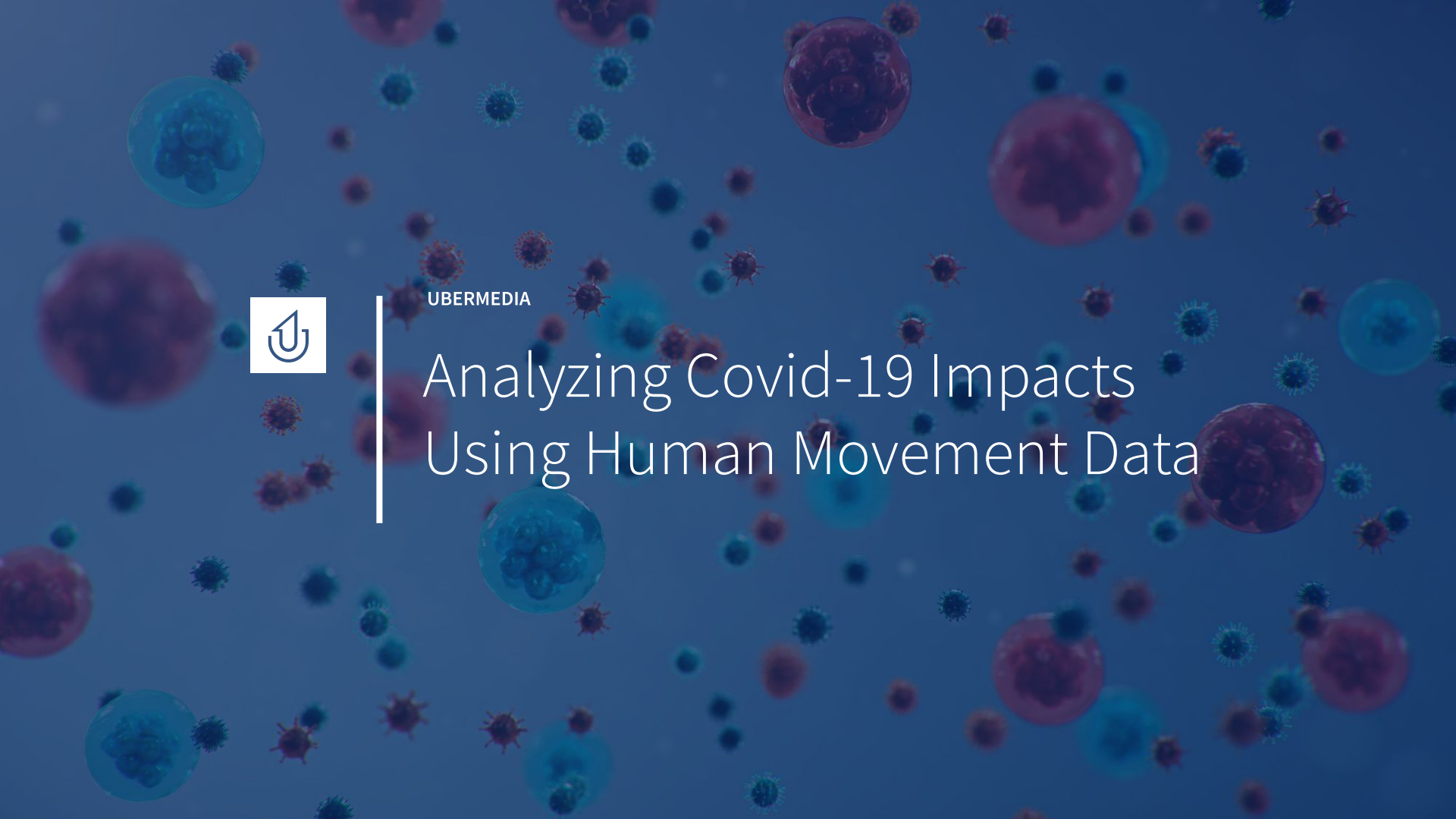


UBERMEDIA

Analyzing Covid-19 Impacts Using Human Movement Data

Our Panelists

Evelina Giang
Director of Analytics & Data Solutions

Kate Myers
VP of Product

Nathan Jones
VP of Data Science

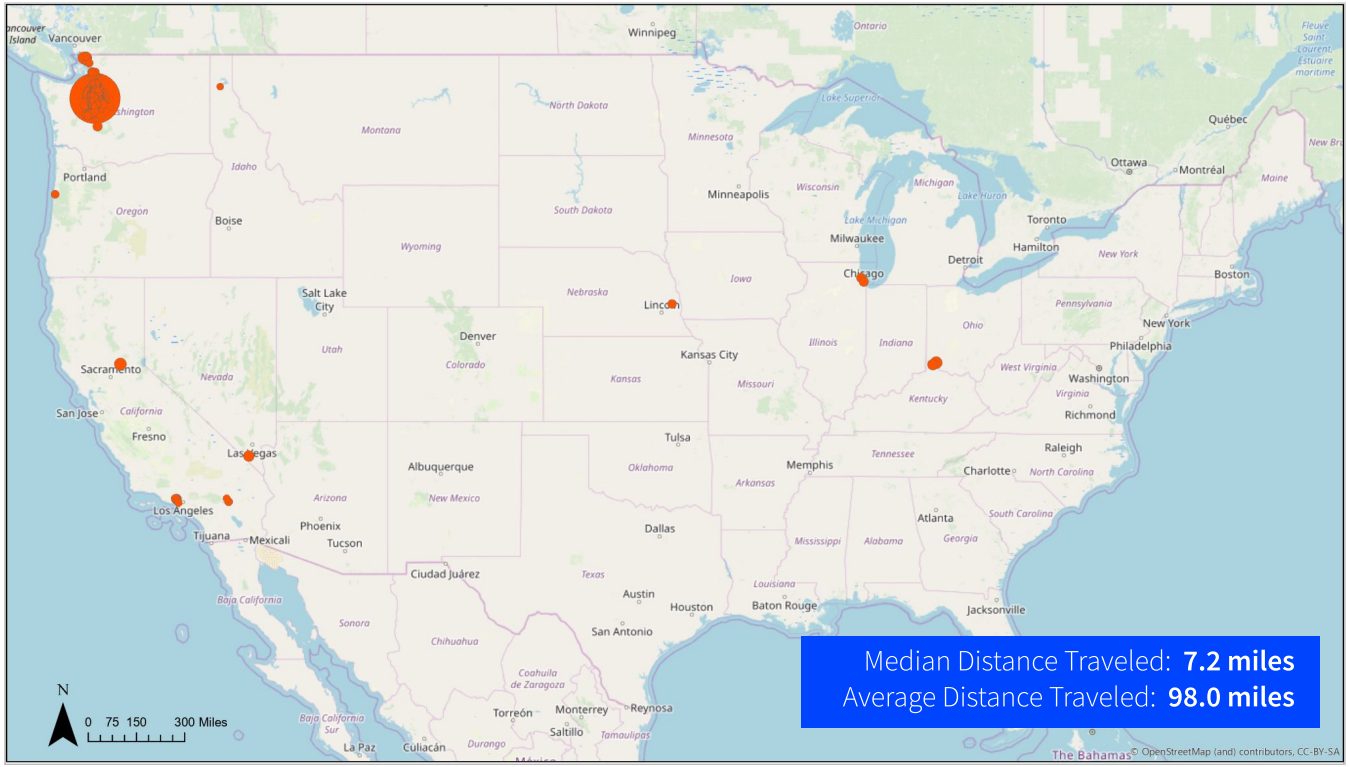
Life Care Center of Kirkland

Washington State

First Reported Case:
February 19

Analysis Dates:
February 15 to March 7

2 weeks after first ping in study location



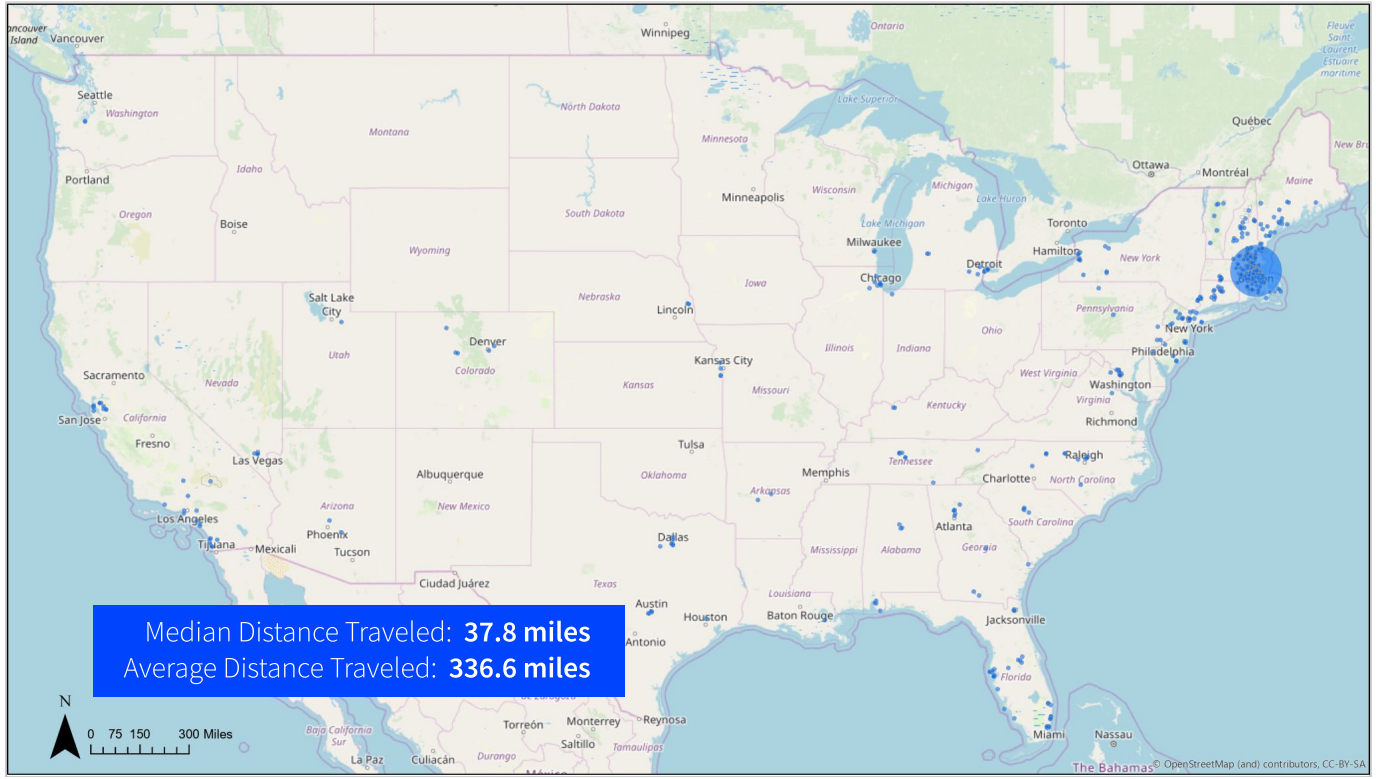
Biogen Conference

Boston Marriott Long Wharf, Massachusetts

Conference Dates:
February 26-27

First Reported Case:
2 days after conference

2 weeks after first ping in study polygon



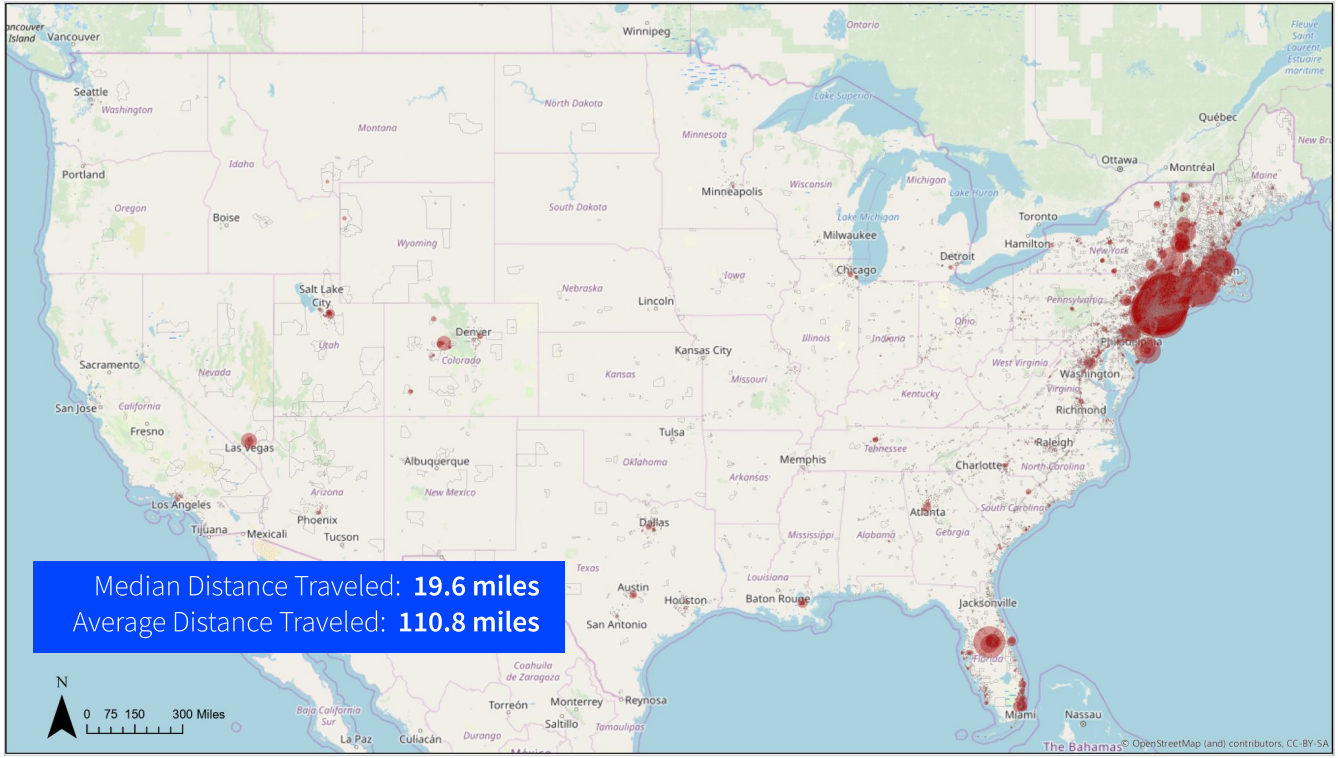
Young Israel of New Rochelle

New York

Patient started showing signs of illness:
February 22

Analysis Dates:
February 15 to March 15

2 weeks after first ping in New Rochelle



Agenda

Today we will be covering:

1. The impact of **social distancing** in US and International Cities
2. Analysis of devices **traveling** away from home in various cities
3. Methodologies for **retail** analysis to analyze impacts to foot Traffic on a store-by-store basis
4. Introduction to the **researcher's toolkit**
5. **What's next** for UberMedia and what resources we Can offer in the near future

OUR HISTORY

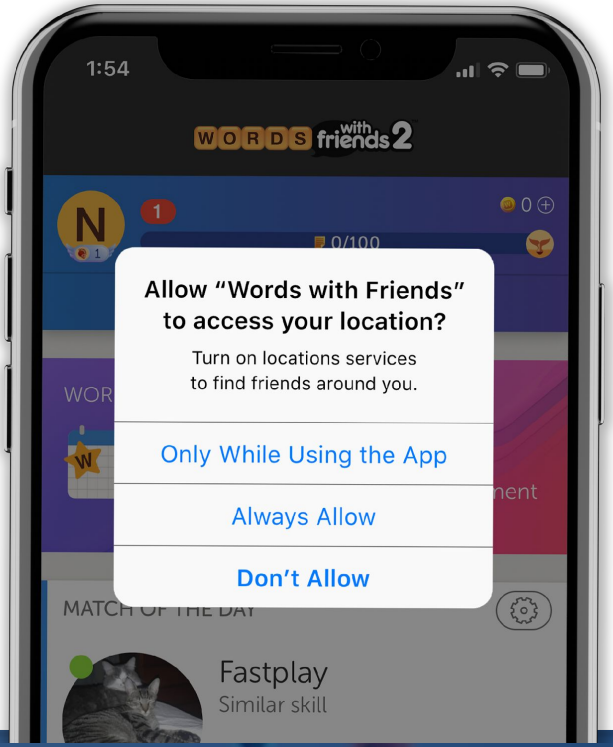
Mobile data experts, continually evolving to leadership positions in the mobile ecosystem.

2010
Founded as an app publisher and social media company

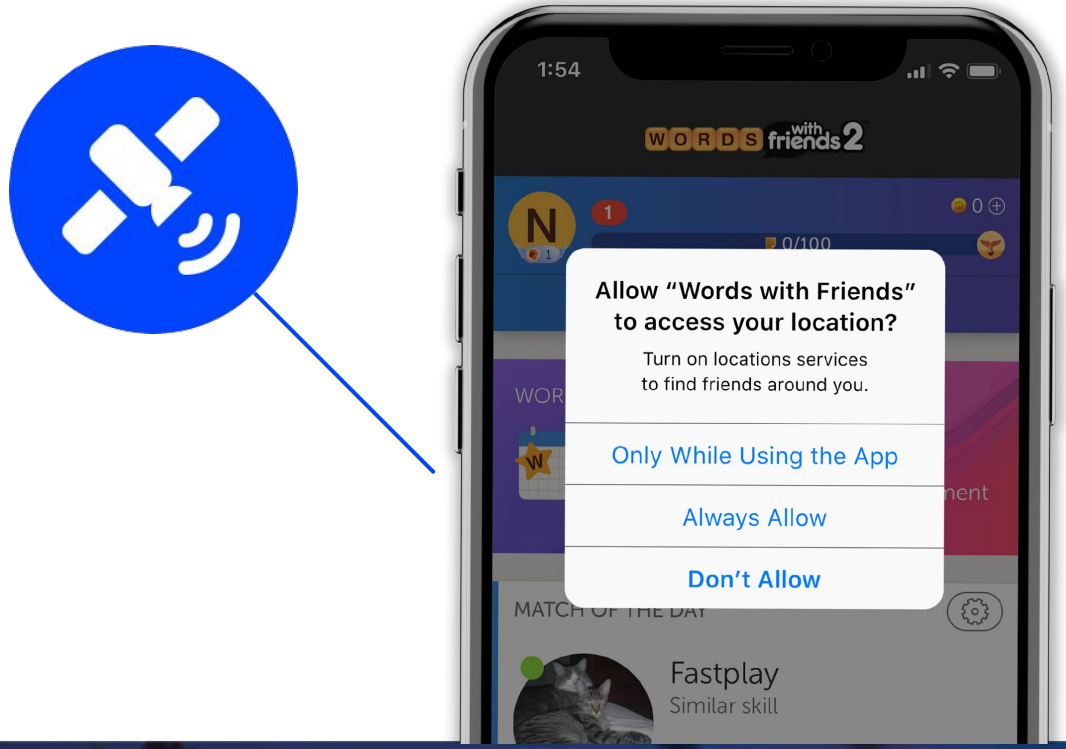
2013 - 2015
Media platform, powered by machine-learning optimization

2015
Evolution to market leadership position in location intelligence

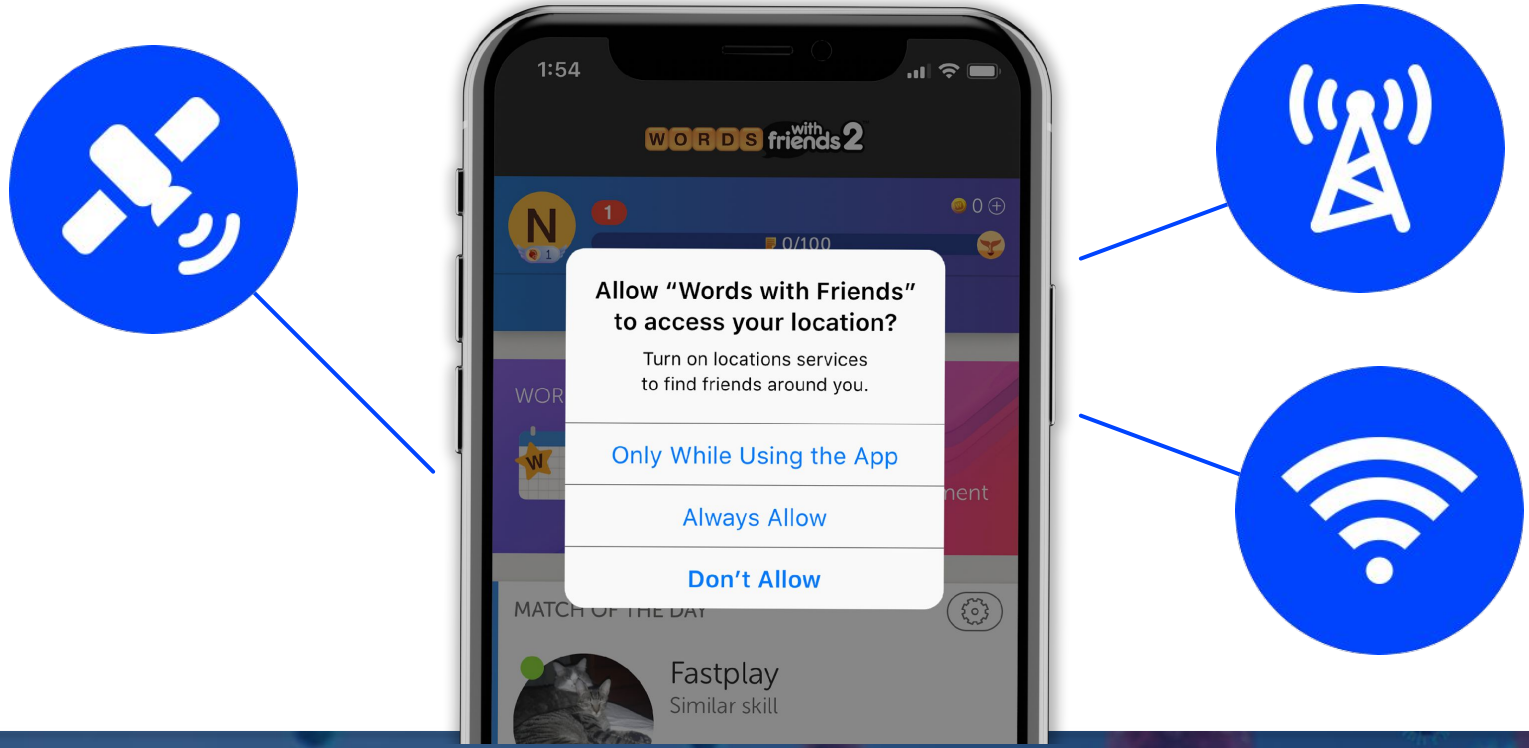
How Mobile Location Data is Gathered



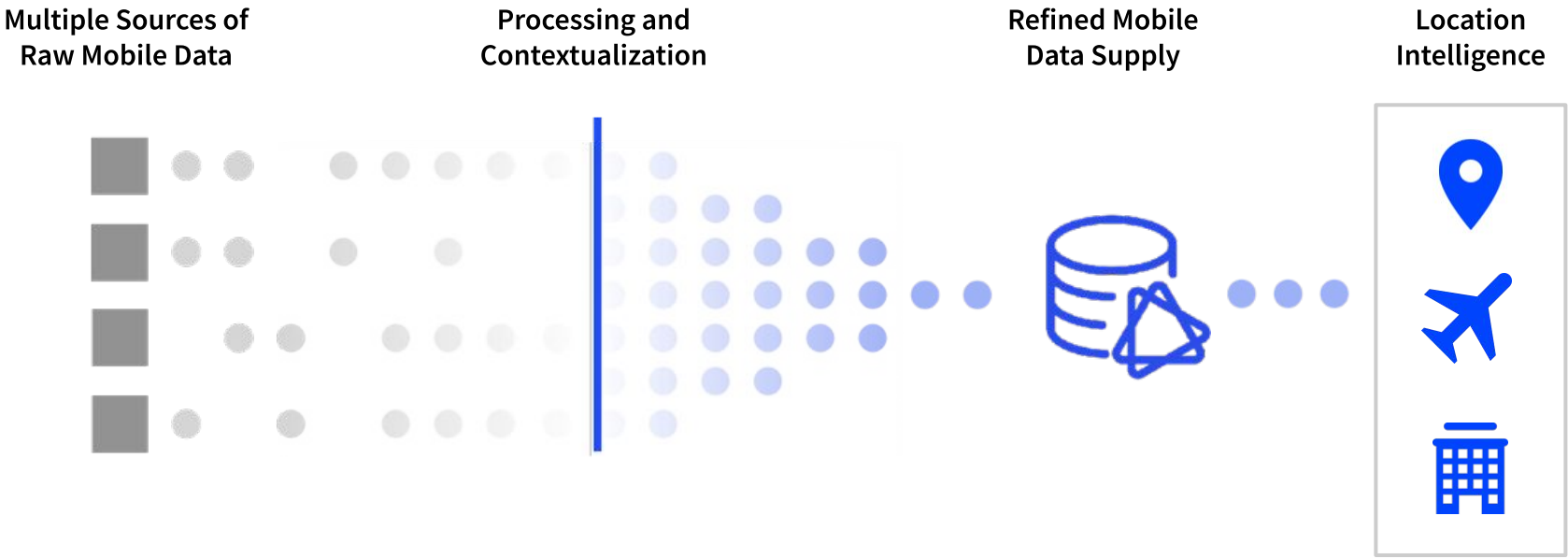
How Mobile Location Data is Gathered



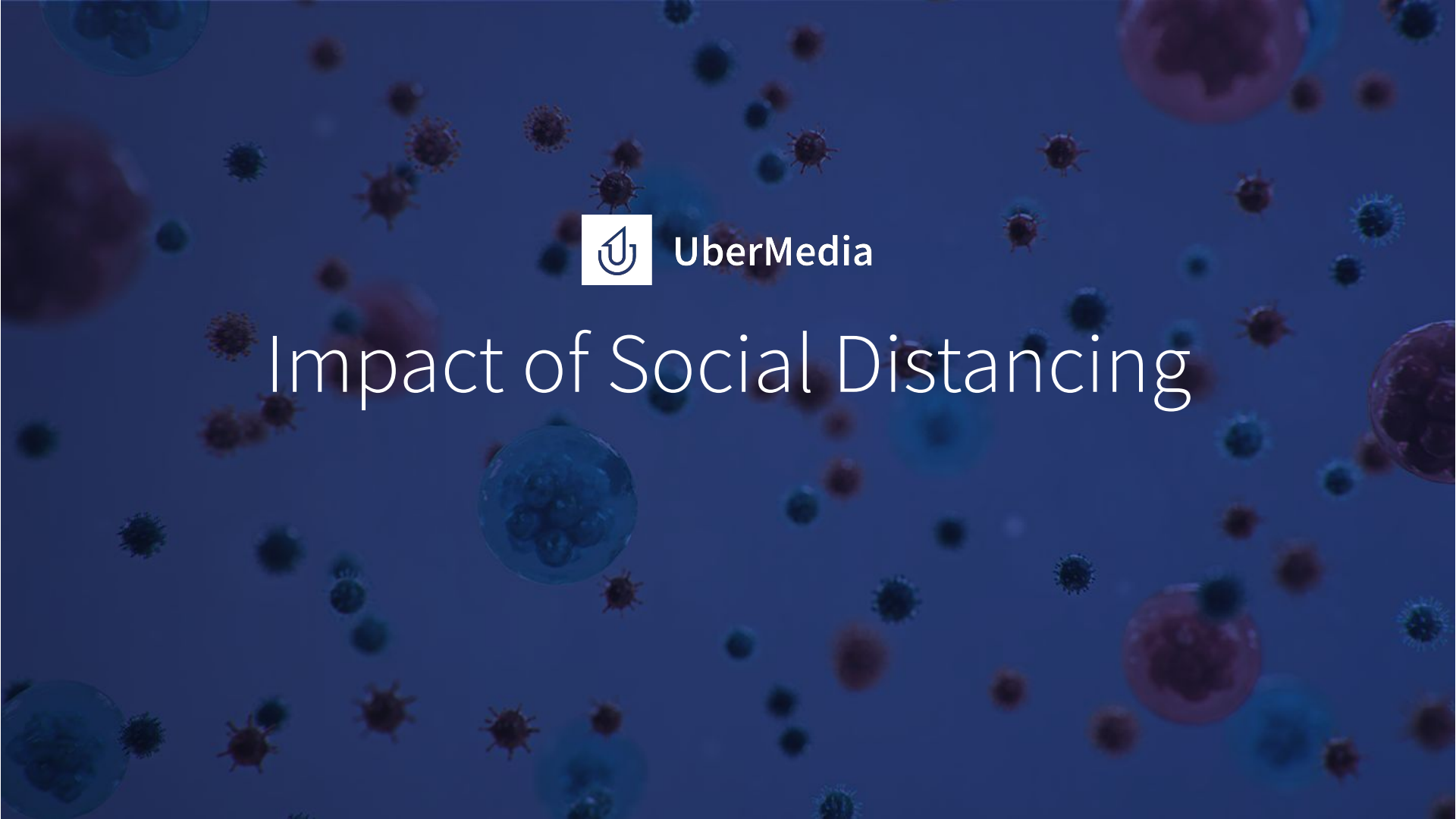
How Mobile Location Data is Gathered



Multiple Source of Data Refined Into Solutions



Accessing data on
14 Trillion
TOTAL LOCATION OBSERVATIONS
1 Billion
MONTHLY GLOBAL DEVICES
300 Million
MONTHLY AMERICAN DEVICES
5 Years
OF HISTORIC DATA
UberMedia


UberMedia
Impact of Social Distancing

Geofence and Select Time Frame

Manhattan Village,
Manhattan Beach, CA

Time Frame:
February 15 to
March 17, 2020

Measuring Social Distancing

It starts by defining “Public Spaces”

Restaurants

Markets

Churches

Bars and clubs

Offices

Transit

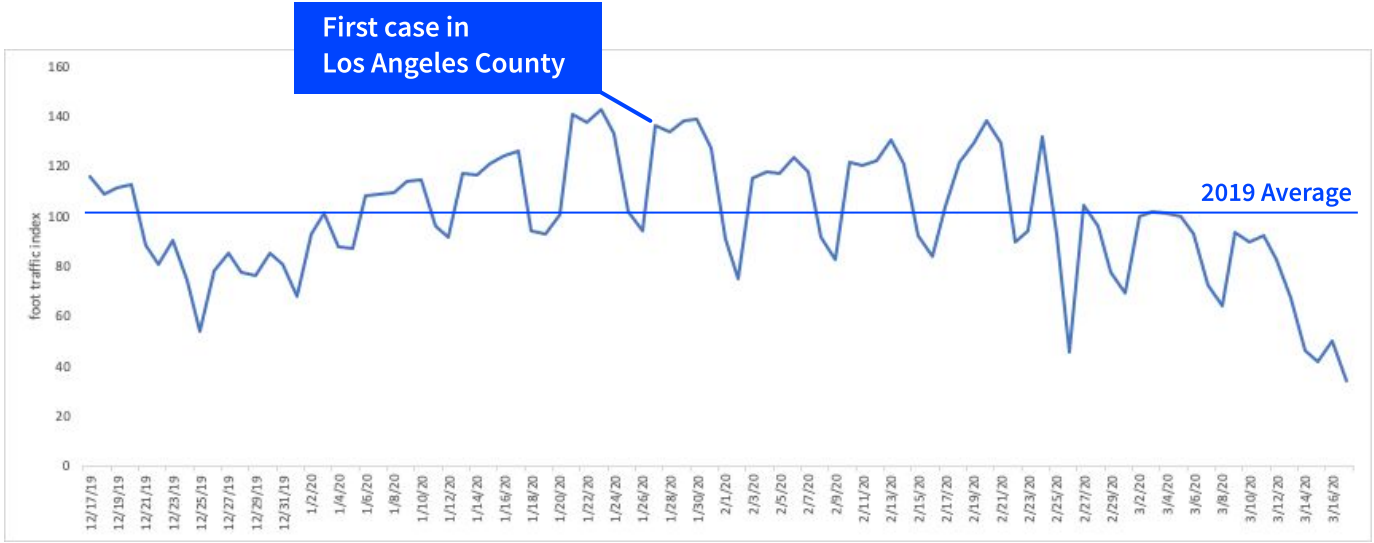
Museums

Universities

Airports

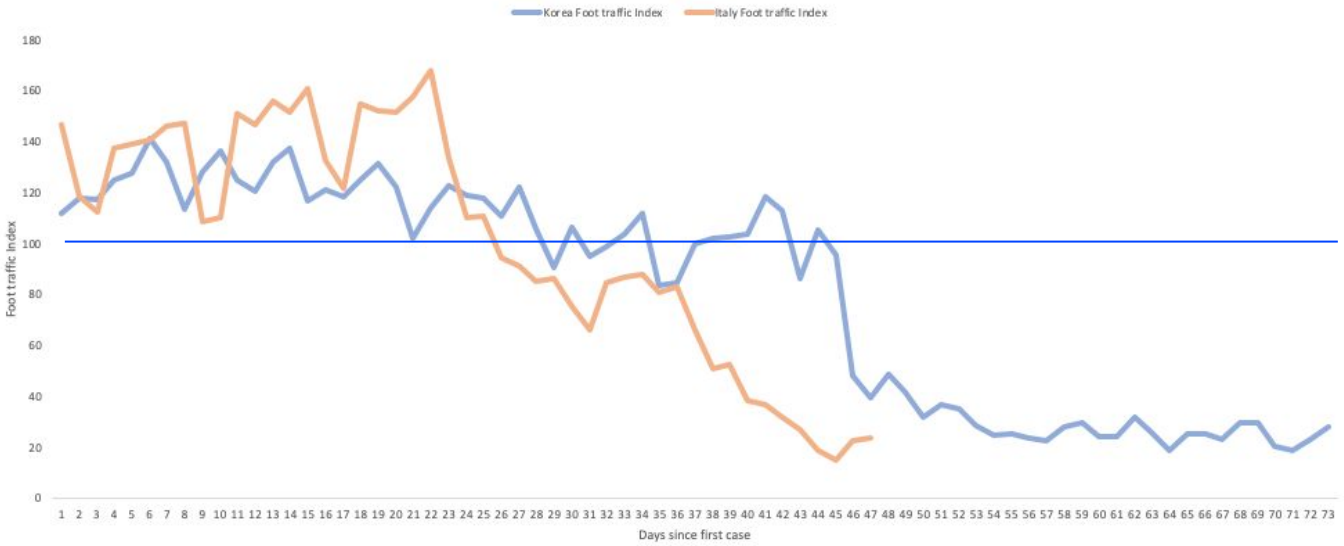
Measuring Social Distancing

Then, count # of devices in public spaces day-over-day and compare to an avg creating a foot traffic index



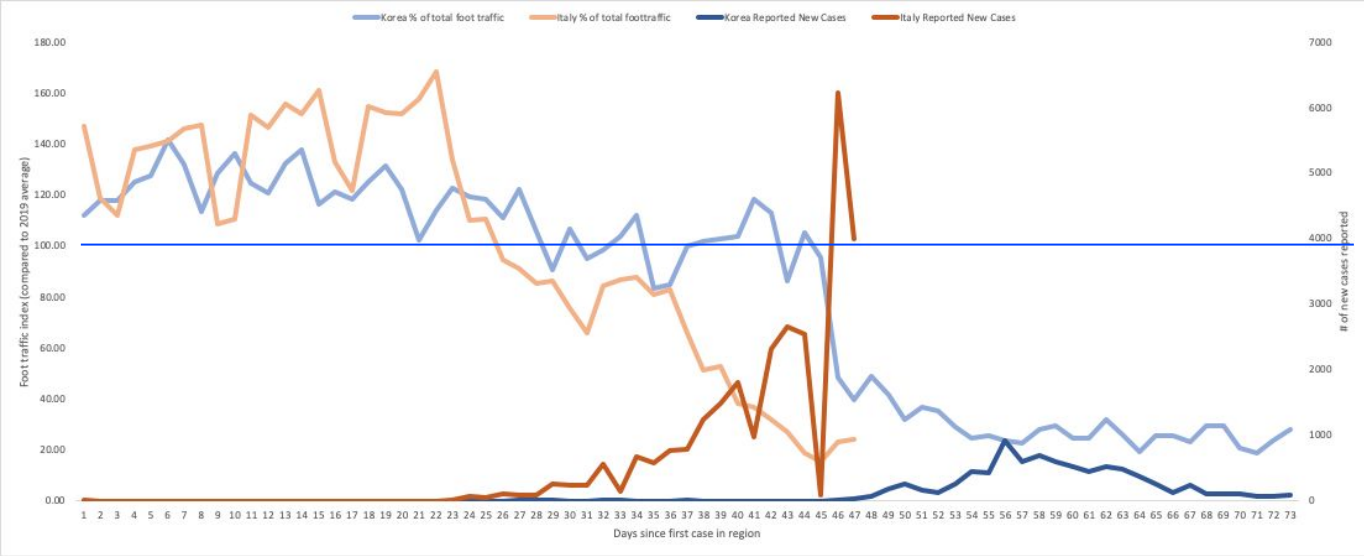
Measuring Social Distancing

Plot foot traffic index for two high-profile Covid-19 Pandemic locations (S. Korea and Italy)



Measuring Social Distancing

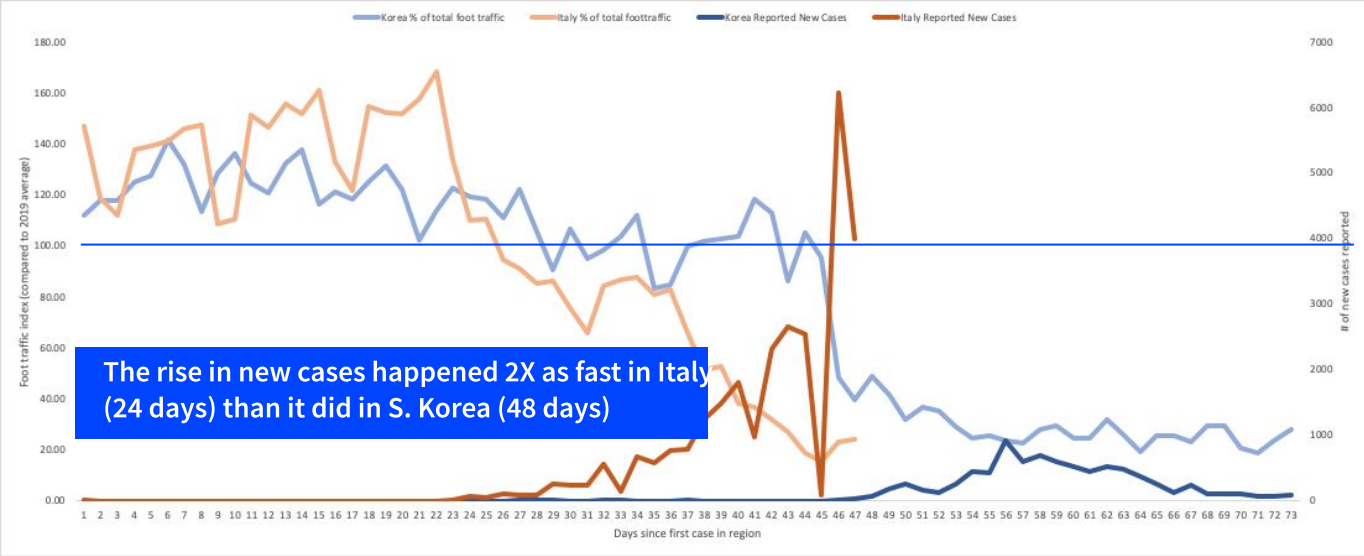
Compare public space foot traffic index vs. # of reported cases (S. Korea and Italy)



Measuring Social Distancing

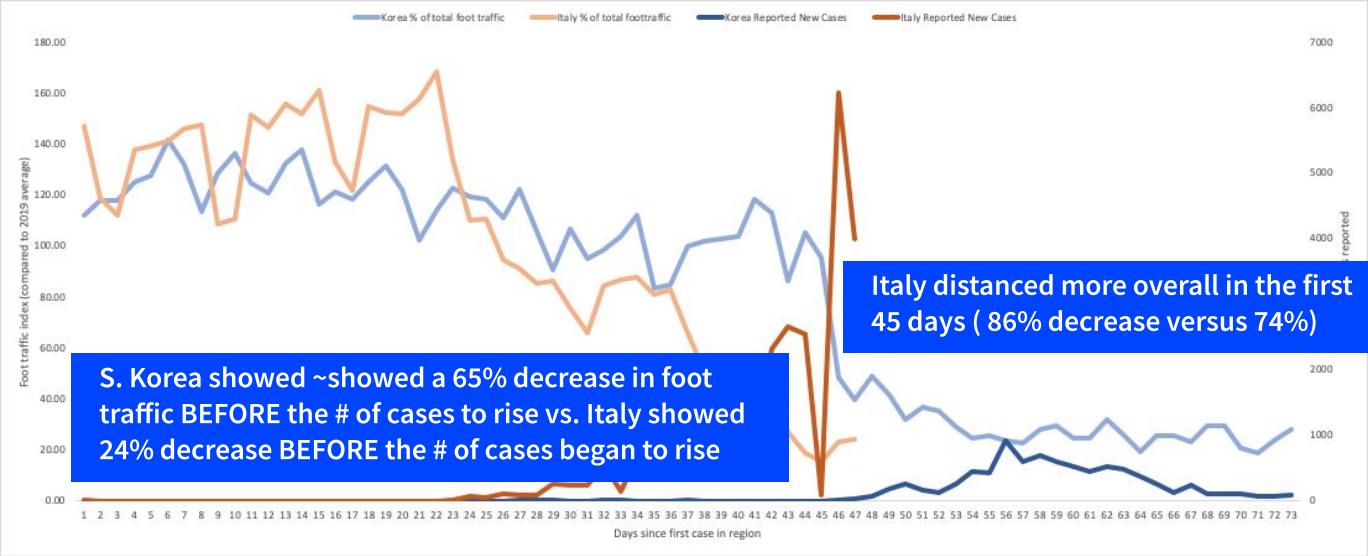
S. Korea showed ~10% more social distancing than Italy in the first 30 days

Insight #1:
Gradual, but immediate, distancing might slow spread



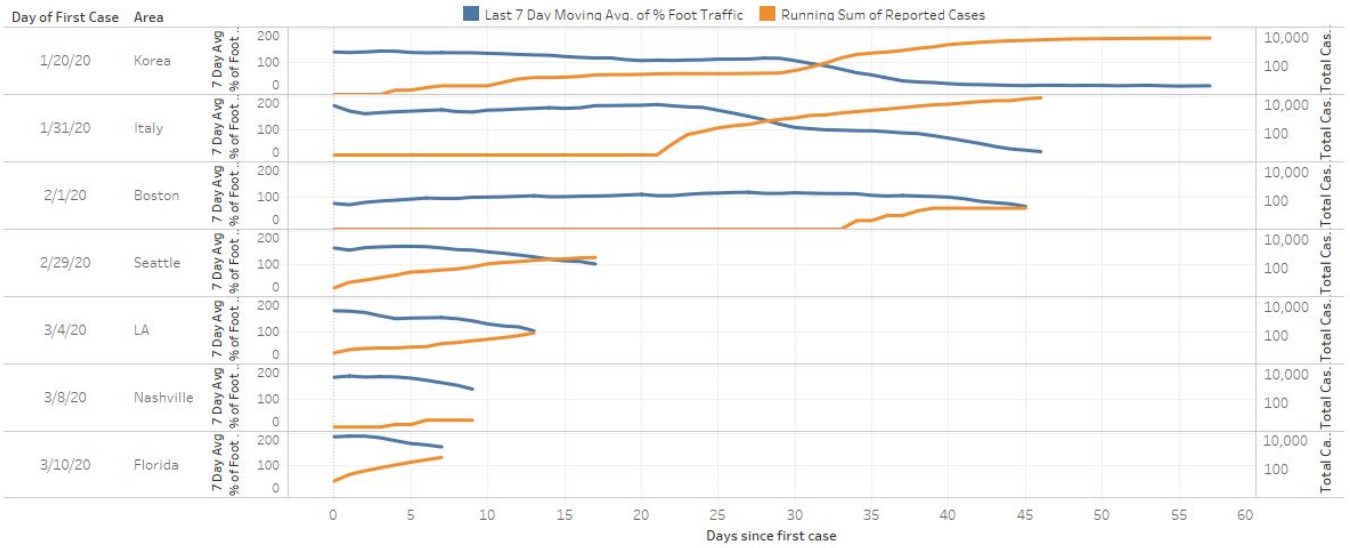
Measuring Social Distancing

Insight #2:
Timing of distancing might matter more than intensity of distancing



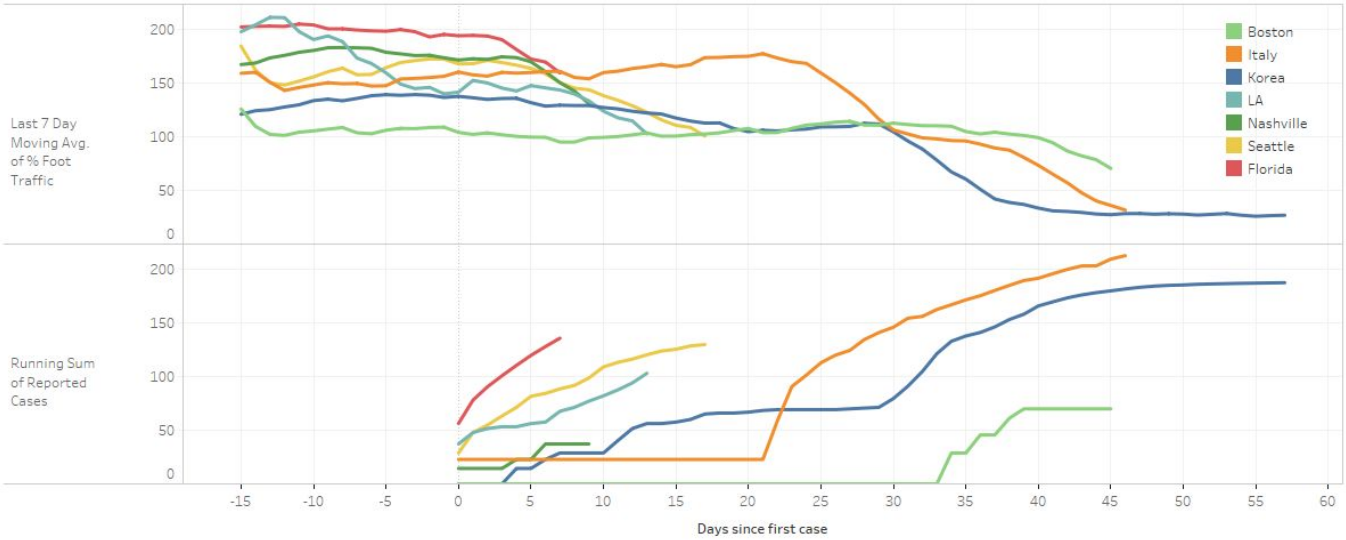
Measuring Social Distancing

Comparing emerging U.S. trends against more advanced outbreaks



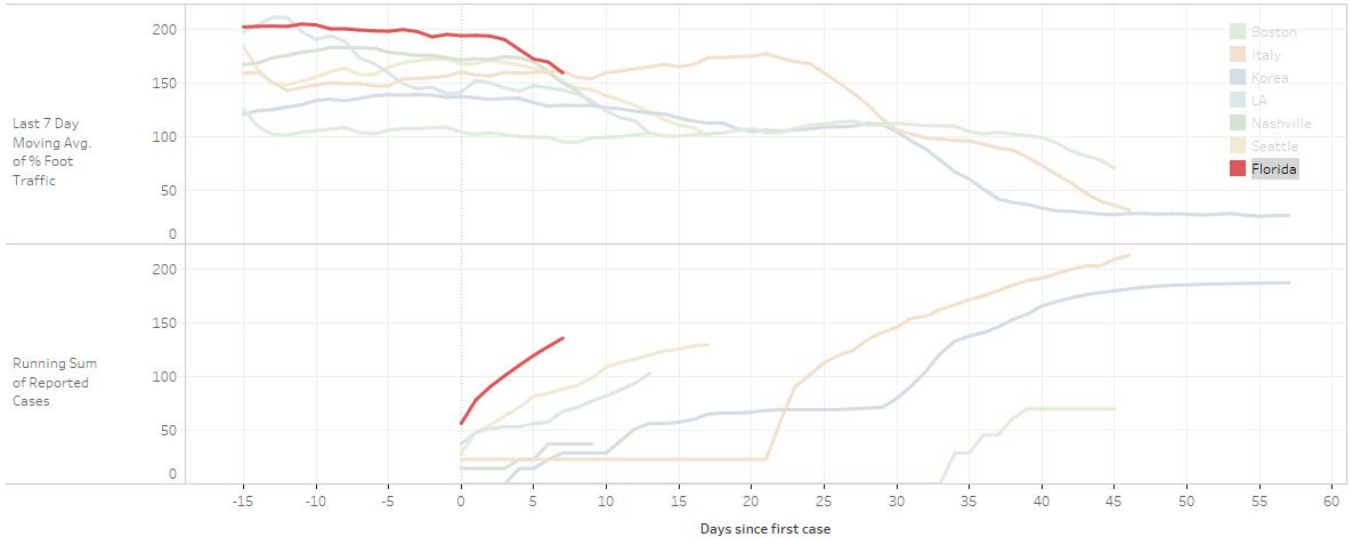
Measuring Social Distancing

Comparing emerging U.S. trends against more advanced outbreaks



Measuring Social Distancing

Comparing emerging U.S. trends against more advanced outbreaks



Measuring Social Distancing

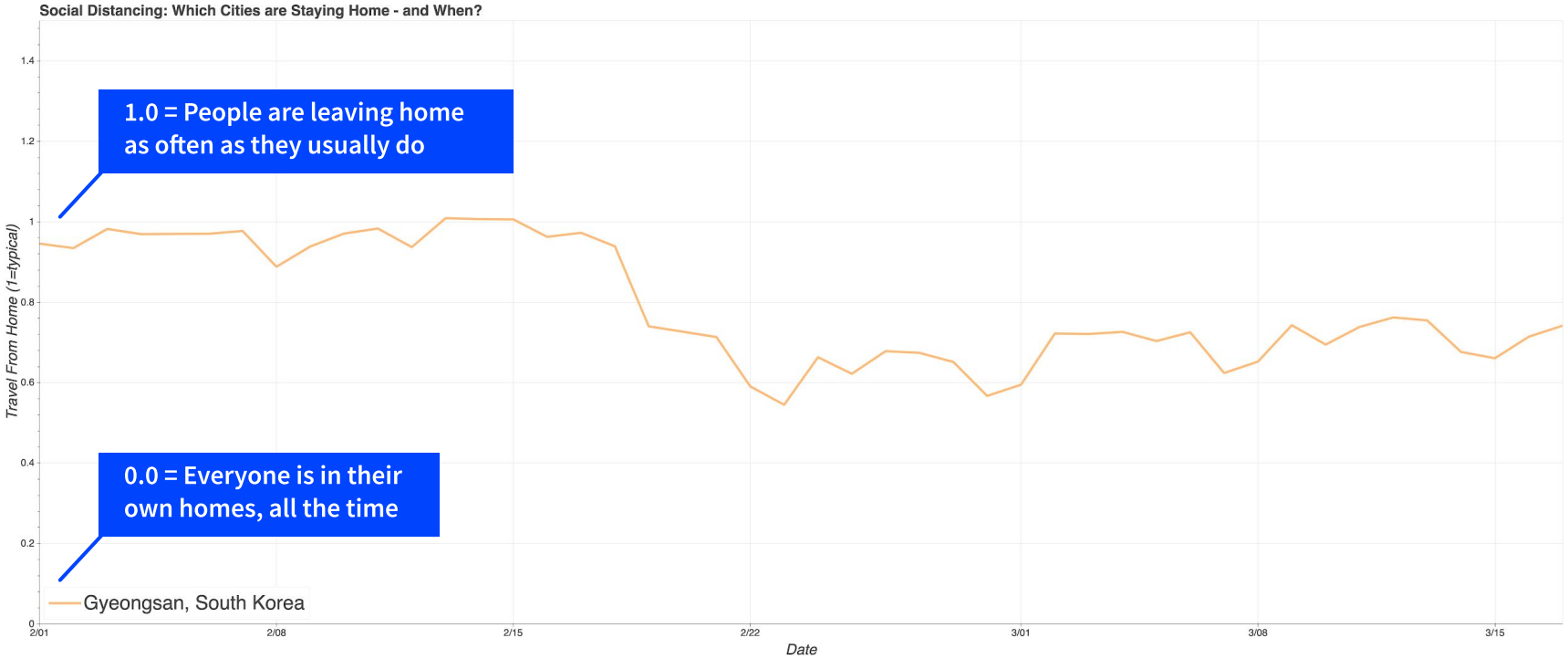
Applying this to other locations

- Define public areas
- Pull data
- Layer in public Covid-19 data

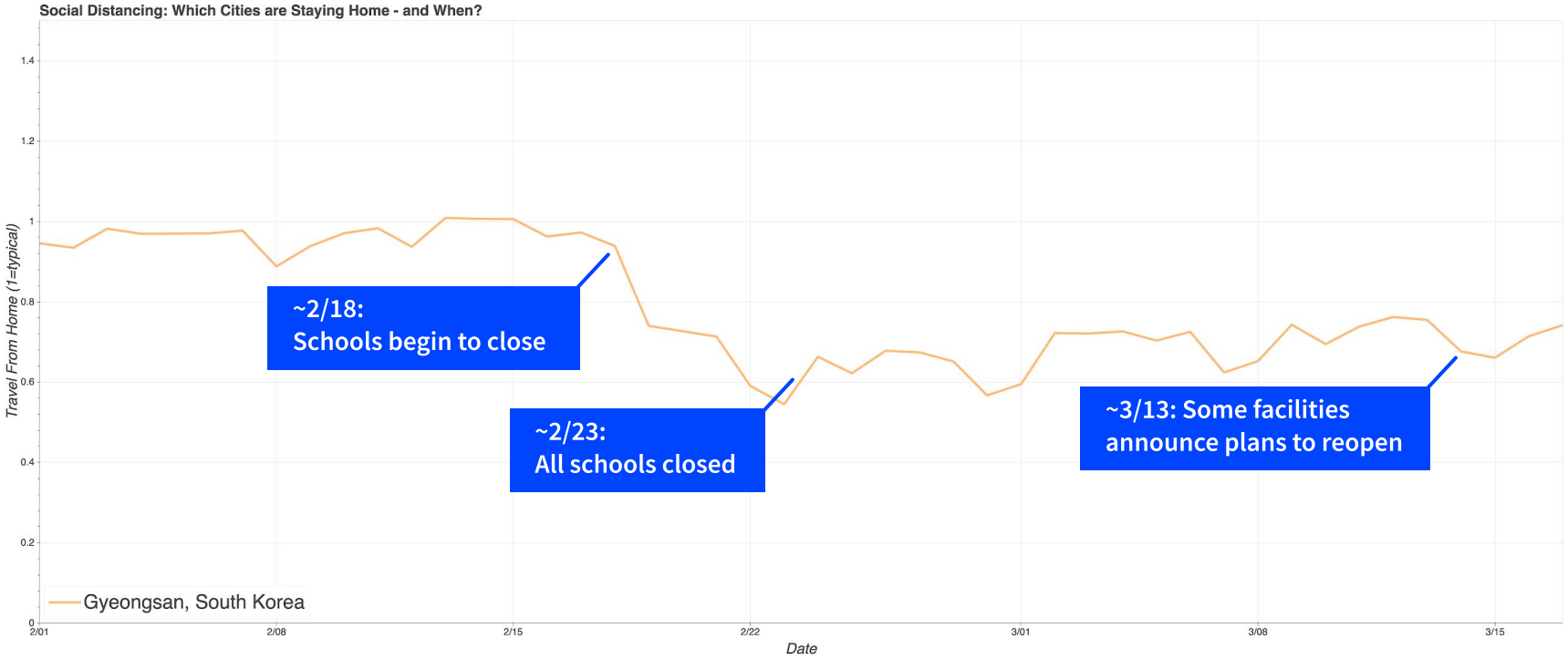
Prepare data on a city, county or state level & compare to publicly available benchmark data.

UberMedia
Traveling Away From Home

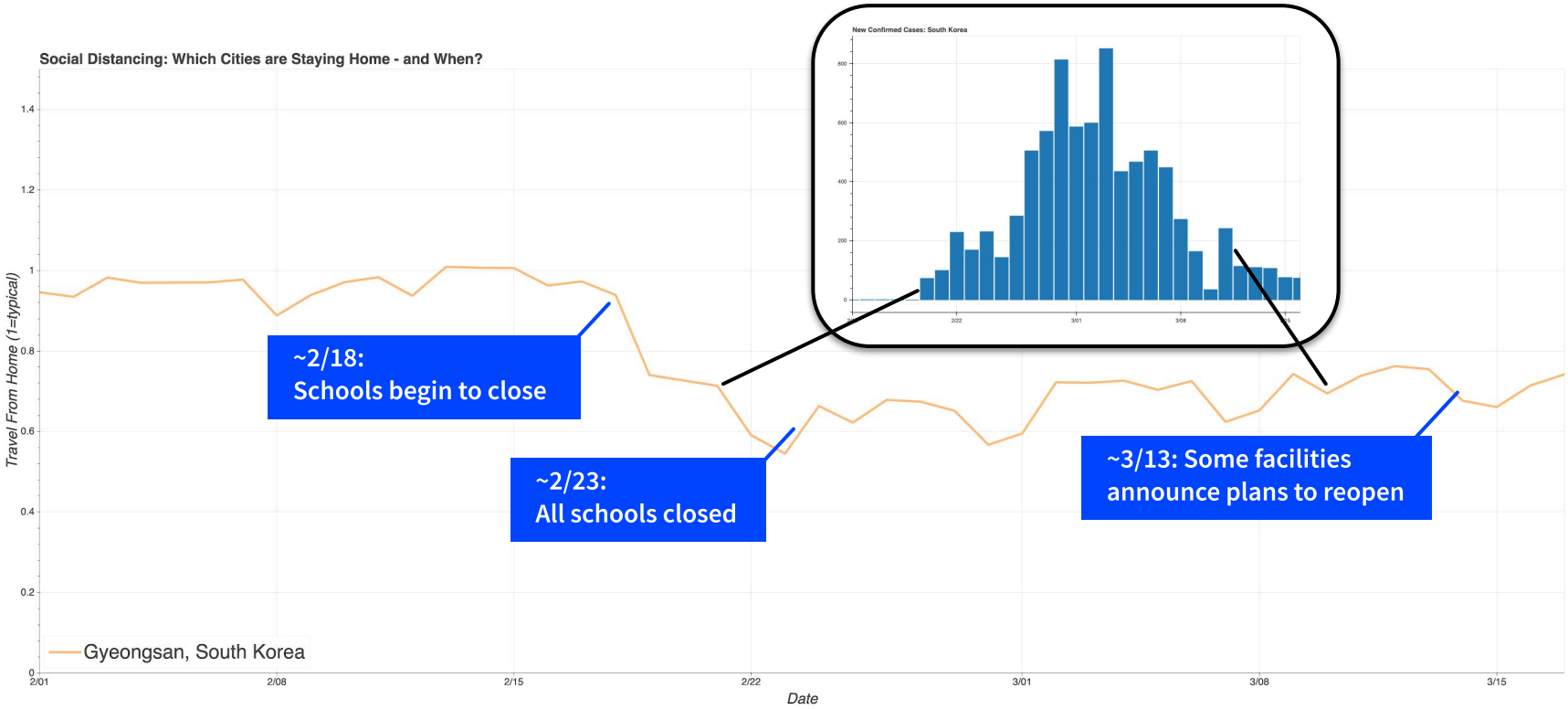
Traveling Away From Home: South Korea



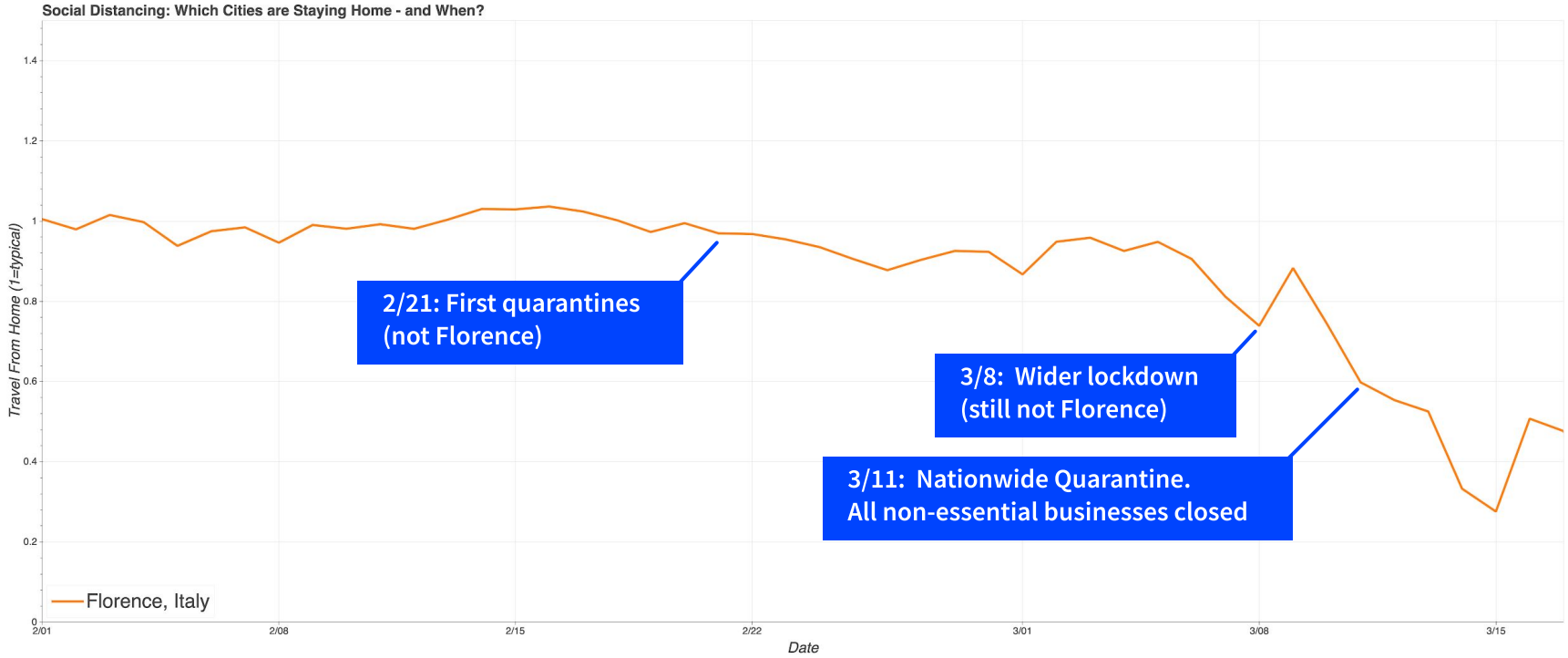
Traveling Away From Home: South Korea



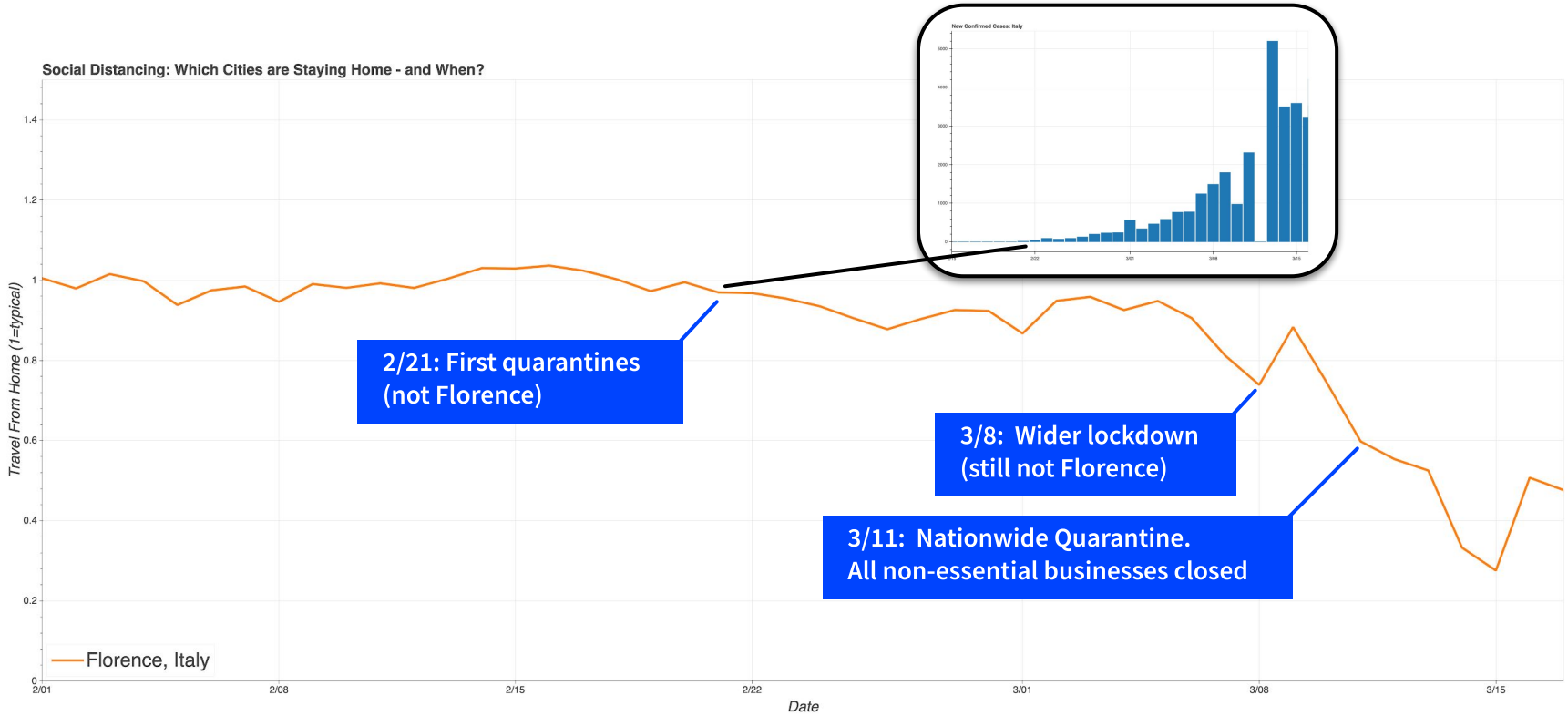
Traveling Away From Home: South Korea



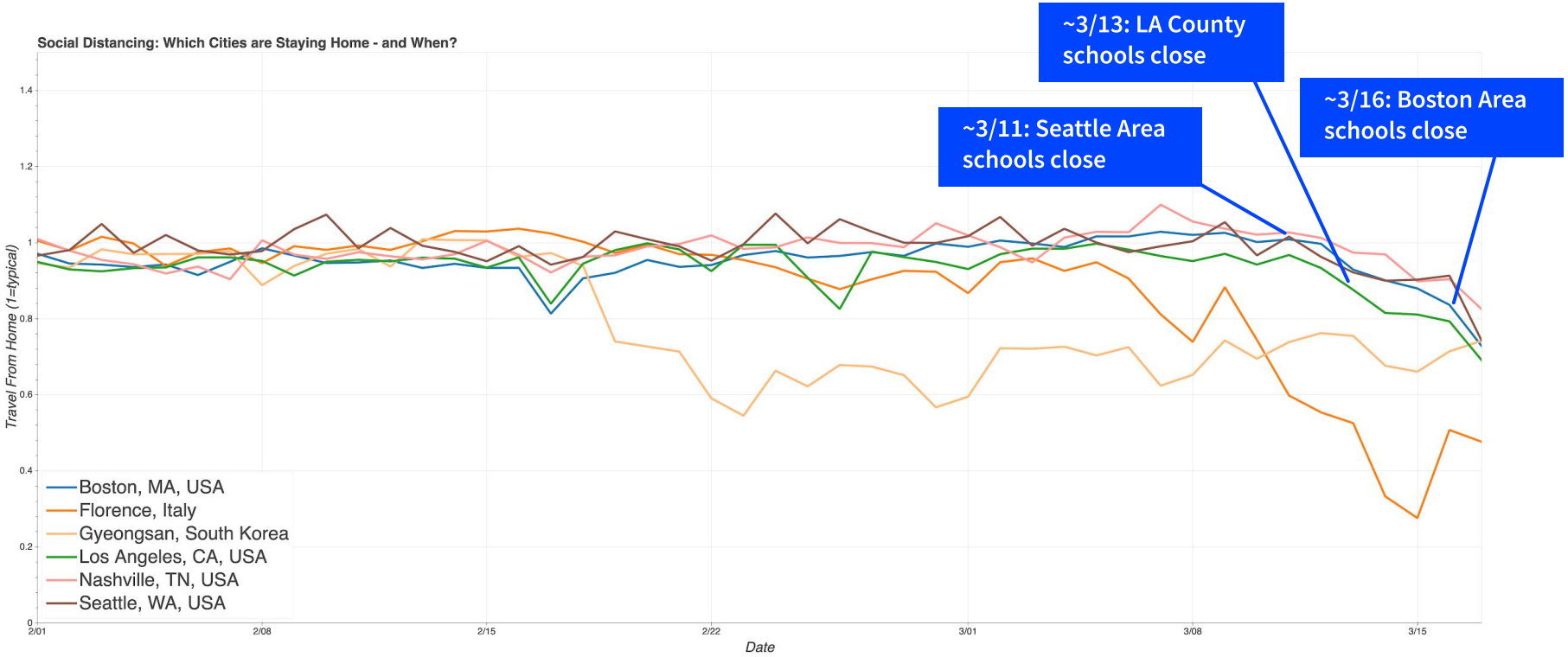
Traveling Away From Home: Florence, Italy



Traveling Away From Home: Florence, Italy



Traveling Away From Home



UberMedia
Covid-19 Brand Impact
Using mobile location data to understand the impact of
Covid-19 on brands and industry categories

Covid-19 Brand Impact

CASE STUDY:

Noodles and Company, Washington D.C. Metro Area

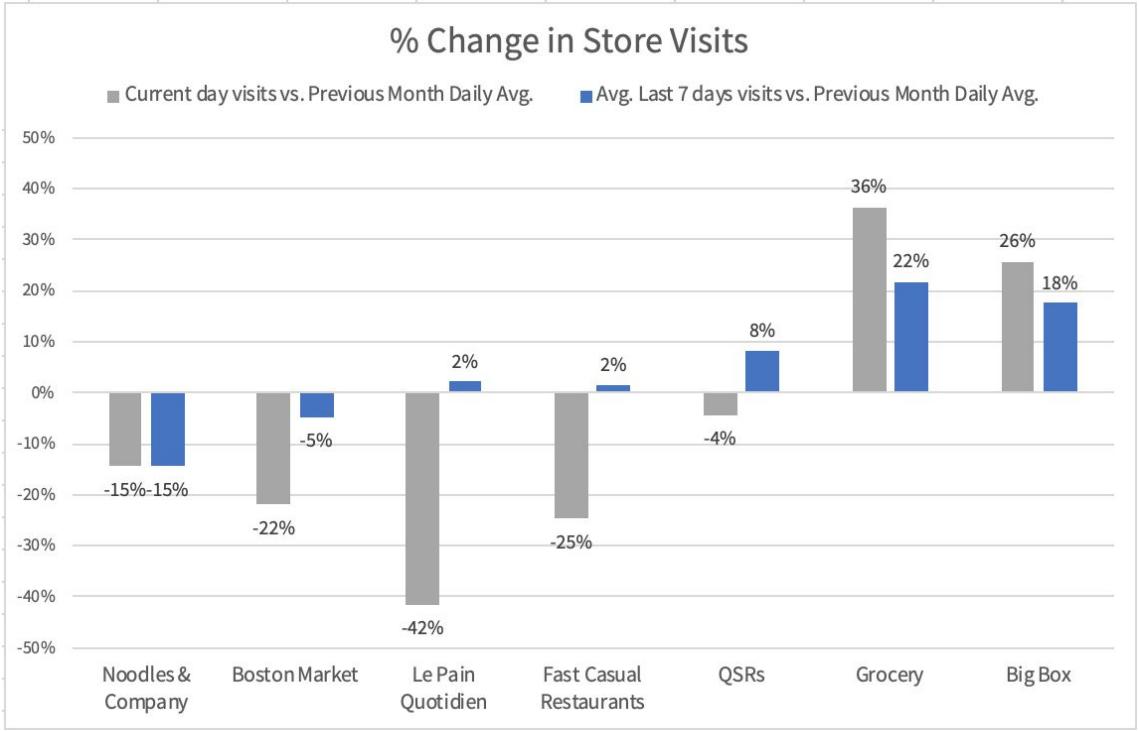
Methodology

- **Geofenced all brand and sector locations**
- **Pulled Visits Counts**

TIMEFRAME	DATES
Current Day	March 6
Previous 7 Days	March 7-13
Previous Month	February

Covid-19 Brand Impact – Noodles & Co

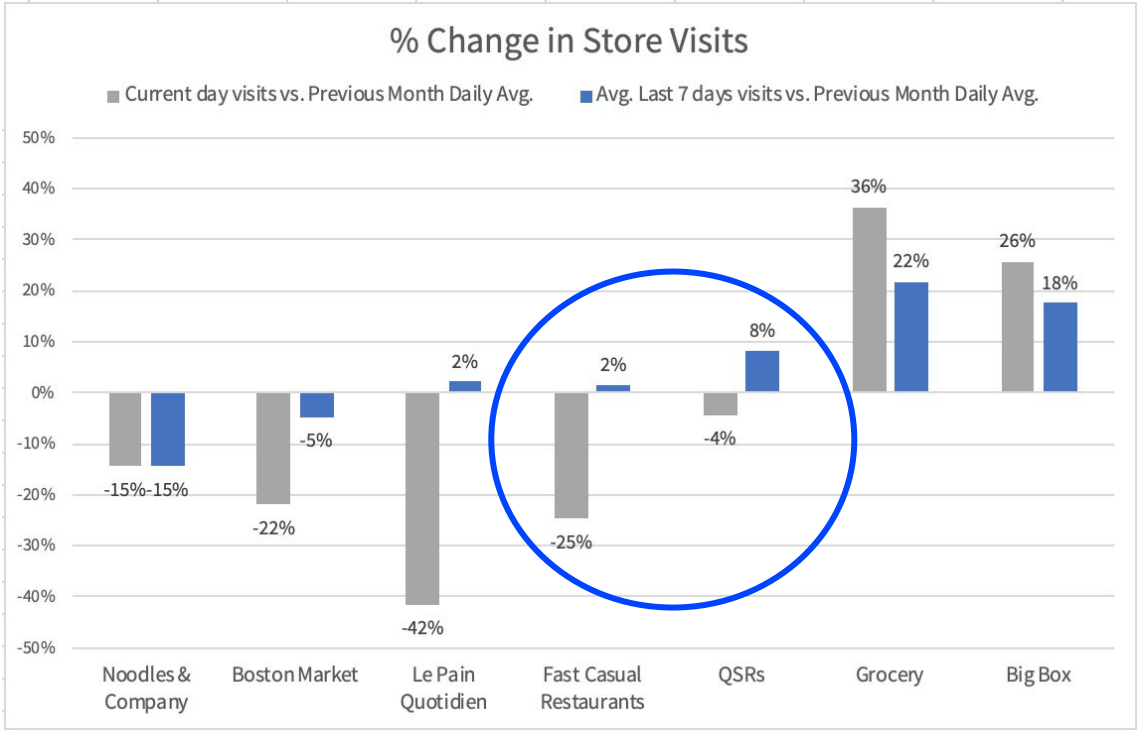
Larger drop seen in visits to **Le Pain Quotidien**, where individuals tend to dine in and most of the dining includes communal tables.



Noodles & Co Category Impact

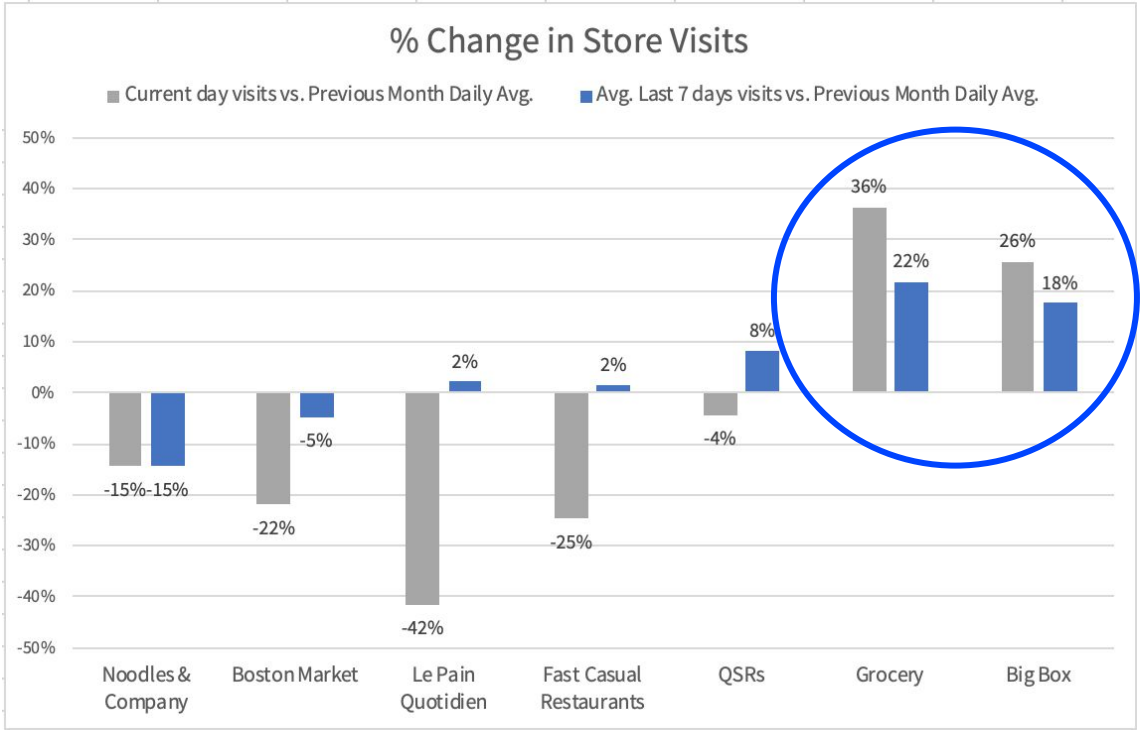
We see a larger drop in **fast casual** where people might tend to eat in the restaurant.

QSRs also typically have drive through which facilitates social distancing.

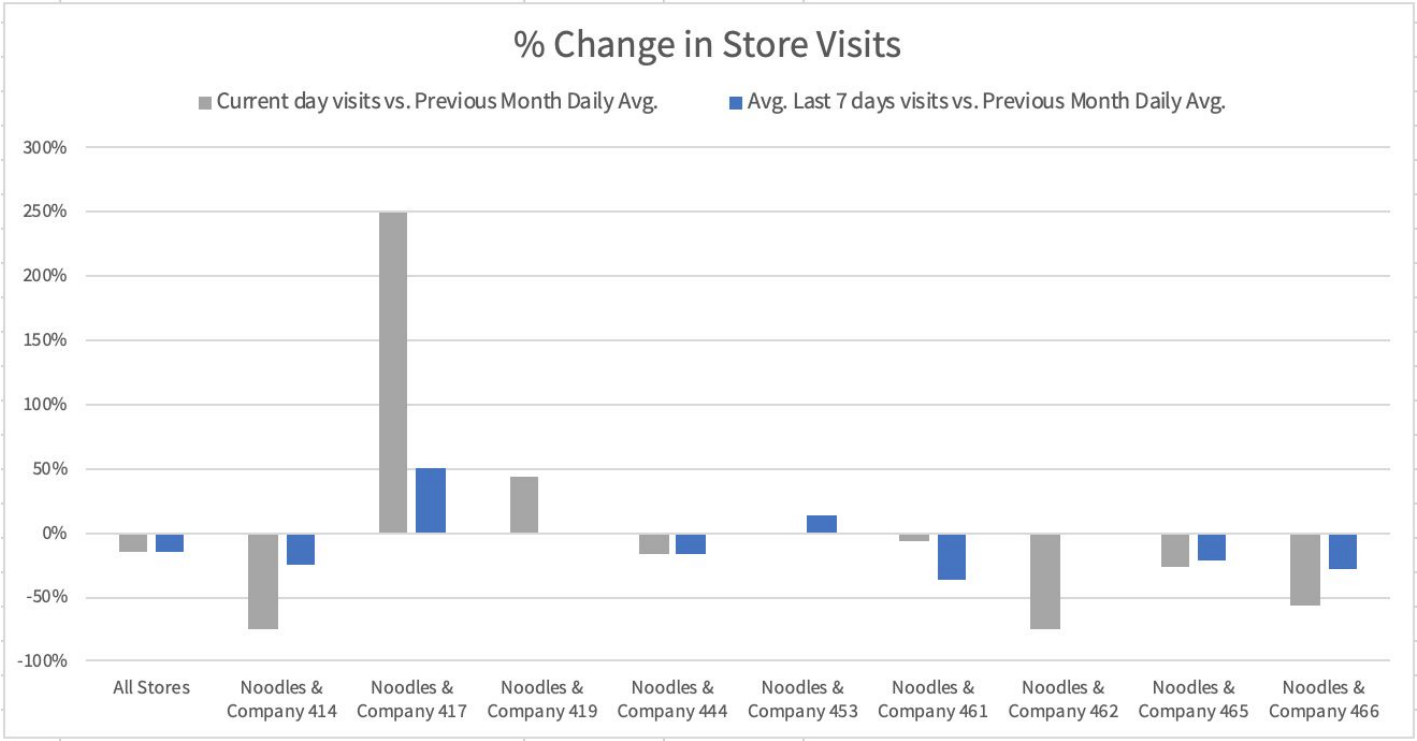


Noodles & Co Category Impact

Jump in visits to grocery and big box stores as people stock up on supplies.

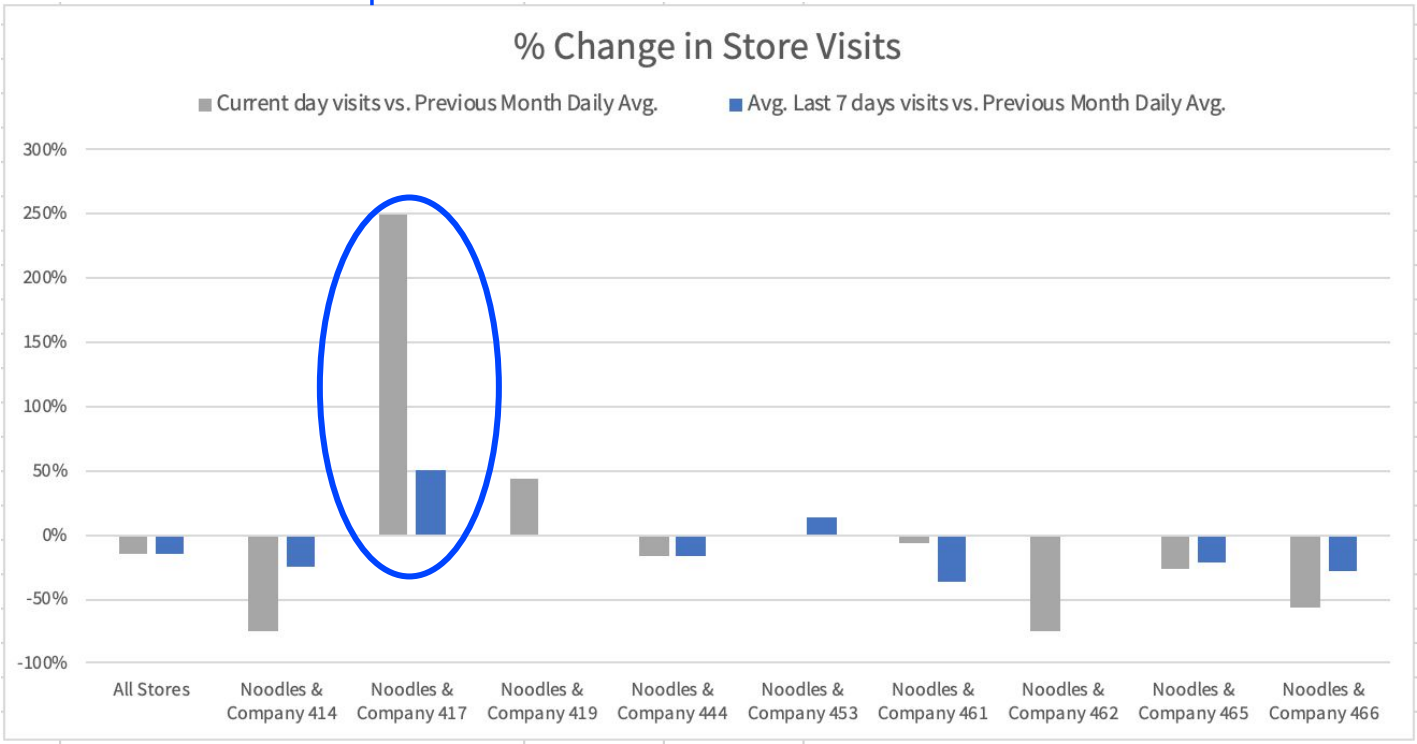


Noodles & Co Store Impact



Noodles & Co Store Impact

Store 417 saw a huge increase. It is located in a big shopping strip mall in a more residential area next to a grocery store.



Mobile Data & Covid19

Brand Impact Metrics

Brand Location Visitation Trends

% change in visitation over time for individual brand store locations

Competitor Locations Visitation Trends

% change in visitation over time for competitor brands and other categories/sectors

UberMedia
Covid-19 Public Policy Research Kit
Enables researchers to perform custom studies in their community

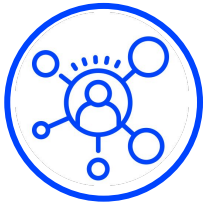
Covid-19 Public Policy Research Kit

Ubermedia will be providing a **Public Policy Research Kit** to enable studies for researchers and policy makers who work on the city, county and state level:

- **Social distancing trends**
- **Geographic outbreak prediction**
- **Retail impact by sector (grocery, fast food, etc.), neighborhood and specific location**

Covid-19 Public Policy Research Kit

The Public Policy Research Kit will contain:



Social distancing benchmark data (free)
Social distancing index for 5+ benchmark locals

Special access to Data Explorer Tool
Enables researchers to pull data for specific locations and studies (e.g. Dayton or Wayne County)

PDF Guide to perform local studies using data
Step-by-step guide to analyze data pulls in order to extract actionable insights

Covid-19 Public Policy Research Kit

- Public policy decision-makers
- County and state health departments
- Economic development boards
- Researchers and consultants

COMPLIMENTARY TOOLS

UberMedia
Questions and Answers

THANK YOU

Questions and Comments?

contact@ubermedia.com

Or contact your UberMedia representative

Research and Data Sources

Data Sources

https://coronavirus-resources.esri.com/datasets/bbb2e4f589ba40d692fab712ae37b9ac

The data on cases, recoveries, deaths for all reporting countries + U.S. states as compiled by the Center for Systems Science at John Hopkins. Original data sources are WHO, US CDC, China NHC, ECDC, and DXY.

Research

https://www.nbcnewyork.com/news/local/timeline-tracking-the-spread-of-covid-19-in-tri-state/2313123/

https://www.lohud.com/story/news/politics/2020/03/13/coronavirus-timeline-new-york-how-we-got-here-and-where-were-headed/5045463002/

https://www.cnn.com/2020/03/11/health/coronavirus-massachusetts-state-of-emergency/index.html

https://www.nbcnews.com/health/health-news/coronavirus-nursing-homes-greatest-threat-years-here-s-what-they-n1153181