Travel Trends in LA during the COVID-19 Emergency

Briefing on Research to Date | June 2020
Prepared by Karina Macias, Rose McCarron and Rubina Ghazarian, LADOT

Image Source: Karina Macias
Context on the Research to Date

Presents insights on LA travel trends during initial phases of the COVID-19 emergency

➔ Based on **quantitative data** that tells LADOT *how much* and *where* people changed their travel from typical:
  - Typical trends based on January/February 2020 data -- pre-emergency
  - Study period includes last week of March and April 2020 data -- post-Safer at Home orders

➔ Based on **qualitative data** that helps LADOT understand relationships between travel behavior and *other factors we may not have data for*

---

Image Source: Karina Macias
Timeline of COVID emergency response in LA

**3/4/20**
LA declares a State of Local Emergency
City & County of LA ask public to plan for social distancing and other measures

**3/10/20**
Major employers encourage people work from home
Apple, Google, Amazon, Microsoft, Facebook, HP, and others encourage workers stay home

**3/12/20**
City of LA augments local response
Mayor Garcetti orders City agencies to cancel non-essential public gatherings & orders LAPL system closed

**3/16/20**
LAUSD schools & non-essential businesses closed
Schools, gyms, fitness centers, bars, nightclubs, bowling alleys, movie theaters ordered closed. Dine-in service prohibited.

**3/19/20**
Safer at Home (SAH) order announced
City residents directed to stay home with exceptions for essential travel. Non-essential businesses ordered closed.

**5/8/20**
SAH relaxed for some businesses
Florists and other non-essential retailers may offer curbside pickup. Car dealerships can open.
LA County has adhered to staying Safer at Home

➔ Boston Consulting Group’s Trip Reduction Index (TRI) measures car travel on a 0 to 10 scale

➔ Where TRI=0 means 130% or more VMT than average in January 2020 and TRI=10 means no car travel was detected

➔ With strong adherence to SAH orders, LA County earned a TRI=8.2

Trip reduction index as of April 24, 2020

Source: StreetLight Data, BCG Analysis
Based on quantitative mobility datasets

Image Source: Northeastern University
After an initial drastic decline, Citywide vehicle trip making is on the rise

Based on data from LADOT ATSAC loop detectors at top intersections...

➔ When LAUSD schools closed, -30% vehicles counted than Tue 3/10

➔ Post-SAH order, -47% vehicles counted than Tue 3/10

➔ Daily vehicle volumes range -37% to -58% than Tue 3/10

Major employers begin to encourage work from home

Source: LADOT ATSAC Loop Data, LADOT Analysis
After an initial drastic decline, Citywide vehicle trip making is on the rise

- On Sun 3/1 vehicle trip making increases
- Mon 3/2 sees +23% trips than usual
- Fri 3/6 sees +30% trips than usual
- With LAUSD schools closed, Mon 3/16 sees -21% trips
- Post-SAH order, Mon 3/26 sees -46% trips
- **Daily trips remain between -36 to 46% than typical, but increasing**

Source: StreetLight Data, LADOT Analysis
After a major drop, Citywide vehicle miles traveled (VMT) is on the rise

- On Fri 3/13, VMT peaks at +29% higher than usual
- When LAUSD closed, VMT fell 16% below normal
- After SAH order, daily VMT -50%
- 1st Sat post-SAH, daily VMT -72%
- 1st Mon post-SAH, daily VMT -46%
- Daily weekday VMT -30% to -50% than typical, but reduction is shrinking

Source: StreetLight Data, LADOT Analysis
Declines in VMT were not equal throughout LA

Weekday VMT change compared to the last week of January 2020

Source: StreetLight Data, LADOT Analysis
People in poor communities made less trips, but drove for longer time periods during Safer at Home orders

➔ Post-SAH, average number of weekday trips decreased more in very high/high poverty areas than low poverty areas

➔ However, very high/high poverty areas saw a smaller drop in car trip duration in minutes

➔ People in affluent areas made more, brief car trips

Source: StreetLight Data, California Healthy Places Index, LADOT Analysis
People in poor communities have reduced their VMT less than people in affluent areas.

Post-SAH, average number of weekday car trips starting in areas with more poverty are lengthier.

People in very high/high poverty areas saw lower reductions in VMT during post-SAH.

Source: StreetLight Data, California Healthy Places Index, LADOT Analysis
Black and Latina/o people made more weekday trips, experiencing slight travel time savings during Safer at Home

- **Areas with low proportions of Black and Latina/o people saw major reductions in average weekday car trips post-SAH**

- **Also, majority Black and Latina/o areas saw a slight decrease in vehicle trip duration**

- **People in majority Black & Latina/o areas made more weekday trips, slightly shorter in duration**

**% Change in Average Weekday Volume**

- Low Black & Latina/o population (less than 34%): -51.60%
- Medium Black & Latina/o population (34-60%): -53.60%
- High Black & Latina/o population (60-85%): -47.80%
- Very High Black & Latina/o population (85%+): -42.00%

**% Change in Average Weekday Trip Duration**

- Low Black & Latina/o population (less than 34%): -7.80%
- Medium Black & Latina/o population (34-60%): -7.90%
- High Black & Latina/o population (60-85%): -8.30%
- Very High Black & Latina/o population (85%+): -8.10%

Source: StreetLight Data, California Healthy Places Index, LADOT Analysis
People in majority Black and Latina/o communities have experienced significantly smaller VMT reductions than 

Post-SAH, majority Black and Latina/o areas experienced smaller reductions in vehicle trip lengths

People in majority Black and Latina/o areas reduced their VMT less than all other areas during post-SAH

Source: StreetLight Data, California Healthy Places Index, LADOT Analysis
Many people are riding DASH in Central City & South LA

Compared to February 2020 average week ridership:

➔ DASH buses see -13% riders when state of COVID emergency announced

➔ LAUSD schools close, DASH buses see -46% riders

➔ SAH order goes into effect, DASH buses see -68% riders

➔ ~32% weekly DASH bus riders continue to use the system

Source: LADOT Transit
Ridership on Metro Buses is climbing, seems stagnant on Metro Rail

Compared to Feb ‘20 average week ridership:

→ LAUSD schools close, **Metro rail sees -52% riders**

→ Metro Buses continue to move 37% of weekly ridership, at ~930k riders/week

→ Metro Rail moves 34% of weekly ridership, at ~233k/week

Source: LA Metro*

*Bus ridership data for 3/1 to 3/28 was not yet available
Half as many people are using Metro Bike Share

Compared to February 2020 average daily ridership:

- Bikeshare rides decline by 30% when state of COVID emergency announced
- LAUSD schools close, rides decline by 50%
- SAH order goes into effect, rides decline by 58%

Source: Los Angeles Metro, LADOT Analysis
More people are riding in separated bikeways

Based on data from bicycle loop detectors at separated bikeways...

- Post-SAH order, bicycle counts have increased on clear days
- In May, bicycle counts were on average 54% higher compared to the week prior to SAH

Source: LADOT Bicycle Loop Data, LADOT Analysis
Travel trends in LA during the COVID-19 emergency, by the numbers

- **Total observed vehicle trips citywide decreased 30 - 50%** compared to January 2020 but **vehicle trip making is on the rise**
- While daily weekday citywide VMT also decreased 30 - 50% below January 2020 levels, **VMT is beginning to increase**
- **People in communities of color had smallest observed VMT reductions**, including Jefferson Park, Vermont Vista, West Adams, Florence, Adams-Normandie, Wilmington
- **People in high poverty areas made less trips, but drove for longer time periods & more miles during SAH** when compared to people in affluent areas
- DASH buses continue serving about 32% of their weekly ridership, with **highest weekly ridership figures seen on bus routes in Central City & South LA**
- Similarly, **LA Metro Buses continue moving ~930k bus riders/week**, 37% of typical weekly ridership, and **LA Metro Rail serves ~233k/week**, 34% of typical
- **Metro Bike Share seeing about 50% decrease in typical daily ridership**
- On physically separated bikeways, **bicycle ridership is growing**
According to the people of Los Angeles
Feedback on streets + mobility during the COVID-19 emergency from people privileged to work from home

• Expand provision of working from home beyond COVID-19 emergency
• Reclaim road space and parking lots for **for shopping, for dining, or to recreate**
  – **Convert curbside spaces** into high-turnover pick-up or delivery zones to benefit essential retailers
  – **Expand outdoor marketplace footprints** onto adjacent streets to relieve crowding and support physical distancing
  – Test our new uses like **transformative placemaking**
  – Provide public spaces to **escape the online, virtual spaces** that are being surveilled
• Take advantage of low traffic conditions to **accelerate construction of improvements**
• **Continue building** dense, urban communities

*Sources: Local social media posts, local advocates, Mayor’s Office of Public Engagement*
Feedback on streets + mobility during the COVID-19 emergency from people still riding public transit

• Based on 1,102 Transit app users surveyed in LA metro area,
  – 40% respondents/riders are 35 - 54 years old, 39% are 18 - 34 yrs old
  – 85% of respondents/riders do not own or have access to car
  – 25% of respondents/riders who ride transit daily, do not have a car
  – Top 3 reasons for travel, work (72%), errands (49%), and healthcare (28%)
  – Nearly half (49.5%) have changed their travel time, earlier or later
  – Essential workers riding transit are employed in food prep & service (18%), building/grounds maintenance (9%), sales/retail (8%), healthcare support (7%)
  – About 50% earn less than $20k a year

• Reduce anxiety of current transit riders, by delivering enhanced bus service capacity to allow physical distancing, improved reliability, transit vehicle cleanliness, and access to facilities for personal hygiene

Sources: LA Metro via Transit App Survey, HCIDLA FamilySource Centers, LA Mayor’s Angeleno Card Assistance Program, EWDD Rapid Response Centers, Mayor’s Office of Public Engagement
Feedback on streets + mobility during the COVID-19 emergency from financially impacted people (1/2)

- Former transit riders who do not own a car are shifting to community-based car sharing, shared rides, bicycling, or walking.
- Oversubscribed on-street parking due to overcrowded housing and/or high vehicle ownership rates has motivated people to avoid moving their car, increase online shopping, or have anxiety about citations.
- Fear of crowded spaces has motivated people to make essential trips early or late in the day or to travel farther.
- Fear of COVID-19 exposure has isolated some people at home, resulting in feelings of anxiety, fear, loneliness, isolation, and disconnection.
- Struggling to find work, unemployed low-income people are considering moving out of state.

Sources: HCIDLA FamilySource Centers, LA Mayor’s Angeleno Card Assistance Program, EWDD Rapid Response Centers, Mayor’s Office of Public Engagement
Feedback on streets + mobility during the COVID-19 emergency from financially impacted people (2/2)

• Newly unemployed/underemployed people are either driving more to generate income or not at all to reduce expenses and health risk exposure.

• Employed people only go out for essential trips, like reporting to a physical location for work, to go grocery shopping, or to fill prescriptions.

• All surveyed families avoid riding transit and stopped non-essential travel, limiting existence to their neighborhoods and restricting fresh food access.

• Many families with young children reported living in crowded housing and nearby parks are closed, but are hopeful parks will reopen with facilities for personal hygiene and with public information on physical distancing.

• Linguistically isolated communities would like more accessible public information on agencies’ public transit vehicle and facilities sanitation procedures, on processes for making maintenance requests, and on fare discounts.

Sources: HCIDLA FamilySource Centers, LA Mayor’s Angeleno Card Assistance Program, EWDD Rapid Response Centers, Mayor’s Office of Public Engagement Area Representatives
Rebounding from the COVID-19 emergency

Will travel during the recovery look like this?

Like business as usual?

Or like this?

Source: StreetLight Data, LADOT Analysis
About the LADOT Research Team

Karina Macias
Co-Principal Investigator
Sup. Transportation Planner I
LADOT Planning & Policy

Rose McCarron
Co-Principal Investigator
Sup. Transportation Planner I
LADOT Vision Zero

Rubina Ghazarian
Research Advisor
Sup. Transportation Planner II
LADOT Planning & Policy
In Los Angeles, all people have access to safe and affordable transportation choices that treat everyone with dignity and support vibrant, inclusive communities.