Master of Urban and Regional Planning
COLLEGE OF ARCHITECTURE AND PLANNING
UNIVERSITY OF COLORADO **DENVER**

Understanding E-Scooter Usage and Planning Implications in Denver, Colorado

by Walter Scheib, May 2020

This capstone project, conducted for the Denver Department of Transportation and Infrastructure (DOTI), provides an in-depth analysis of Denver's e-scooter travel data from a transportation planning perspective. This research helps address the city's current e-scooter challenges and provides recommendations for how Denver's planning initiatives should account for growing usage of new micromobility transportation modes.

(Ridership data source: DOTI; Icon source: The Noun Project)

RIDERSHIP STATISTICS

1,652,277
E-SCOOTER TRIPS IN DENVER BETWEEN JULY 2019 AND JANUARY 2020

8,020 AVERAGE TRIPS PER DAY

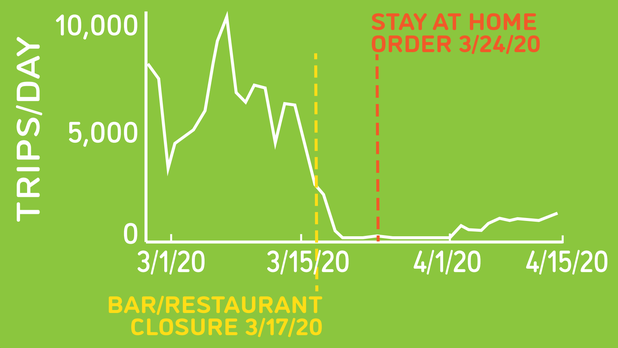
18,160 THE MOST TRIPS IN ONE DAY (8/3/19)

22 THE LEAST TRIPS IN ONE DAY (10/29/19)

1.2 MILES
AVERAGE TRIP DISTANCE

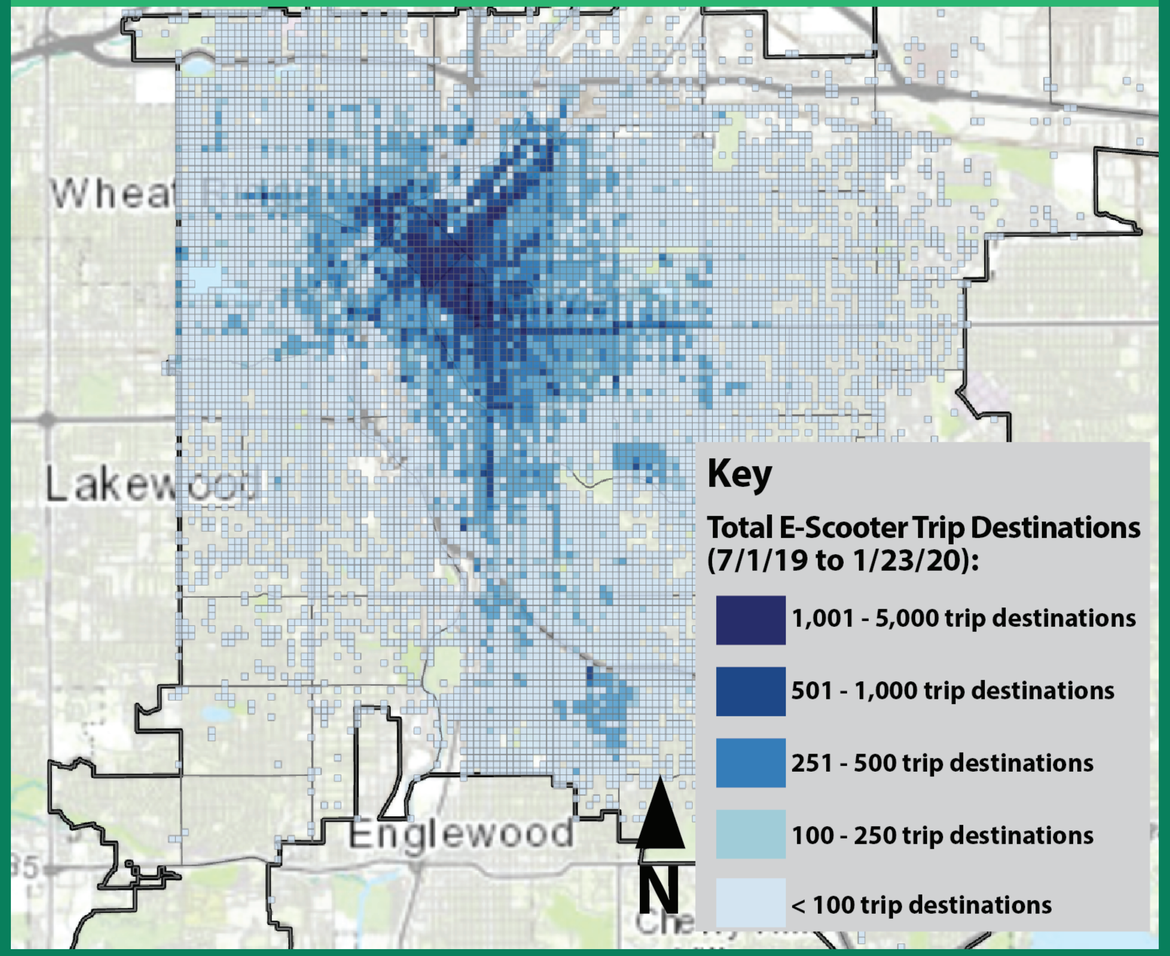
12.6 MINUTES
AVERAGE TRIP DURATION

COVID-19 RIDERSHIP IMPACTS

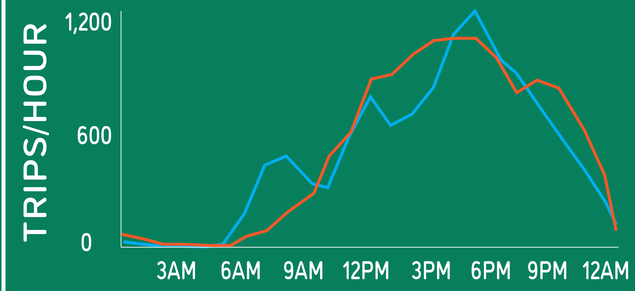


RIDERSHIP PATTERNS

Trip end locations for 1.65 million e-scooter rides (7/1/19 to 1/23/20)

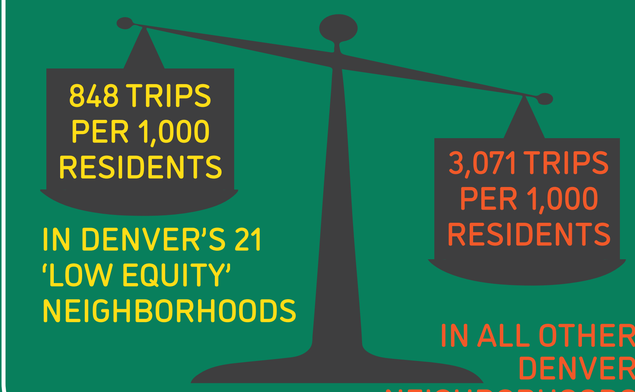


TYPICAL WEEKDAY AND WEEKEND RIDERSHIP PATTERNS



E-SCOOTERS AND EQUITY

BETWEEN JULY 2019 AND JANUARY 2020:



RECOMMENDATIONS FOR AN IMPROVED E-SCOOTER EXPERIENCE IN DENVER

PERMITTING
Update permitting with new requirements related to equitable access, parking, data privacy, scooter durability, and reporting

SAFETY
Enable more ridership on safe routes with bike lanes and encourage safer ridership habits

EQUITY
Require more e-scooters in low-equity areas; cash payment options; develop safer e-scooter/ bike infrastructure for all

PARKING
Increase parking enforcement; identify and test designated e-scooter parking and charging locations

E-SCOOTER & BIKE FACILITIES
Add high-comfort bike lanes in identified high ridership areas