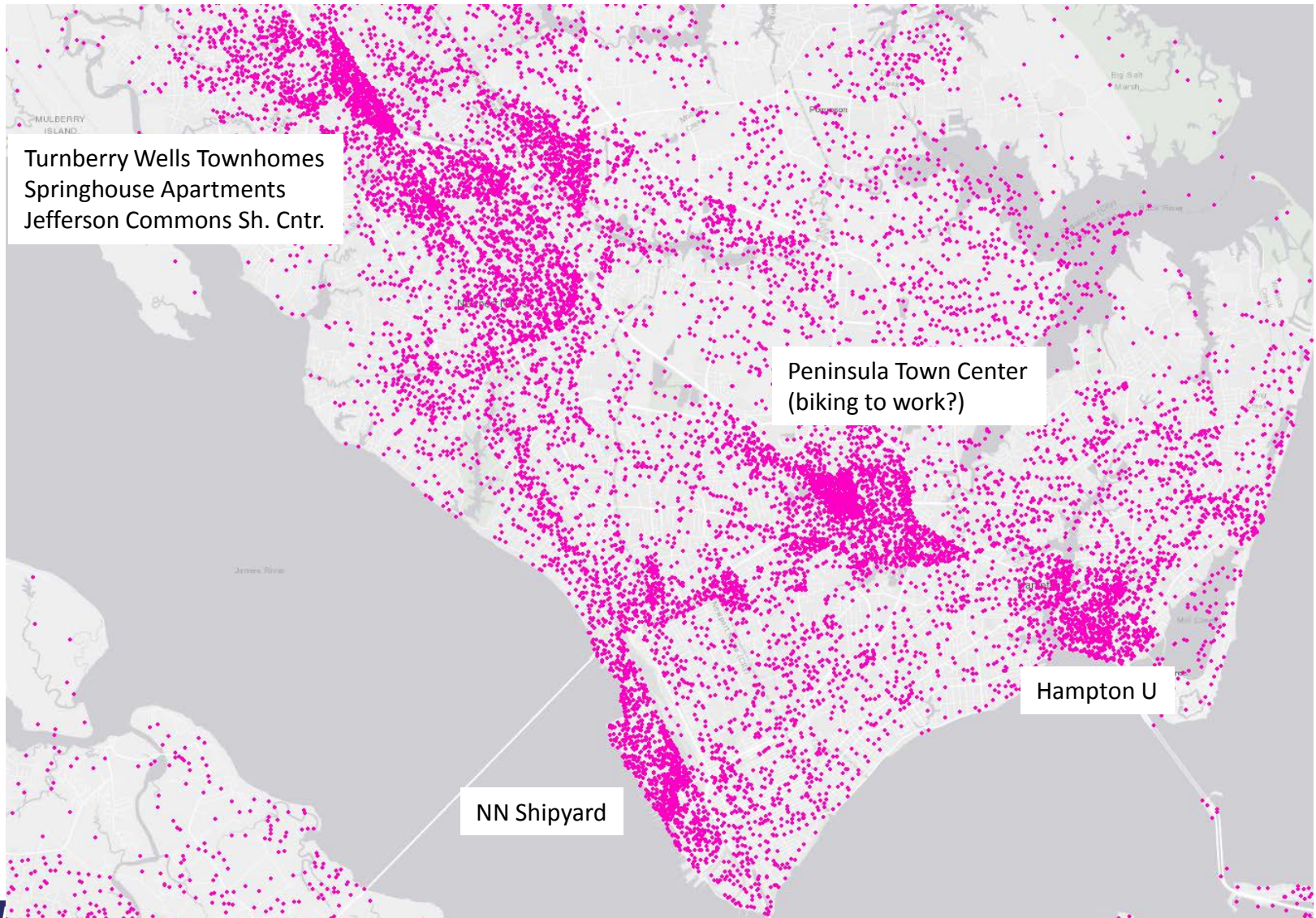
Bike Trips – Hampton Roads



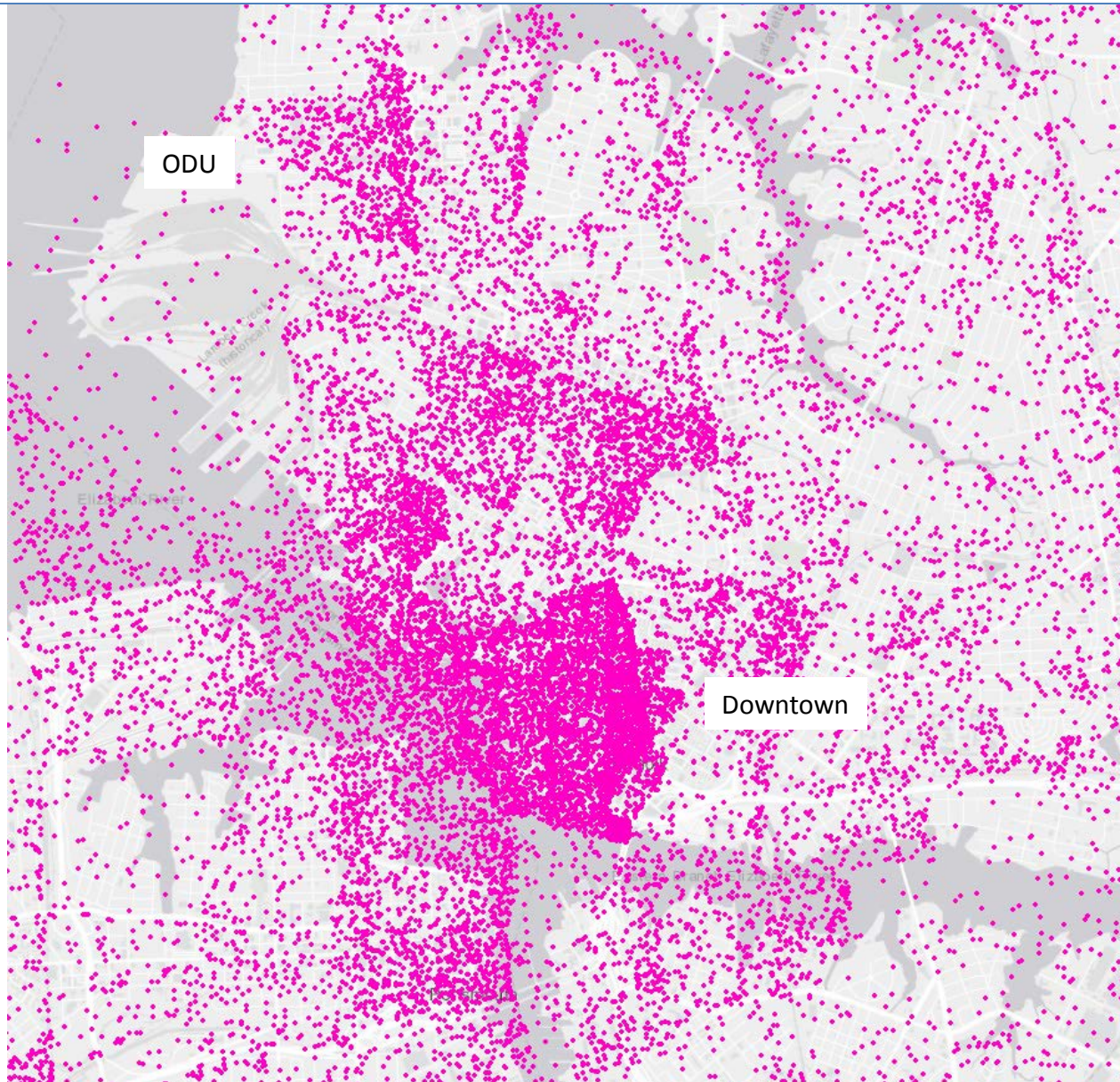
Bike Trips - Oceanfront



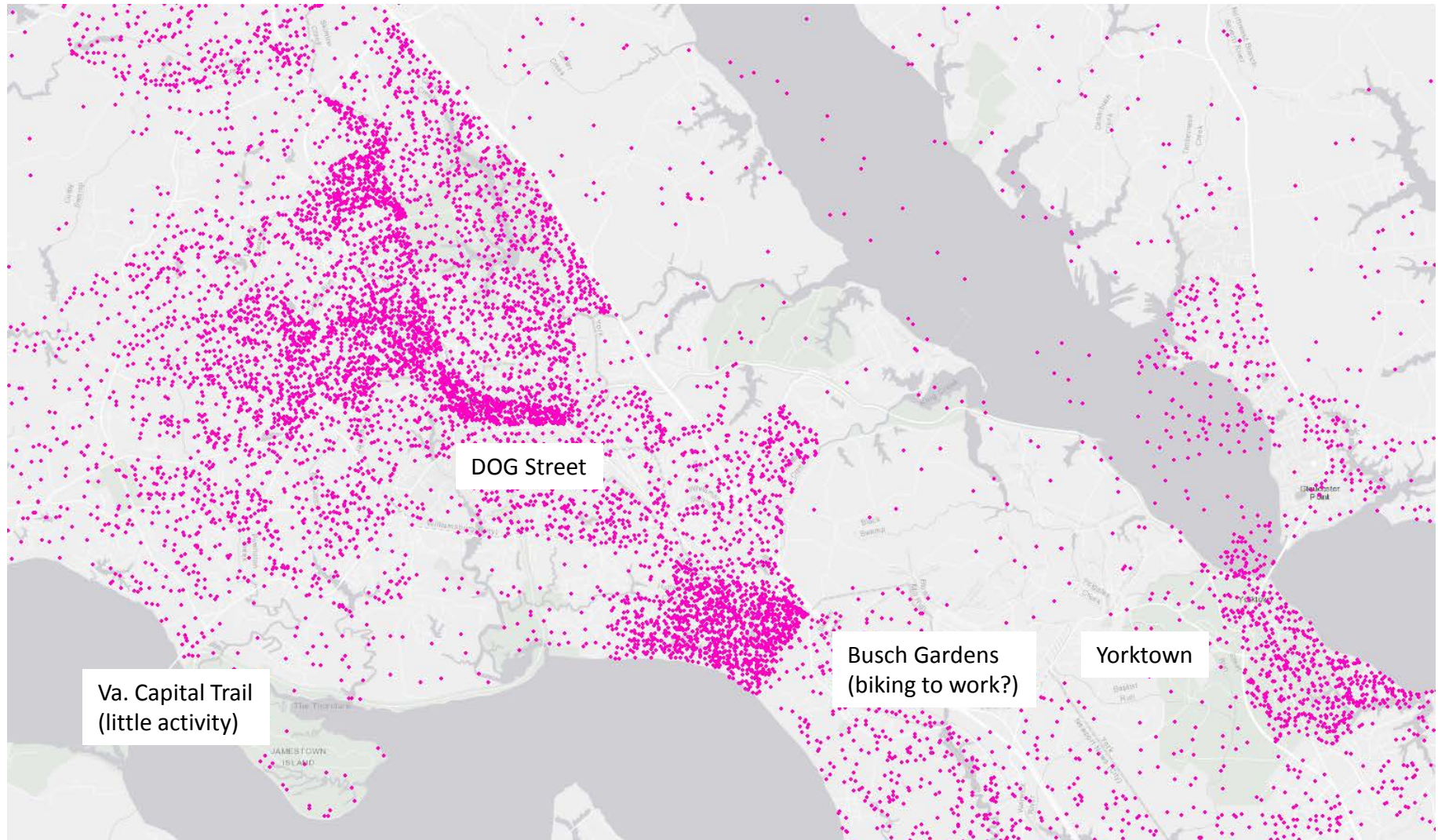
Bike Trips - Lower Peninsula



Bike Trips - Downtowns



Bike Trips - Upper Peninsula



Data

- For copy of data, contact Rob Case:
 - 420-8300
 - rcase@hrtpo.org