

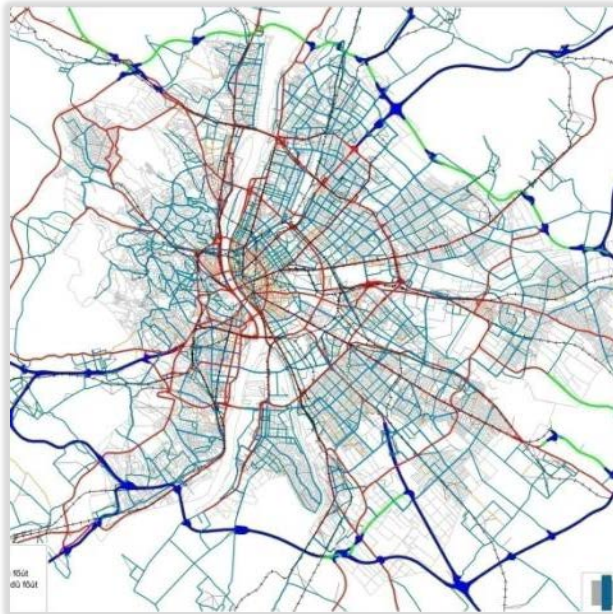


CITILABS

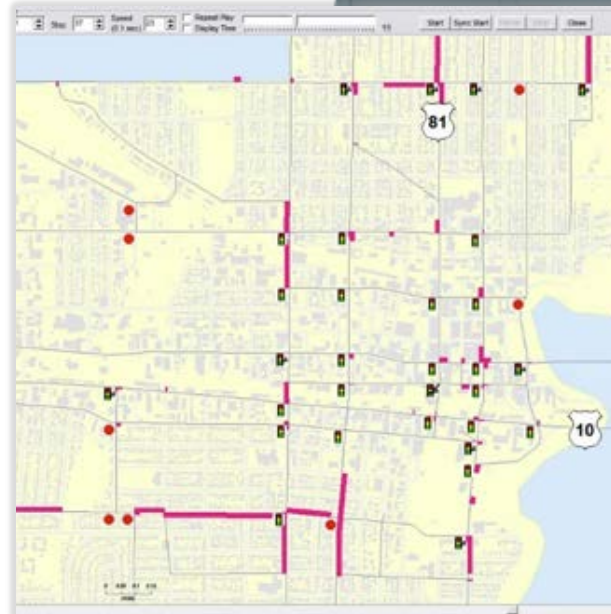
Understanding Movement

Who we are

Founded in 2001, Citilabs has built the world's leading transportation modeling and simulation software



Regional



Neighborhood



Road Lane



Mobility Specialists

Our software is used in over 2500 cities to predict how large and small changes in transportation will affect how we move.

50 staff comprised of transportation engineers, software engineers, data scientists, mathematicians.

Based in California with regional offices in Europe, Asia, and the Middle East.



What is Streetlytics

Streetlytics provides a comprehensive, complete understanding of the movement of pedestrians and vehicles across the United States.

- ◇ Hourly volumes, speeds, and demographics for every road in the US
- ◇ Origin-Destination pairs for every trip by day part
- ◇ The turn by turn path between each origin and destination



Physical Dataset



API



Web Application

Applications

Government

Helping governments to provide safe, sustainable and efficient transportation systems

Advertising

Powering the official audience measurement system for the \$30 billion Out-of-Home Advertising market

Real Estate

Aiding site selection and store product mix to match the volumes and demographics on the road by any building in the US

Insurance

Providing key data for calculating risk


Mobility



Providing comprehensive understanding of the changing demand for transportation

Logistics

Providing the most accurate understanding of future traffic conditions for far more accurate ETAs







ORIGIN WORK  DESTINATION AIRPORT 



TRAVELER AGE 35-40 HOME LOCATION ZIP 10025

INCOME \$75^k-100^k

ORIGIN WORK  DESTINATION SHOPPING 

TRAVELER AGE 25-35 HOME LOCATION ZIP 10033

INCOME \$50^k-75^k

ORIGIN HOME  DESTINATION WORK 

TRAVELER AGE 55-60 HOME LOCATION ZIP 10038

INCOME \$250^k-300^k

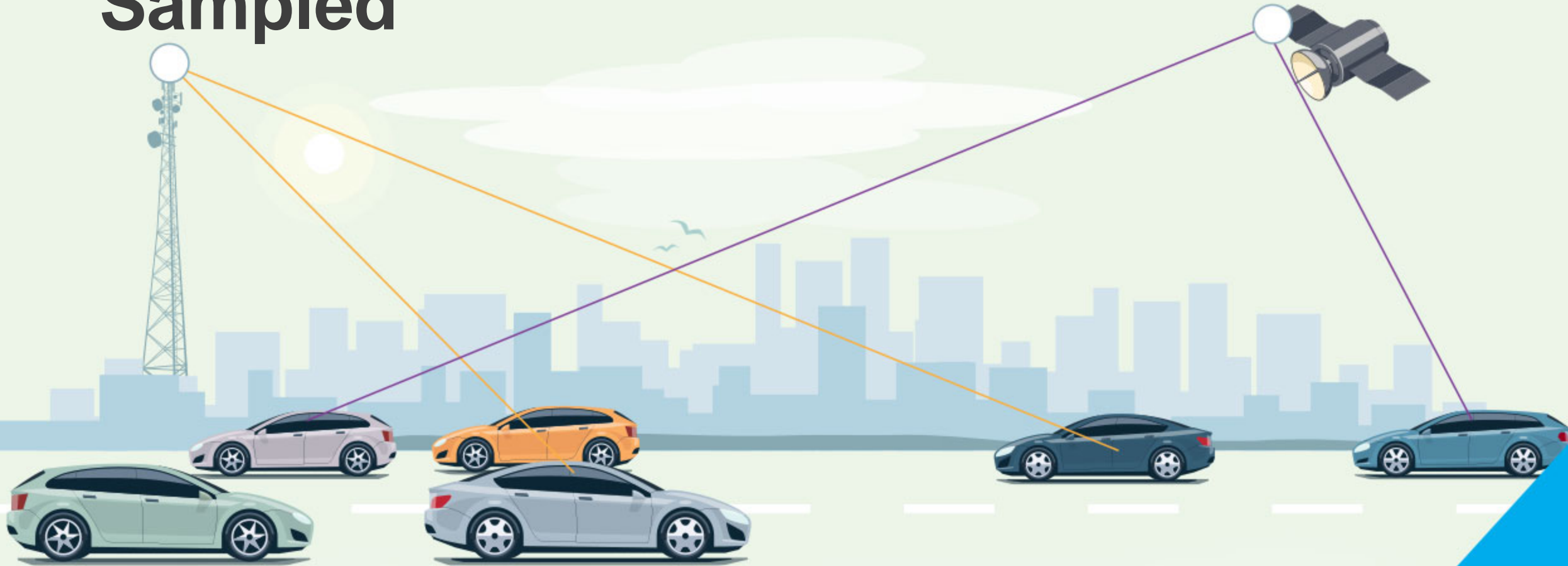
HOW IT WORKS

Reference count



Ground truth measurement is as close as possible to the true movement measured on 2 million roadways

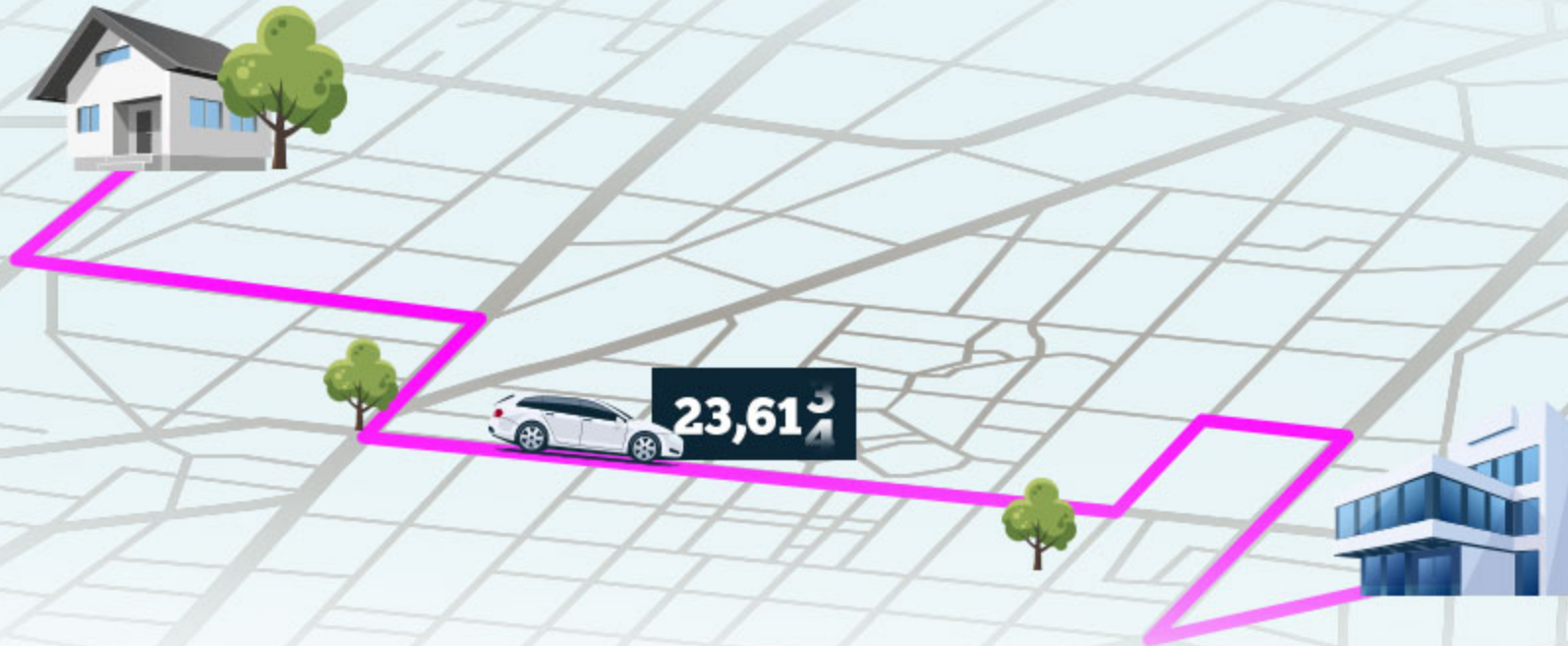
Sampled



GPS or cellular location data samples (20 to 40% of devices in a given marketplace)

Discovers home/work/shop locations and patterns of travel

Predicted Path

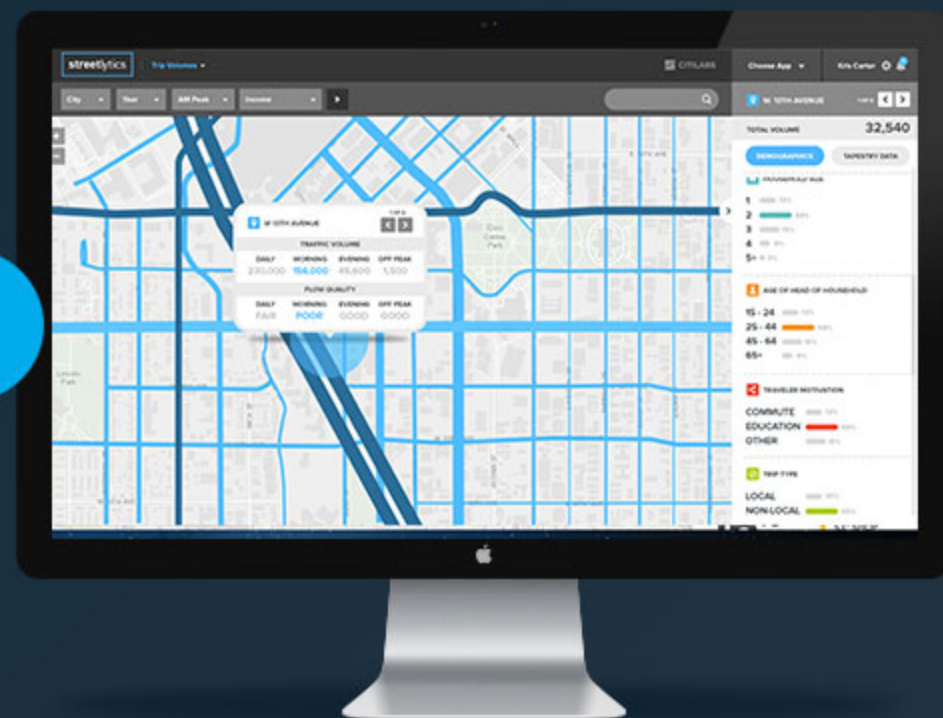


Behavioral travel models are applied to rich government data on household and employment to estimate what the pattern and total amount of travel should be

Calculated Merge



The millions of observations from all three of these complementary data sources are input into a complex mathematical process to create the most complete, accurate and consistent national mobility data set ever created



ORIGIN
WORK



DESTINATION
AIRPORT



TRAVELER AGE

35-40

HOME LOCATION ZIP

10025

INCOME

\$75^k-100^k

ORIGIN
WORK



DESTINATION
SHOPPING

TRAVELER AGE

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ORIGIN
HOME



DESTINATION
WORK



TRAVELER AGE

55-60

HOME LOCATION ZIP

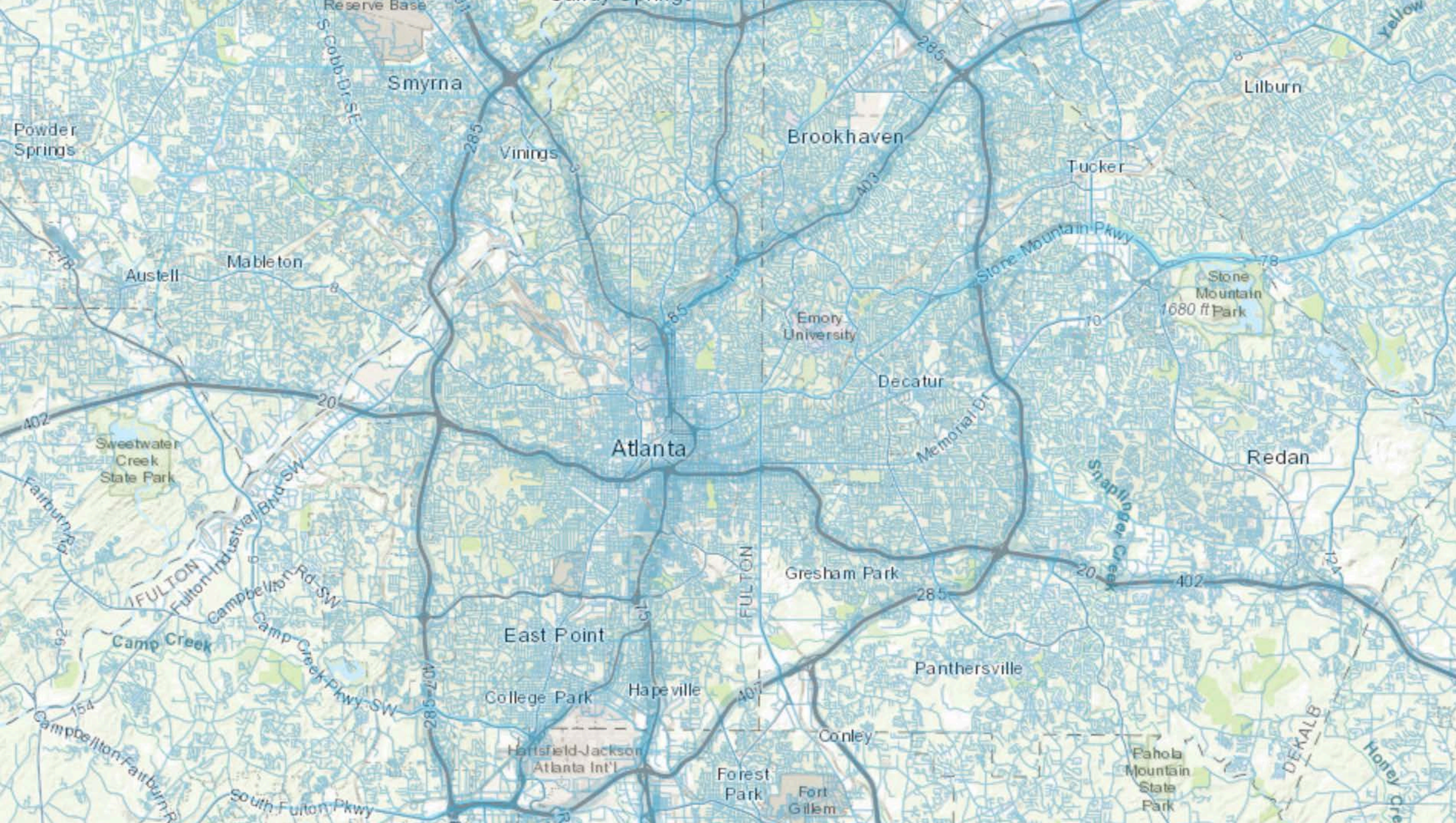
10038

INCOME

\$250^k-300^k

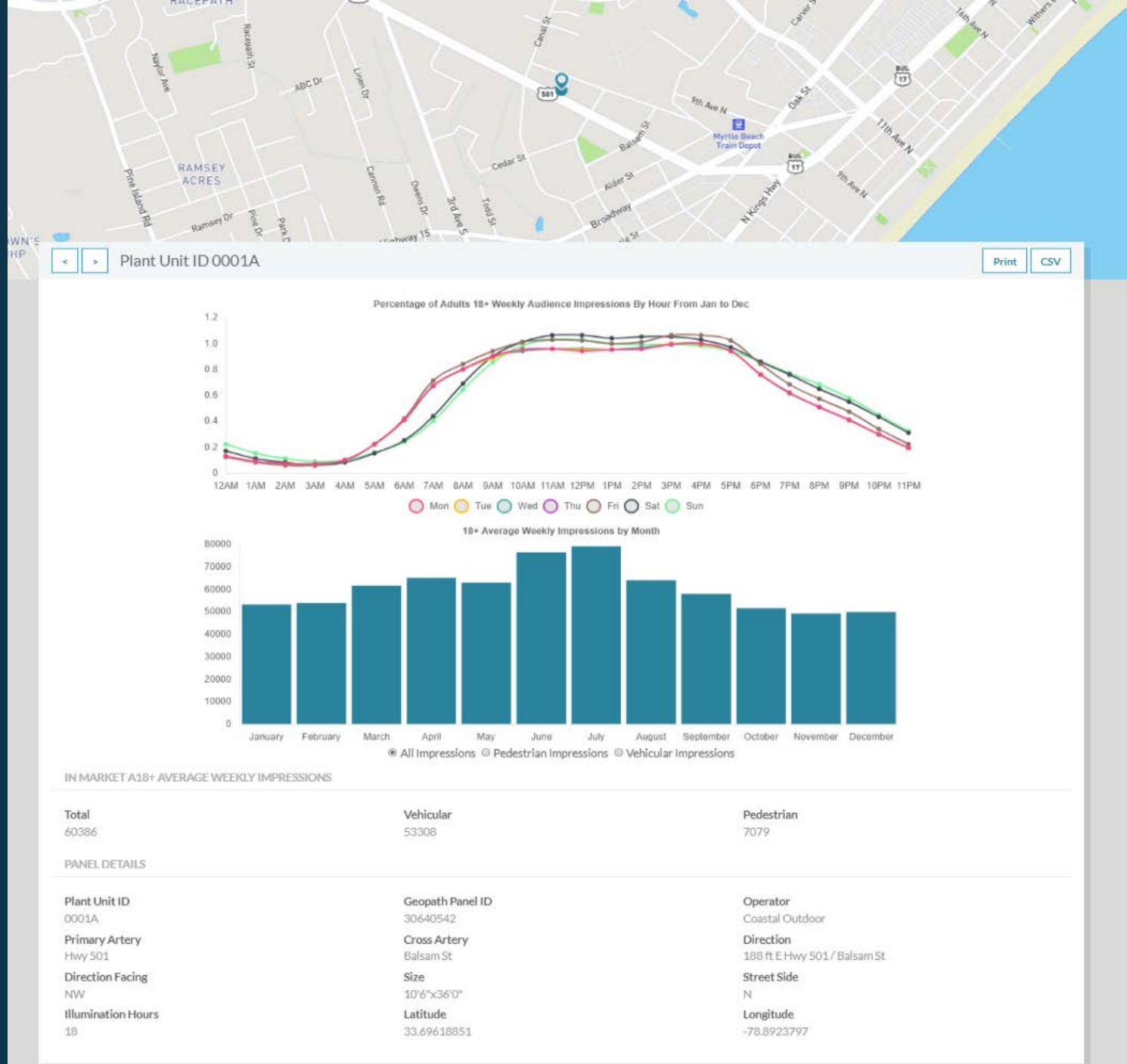
STREETLYTICS DATA PROVIDED TO GEOPATH

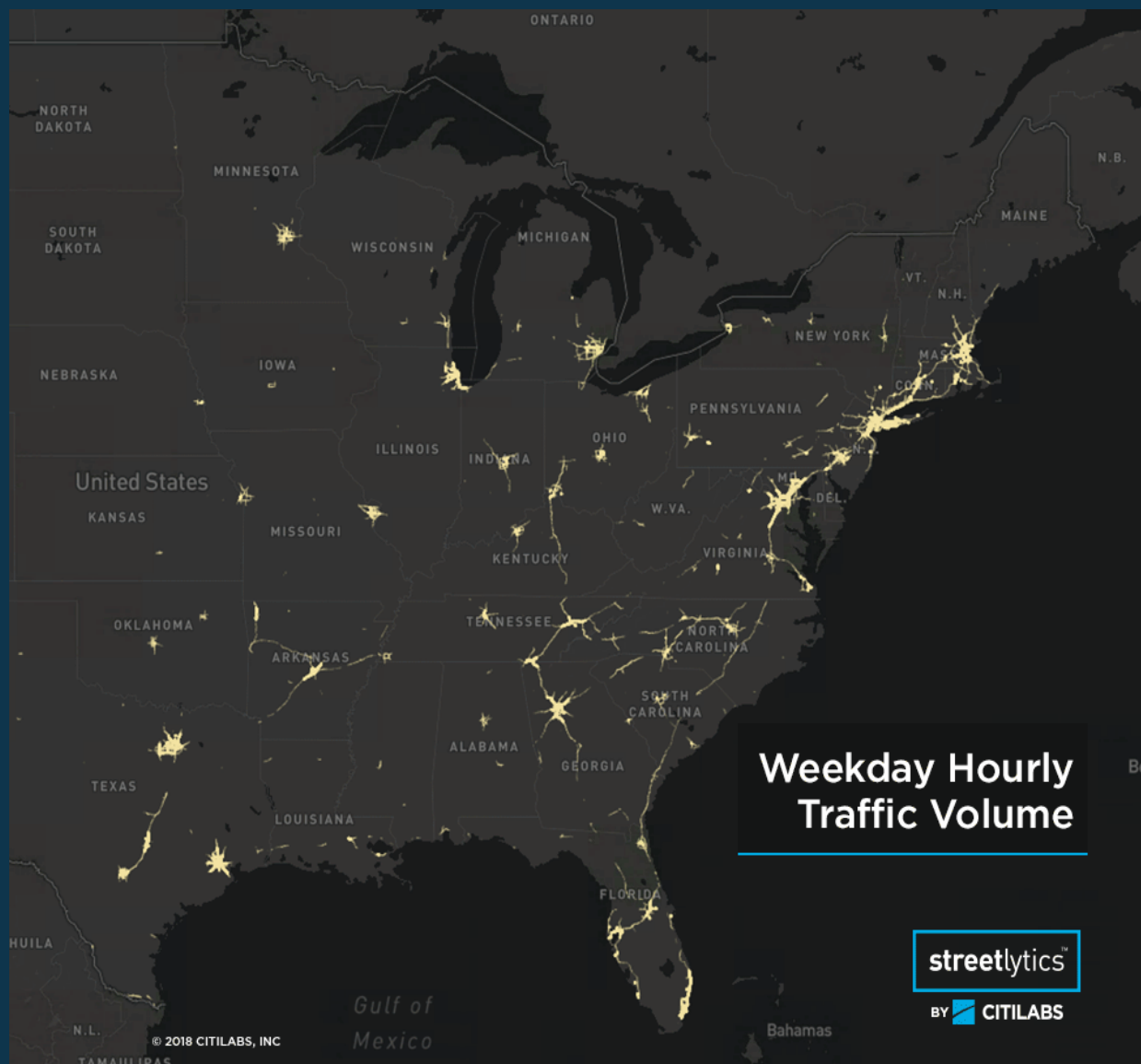
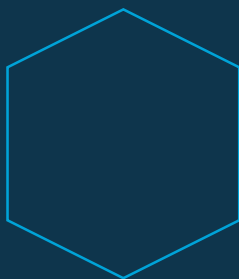
Volumes, Speeds, and Home Locations



Hourly and Seasonal Traffic

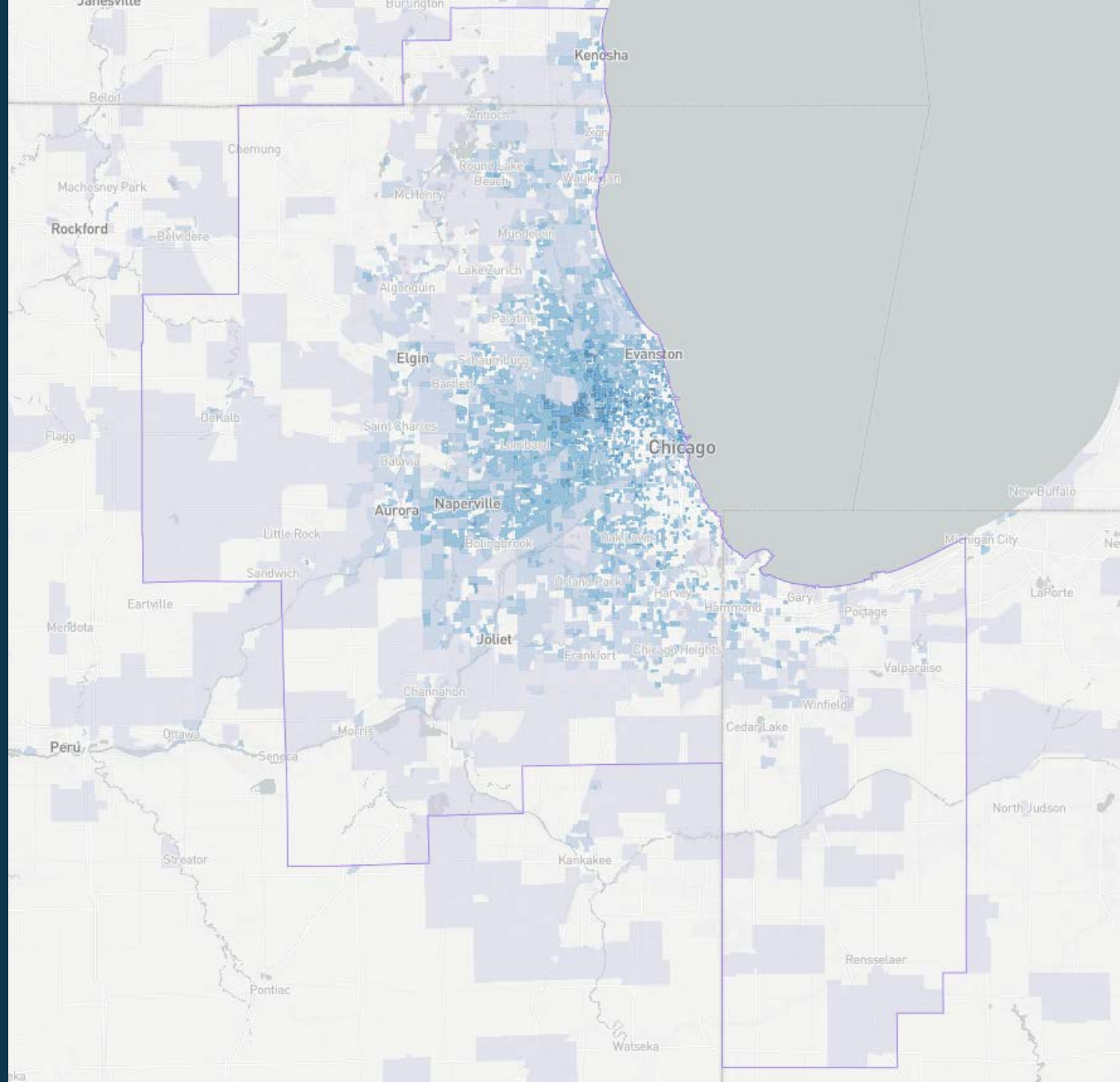
Vehicular and Pedestrian
Traffic Data
by Hour of Day
by Day of Week
by Month

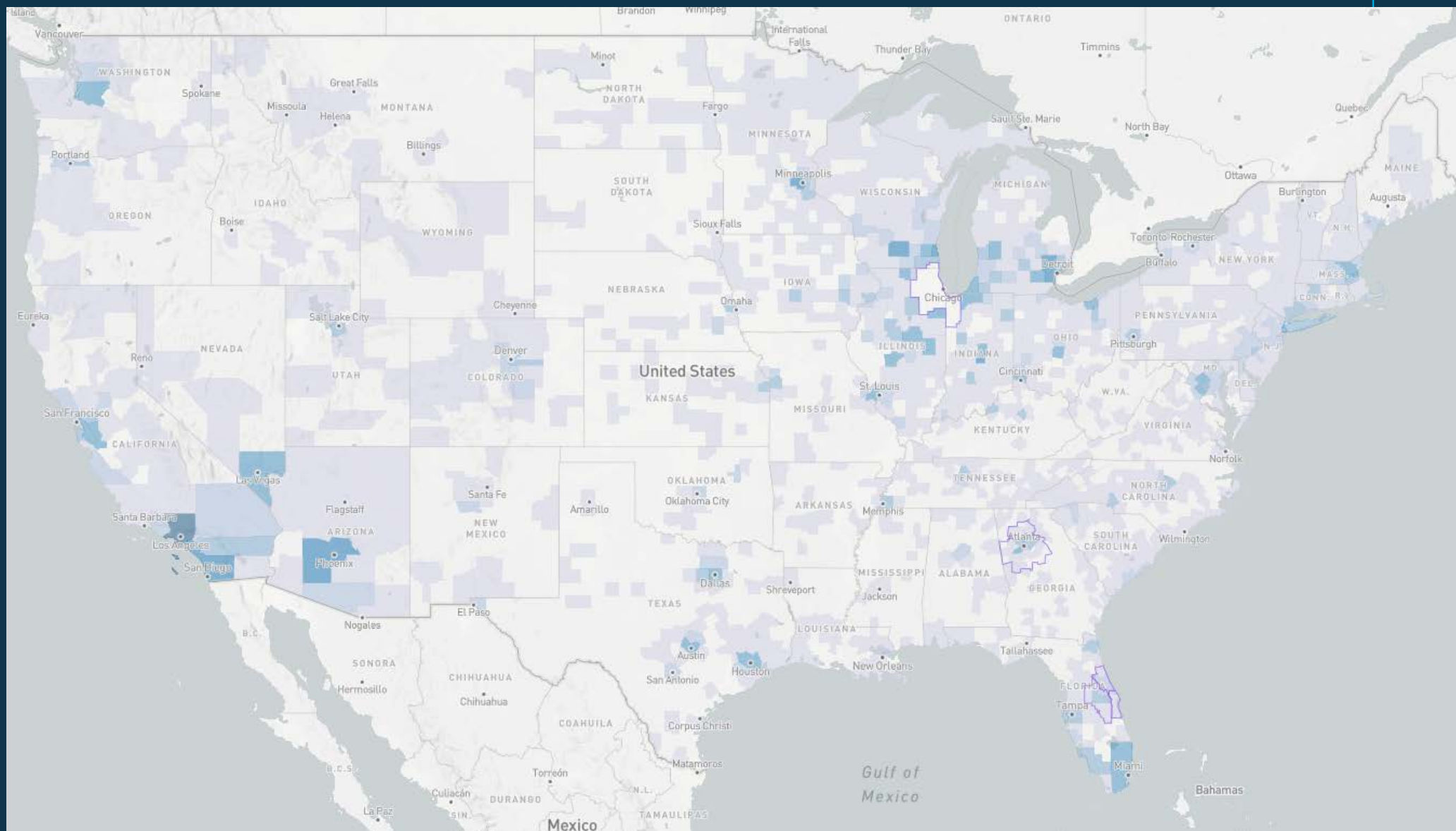




Home Location

Place of Residence for
Vehicular and Pedestrian
Trips





Audience Location Measurement

geopath

INVENTORY DETAIL SHEET

Operator: Outfront Media Plant Unit ID: 047333BO

Geopath ID: 534294

Inventory at a glance

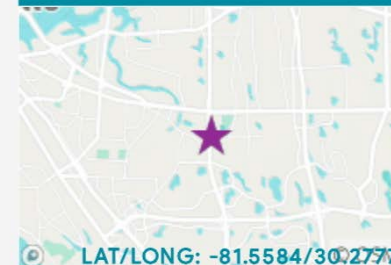
Media Type: Bulletins::Billboards

Panel Size: 14' X 48'

Orientation: S

Illumination: 18 hrs

Southside Blvd .50 mi N/O...
Location: Jacksonville, FL



Top Markets

- 1 Jacksonville, F 99%
- 2 Orlando-Daytona 0.23%
- 3 Miami-Ft. Laude 0.12%
- 4 West Palm Beach 0.03%

Top Zip Codes

- 1 32256 48%
- 2 32246 18%
- 3 32216 18%
- 4 32257 5.1%

Weekly Audience Summary

Jacksonville, FL

Starbucks (30 days)

Powered By
streetlytics

	Market Population	Weekly Impressions	In-Market Percentage	In-Market Impressions	In-Market/Target Audience Metrics
TOTAL	1,899,497	159,045	99%	157,763	REACH -
TARGET	211,893	26,579	99%	26,415	FREQUENCY -
COMP	11%	17%	N/A	17%	TRP 12.466 COMP INDEX 147



SELECT AUDIENCE

SELECT MARKET

PANEL FILTERS

+ Total Populati...

Market

Media Types

Operators

Location

More

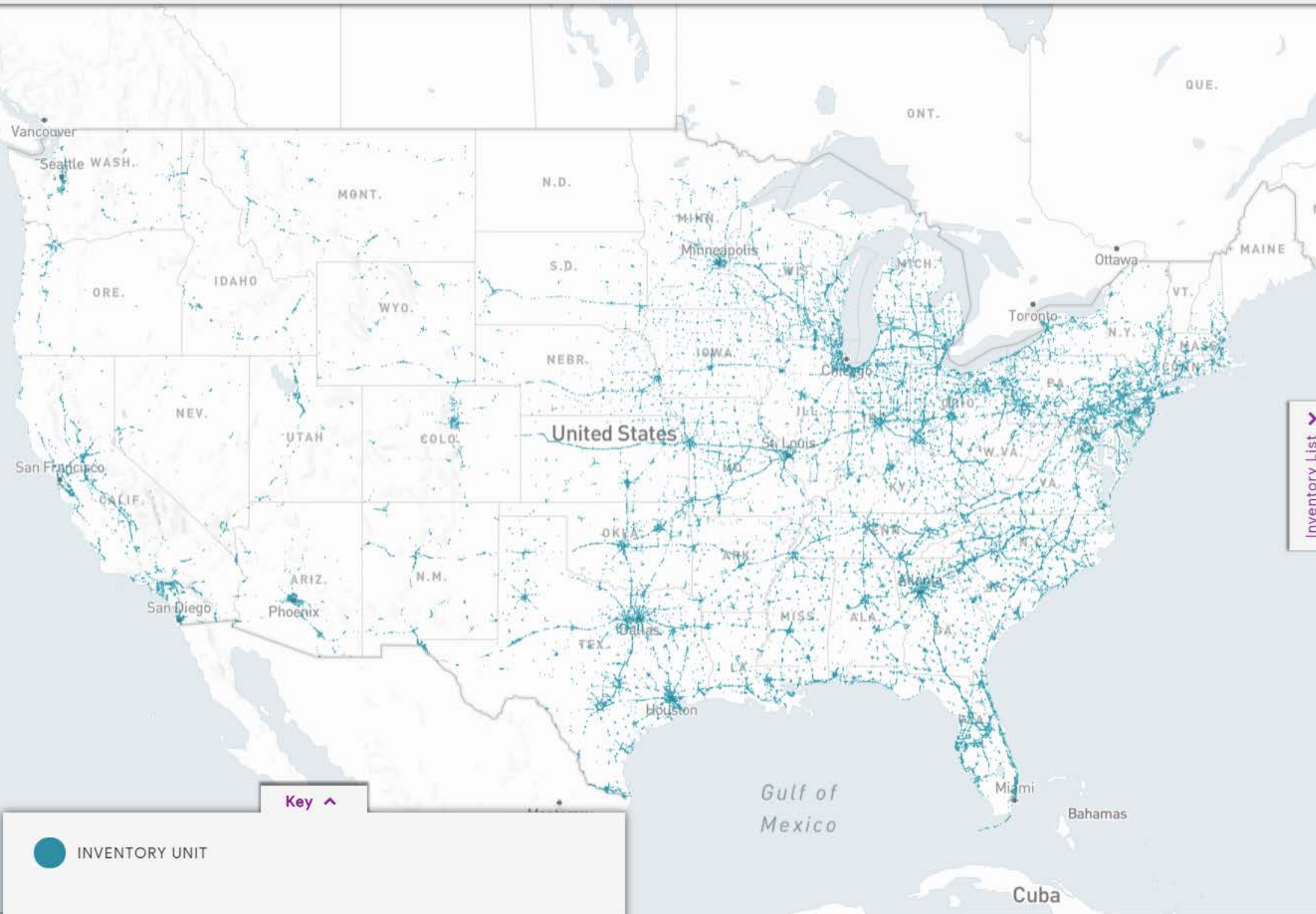
PROJECTS

EXPLORE

MARKETS

REPORTS

SHARE



Key ^

INVENTORY UNIT

INVENTORY SUMMARY LIST

Weekly Metrics:

49b

TARGET
IMPRESSIONS

49b

PERSONS 5+
IMPRESSIONS

100%

TARGET
COMPOSITION

467150 panels in filter

Filter more to see the inventory list.

Inventory List v

? Feedback



SELECT AUDIENCE

SELECT MARKET

PANEL FILTERS

+ Starbucks (30...

📍 Jacksonvil...

Media Types • 3

Operators

Map View

More

PROJECTS

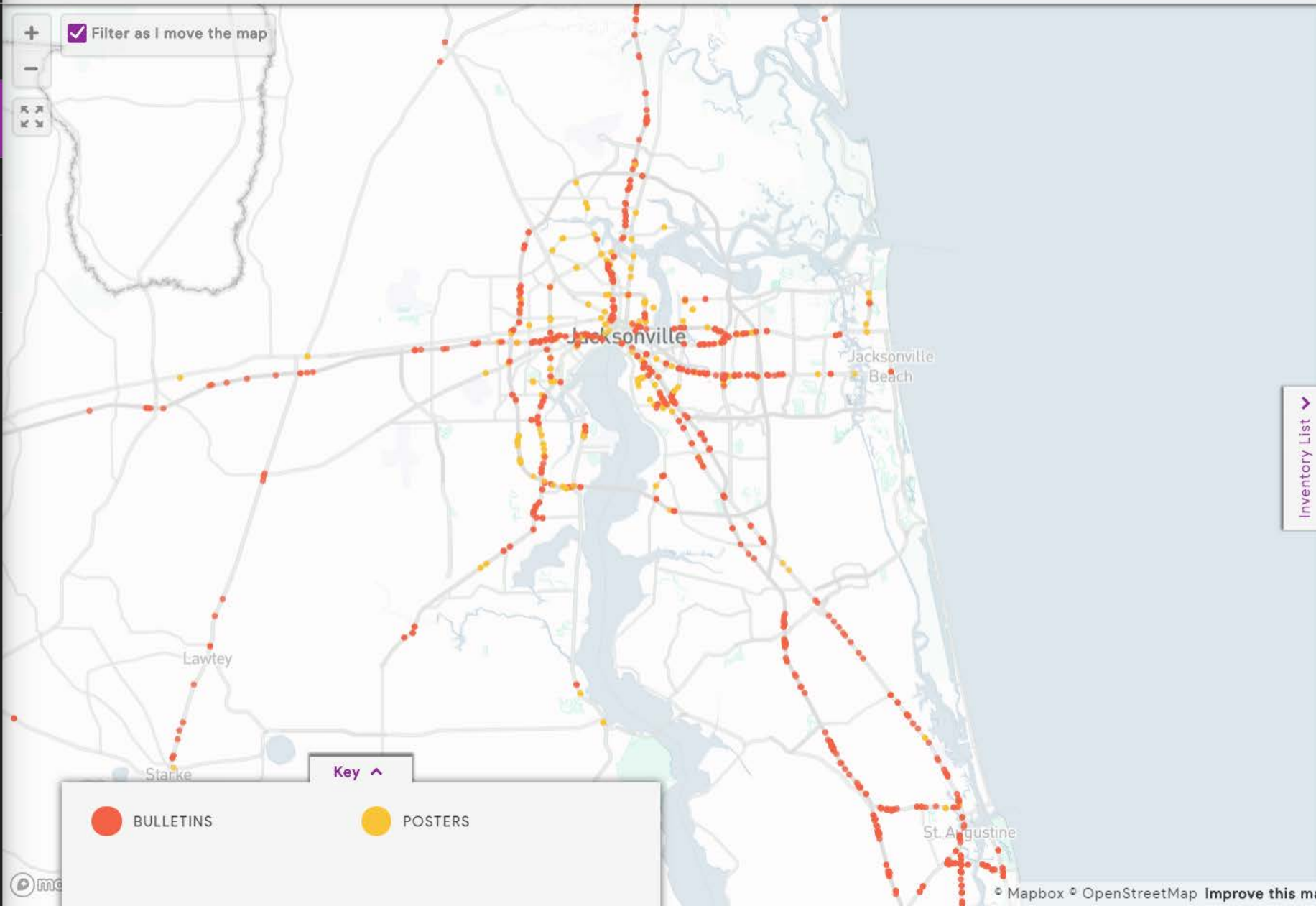
EXPLORE

MARKETS

REPORTS

SHARE

+ ☒ Filter as I move the map



INVENTORY SUMMARY LIST

Weekly Metrics:

18m

TARGET
IMPRESSIONS

164m

PERSONS 5+
IMPRESSIONS

11%

TARGET
COMPOSITION

1046 selected of 1046 panels in filter

SORT

In-Mkt Target
Comp Index ▾

SELECT

All ▾

SAVE

Format ▾



CLEAR CHANNEL

Bulletins

PHILLIPS HWY

Orientation: S

H:14'0" / W:48'0"

Geopath ID: 30782097

154

MAP VIEW

★ SELECTED



CLEAR CHANNEL

Posters

Atlantic Blvd

Orientation: W

H:10'6" / W:22'10"

Geopath ID: 84650

154

MAP VIEW

★ SELECTED



CLEAR CHANNEL

Bulletins

PHILLIPS HWY

Orientation: N

H:14'0" / W:48'0"

Geopath ID: 30782096

153

MAP VIEW

Feedback

OUTFRONT MEDIA



SELECT AUDIENCE

SELECT MARKET

PANEL FILTERS

+ Starbucks (30...

📍 Jacksonvil...

Media Types • 3

Operators

Map View

More

PROJECTS

EXPLORE

MARKETS

REPORTS

SHARE

+ ☒ Filter as I move the map



Jacksonville

Jacksonville Beach

Lawtey

Starke

Key ^

● BULLETINS

● POSTERS

St. Augustine

INVENTORY SUMMARY LIST

Weekly Metrics:

603k

TARGET
IMPRESSIONS

4m

PERSONS 5+
IMPRESSIONS

16%

TARGET
COMPOSITION

25 selected of 1046 panels in filter

SORT

In-Mkt Target
Comp Index ▾

SELECT

Top 25 ▾

SAVE

Format ▾

All

Top 25

Top 50

Top 100

None

Custom



MAP VIEW

Inventory List ▾



CLEAR CHANNEL
Posters

Atlantic Blvd

Orientation: W

H:10'6" / W:22'10"

Geopath ID: 84650

154

MAP VIEW

★ SELECTED



CLEAR CHANNEL
Bulletins

PHILLIPS HWY

Orientation: N

H:14'0" / W:48'0"

Geopath ID: 30782096

153

MAP VIEW

Feedback

OUTFRONT MEDIA



SELECT AUDIENCE

SELECT MARKET

PANEL FILTERS

+ Starbucks (30...

📍 Jacksonville...

Media Types • 3

Operators

Map View

More

PROJECTS

EXPLORE

MARKETS

REPORTS

SHARE

+ ☒ Filter as I move the map



OUTFRONT MEDIA

- Weekly Impressions: 159k
- Bulletins :: Bulletins
- Southside Blvd .50 mi N/O Hoga...
- Plant Unit ID: 047333BO
- Geopath ID: 534294
- H: 14' / W: 48'
- Orientation: S

★ SELECTED

INVENTORY SUMMARY LIST

Weekly Metrics:

603k

TARGET
IMPRESSIONS

4m

PERSONS 5+
IMPRESSIONS

16%

TARGET
COMPOSITION

25 selected of 1046 panels in filter

SORT

In-Mkt Target
Comp Index ▾

SELECT

Top 25 ▾

SAVE

Format ▾

MAP VIEW

★ SELECTED



CLEAR CHANNEL Bulletins

Southside Blvd
Orientation: S
H:14'0" / W:48'0"
Geopath ID: 84655

148

MAP VIEW

★ SELECTED



OUTFRONT MEDIA Bulletins

Southside Blvd
Orientation: S
H:14'0" / W:48'0"
Geopath ID: 534294

147

MAP VIEW

★ SELECTED



OUTFRONT MEDIA Bulletins

I-95, 7 mi N/O
Orientation: S
H:10'0" / W:48'0"
Geopath ID: 534294

147

Feedback

● BULLETINS

● POSTERS



SELECT AUDIENCE

SELECT MARKET

PANEL FILTERS

+ Starbucks (30...

📍 Jacksonville...

Media Types • 3

Operators

Location

More

PROJECTS

EXPLORE

MARKETS

REPORTS

SHARE

☐ Filter as I move the map



OUTFRONT MEDIA

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- Geopath ID: 534294
- H: 14' / W: 48"
- Orientation: S

★ SELECTED

INVENTORY SUMMARY LIST

Weekly Metrics:

24m

TARGET
IMPRESSIONS

229m

PERSONS 5+
IMPRESSIONS

11%

TARGET
COMPOSITION

1836 selected of 1836 panels in filter

SORT

In-Mkt Target
Comp Index ▼

SELECT

All ▼

SAVE

Format ▼



Southside Blvd
Orientation: S
H:14'0" / W:48'0"
Geopath ID: 84655

148

MAP VIEW

★ SELECTED



OUTFRONT MEDIA
Bulletins
Southside Blvd
Orientation: S
H:14'0" / W:48'0"
Geopath ID: 534294

147

MAP VIEW

★ SELECTED



OUTFRONT MEDIA
Bulletins
I-95, 7 mi N/O
Orientation: S
H:10'0" / W:40'0"
Geopath ID: 533873

147

MAP VIEW

★ SELECTED



OUTFRONT MEDIA
Bulletins
US 1 7.85 mi N/O

147

Feedback

Audience Location Measurement

geopath

INVENTORY DETAIL SHEET

Operator: Outfront Media Plant Unit ID: 047333BO

Geopath ID: 534294

Inventory at a glance

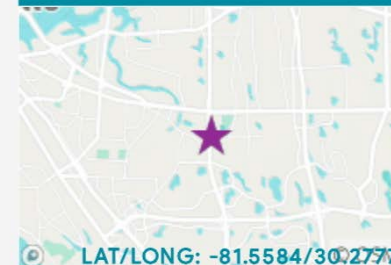
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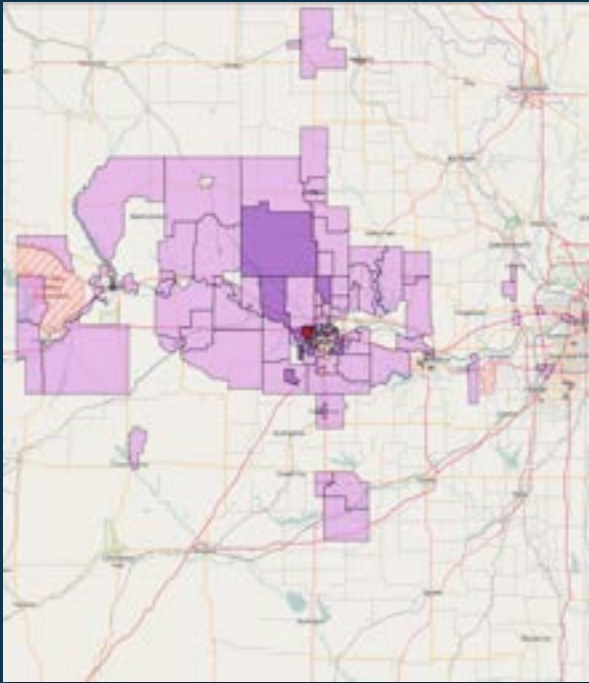
📍 Jacksonville, FL

👤 Starbucks (30 days)

Powered By
streetlytics

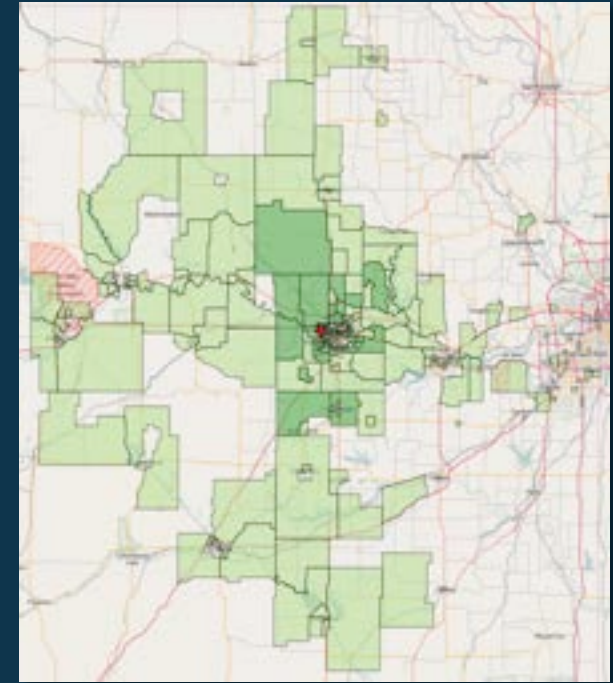
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COMP	11%	17%	N/A	17%	TRP 12.466 COMP INDEX 147

Changing Audiences by Time of Day



Breakfast Crowd

These two maps show the home locations of people appearing passing by a McDonald's at breakfast versus lunch



Lunch Crowd



ORIGIN
WORK



DESTINATION
AIRPORT



TRAVELER AGE

35-40

HOME LOCATION ZIP

10025

INCOME

\$75^k-100^k

ORIGIN
WORK



DESTINATION
SHOPPING

TRAVELER AGE

25-35

HOME LOCATION ZIP

10033

INCOME

\$50^k-75^k

ORIGIN
HOME

DESTINATION
WORK

TRAVELER AGE

55-60

HOME LOCATION ZIP

10038

INCOME

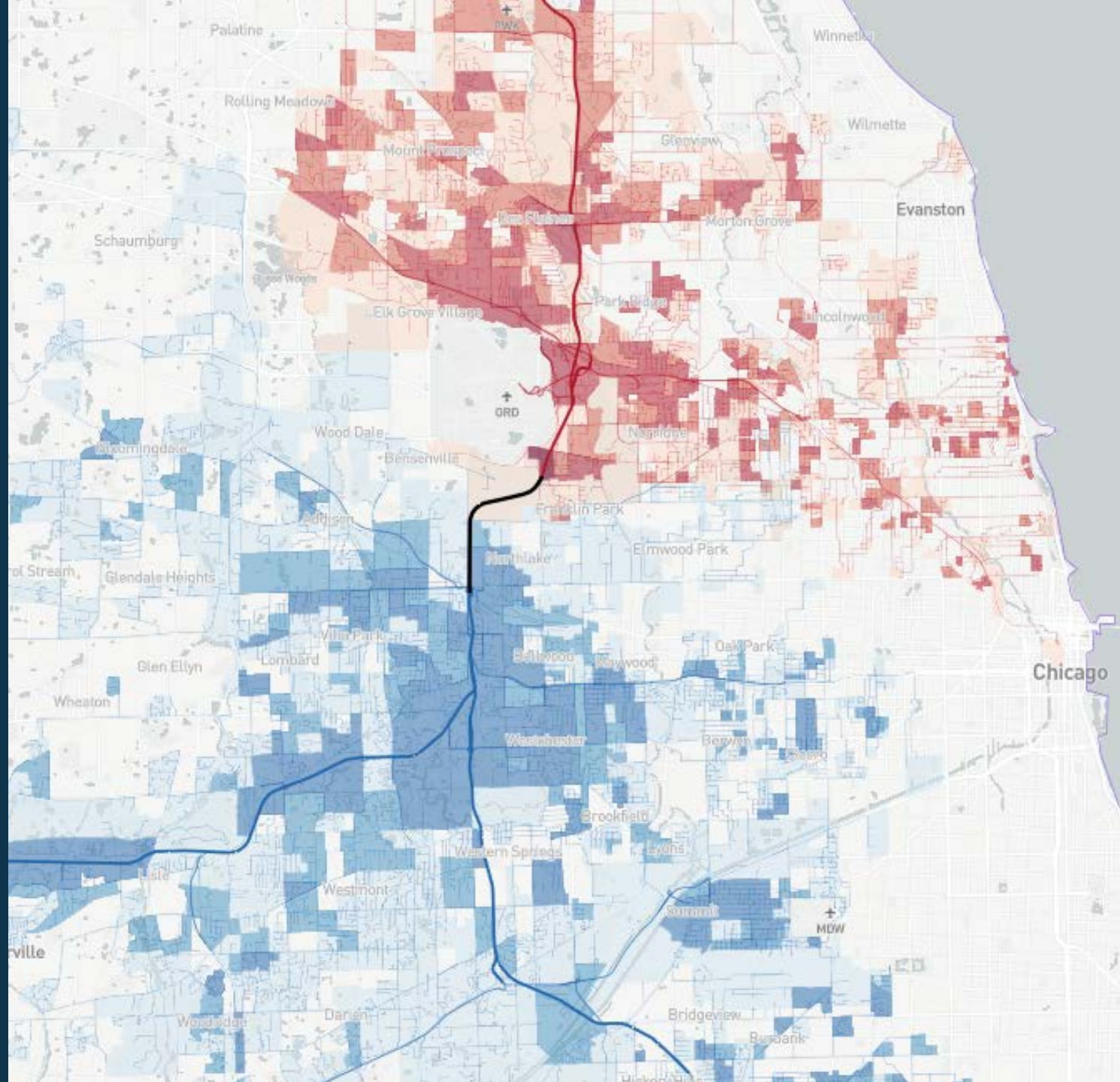
\$250^k-300^k

ADDITIONAL TRAFFIC INSIGHTS

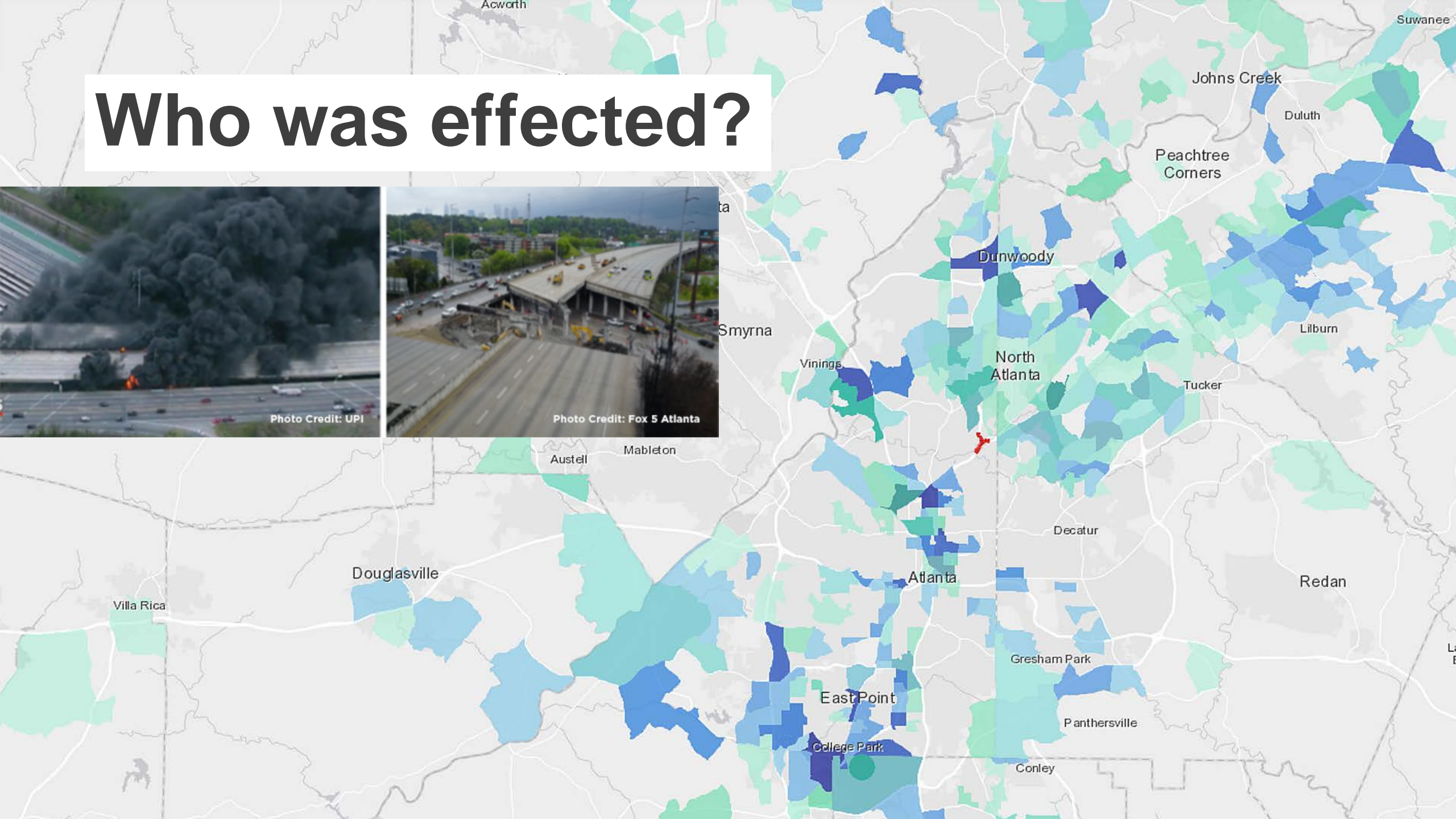
Origins, Destinations, and Paths

© 2006 The Authors

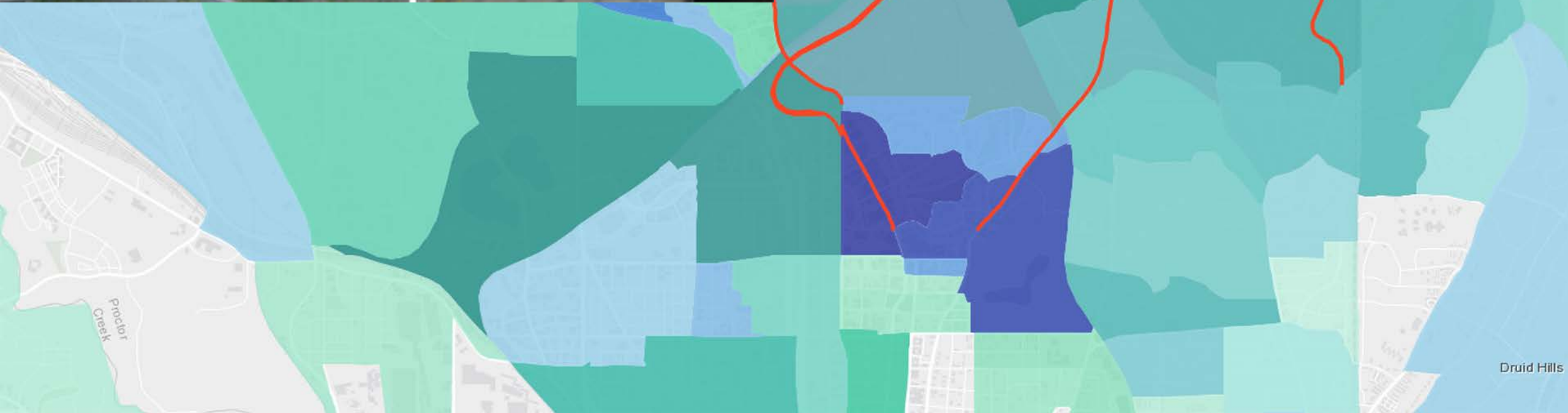
© 2006 The Authors
Journal compilation © 2006 Blackwell Publishing Ltd

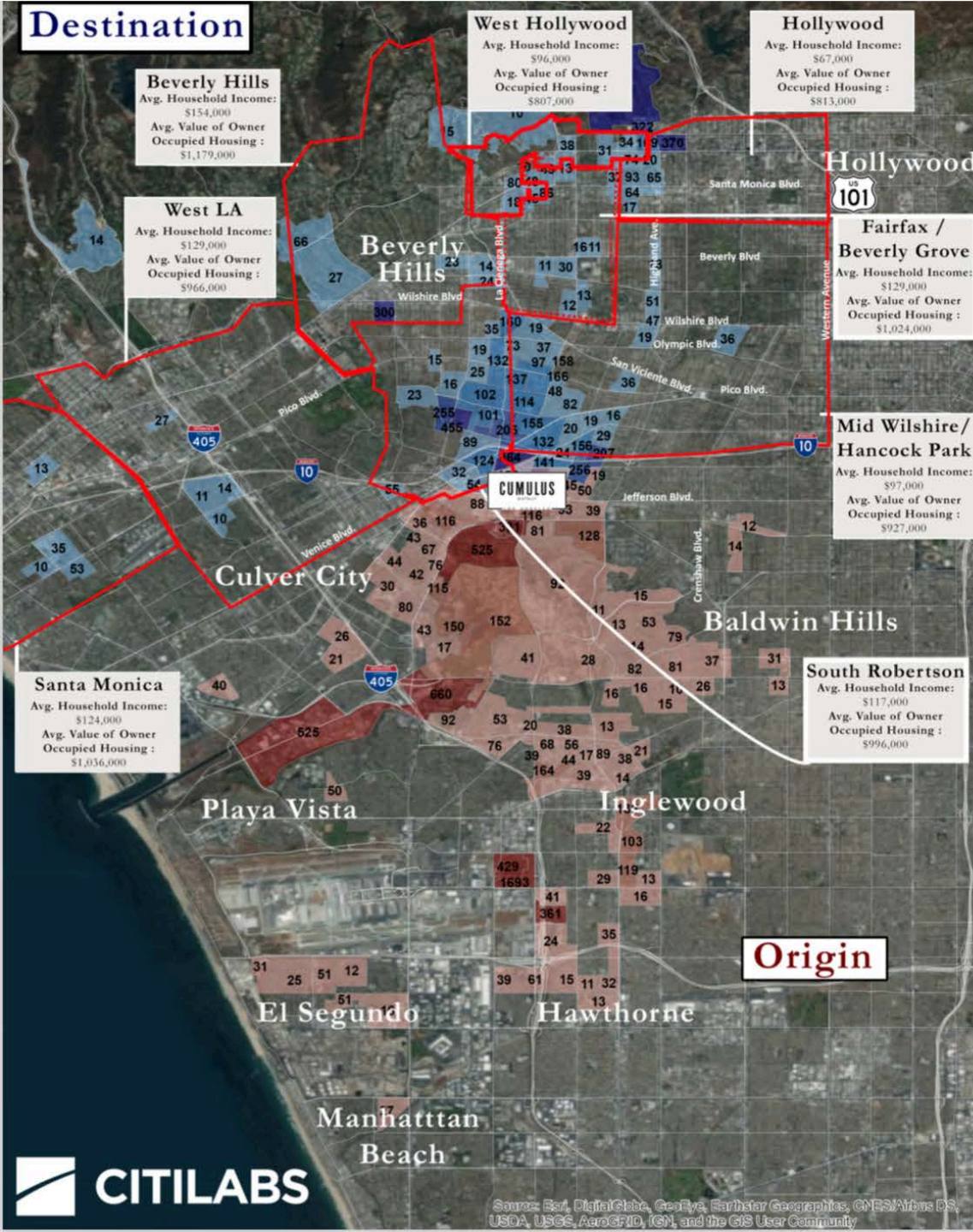


Who was effected?



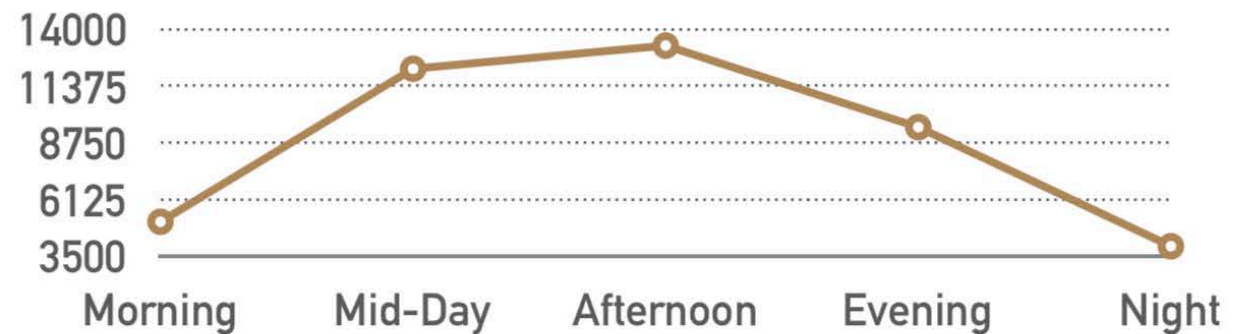
What alternatives did they take?





Commute Home

Daily	43,907
Morning (6-10AM)	5,073
Mid-Day	12,178
Afternoon (3-7PM)	13,254
Evening	9,465
Night	3,937

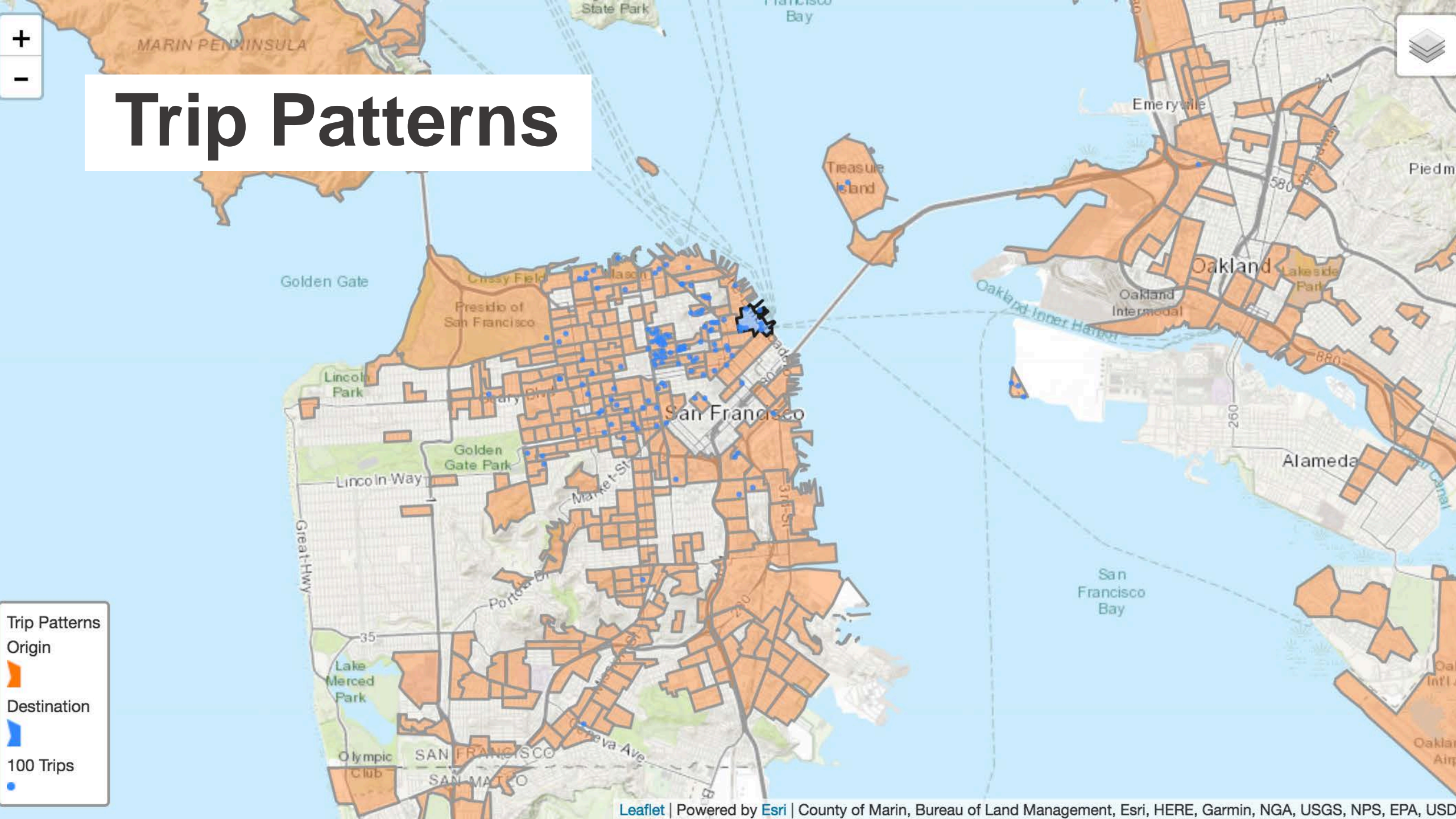


streetlytics™

Streetlytics pulls real information from billions of points of GPS, cellular, connected car, Bluetooth, ticketing, demographics, and ground truth data to paint the richest, most complete picture of the moving population.

Trip Patterns

Trip Patterns
Origin
Destination
100 Trips



ORIGIN
WORK 

DESTINATION
AIRPORT 

TRAVELER AGE

35-40

HOME LOCATION ZIP

10025

INCOME

\$75k-100k

ORIGIN
WORK 

DESTINATION
SHOPPING 

TRAVELER AGE

25-35

HOME LOCATION ZIP

10033

TRAVELER AGE

55-60

INCOME

\$250k-500k

Thank You!

Hugh Malkin | +1.404.993.4168 | hmalkin@citilabs.com

streetlytics™



CITILABS