

# The COVID Traffic Report

COVID-19's Effects on Web, Mobile, and  
IRL Traffic in March 2020

A report by



As the coronavirus crisis worsened in March, many companies experienced sudden upward and downward swings in usage of their services.

Emerging Tech Brew has compiled several key data points so you can understand the magnitude of shifting digital and IRL patterns.

# Outline

## I. Web

- General internet traffic patterns
- Internet traffic by metro area
- More specific web traffic patterns
- Video, social, gaming, streaming

## II. Mobile

- iOS app downloads
- Grocery and food delivery
- Mobility and online-to-offline

## III. IRL

- Traffic volume, cars, freight
- Parking
- Flights/airports
- Mobility indexes
- Social distancing
- Foot traffic

# I. Web

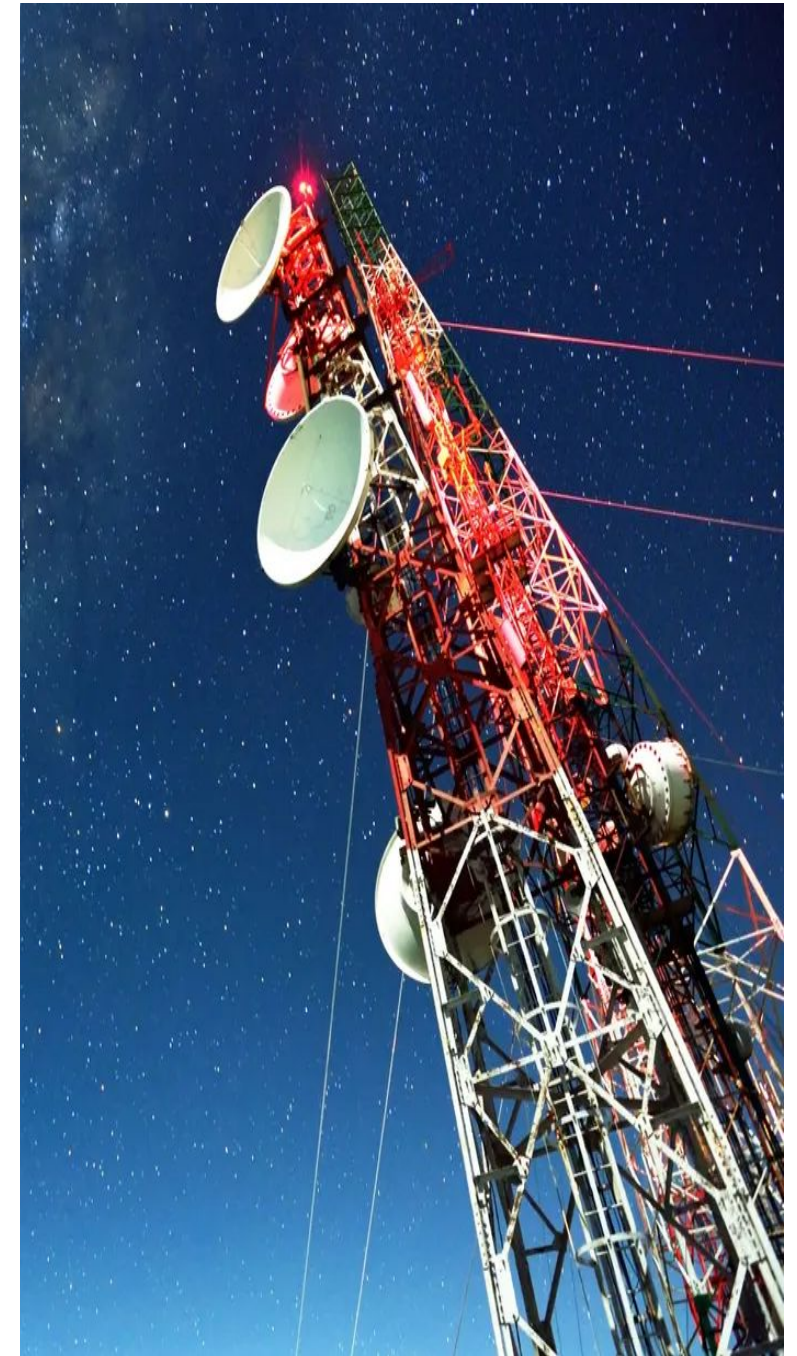
# Online Traffic Is Surging

Internet usage across the board has spiked, but so far, networking infrastructure has held up. Though service providers and internet companies are showing signs of strain, they're also adding capacity.

## Quantifying the surge:

Comcast, the U.S.' largest home internet provider, [says](#) peak traffic has increased 32% overall and 60% in some areas since March 1.

- Video streaming/consumption increased 38%, while linear TV is up 7%.
- Gaming downloads are up 50% total, and 80% for new releases.
- Video conferencing and voice-over-internet have jumped 212%
- VPN traffic is up 40%.



Getty/Nora Carol Photography

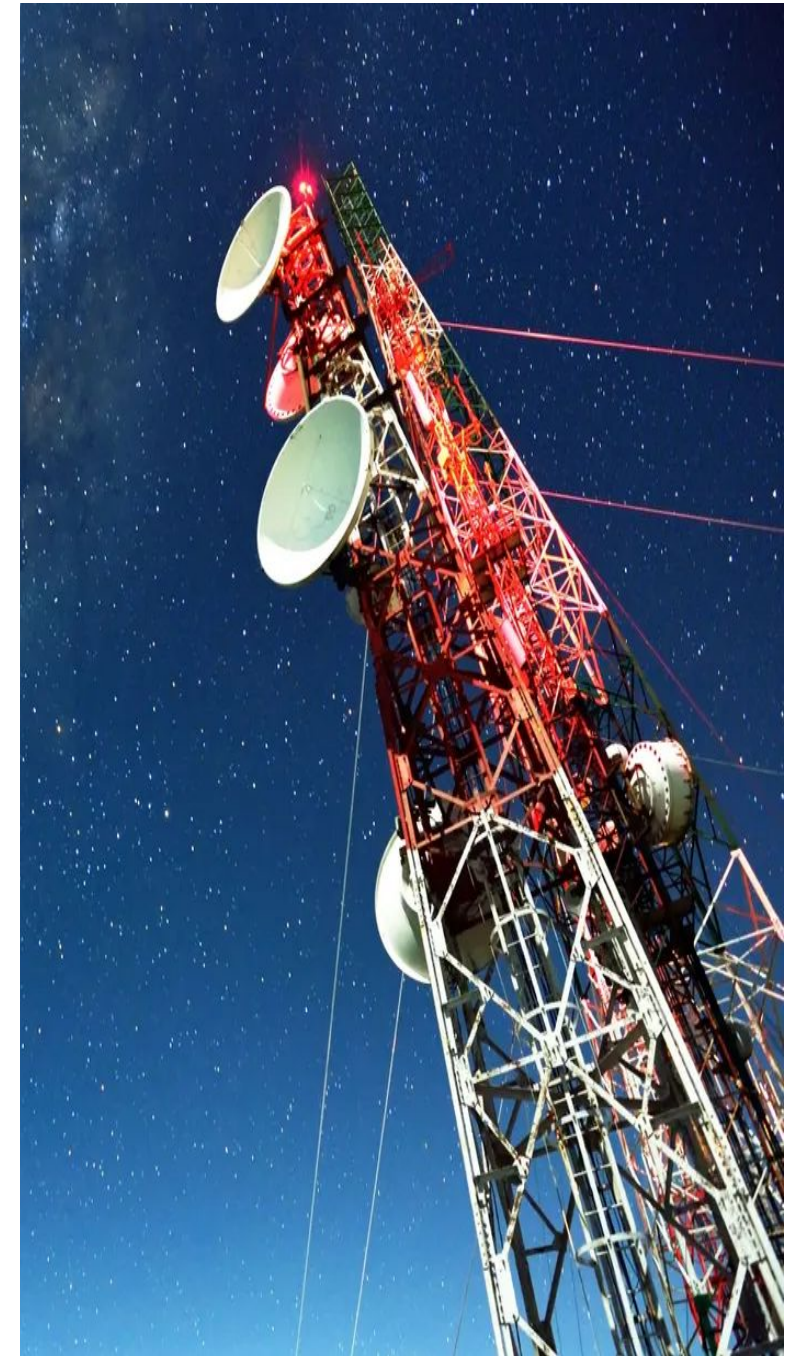
# Day And Time Patterns Are Shifting

Comcast says downstream (data from provider to customer) peak is moving from 9PM to 7–8PM, upstream peak is moving from 9PM to 8AM–6PM in most markets.

- Virgin Media [saw](#) a 95% upstream traffic spike on its network during the daytime, due to WFH employees uploading files onto corporate networks.

Nokia [has seen](#) cumulative peak increases of 30%–50% over normal weekend levels, mostly due to video streaming, as of March 27.

- During U.S. business hours: 300% growth in video conferencing (parents staying busy) and 400% growth in games (kids staying busy).



*Getty/Nora Carol Photography*

# Even With Quarantine, Mobile Traffic Is Surging

- AT&T [has seen](#) a 40% increase in mobile traffic and a 100% increase in wi-fi calling, CEO Randall Stephenson told CNN.
- On March 24, Verizon said handoffs (when a mobile phone switches connections from one tower to another) [were down](#) 27% relative to a normal week.

## Verizon network update on March 24:

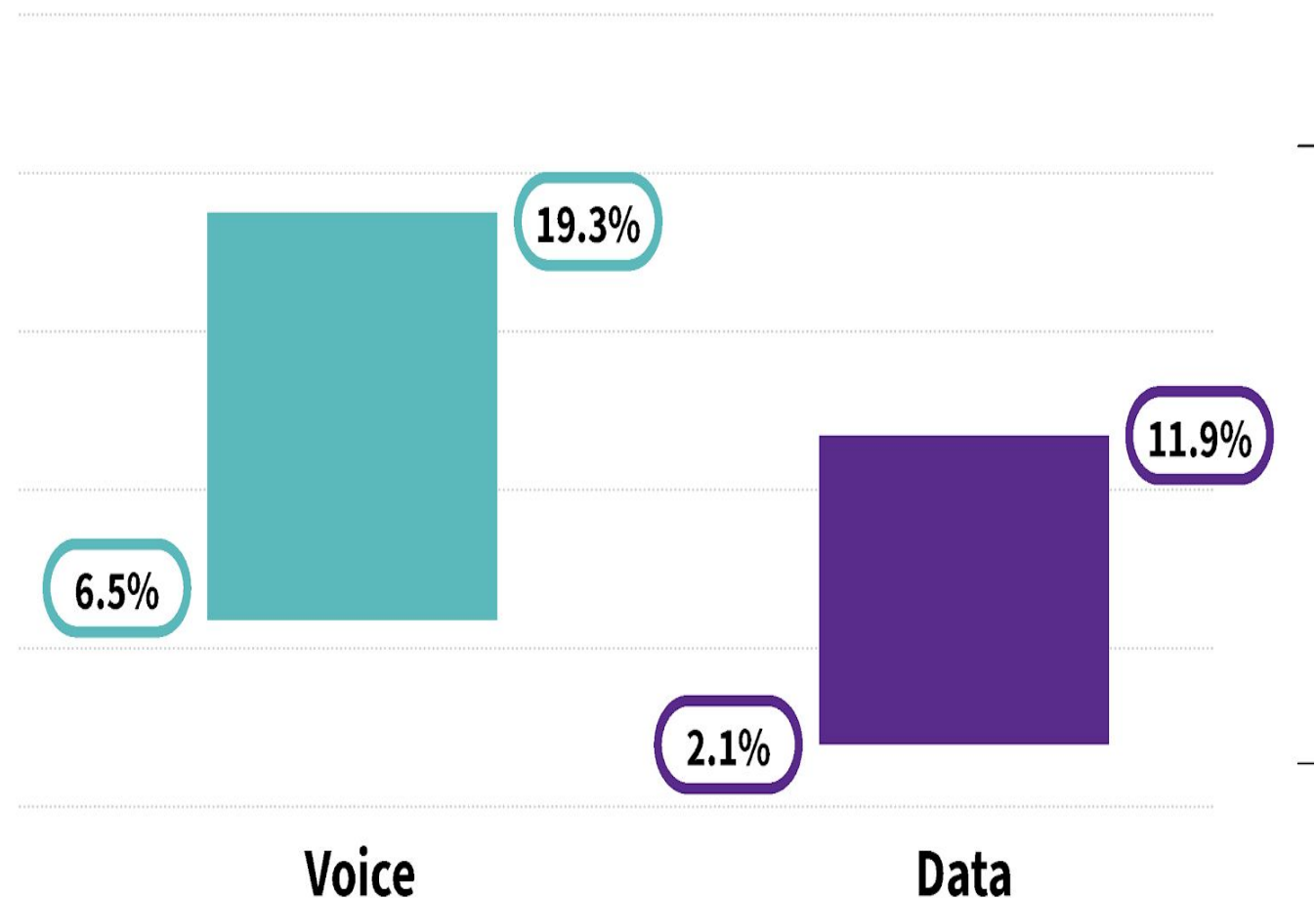
Types of Data	Daily Average
Texts	9 billion
Wireless calls	800 million
Call volume	2x the call volume of Mother's Day
Call duration	33% increase

# Traffic And Lockdowns

- Telecom Italia reported a [70% spike](#) in network traffic in early March.
- Spanish carriers reported a traffic increase of [nearly 40%](#) in mid-March.

U.S. wireless industry trade group [CTIA](#):

Range of increase in voice minutes and data use reported weekly by the top 5 providers for March 30, relative to average Mondays from 2/24-3/16.





# Urban And Suburban Usage Patterns Have Flipped

Instead of commuting to work, people are working from home en masse. As a result, internet usage is up in suburbs and exurbs and down in urban centers.

**To the right:** Changes in internet traffic in eight major cities between early January and late March.

- Green = growth in traffic
- Red = decrease



*From left to right:*  
**NYC (+34%), DC (+24%), Houston (+21%), Chicago (+18%),  
Toronto (+36%), Seattle (+18%), LA (+35%), SF (+48%)**

Source: [Cloudflare](https://www.cloudflare.com/learning/dns/what-is-internet-traffic/), March 31

# Patterns Are Similar Abroad

Changes in internet traffic in four major cities between early January and late March. Green = growth in traffic, Red = decrease (Source: [Cloudflare](#))



**From left to right:**

**Paris (+23%), Berlin (+11%), Tokyo (+18%), London (+23%)**

# City Networks Are Generally Holding Up

BroadbandNow [said](#) most U.S. cities experienced normal network conditions for the week of March 15–21.

88 (44%) of the 200 cities surveyed had some network degradation compared to the 10 weeks prior.

27 (13.5%) cities experienced dips of 20% below range or greater. NYC's speeds fell out of range by 24%.

Week of March 15 compared to prior weeks	Number of Top 200 Cities
<b>In range</b>	112
<b>Below range</b>	
<b>0–10%</b>	41
<b>10–20%</b>	21
<b>20–30%</b>	17
<b>30–40%</b>	6
<b>40–50%</b>	3

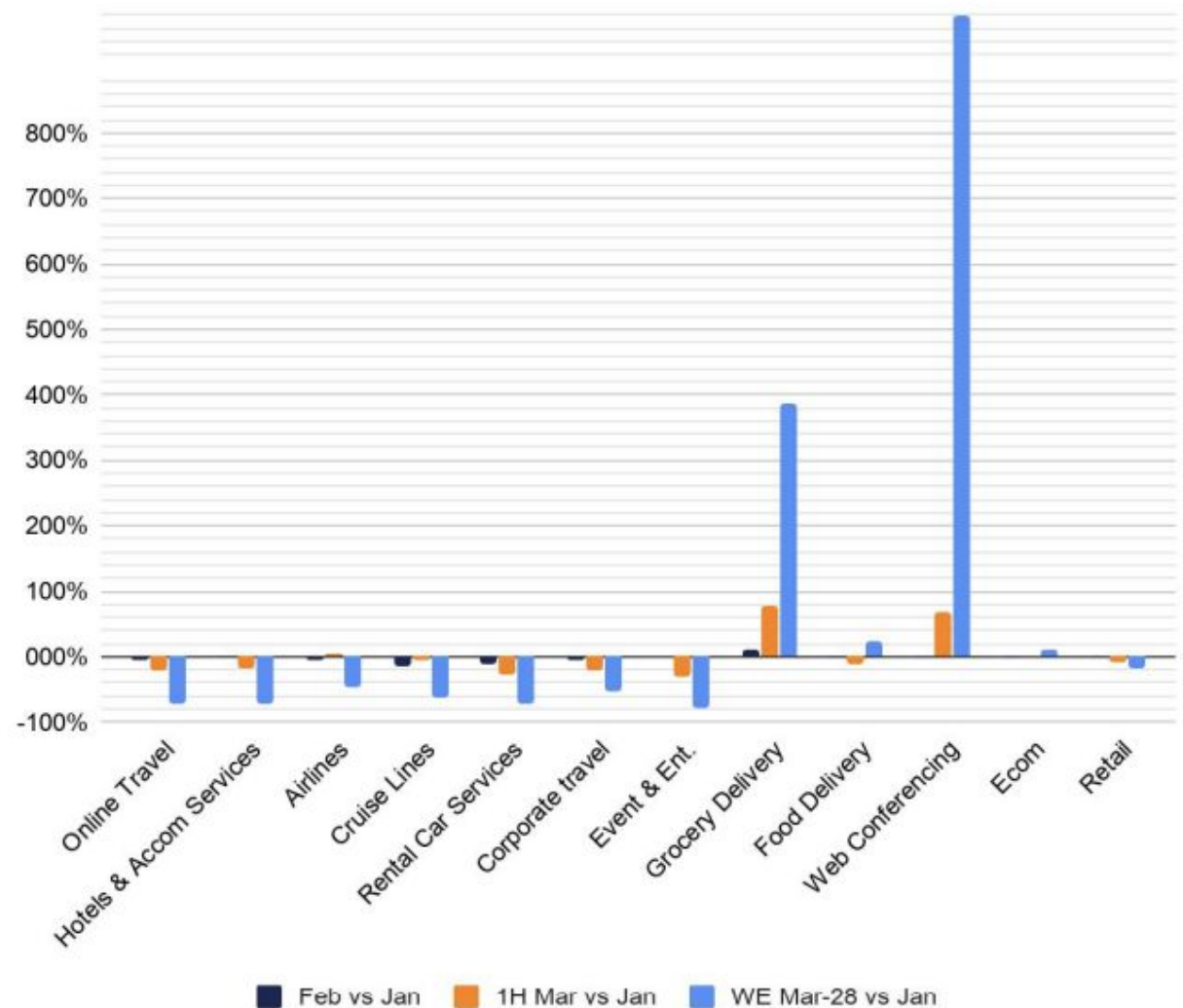
# Traffic Patterns Are Shifting

In the last two weeks of March, web traffic for video conferencing and grocery delivery surged. This momentum is expected to continue.

- Web traffic is way down for travel, hospitality, airlines, cruise, car rental, corporate travel, and event/entertainment companies.
- Retail websites experienced a more modest dip, while e-commerce saw a slight gain.

Source: [SimilarWeb](#). Blue bar is the seven days ending March 28 YoY vs. January YoY.

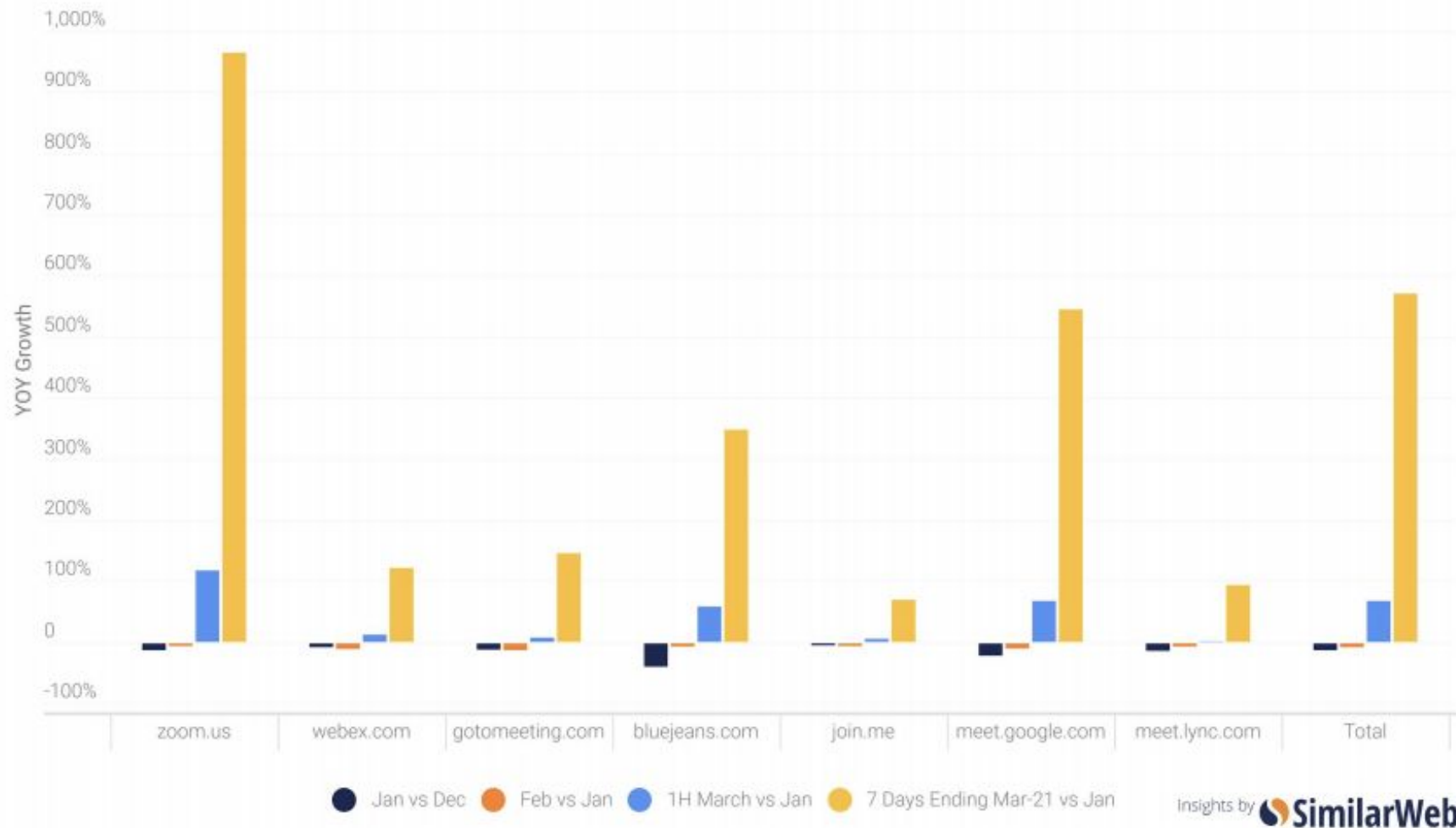
Traffic Momentum by Category (Sequential YoY)



# Video Chat Surges Every Week

## Key Web Conferencing Platforms

United States, Seq. Change in YoY Growth, Desktop + Mobile Traffic (unbounced), Dec 2019 - Mar 2020



Traffic to web conferencing services was up 1,000% YoY for the seven days ending March 28. Traffic was up 600% the prior week, and 185% the week before that.

Source: [SimilarWeb](https://www.similarweb.com)

# Video Apps By Country

**Growth in Downloads of Video Conferencing Apps**  
During Week of March 15-21, 2020 vs. Weekly Average for Q4 2019  
During COVID-19 Pandemic



**Across the board:** Business conference apps had 62+ million downloads the week of March 14–21 worldwide, the category’s biggest week ever, per [AppAnnie](#).

Zoom [grew](#) from a maximum of 10 million daily active users in December to more than 200 million DAUs by the end of March.

# Unemployment Traffic Isn't Limited To Lockdown States

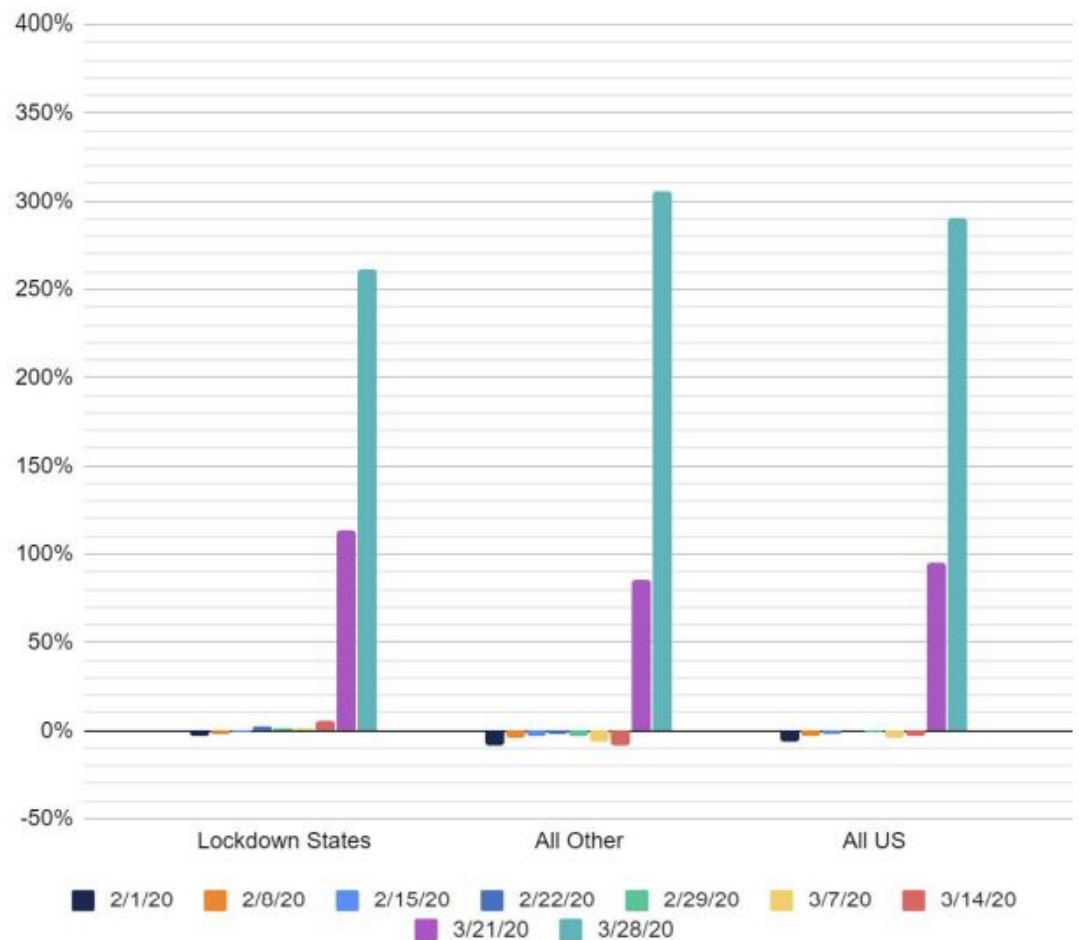
Traffic to state unemployment sites has grown significantly.

In the seven days ending March 21, traffic to unemployment sites was up 4.5x YoY for states with mandatory lockdowns...and 3.5x for the rest of the U.S.

In the seven days ending March 28, growth in traffic for the rest of the U.S. was catching up. Traffic spiked even in states that weren't officially locked down.

Source: [SimilarWeb](#)

State Unemployment Websites (YoY Growth)



# Social Media Usage Up

Messaging on Facebook services [is up](#) 50%+ in March MoM in places hardest hit by the virus. Voice and video calling on Messenger/WhatsApp have more than doubled.

- Worth noting: These services don't offer the same monetization opportunities as other FB products.

Snapchat video/voice calls [were up](#) 50% in late March MoM. Users spent 25% more time playing with AR lenses. Snaps sent per day *and* time spent watching Snapchat Shows reached all-time highs.

Twitch's viewership [is up](#) 10% and YouTube Gaming's has increased by 15%.

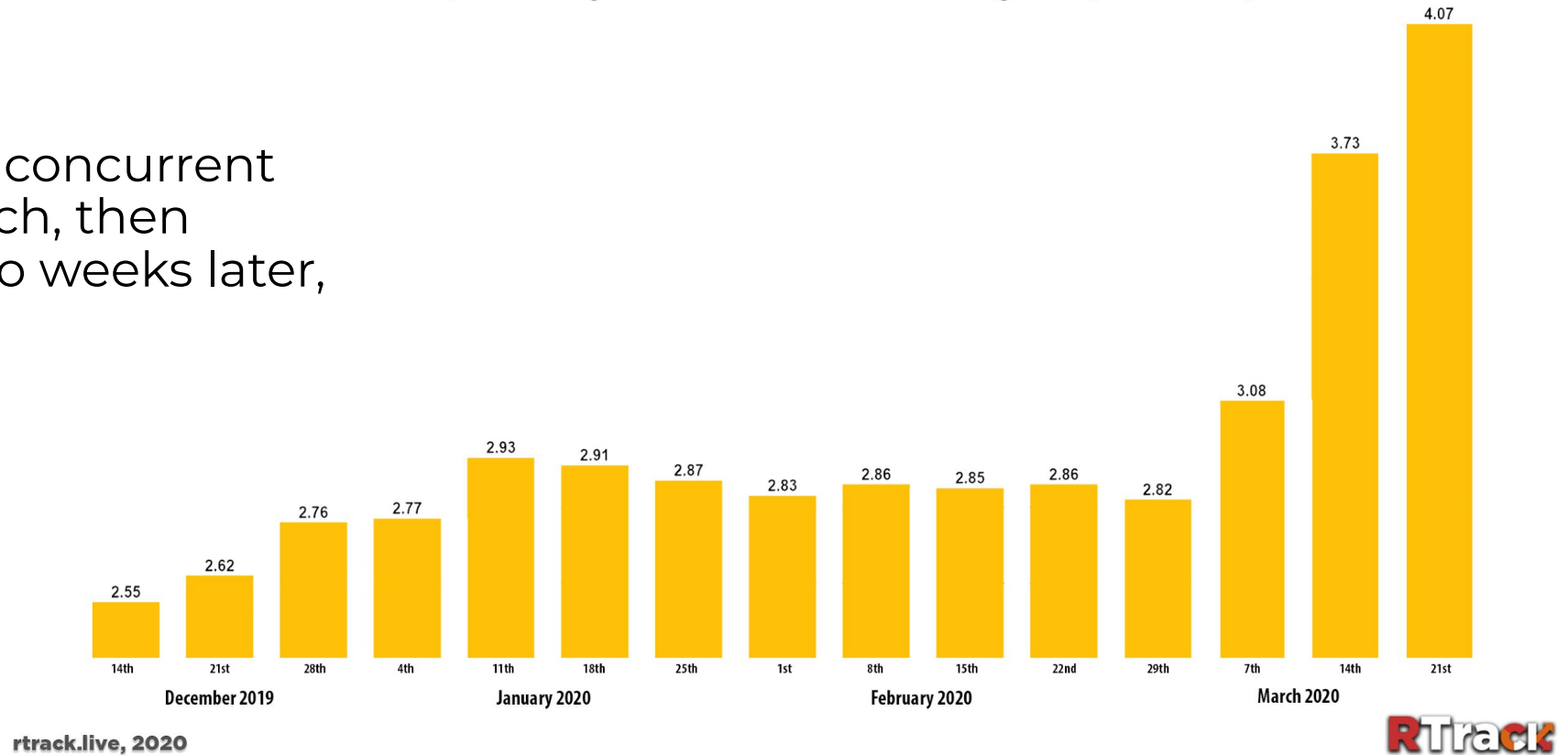




# Gaming On The Rise

**Roblox | Weekly Peak Concurrent Players (Millions)**

Roblox hit 3 million concurrent players in early March, then passed 4 million two weeks later, per [RTrack](#).



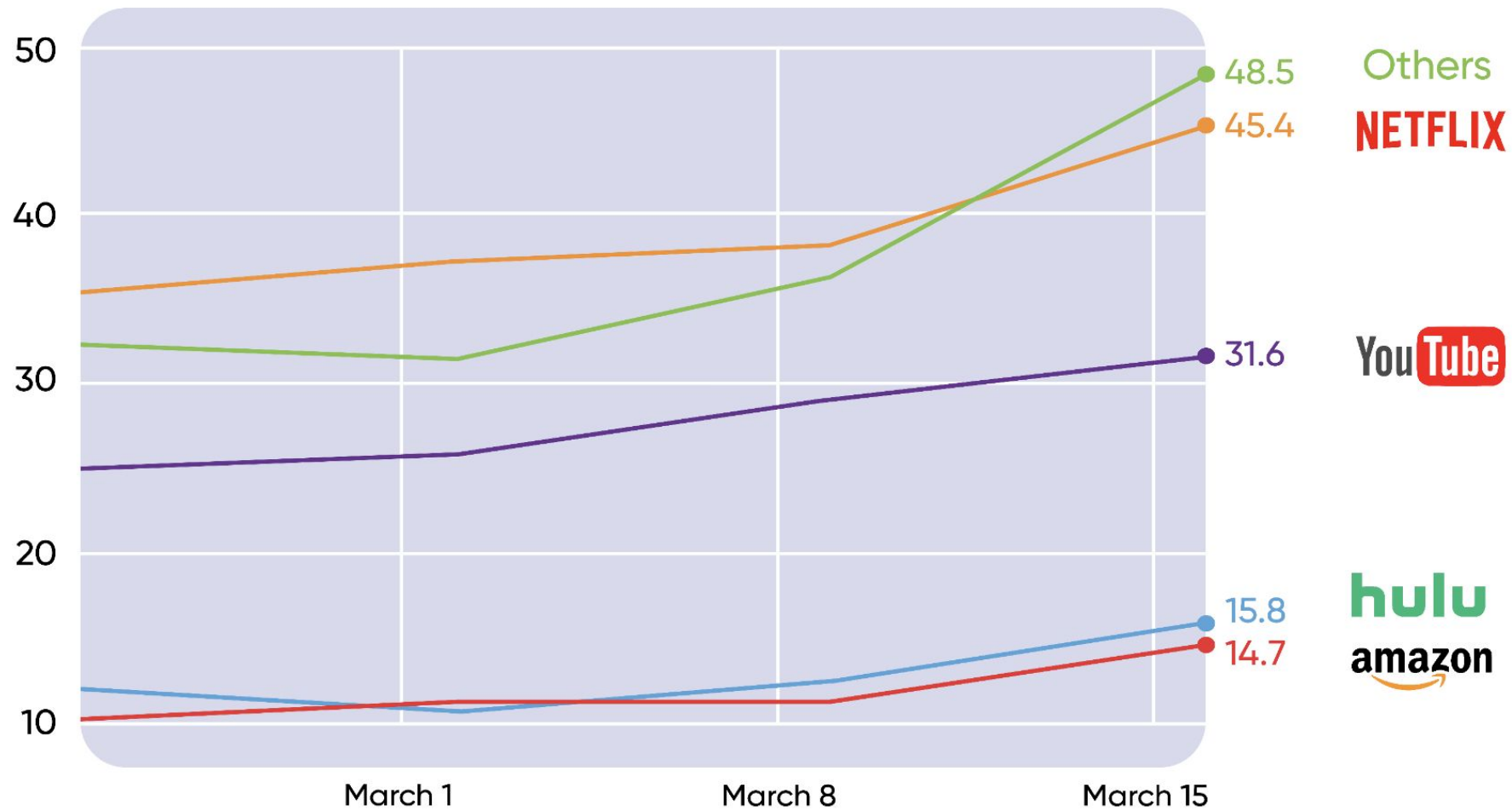
The week of March 22 was [the biggest week](#) for mobile games ever, with 1.2 billion downloads ([AppAnnie](#)).

# And Finally, The Streaming Elephant In The Room

Source: [Nielsen/Axios](#)

## Streaming minutes per week (billions)

February 24 to March 16, 2020



Source: Nielsen/Axios

## II. Mobile

# More Mobile Time, Less Mobility

Users are spending more time on their phones from the confines of their homes. Most mobile app categories saw boosts in downloads in March.

Source: [Appfigures](#). iOS App Store U.S. downloads for March

## BUSINESS

**376.92** ↑ 250.58 (+198.3%)

MAR. 29, 2020



Index Volume

## EDUCATION

**323.24** ↑ 184.62 (+133.2%)

MAR. 29, 2020



Index Volume

## ENTERTAINMENT

**164.14** ↑ 48.60 (+42.1%)

MAR. 29, 2020



Index Volume

## FINANCE

**145.67** ↑ 8.24 (+6.0%)

MAR. 29, 2020



Index Volume

## GAMES

**125.47** ↑ 31.19 (+33.1%)

MAR. 29, 2020



Index Volume

## HEALTH & FITNESS

**139.07** ↑ 59.35 (+74.5%)

MAR. 29, 2020



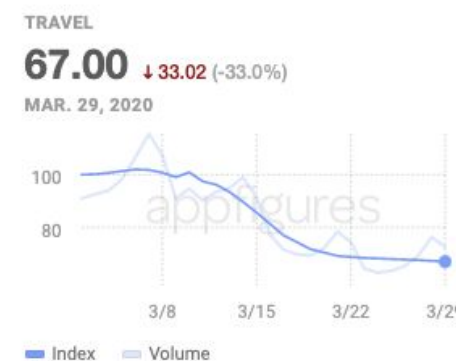
Index Volume

# The Notable Exceptions

Travel apps saw a 31% dip in downloads in March (duh).

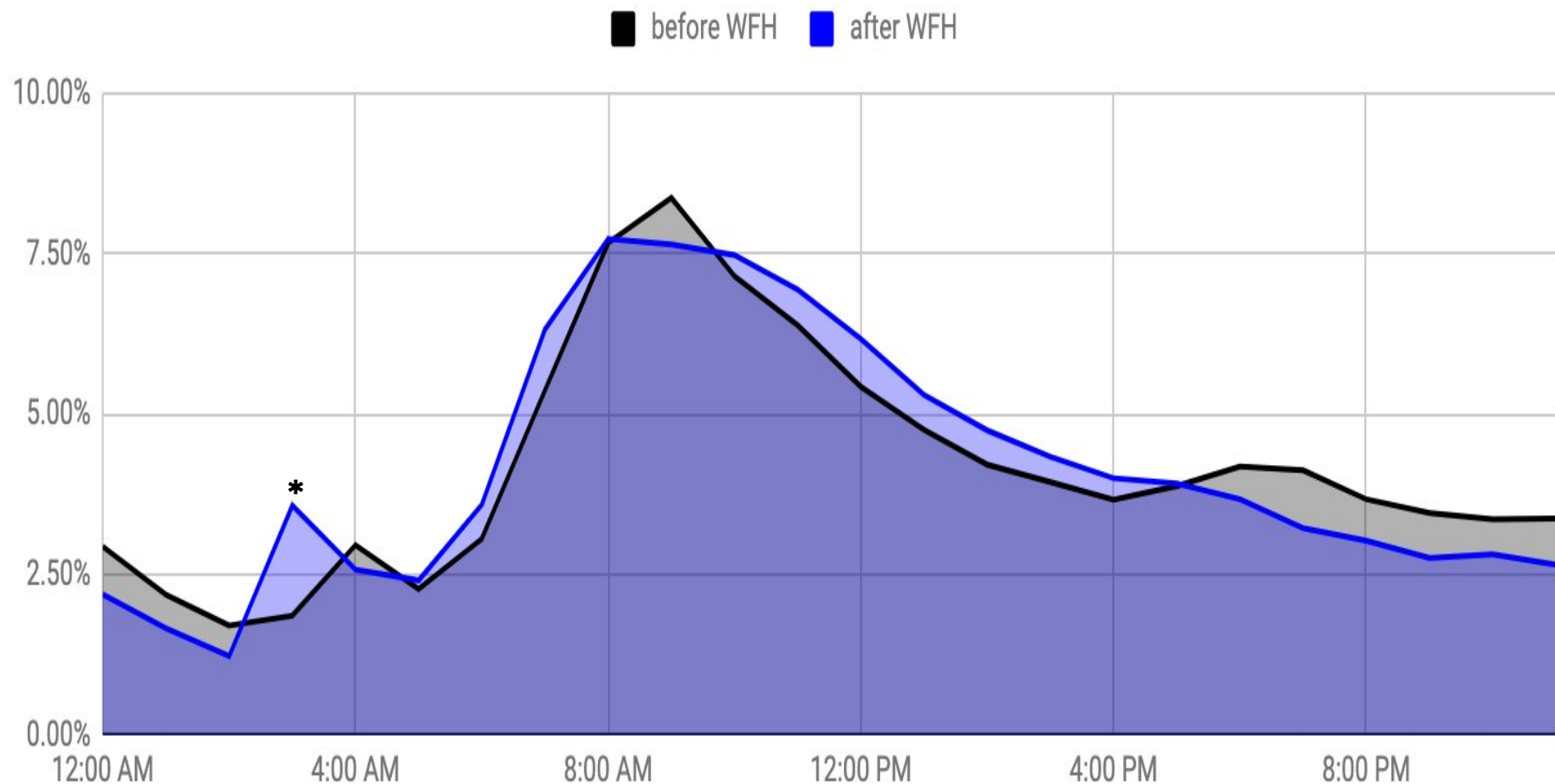
Music app downloads were slightly down. Spotify's Top 200 streams dropped between early February and March.

Theory: Since commuters are WFH, they're streaming fewer podcasts and songs.



# Case Study: *Business Casual*

Our podcast, [Business Casual](#), is a weekly show with consumption patterns that follow East Coast commutes. After many started working from home on March 16, we observed a slight increase in midday listens relative to mornings and nights.



\*Early spikes are from automatic downloads when we release an episode

\*\*You can and should listen whenever you want

# Grocery Shoppers Go Online

Foot traffic to groceries and pharmacies [has declined by 22%](#), per Google.

Instacart, Walmart Grocery, and Target's Shipt have picked up the slack. The three apps saw record downloads in March. To meet surging demand, Instacart is hiring 300,000 additional workers and Walmart is staffing up by 100,000.

Even Uber [is expanding](#) into grocery delivery.

Source: [Apptopia](#)

Daily downloads of grocery delivery apps, U.S.



# Food Delivery Apps Haven't Seen the Same Spikes

Two conceivable reasons:

- 1) The market is already somewhat saturated...and appears [to be cooling](#).
- 2) Self-quarantined customers may think food preparation and delivery is a less safe alternative to cooking meals themselves.

Source: [Apptopia](#)

Daily downloads of top food delivery apps, U.S.



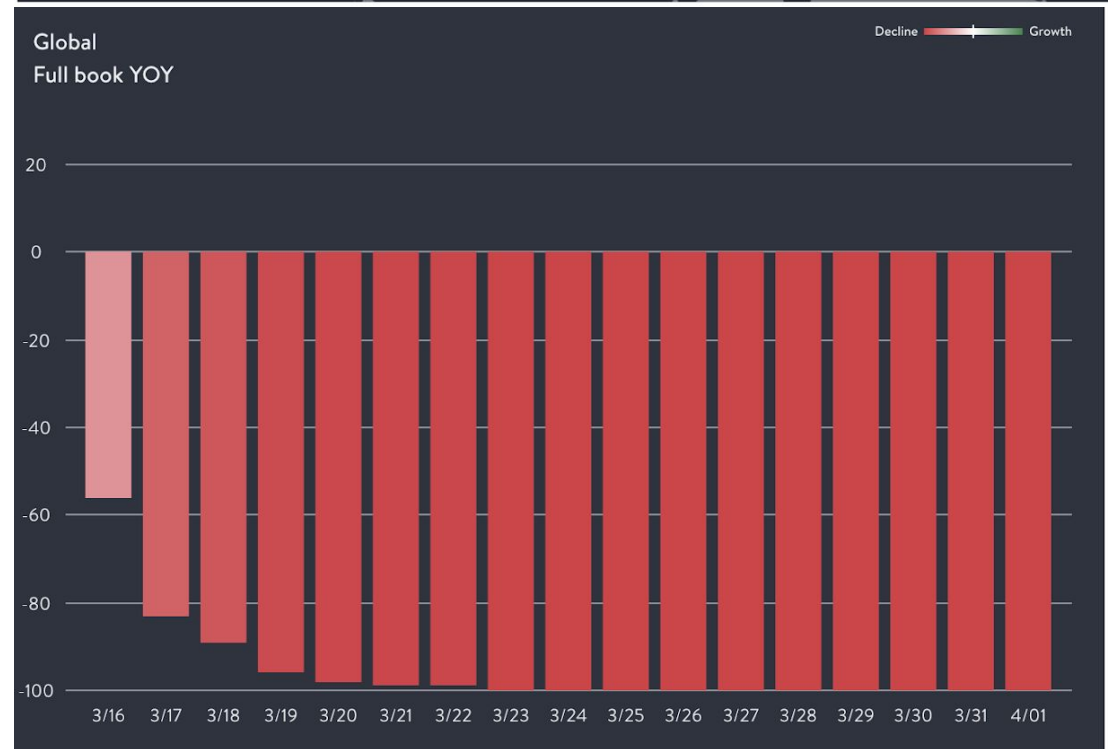
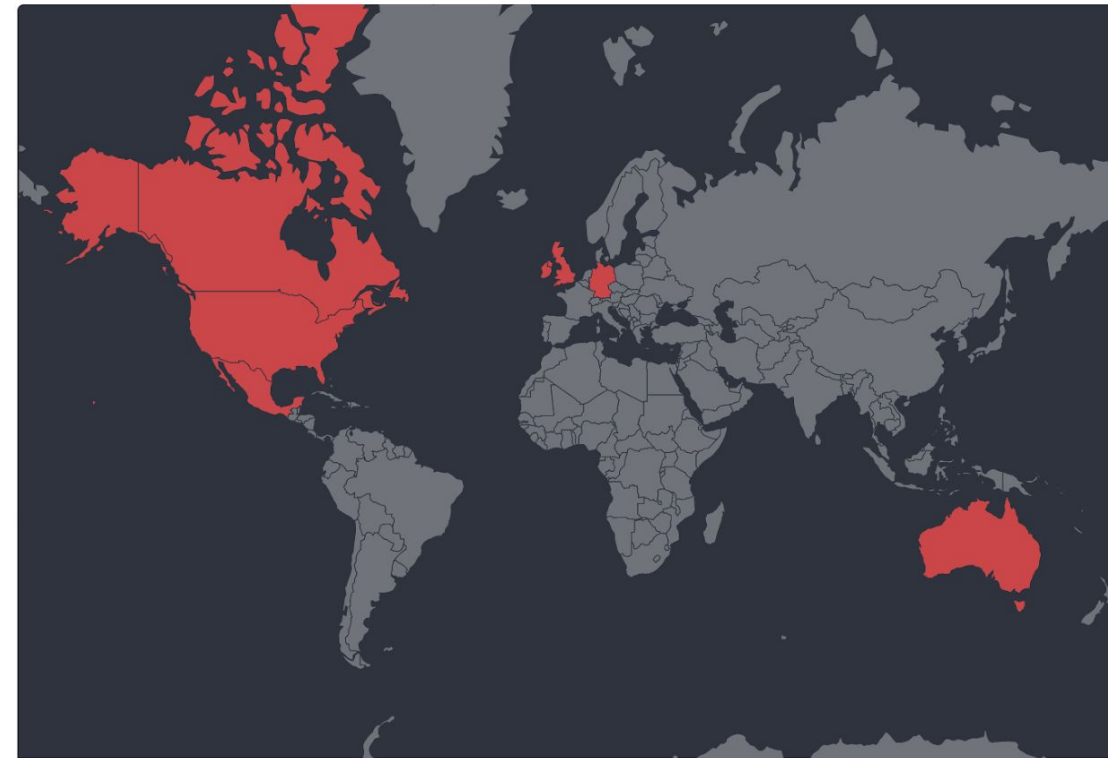


# Since Dining Out Isn't An Option...

OpenTable bookings [are down](#) 100% YoY.

In one week in March, OT saw a 400+% increase in its delivery and takeout feature.

It's also retooled its reservation system technology for supermarkets to show available shopping times that customers can book in advance.

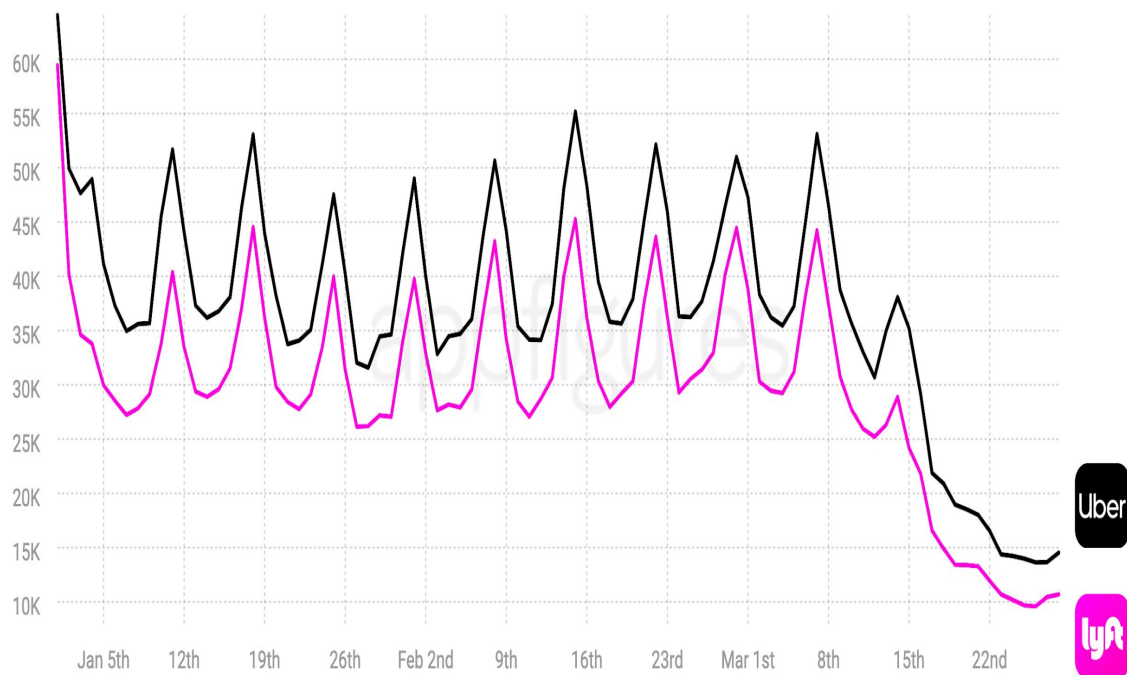


# Mobility Services Hit Hard

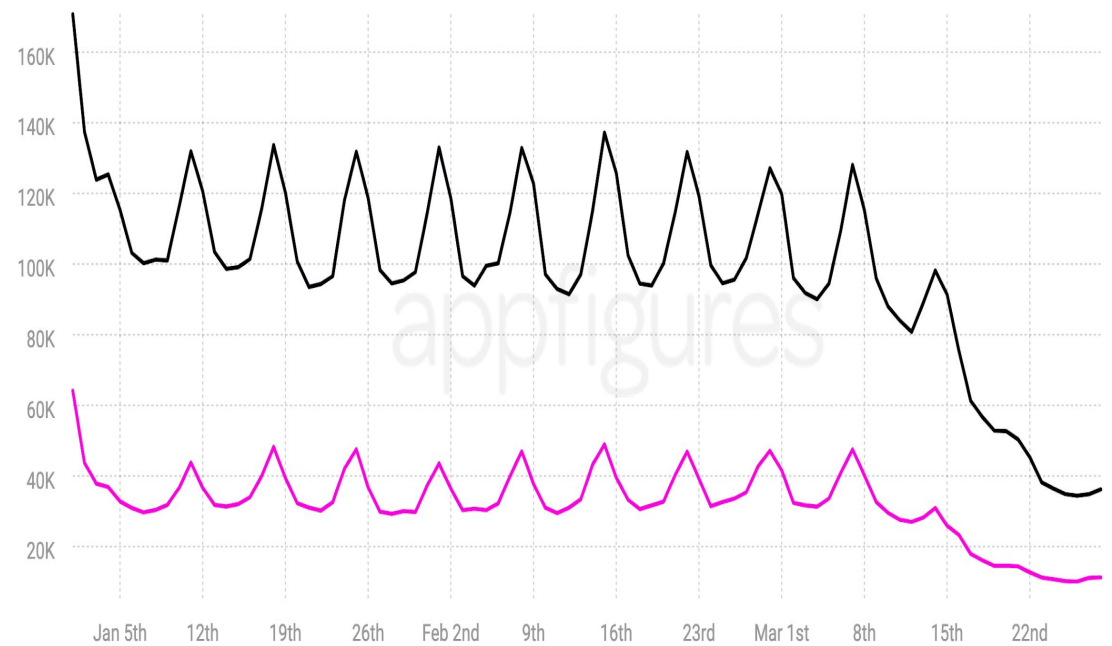
The sharing economy is a casualty of the social distancing era. Scooter startups Bird and Lime have paused operations in most markets and laid off staff. Uber is doing 60%–70% fewer trips in big markets (Seattle, SF, LA, NYC), CEO Dara Khosrowshahi said.

## Lyft and Uber downloads have bottomed out:

iOS App Store · United States



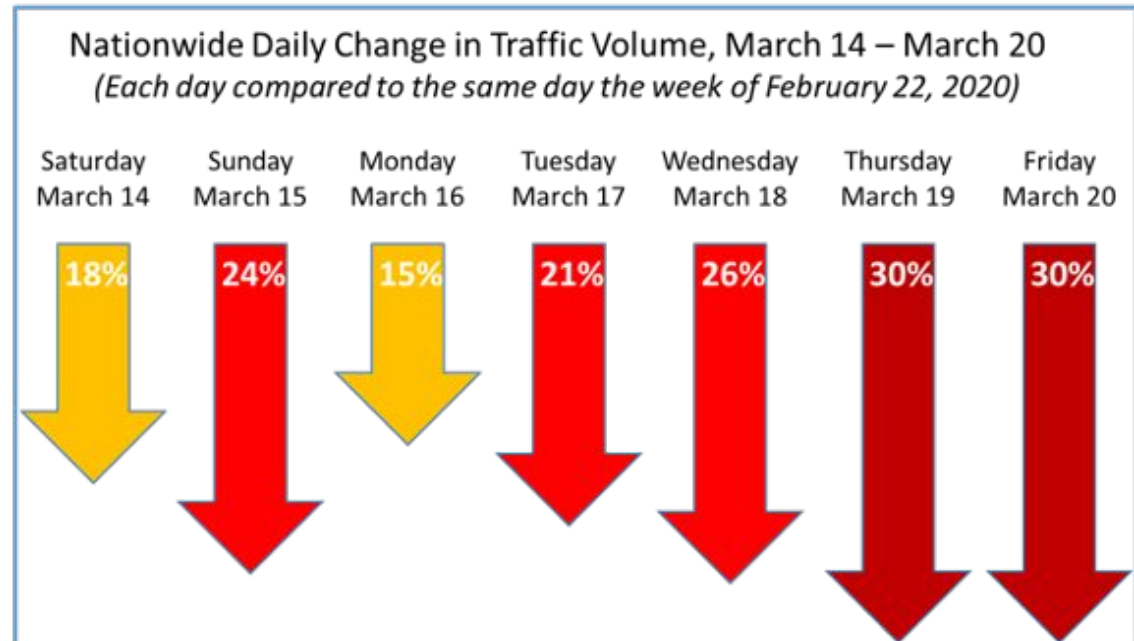
iOS App Store · Worldwide



# III. IRL

# People Are Driving Less

Source: [INRIX](#)



## Change in Traffic for Larger States

Date in March	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Drop 3/20	
Nationwide	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Red	Red	Red	Red	Red	Red	Red	Red	30%
California	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Yellow	Yellow	Red	Red	Red	Red	Red	Red	Red	Red	37%
Texas	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Red	Red	Red	Red	Red	Red	Red	Red	30%
Florida	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Red	Red	Red	Red	Red	Red	Red	25%
New York	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Red	Red	Red	Red	Red	Red	Red	Red	Red	36%
Pennsylvania	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Red	Red	Red	Red	Red	Red	Red	Red	31%
Illinois	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Yellow	Red	Red	Red	Red	Red	Red	Red	Red	27%
Ohio	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Red	Red	Red	Red	Red	Red	Red	Red	28%
Georgia	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	23%
North Carolina	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Red	Red	Red	Red	Red	Red	Red	Red	22%
Michigan	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Red	Red	Red	Red	Red	Red	Red	Red	36%

■ Normal    
 ■ Trending down    
 ■ Sharp decline

# Truck Traffic Holding Steady

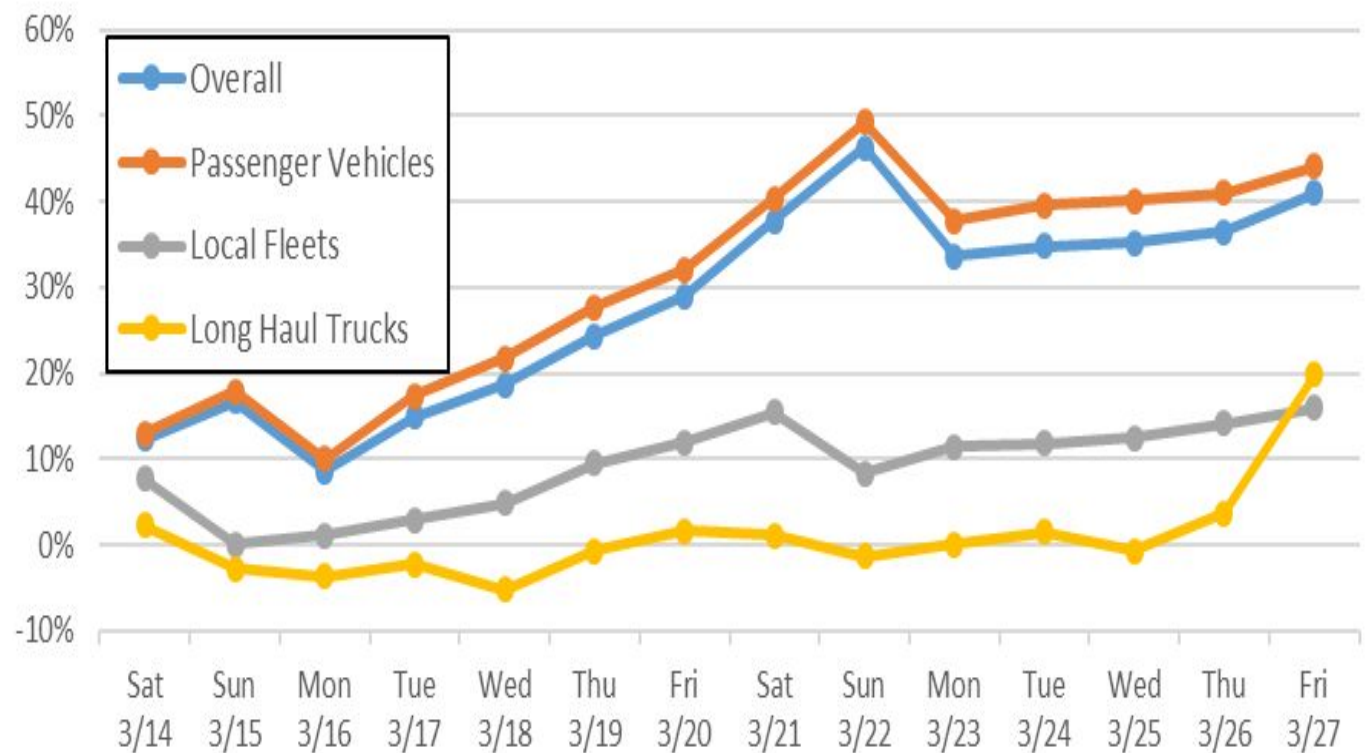
People are driving less.

Freight traffic normally moves through Atlanta's Spaghetti Junction (I-85/I-285) at under 15 MPH during rush hour. The week of March 23, truck speeds averaged 53 MPH, per [ATRI](#).

On I-495 in Queens, truck speeds reached rush hour speeds of 38 MPH, compared to the average 16 MPH.

Source: [INRIX](#)

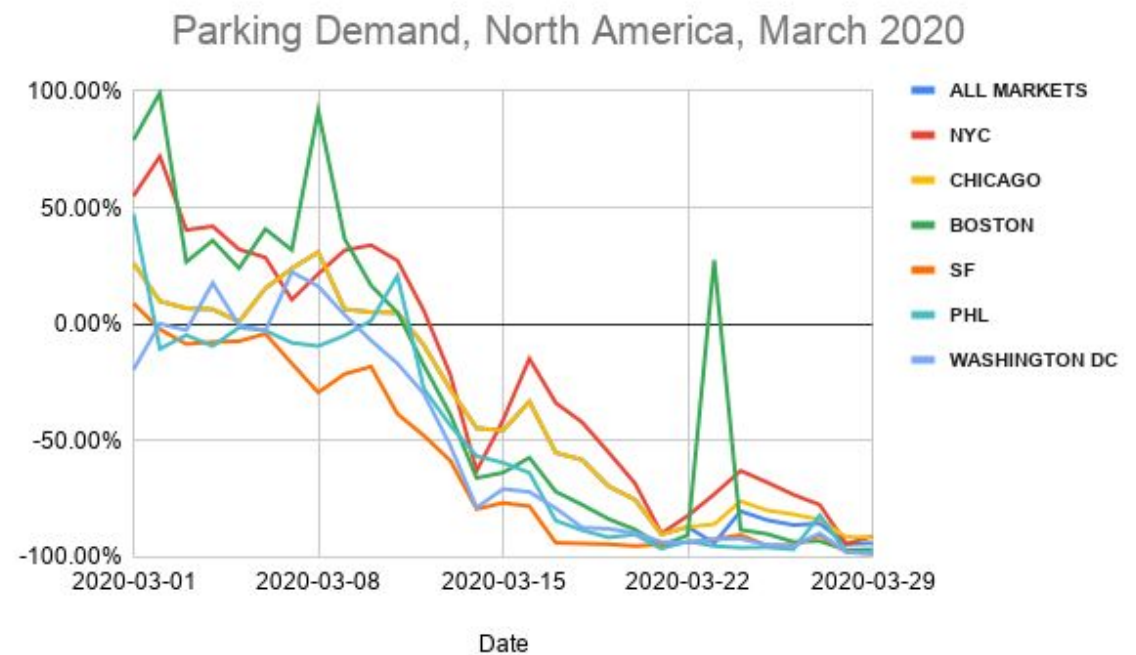
Total US Vehicle Travel Drop by Vehicle Type  
(Compared to Same Day the Week of February 22, 2020)



# Less Driving = Less Parking

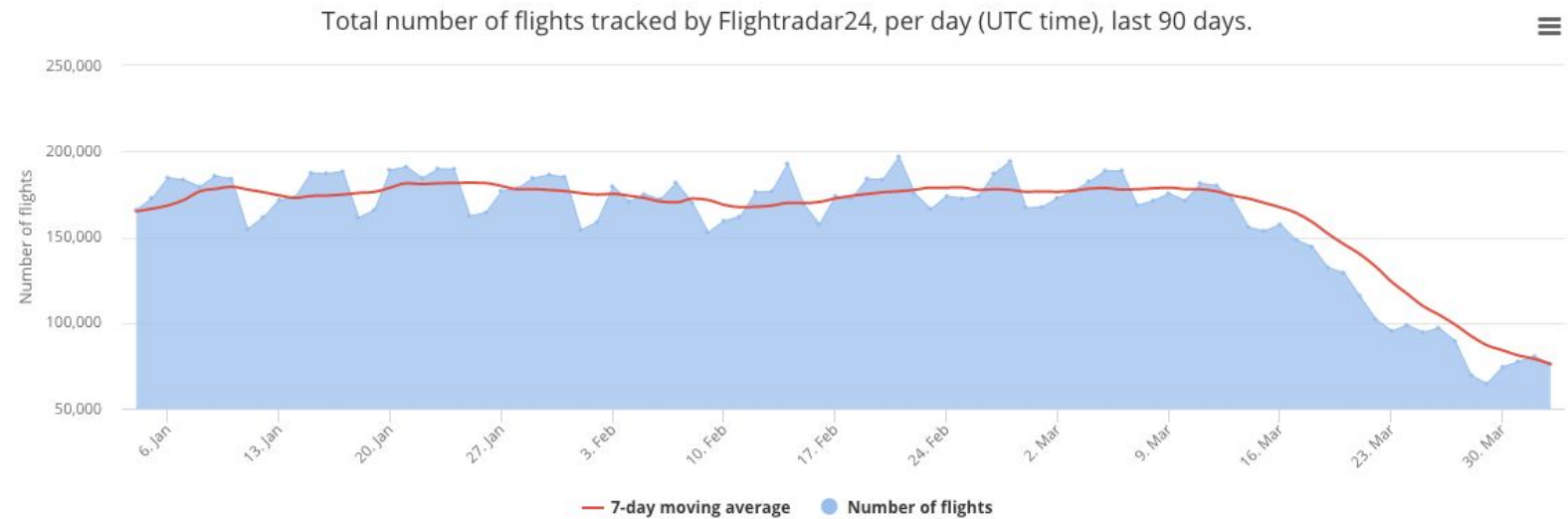
Demand for parking on digital reservation platform [SpotHero](#) was approaching zero in the U.S. as of March 29:

YoY Parking Demand / March 2020							
	CHI	NYC	BOS	SF	PHL	DC	Other
3/13/2020	-27.90%	-21.60%	-38.70%	-58.50%	-43.40%	-52.10%	-59.10%
3/14/2020	-44.60%	-62.90%	-66.00%	-79.30%	-56.60%	-78.70%	-77.30%
3/15/2020	-45.60%	-41.20%	-63.70%	-76.70%	-59.40%	-70.70%	-82.50%
3/16/2020	-33.20%	-14.80%	-57.30%	-78.10%	-63.80%	-72.00%	-69.20%
3/17/2020	-55.20%	-33.80%	-71.90%	-93.80%	-84.30%	-79.00%	-81.00%
3/18/2020	-58.20%	-42.10%	-77.50%	-94.10%	-88.40%	-87.30%	-84.30%
3/19/2020	-69.50%	-55.00%	-83.60%	-94.40%	-91.50%	-87.80%	-88.40%
3/20/2020	-75.30%	-68.30%	-88.10%	-95.20%	-90.20%	-89.60%	-91.80%
3/21/2020	-90.20%	-89.80%	-95.00%	-94.50%	-96.30%	-93.40%	-95.80%
3/22/2020	-87.00%	-82.20%	-90.50%	-93.60%	-93.10%	-93.70%	-93.20%
3/23/2020	-85.83%	-72.99%	27.49%	-92.31%	-95.20%	-92.33%	-97.24%
3/24/2020	-75.99%	-62.89%	-88.22%	-90.44%	-95.89%	-92.05%	-91.83%
3/25/2020	-79.87%	-67.84%	-90.01%	-95.08%	-95.70%	-94.72%	-93.60%
3/26/2020	-81.60%	-73.14%	-93.42%	-94.84%	-96.60%	-95.19%	-95.39%
3/27/2020	-83.88%	-77.51%	-93.03%	-90.58%	-81.97%	-89.73%	-90.14%
3/28/2020	-91.33%	-94.34%	-96.90%	-97.64%	-97.87%	-97.80%	-96.96%
3/29/2020	-91.37%	-91.00%	-96.72%	-98.33%	-98.16%	-98.31%	-97.24%



# Air Traffic Is Down Over 50% From One Month Ago

Source: [Flightradar24](#)

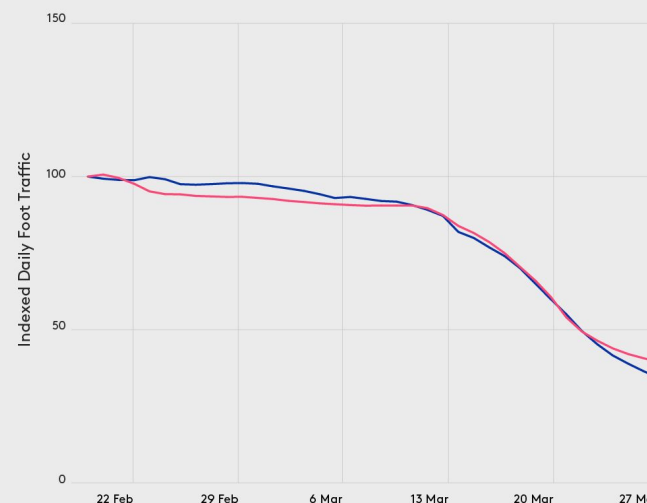


## CV-19 Impact on Airports & Hotels Nationwide

February 19—March 27

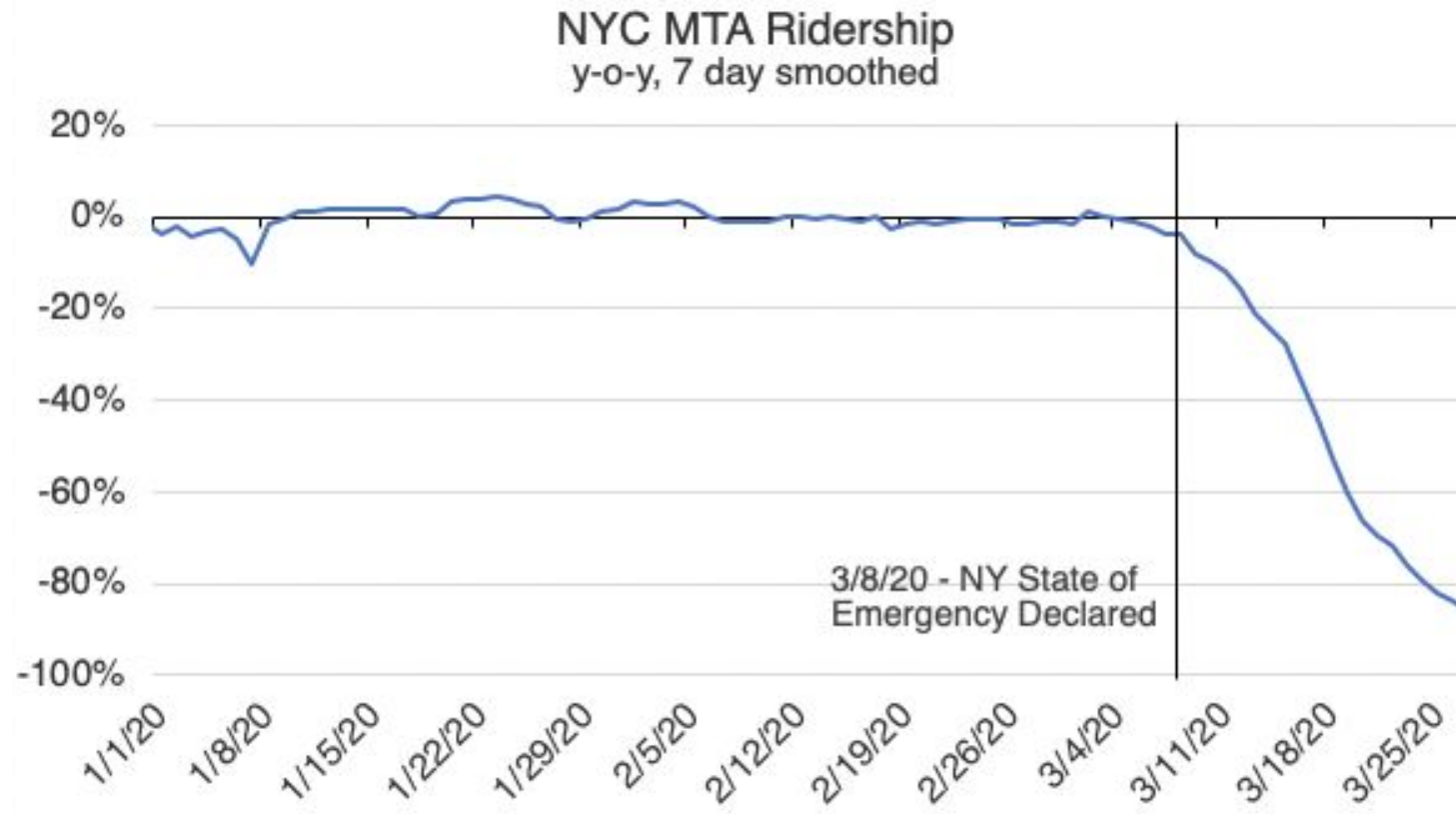
● Hotels    ● Airports

Chart illustrates indexed foot traffic to airports & hotels nationwide, where visits for February 19, 2020 is 100. We've used rolling 7 day averages to account for fluctuations by day of the week.



As are visits to hotels and airports, [per Foursquare](#).

# Subway Ridership Has Plummeted



Movement at U.S. subway, bus, and train stations [is down 51%](#), Google reports.

As NYC became the epicenter of the U.S. outbreak, ridership significantly dropped at the world's largest metro system. The MTA is seeking a \$4 billion bailout.

Source: [Exante Data](#)

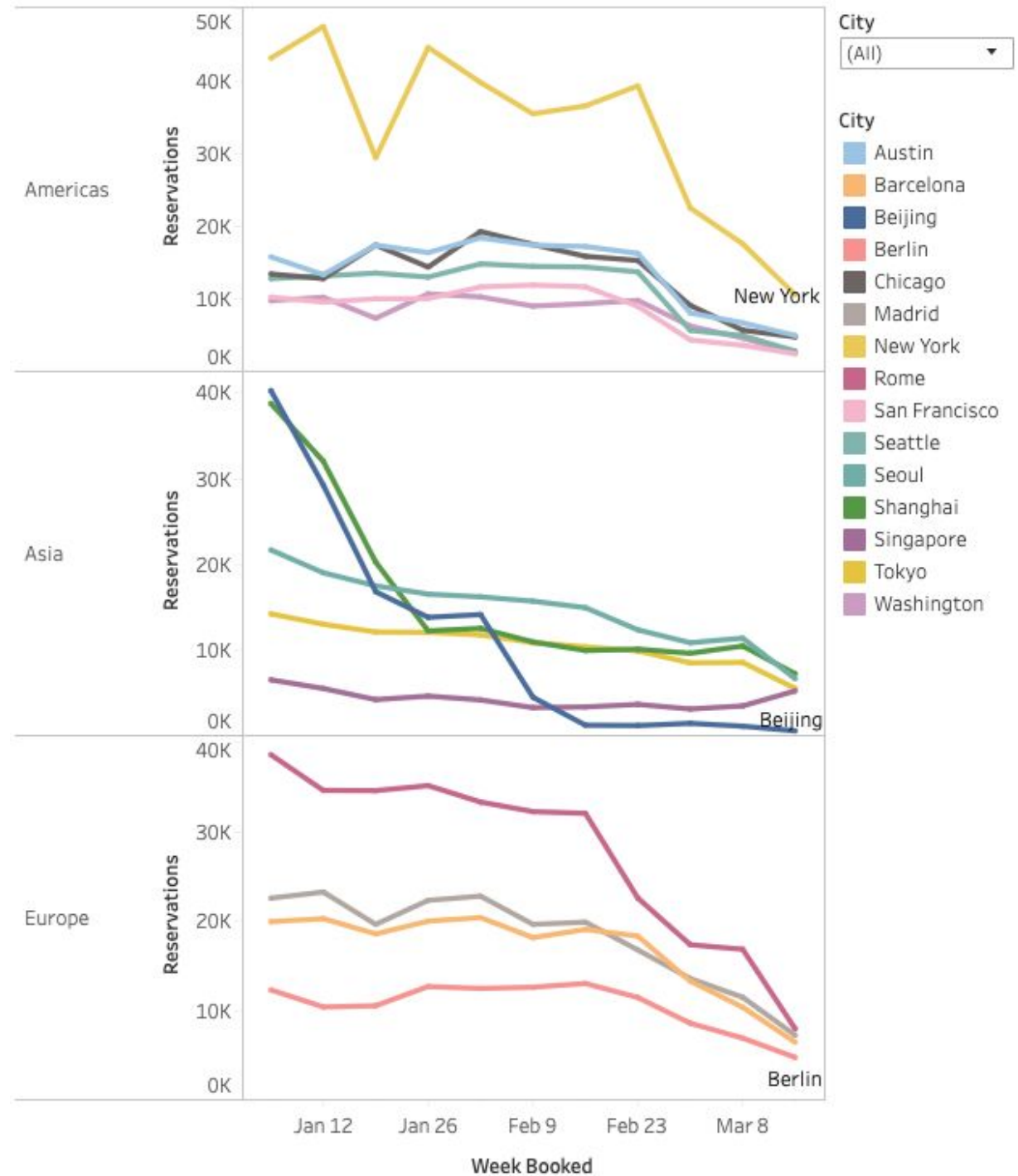


# Airbnb Adjusts To New Reality

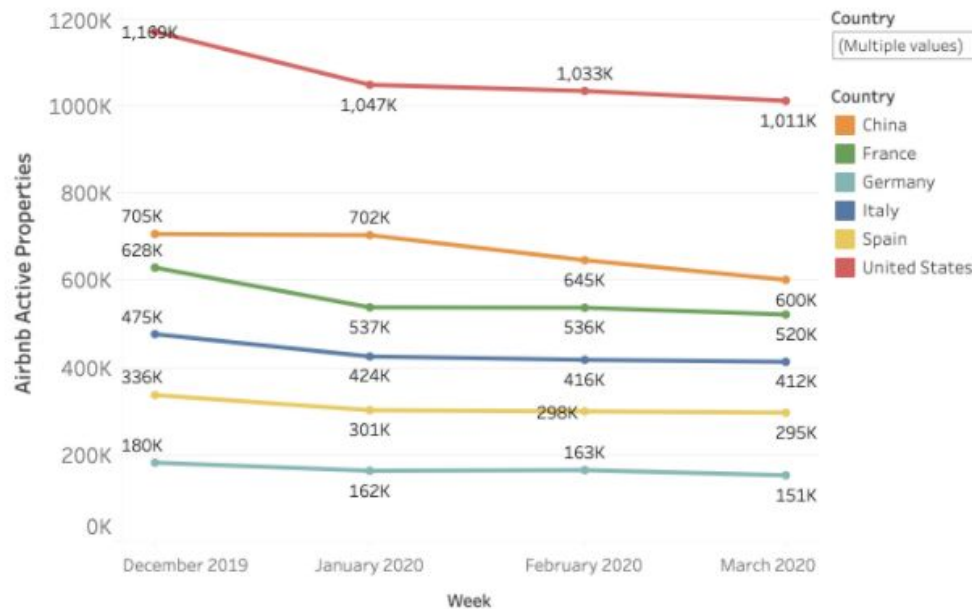
Coronavirus has seriously affected Airbnb, another online-offline darling of the smartphone era. While supply (active properties) has held relatively steady, demand (reservations) has dropped off.

Source: [AirDNA](https://airdna.com)

### Reservations by Date Booked



### Airbnb Active Properties





# Social Distancing = Little/No Movement

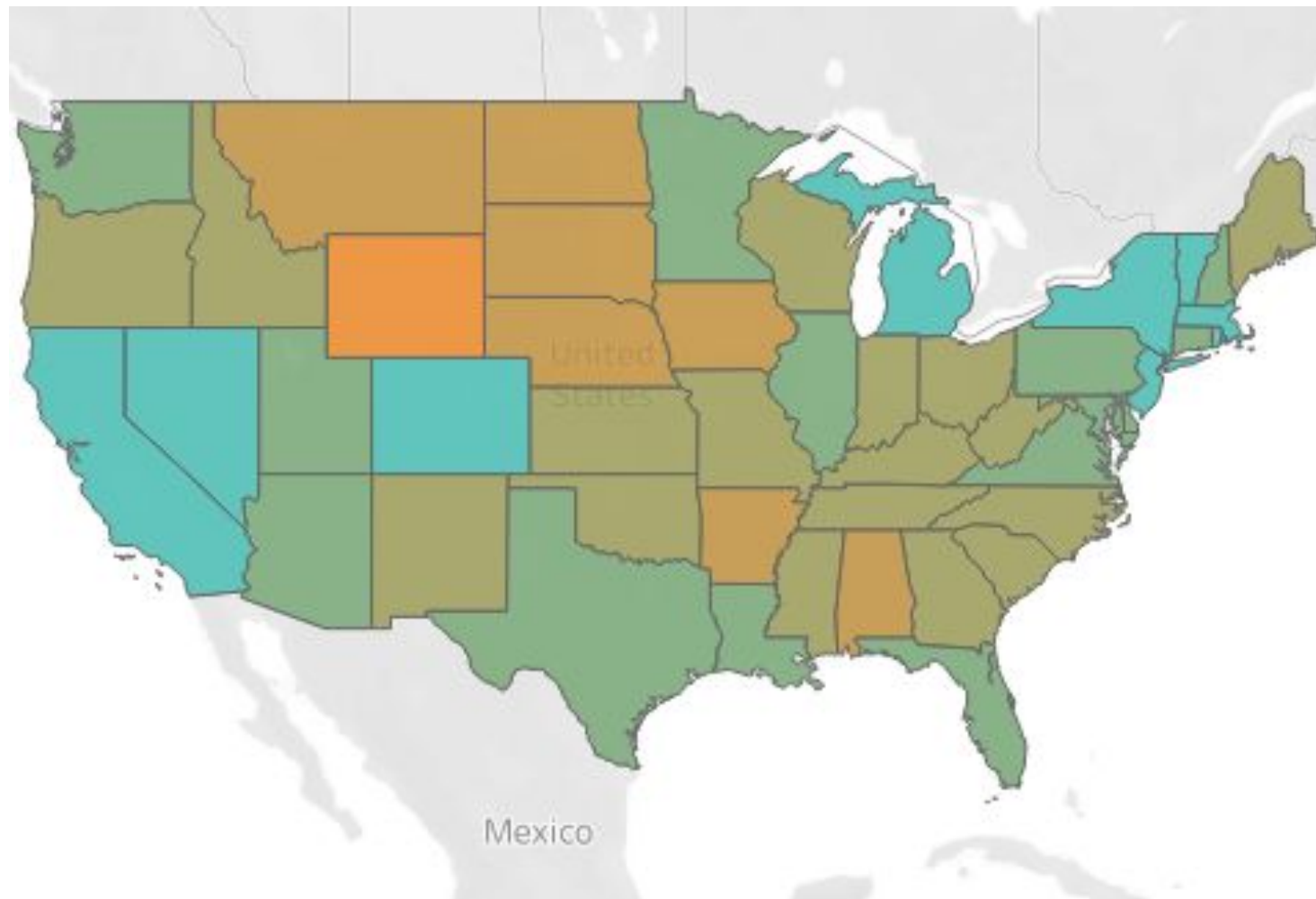
Within major cities, people just aren't moving around much (which is good for public health). Many of the West's most prominent cities are virtually immobile, [per Citymapper](#).

Percentage of the city moving on March 30, compared to an average day:

- **3%:** Vienna, Barcelona, Madrid, Lyon, Milan, Rome
- **5%–9%:** Paris, Monaco, Amsterdam, New York City, Brussels, Boston, Tokyo, Istanbul, Washington D.C., San Francisco, Berlin, London, Chicago
- **10%–14%:** Hamburg, Montréal, Lisbon, Manchester, Los Angeles, Philadelphia, Seattle, São Paulo
- **15%–19%:** Vancouver, Mexico City, Melbourne, Toronto, Sydney
- **20%–30%:** Moscow, Hong Kong, Stockholm, St. Petersburg, Seoul
- **54%:** Singapore

# Distancing Differs By State

There's literally a social distancing scoreboard, which ranks U.S. states and counties on how well their population is reducing movement (Turquoise = A, Orange = F):



Source: [Unacast](#)

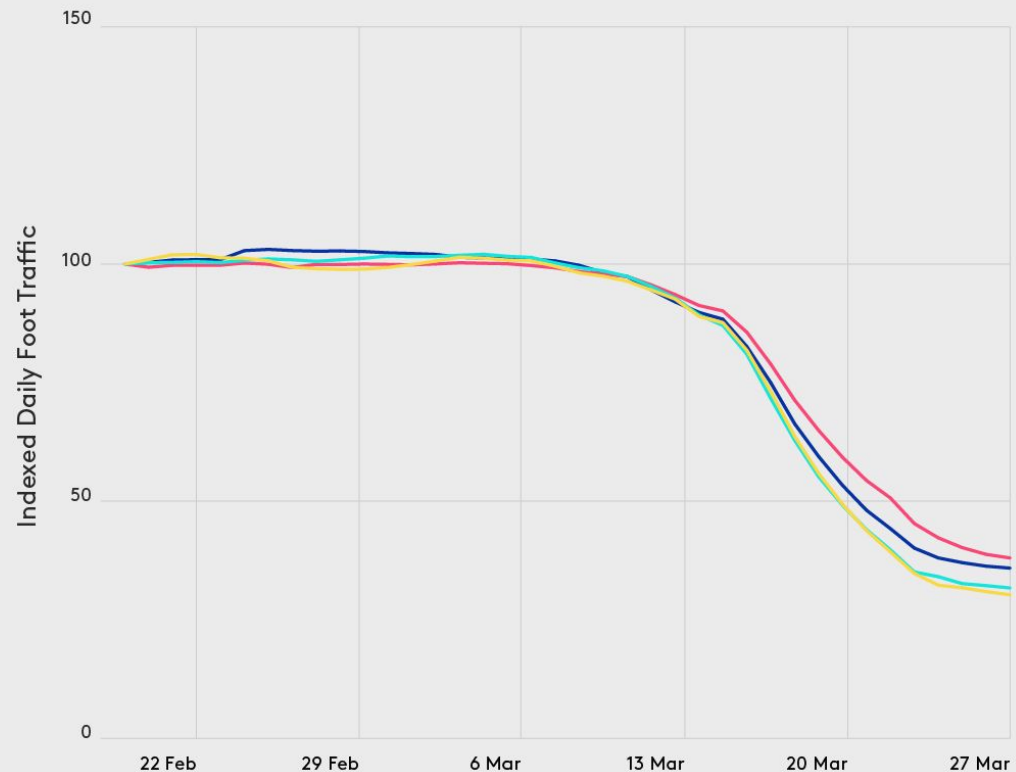
# Staying Fit Gets Harder

## CV-19 Impact on Gyms by Region

February 19—March 27

- Midwest
- Northeast
- South
- West

Chart illustrates indexed foot traffic to gyms by region, where visits for February 19, 2020 is 100. We've used rolling 7 day averages to account for fluctuations by day of the week.



FOURSQUARE

Foot traffic to U.S. gyms has dropped off. Foursquare also [reports](#) that visits to trails and parks in the U.S. are up 34% and 10%, respectively. FWIW, Google says movement at parks [is down](#) 19%.

# Fitness Studios Move Online

ClassPass reservation volume, indexed against the same day of week during the week of Feb 14

	APAC & Australia				Europe						United States						Global
	Sydney	Hong Kong	Singapore	Kuala Lumpur	Denmark	Norway	Madrid	Barcelona	London	Paris	Seattle	San Francisco	New York City	Denver	Chicago	Los Angeles	All ClassPass
3/1	4%	19%	5%	-3%	-22%	-35%	-6%	-22%	-8%	-2%	-2%	8%	8%	5%	-9%	9%	1%
3/2	-1%	15%	0%	-3%	-26%	-10%	-20%	-13%	-3%	-15%	-9%	14%	2%	-2%	-9%	11%	1%
3/3	3%	13%	2%	4%	-23%	-20%	-7%	-5%	-7%	-4%	-17%	-19%	-18%	-9%	-15%	-12%	-12%
3/4	15%	11%	9%	-7%	-27%	-21%	-16%	-11%	-5%	-11%	-12%	-10%	-10%	0%	-6%	-8%	-6%
3/5	7%	2%	4%	-1%	-2%	-30%	-11%	-5%	-7%	-3%	-25%	-14%	-11%	-7%	-12%	-7%	-8%
3/6	10%	23%	17%	17%	11%	-15%	-6%	-35%	-4%	-4%	-5%	7%	7%	-4%	3%	7%	4%
3/7	3%	13%	6%	-3%	-56%	-34%	-9%	-30%	-15%	-4%	-13%	11%	-1%	-19%	-12%	6%	-4%
3/8	6%	14%	-2%	-4%	-39%	-42%	-3%	-29%	-12%	-8%	-18%	4%	-10%	-7%	-17%	2%	-9%
3/9	-7%	17%	-2%	-2%	-23%	-20%	-33%	-9%	-13%	-14%	-11%	11%	-10%	-4%	-15%	0%	-7%
3/10	0%	24%	8%	20%	1%	-42%	-27%	-19%	-9%	4%	-24%	-14%	-23%	-18%	-17%	-12%	-13%
3/11	10%	29%	14%	-9%	-37%	-39%	-33%	-16%	-10%	-11%	-14%	-18%	-19%	-2%	-15%	-12%	-12%
3/12	-4%	10%	0%	-8%	-57%	-75%	-58%	-32%	-27%	-19%	-32%	-28%	-38%	-26%	-31%	-30%	-26%
3/13	4%	31%	10%	10%	-82%	-100%	-88%	-76%	-19%	-15%	-27%	-20%	-26%	-24%	-21%	-18%	-18%
3/14	-12%	17%	2%	-10%	-100%	-100%	-100%	-100%	-40%	-36%	-33%	-25%	-42%	-25%	-40%	-21%	-31%
3/15	-30%	10%	-10%	-39%	-100%	-100%	-100%	-100%	-53%	-100%	-46%	-45%	-64%	-45%	-52%	-41%	-51%
3/16	-34%	10%	-12%	-54%	-100%	-100%	-100%	-100%	-60%	-100%	-80%	-71%	-89%	-72%	-81%	-80%	-72%
3/17	-39%	11%	-14%	-94%	-100%	-100%	-100%	-100%	-72%	-100%	-100%	-98%	-100%	-93%	-91%	-100%	-87%
3/18	-33%	15%	-5%	-100%	-100%	-100%	-100%	-100%	-81%	-100%	-100%	-100%	-100%	-96%	-94%	-100%	-90%
3/19	-38%	-6%	-13%	-100%	-100%	-100%	-100%	-100%	-87%	-100%	-100%	-100%	-100%	-100%	-96%	-100%	-92%
3/20	-37%	11%	0%	-100%	-100%	-100%	-100%	-100%	-91%	-100%	-100%	-99%	-100%	-100%	-95%	-100%	-91%
3/21	-45%	-11%	-8%	-100%	-100%	-100%	-100%	-100%	-99%	-100%	-100%	-99%	-100%	-99%	-96%	-100%	-93%

ClassPass reservations fell 100% MoM by mid-March. 90% of CP's 30,000 partners across 30 countries are closed. To adapt, CP launched a platform for partners to livestream classes. In a week, almost 4,000 studios signed up and a third have received reservations. CP also launched a Partner Relief Fund, matching up to \$1 million in donations through its app, and [is petitioning](#) for financial relief for the health and wellness industry.

Source: [ClassPass CEO Fritz Lanman](#)

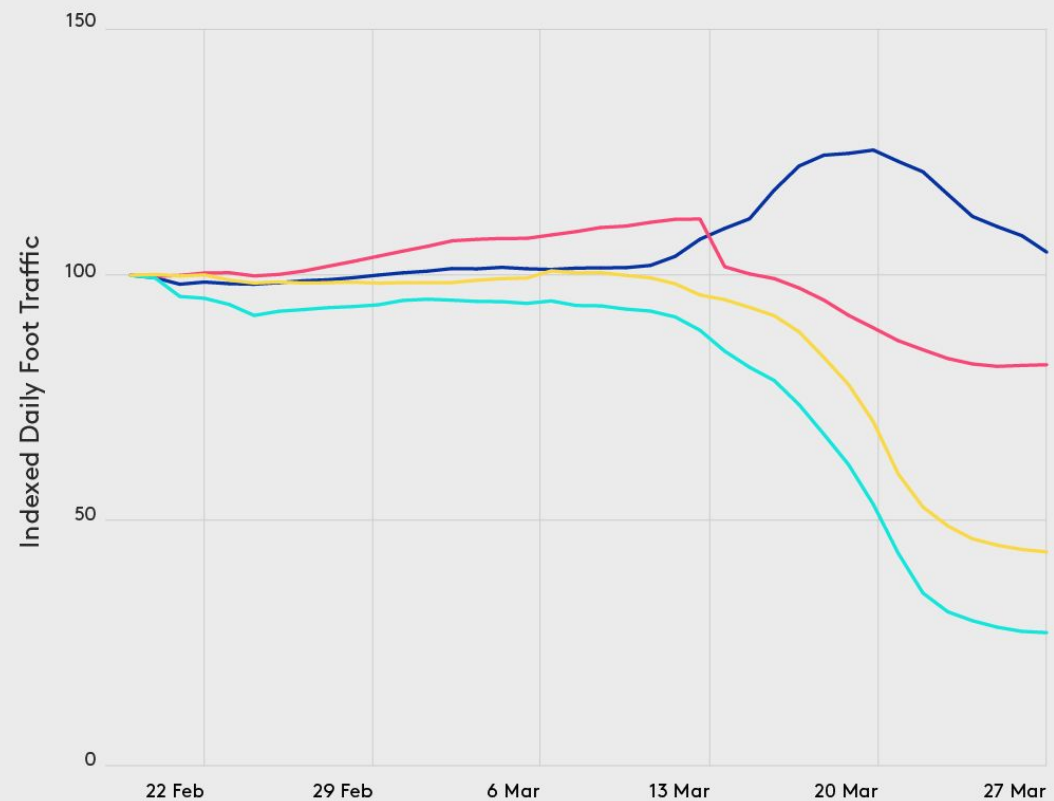
# Alcohol: The Unstoppable Force

## CV-19 Impact on Food & Beverage Businesses Nationwide

February 19—March 27

- Bars
- Casual Dining
- Fast Food
- Liquor Stores

Chart illustrates indexed foot traffic to food & beverage businesses nationwide, where visits for February 19, 2020 is 100. We've used rolling 7 day averages to account for fluctuations by day of the week.



FOURSQUARE

Americans have stocked up on alcohol...and though foot traffic to liquor stores peaked in mid-March, it was still higher at the end of the month than February levels, [per Foursquare](#). States including NY have deemed liquor stores “essential” businesses.

# Here's to You for Making It This Far

Nearly 3.5 billion people are in some sort of lockdown...working, talking, gaming, shopping, Zooming, or TikToking.

People are currently experiencing the world through a computer monitor or mobile screen.

That means online traffic is way up. On the flipside, movement in the real world has dropped off as many physical aspects of our lives have disappeared.

Though a good chunk of this data is dispiriting, we hope you've learned something. If anything, our takeaway is that the magnitude of change represents increasingly dramatic steps taken across the U.S. and the world to halt the spread of the coronavirus.

Drop me a line if you want to chat more - [ryan@morningbrew.com](mailto:ryan@morningbrew.com)

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