

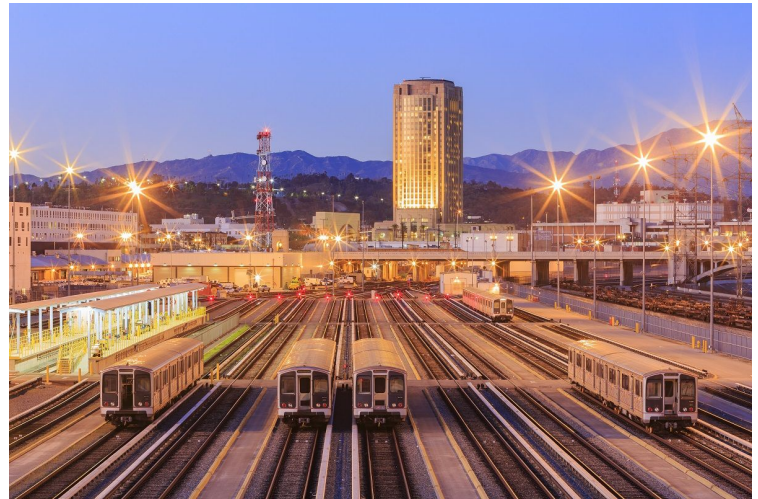
The 2024 SLAGC URSP LA County Transportation Energy Report

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Background

- **Purpose:** To provide an updated and comprehensive analysis of LA County's transportation system
 - Focusing on sustainability, equity, and public health
- **Context:** Builds on the 2017 Sustainable LA Environmental Report Card, expanding the analysis from 2005 to 2023



Objectives

- Update the 2017 LA County Energy & Air Quality Report
- **Standalone analysis** with takeaways & future recommendations
 - 1) Transportation Use
 - 2) Infrastructure
 - 3) Equity
 - 4) Health
- Expands **indicators** & adds **new categories**



ENERGY & AIR QUALITY | 2017

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Expanded Indicators in the 2024 Report

Transportation Use

- ***Price of Gas, Gas Sold for Transportation**
- Vehicle Miles Traveled (VMT)
- Commute Times
- *Commute Modes
- Transit Passenger Miles Traveled, Passenger Trips
- **EV Sales, Number of EVs**

Health

- ***Traffic-Related Injuries & Fatalities**
- ***Traffic-Related Emission Health Effects**

Infrastructure

- *EV Charging Facilities
- **Parking Space Construction & Utilization**
- **Metro Bike Sharing**
- ***Bike Lanes**

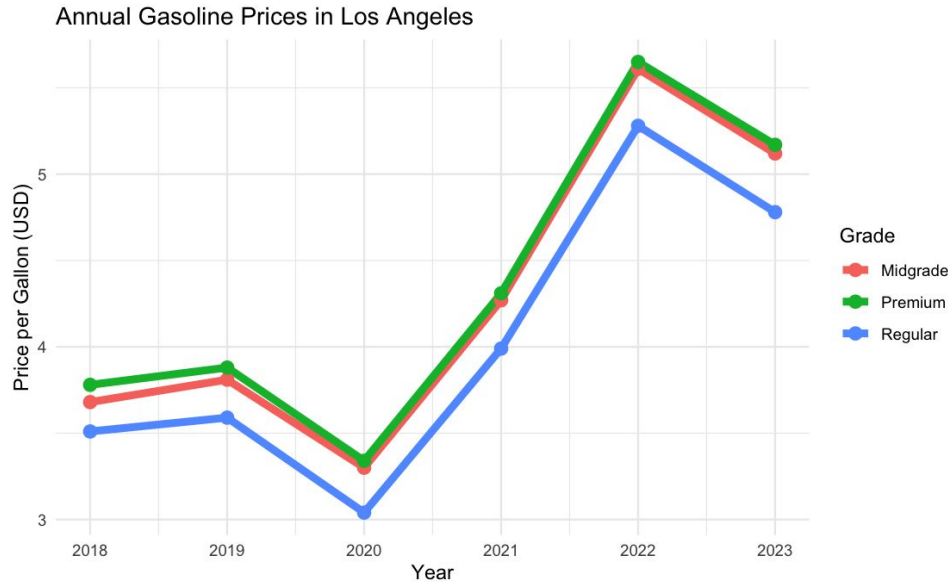
Equity

- **Last mile connectivity**
- **Fare Affordability**
- **Access Services**
- ***Equity & Affordability of EVs**
- **Use of Transit by Demographic Groups**

Transportation Use

Insights into transit behavior patterns

Gas Prices



Decline in the price of gas

- COVID-19 Pandemic

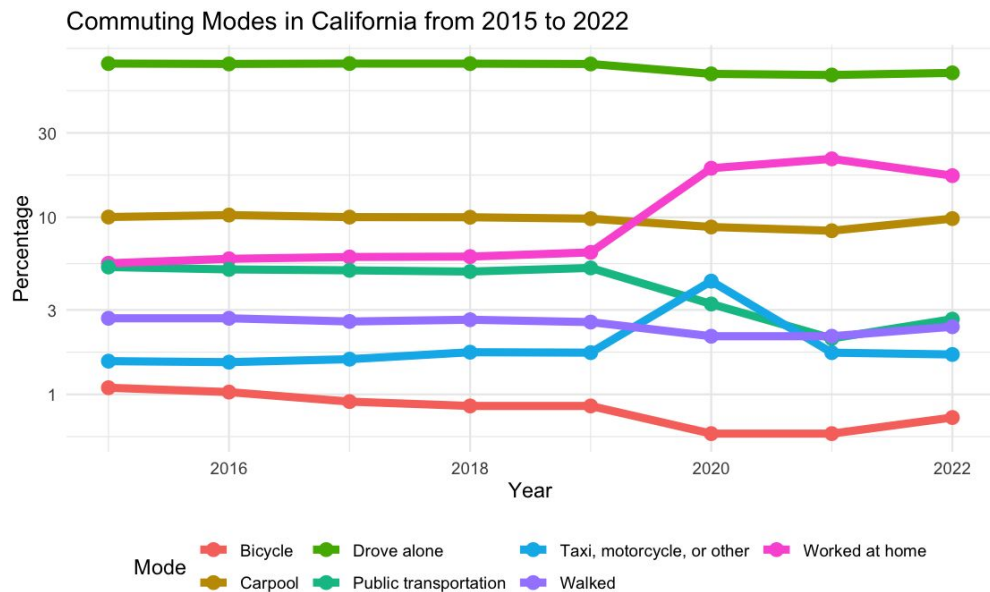
Rebound, increase in the price of gas

- 2021, 2022

Decline in the price of gas, future predictions

- 2023 and beyond

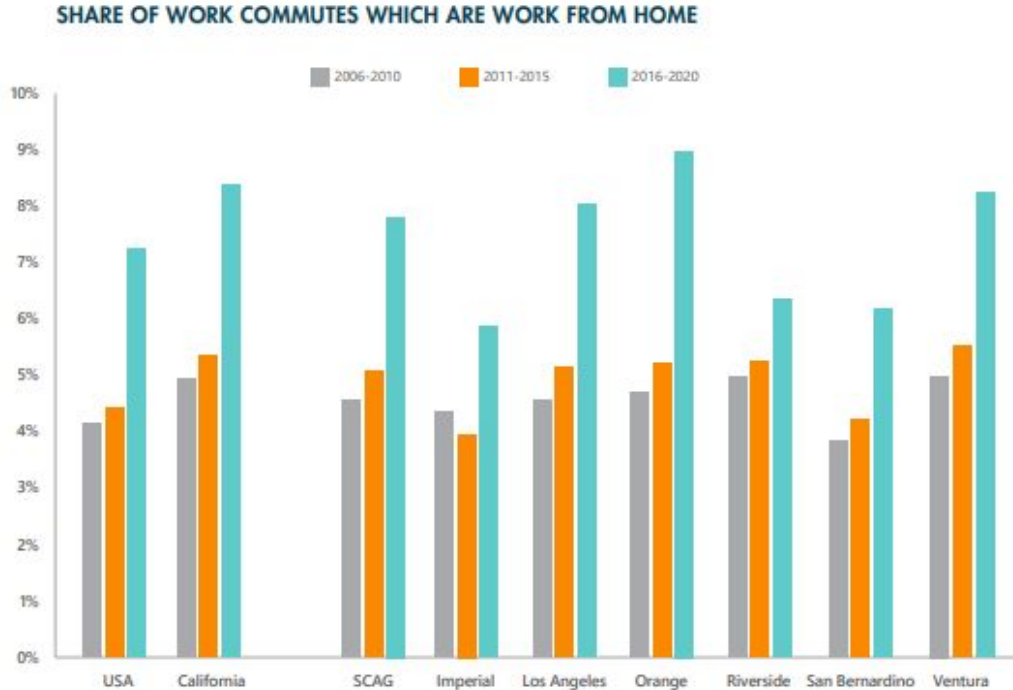
Commute Modes



Shifts in commuting patterns

- Increase in remote work
- Decrease in public transit use
- Increase in carpooling

Work From Home by %



Rose from 5% to 8%

Working from home due to COVID

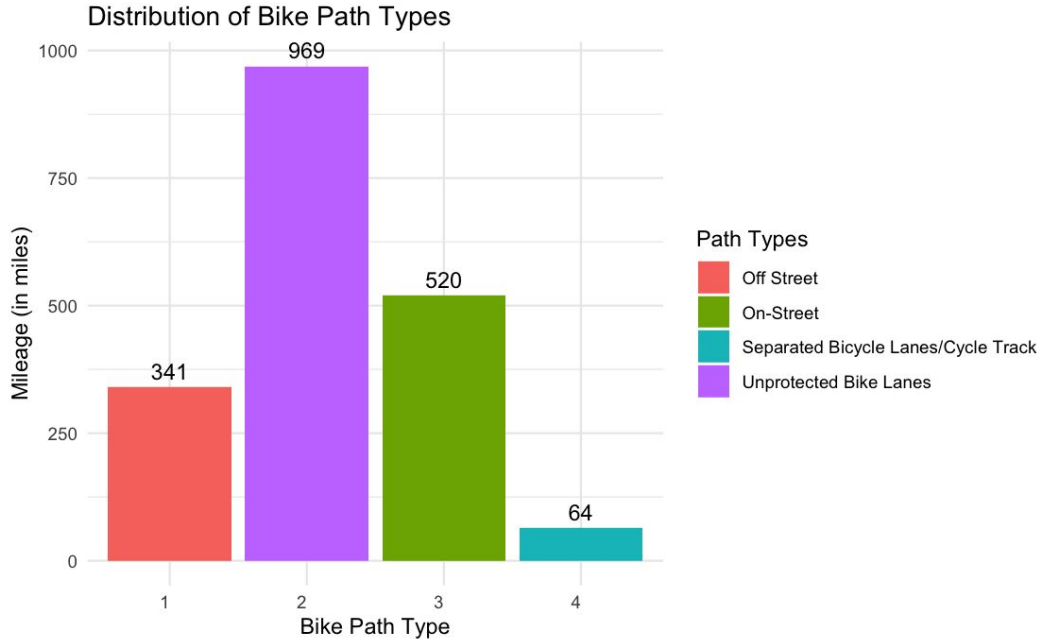
- Predict that this will remain higher than pre-pandemic

Higher in California and LA than U.S. average

Infrastructure

Advancing EV Charging, Ridesharing, & Bike Lanes
for a Sustainable Future

Bike Lanes



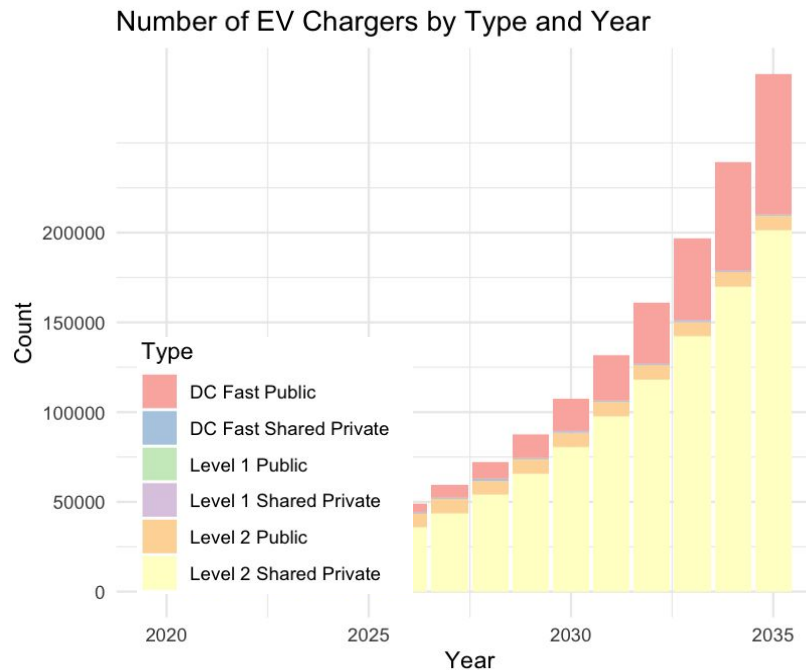
Growth of Ridesharing & Cycling Infrastructure

- Increased number of protected bike lanes and off-street paths

Metro Bike Share Program

- Expanded to 221 stations

EV Chargers



Direct Current (DC) fast chargers

Level 2 Alternating Current (AC)

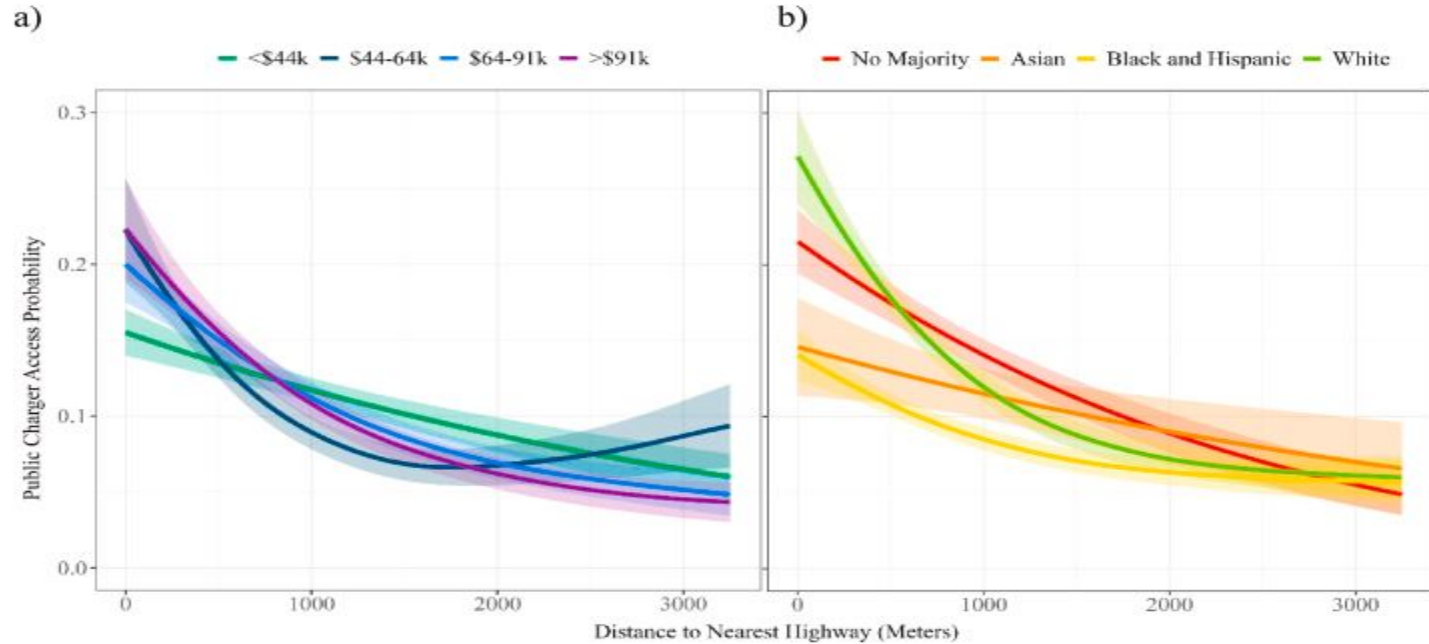
Equity

Public transport options and EV infrastructure, and disparate impacts across demographic groups.

Equity and Affordability of EVs

EV Infrastructure for low income communities of color

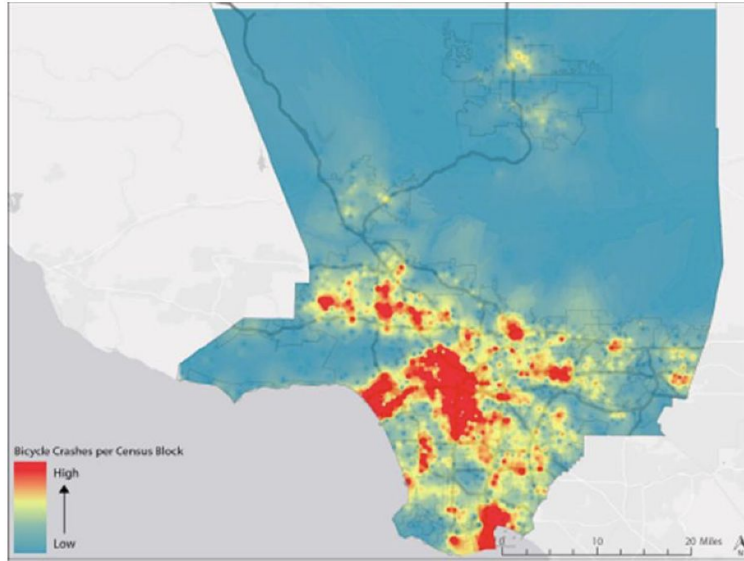
- Low Availability of Public chargers
- Low EV ownership



Health

Addressing Traffic-Related Injuries and Emissions

Traffic-Related Injuries and Fatalities



Heat Map of Cyclist-Involved Crashes in L.A. County: Visualization of areas with high incidents of cyclist-involved crashes resulting in injuries.

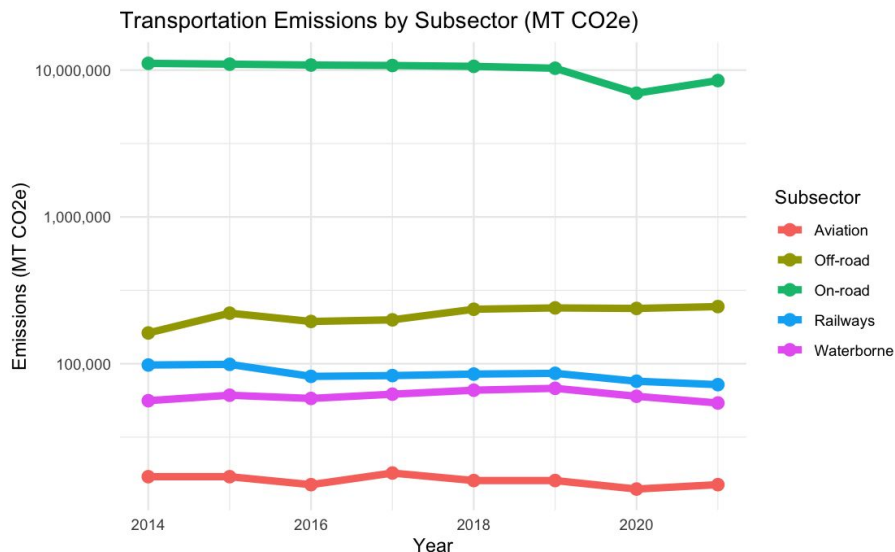
TIMS shows an increase in traffic-related injuries among cyclists:

- To the left: bicycle crashes are most likely in the dense, urban areas of LA County

Other sources:

- Even with decreasing pedestrian fatalities, these have been overrepresented in the top 25% of disadvantaged communities

Traffic-Related Emission Health Effects



Traffic emissions

- Traffic emissions decreased in 2020, particularly for on-road transportation.
- UCS reports higher exposure to pollutants in African American and Latino communities contributes to adverse health outcomes.
- Study reports unequal EV emissions reduction impacts

Transportation Use

- Variable Gas Consumption and Prices
- Shifts in Commuting Patterns
- Increasing Adoption of Electric Vehicles

Infrastructure

- Expansion of EV Charging Infrastructure
- Growth of Ridesharing & Cycling Infrastructure

Health

- Increase in Traffic-Related Injuries Among Cyclists
- Disproportionate Impact of Traffic-Related Impacts on Minority Communities

Equity

- Challenges in Fare Affordability and Operating Costs
- Equity Concerns in EV Infrastructure

Takeaways



Transportation Use

- Improve safety, expand Metro, & enhance bike & walk paths
- Increase incentives & charging stations for zero emissions
- Revise transit & create co-working spaces for hybrids

Infrastructure

- Provide incentives for home and public chargers
- Set up solar structures in parking lots to power EVs
- Increase safe biking options for shorter commutes

Health

- Add protected lanes to reduce accidents
- Boost green spaces, transit, & EV use in affected communities
- Guide infrastructure planning with regular assessments

Equity

- Upgrade lighting, crosswalks, & add micro-mobility
- Increase access & incentives in underserved areas
- Offer income-based fares & discounts for vulnerable groups

Recommendations



Deliverables

Our FigShare



- ❑ Final 2024 LA Report Card
- ❑ Final Presentation Slidedeck (Spring 2024)
- ❑ Progress Presentation Slidedeck (Winter 2024)
- ❑ LA Report Card Proposal (Winter 2024)
- ❑ Code for data analysis and visualizations in R
- ❑ Data sources spreadsheet
- ❑ Data sources preliminary narrative

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