



CENTRAL TEXAS REGIONAL  
**MOBILITY AUTHORITY**

INNOVATION  
RESEARCH BRIEF

# MoPac Expressway Metropia Data Analysis

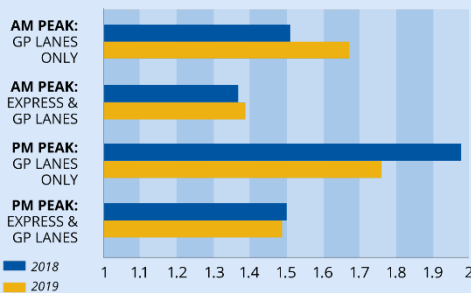
## Study Description

- Query of Metropia App Users to assess MoPac Expressway performance and carpooling behavior
  - MoPac General Purpose (GP) Lane Only Trips
  - MoPac GP and Express Lane (EL) or Express Lane Only Trips
  - Non-MoPac Trips
- January – May of 2017, 2018, and 2019, corresponding to before, during, and after EL opening. Carpooling analysis compared Carpoolers vs. all users.
  - Carpool users applied Metropia DUO feature (carpool trip matching)
  - Follow up survey of app users after their trip



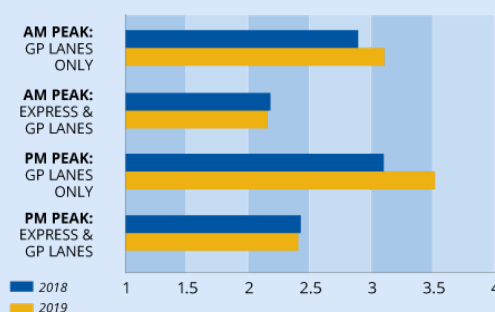
## Travel Time Index (TTI)

The ratio of congested travel time to free flow travel time, also known as **average delay**.



## Planning Time Index (PTI)

The ratio of nearly the worst travel time to free flow travel time. Uses the 19th-worst out of 20 measurements (95th percentile) to measure **reliability**.



The purpose of the research brief is to share Key findings of a study by the Mobility Authority to evaluate future technology and innovative concepts.

**JEFF DAILEY**  
Deputy Executive Director  
jdailey@ctrma.org

**MIA ZMUD**  
mzmud@ctrma.org

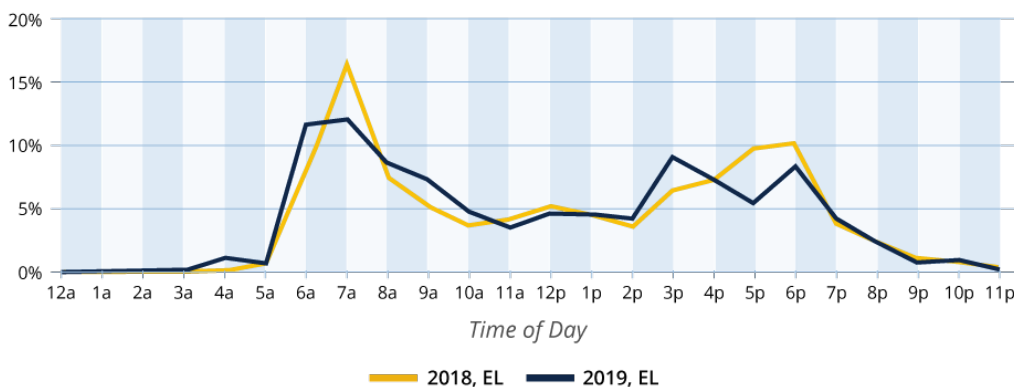
**STEVE PUSTELNYK**  
spustelnyk@ctrma.org



3300 N IH-35, Suite 300  
Austin, TX 78705  
[MobilityAuthority.com](http://MobilityAuthority.com)

## Departure Time: MoPac Express Lanes

These patterns are indicative of the growth in the severity of peak hour congestion in 2019.



# MoPac Expressway Metropia Data Analysis



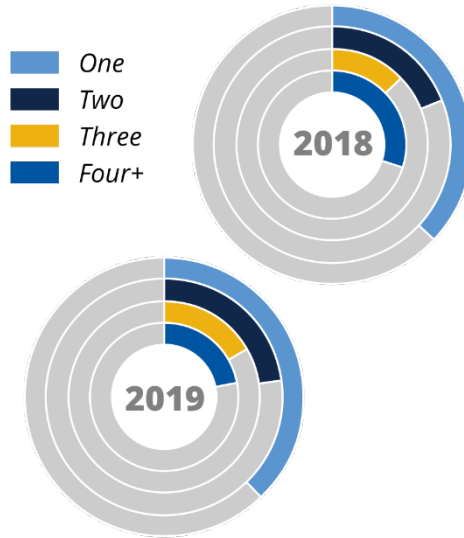
## KEY FINDINGS

- 01.** The EL have outperformed the GP lanes both in terms of mobility and reliability based on the lower TTI and PTI values.
- 02.** Trips utilizing a combination of EL and GP lanes experience less congestion and have higher reliability, but that experience deteriorates in the PM peak period compared to the AM peak period.
- 03.** The carpool person trip percentages for the MoPac Expressway are generally higher than for all Austin.
- 04.** The carpool occupancy for the MoPac Expressway is generally consistent with the overall occupancy for Austin, with an average for all time periods of 2.27 people per HOV.

**SOURCE**  
Metropia Rideshare Analysis

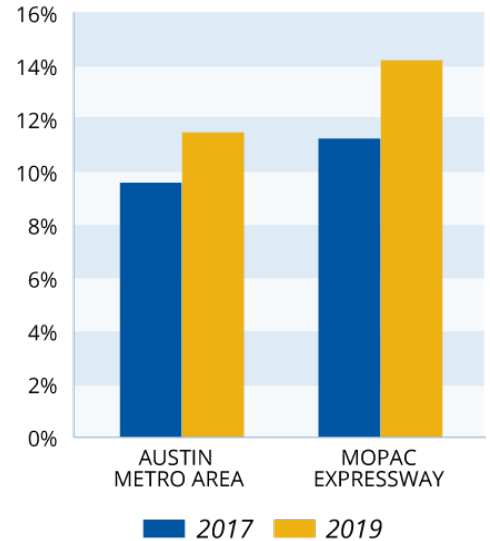
## Express Lane Usage

More users accessed the express lanes for one, two or three days a week, while fewer accessed it four or more days a week.



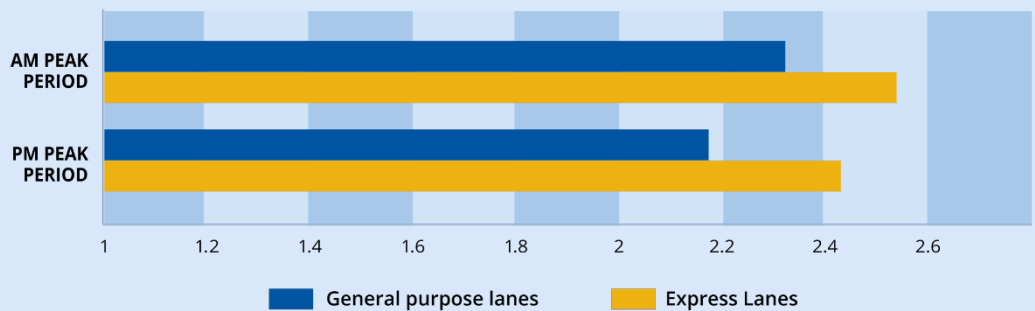
## Portion of Carpool Trips

These patterns are indicative of the growth in the severity of peak hour congestion in 2019.



## HOV Occupancy

The carpool vehicle occupancy of the express lane trips were higher than those of the GP lane trips during both peak periods.

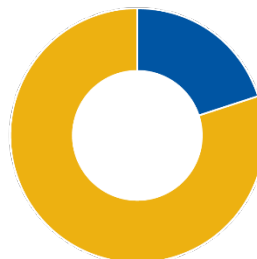


## Departure Time and Carpooling

The majority of respondents said they changed their departure time due to congestion. The majority of those who carpooled did so for convenience.

**Peak Spreading:**  
Reason for Changing Departure Time:

- Avoid Congestion
- Other



**Carpooling:**  
Incentive to Choose Carpooling:

- Save money on tolls
- Convenience

