

DOCKETED	
Docket Number:	20-TRAN-02
Project Title:	SB 1000 Electric Vehicle Charging Infrastructure Deployment Assessment
TN #:	238717
Document Title:	Presentation - SB 1000 Staff Workshop 2021-07-08
Description:	*** This document supersedes TN 238716 ***
Filer:	Christina Cordero
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	7/7/2021 2:23:46 PM
Docketed Date:	7/7/2021



Senate Bill 1000 Staff Workshop

Electric Vehicle Charging Infrastructure Deployment Assessment

Fuels and Transportation Division
July 8, 2021 | 10:00 a.m.



Housekeeping

- Workshop is being recording.
- Workshop Event Webpage:
<https://www.energy.ca.gov/event/workshop/2021-07/senate-bill-1000-staff-workshop>
- Virtual Participation through Zoom
 - Raise Hand or Q&A feature
 - Telephone participants dial *9 to raise your hand
- Written Comments to Docket # 20-TRAN-02:
<https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=20-TRAN-02>

Deadline: Thursday, July 22, 2021 by 5:00 PM



Workshop Purpose

- Overview of 2020 and 2021 analysis and results
- Stakeholder feedback on 2021 analysis



Proposed Key Dates and Activities

Activity	Anticipated Date
Post Workshop Public Commenting Period	July 8 – July 22, 2021
Publish Clean Transportation Program 2021-2023 Investment Plan Revised Staff Draft	September 2021*
Publish Clean Transportation Program 2021-2023 Investment Plan Lead Commissioner Report	October 2021*
Publish Final Staff Report	December 2021*

*Anticipated dates. Subject to change.



Workshop Agenda

- | | |
|----------|---|
| 10:05 am | Welcome and Introductions |
| 10:10 am | Background <ul style="list-style-type: none">• Clean Transportation Program• Senate Bill (SB) 1000 |
| 10:20 am | Overview of 2020 and 2021 Analysis <ul style="list-style-type: none">• Objectives• Methodology• Results |
| 11:00 am | Public Comments, Questions and Discussion |
| 11:35 am | Next Steps |
| 12:00 am | Adjourn |



Commitment to Diversity

The CEC adopted a resolution strengthening its commitment to diversity in our funding programs. The CEC continues to encourage disadvantaged and underrepresented businesses and communities to engage in and benefit from our many programs.

To meet this comment, CEC staff conducts outreach efforts and activities to:

- Engage with disadvantaged and underrepresented groups throughout the state;
- Notify potential new applicants about the CEC's funding opportunities;
- Assist applicants in understanding how to apply for funding from the CEC's programs;
- Survey participants to measure progress in diversity outreach efforts.



Diversity Survey

One Minute Survey

The information supplied will be used for public reporting purposes to display anonymous overall attendance of diverse groups.

Please Tell Us the Following:

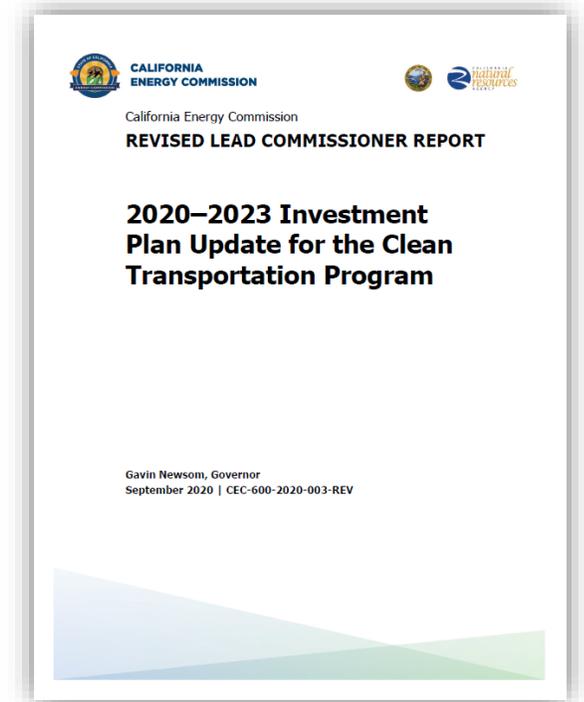
1. Your name and affiliation (company or organization)
2. Does your company/organization identify as led or owned by a) Disabled Veteran Business Enterprise, b) Small Business Enterprise, c) Women-Owned Business Enterprise, and/or d) Lesbian, Gay, Bisexual, or Transgender Business Enterprise?
3. If you represent a business/company, does your entity have certification (can be through national organizations, Small Business Administration, State of California, or municipal level)?
4. Location of your company (Northern, Central Valley, Central Coast, Southern, Tribal Land)
5. How you heard about this workshop

Please Email Responses to tiffany.t.hoang@energy.ca.gov with subject title, Diversity Survey for SB 1000 Staff Workshop



Clean Transportation Program Background

- Formerly known as the Alternative and Renewable Fuel & Vehicle Technology Program (ARFVTP)
- Established in 2007 by Assembly Bill 118 (2007)
- Extended to January 1, 2024 by Assembly Bill 8 (2013)
- Provides approximately \$95 million of funding per year through 2023
- Investment Plan to determine funding allocations across various categories





Purpose of the Clean Transportation Program

Provides approximately \$95 M of funding per year through the end of 2023

“...to develop and deploy innovative technologies that transform California’s fuel and vehicle types to help attain the state’s climate change policies.”

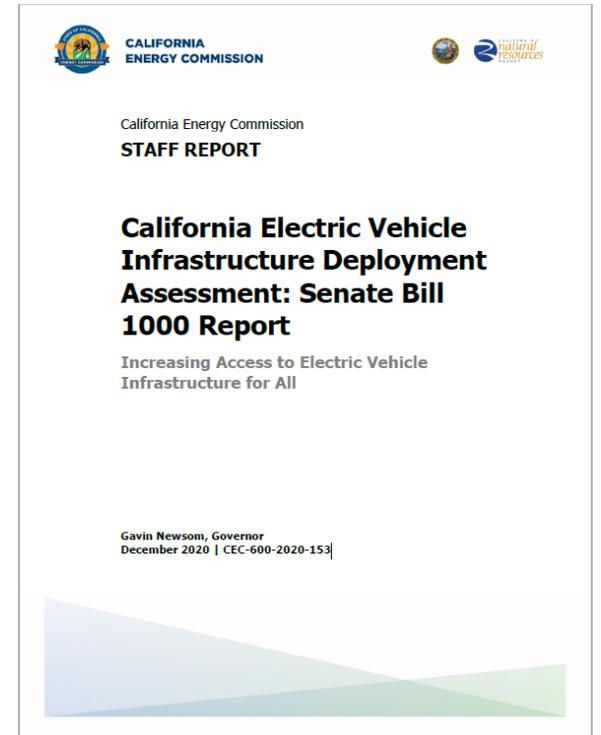
Complementary goals:

- Improve air quality
- Investments in low-income and disadvantaged communities
- Promote economic development
- Increase alternative fuel use
- Reduce petroleum dependence



Senate Bill 1000 Background

- Assessment of light-duty electric vehicle (EV) charging infrastructure distribution and access
- Focus on equity
- Informs Clean Transportation Program investments in light-duty EV charging infrastructure





Senate Bill 1000 Analysis and Results

2020 and 2021 Analyses



Objectives

2020 Analysis

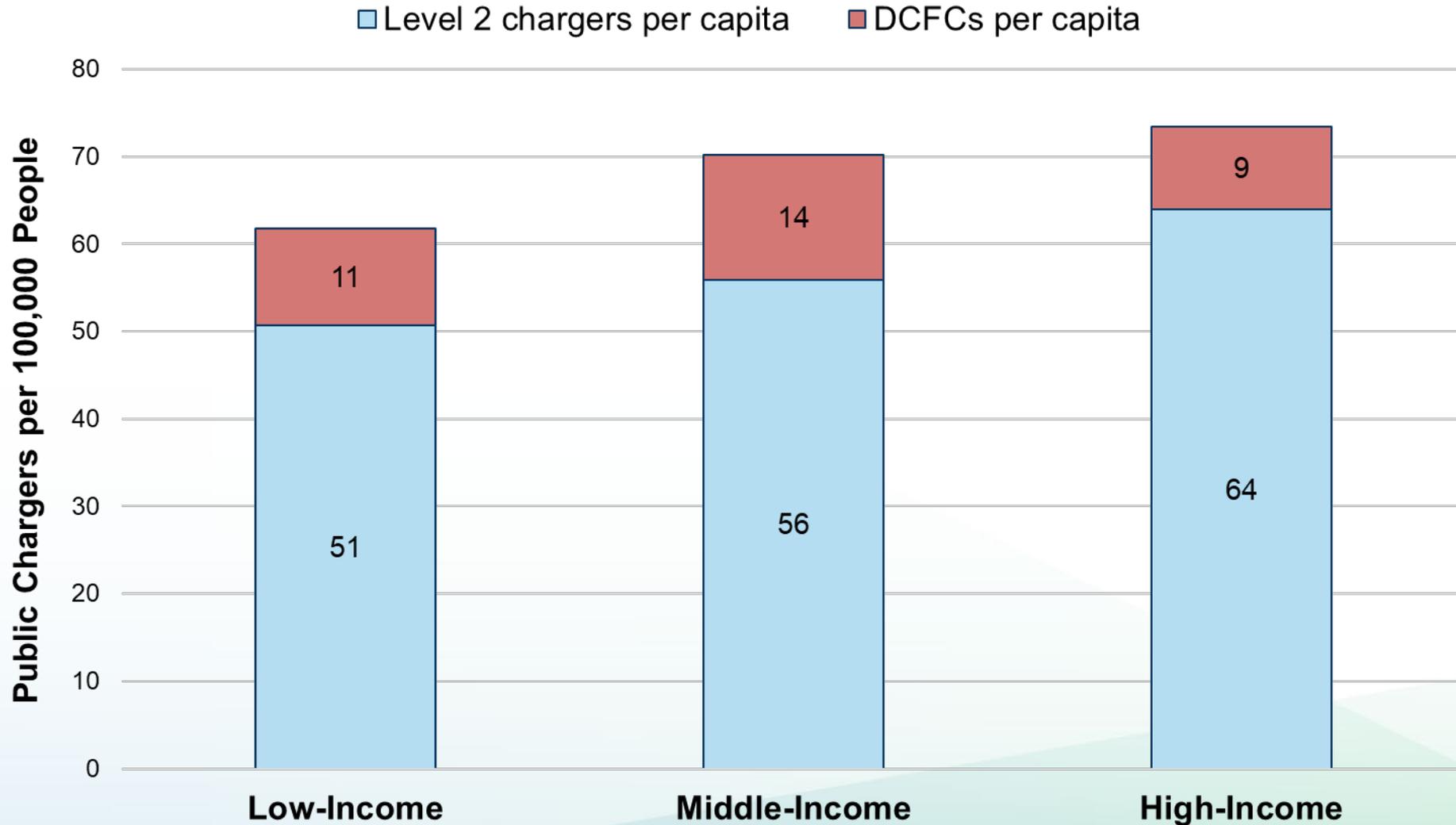
- Assess the geographic distribution of public Level 2 and DC fast chargers across income groups, population densities, counties, and air districts
- Show differences in number of public chargers averaged across populations statewide

2021 Analysis

- Show drive time to DC fast chargers
- Present community-level (census tract) results



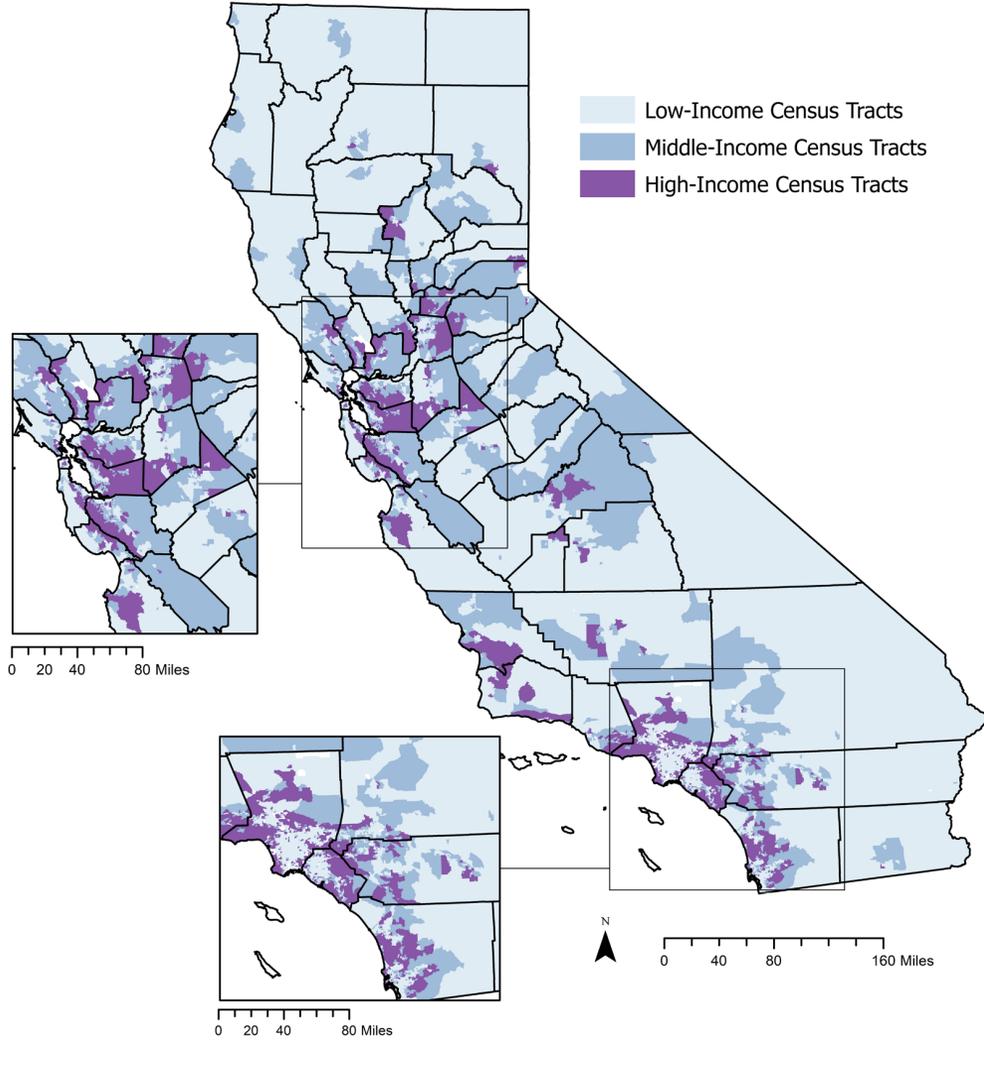
On average, low-income communities have fewer per capita chargers



Source: U.S. Census Bureau 2014 – 2018 American Community Survey Median Household Income 5-Year Estimates, California Department of Housing and Community Development 2020 State Income Limits, and U.S. Department of Energy’s Alternative Fuels Data Center charger data as of July 2020.



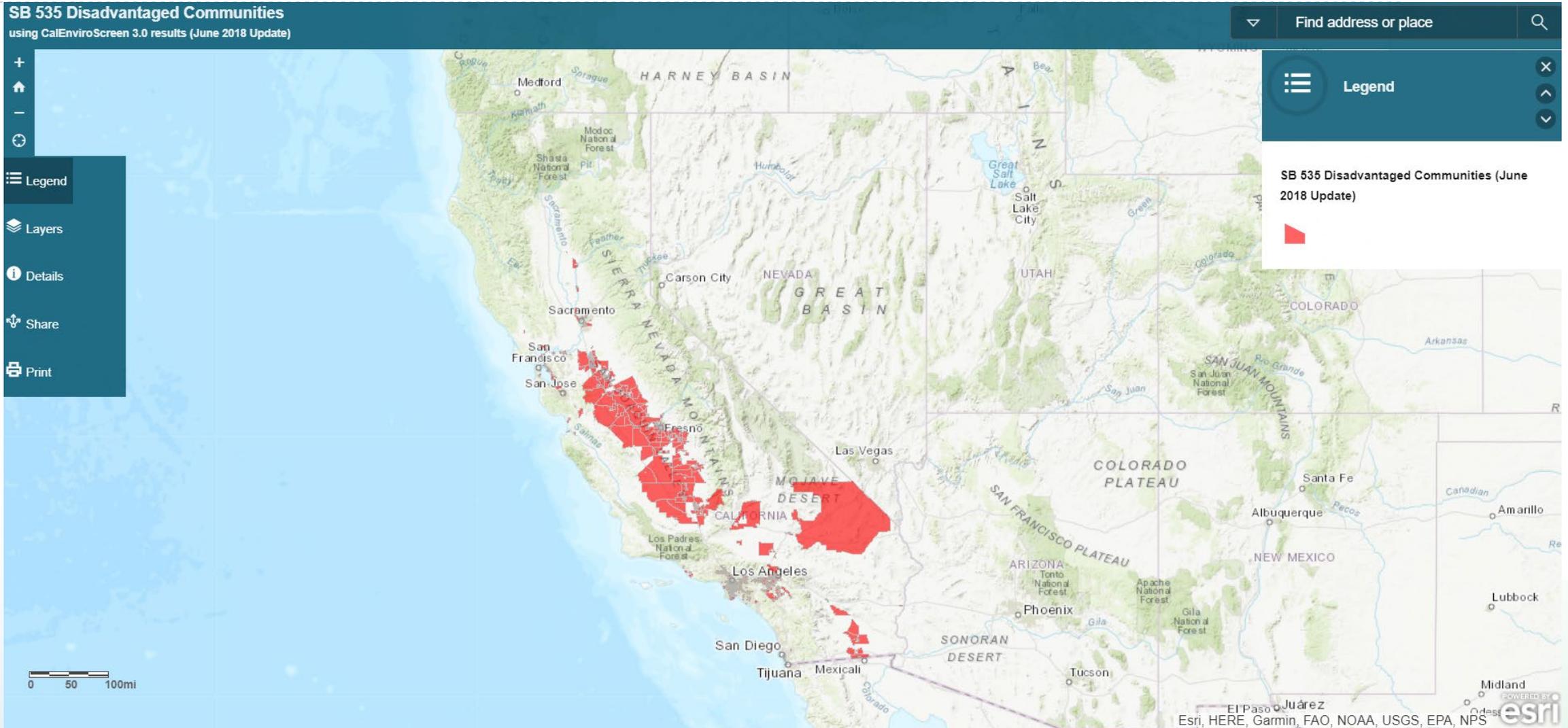
Map of low-, middle-, and high-income communities



- Defined at the census tract level using Assembly Bill (AB) 1550 definition for low-income communities
- County and state median household income used for identification (adjusted by average household size of census tract)
- Same approach used by the California Air Resources Board to identify California Climate Investments Low-Income Communities (different data vintages)

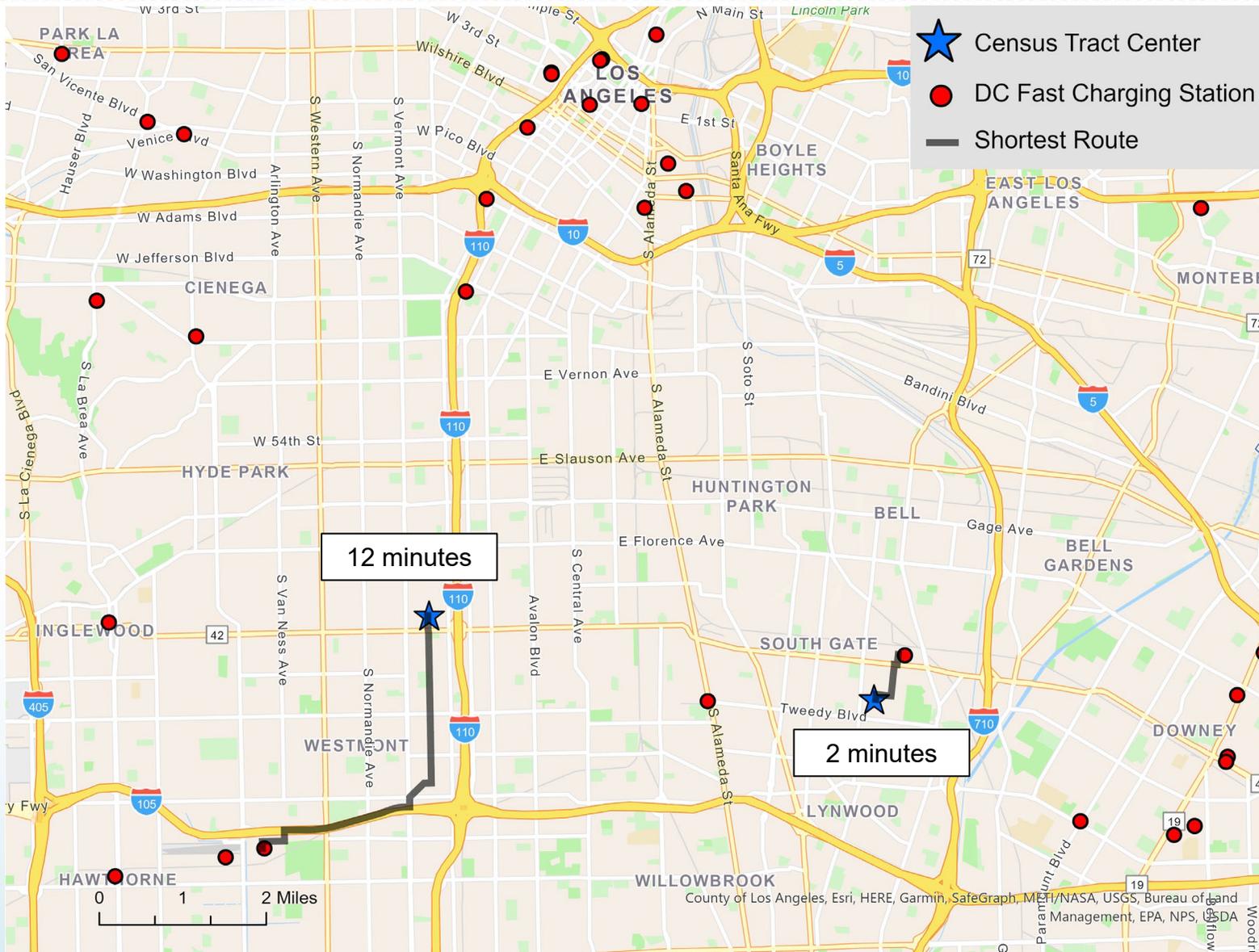


Map of Disadvantaged Communities



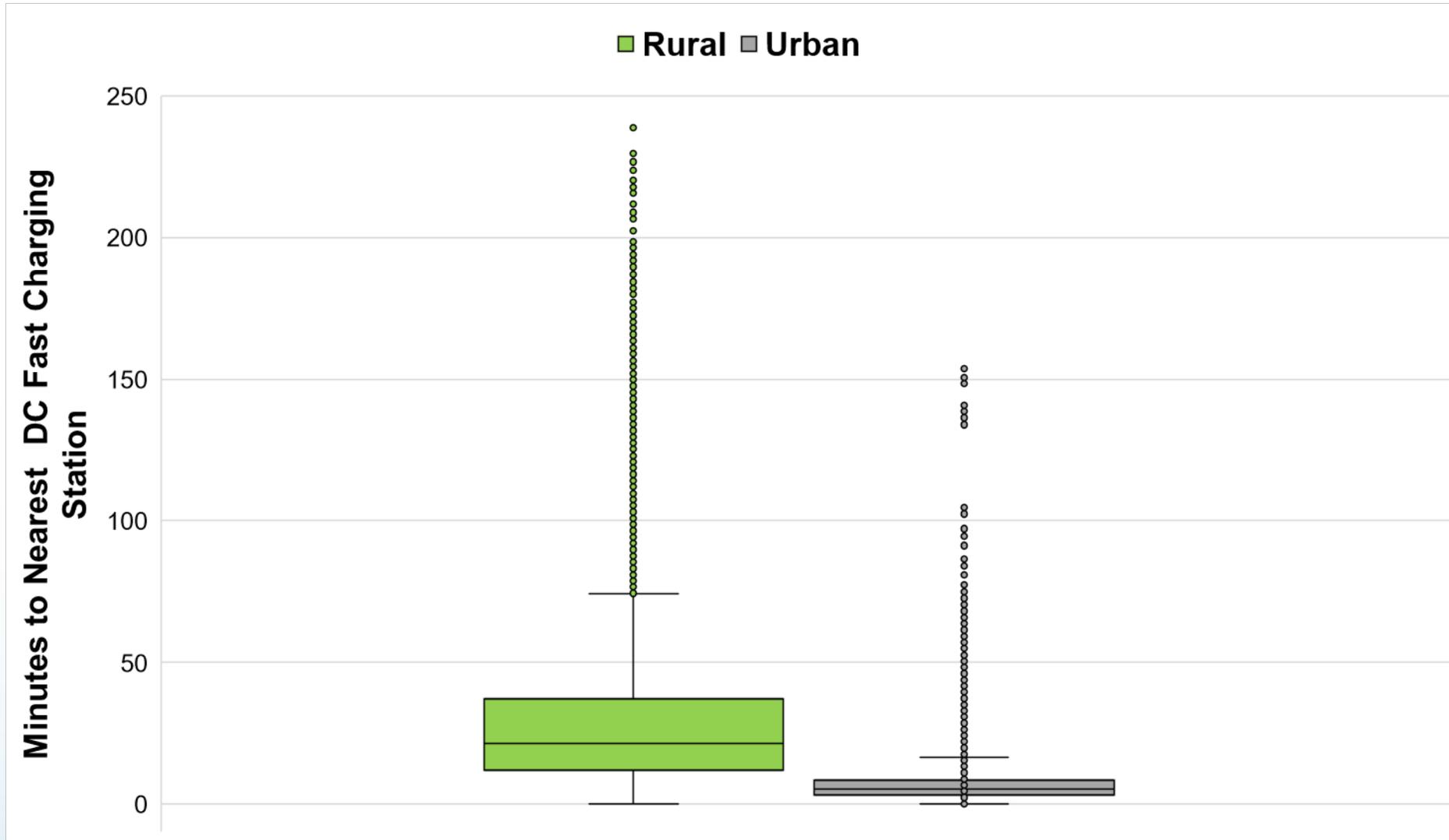


Measuring drive times to fast chargers





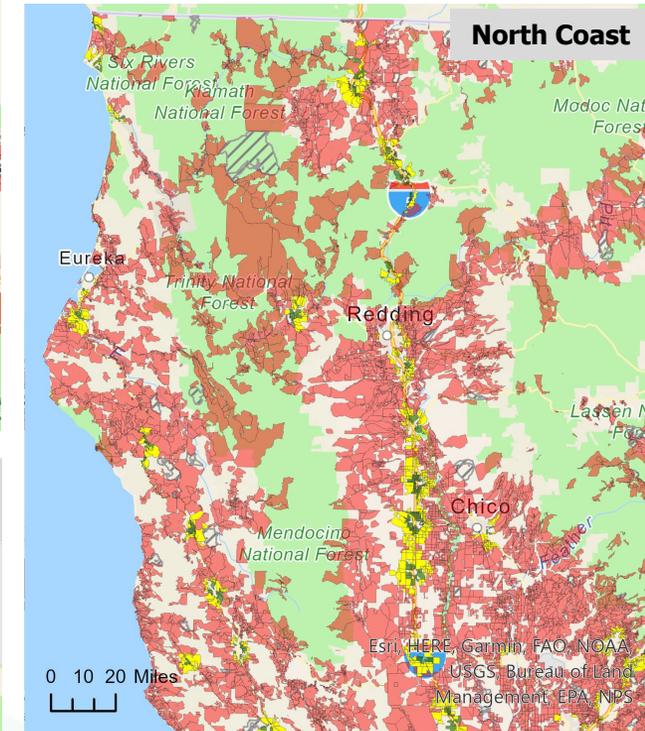
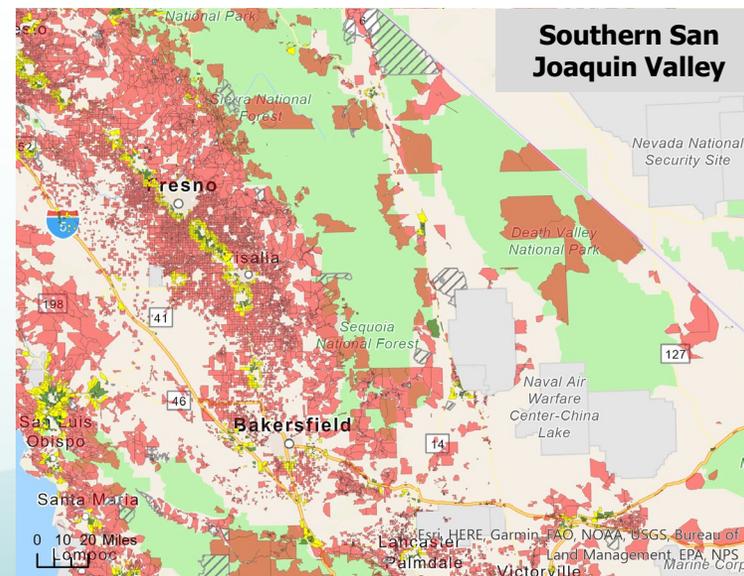
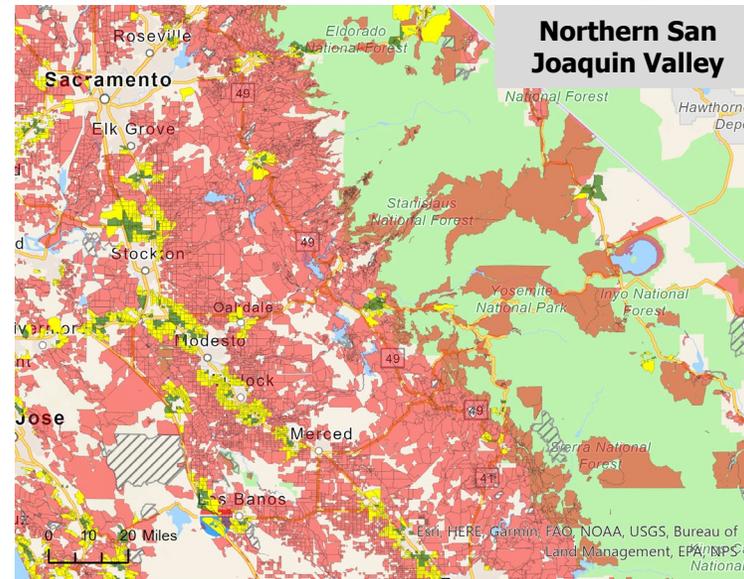
Rural communities have some of the longest drive times to fast charging



Source: U.S. Census Bureau 2010 Urban and Rural Classifications, U.S. Department of Energy's Alternative Fuels Data charger data as February 2021, and California Air Resources Board California Hydrogen Infrastructure Tool roadway data.



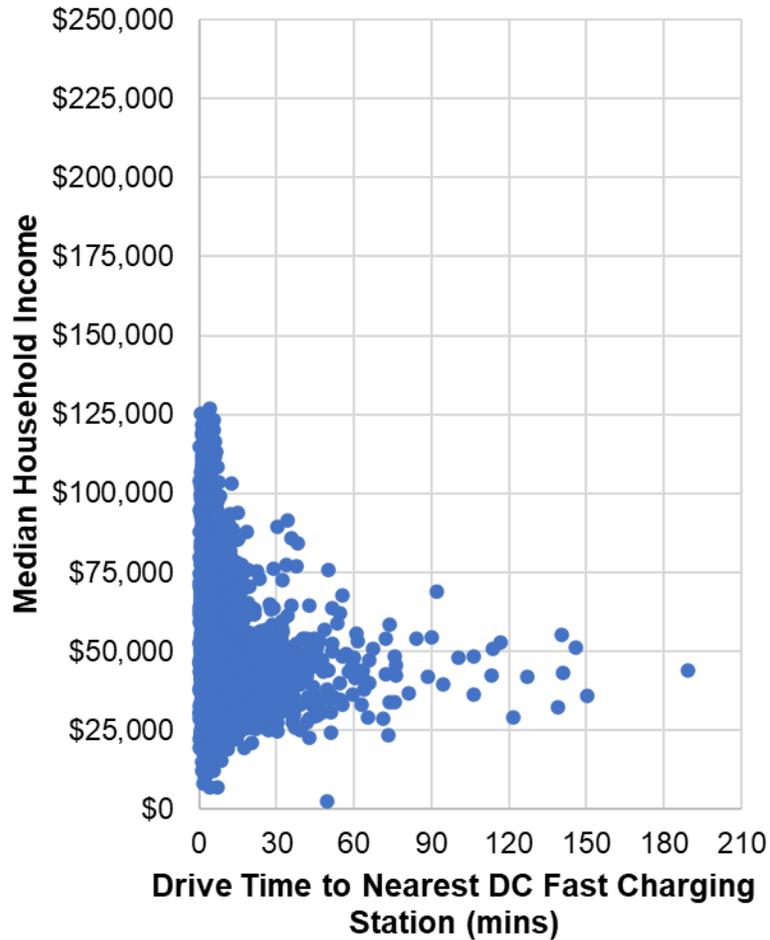
Variation in drive times across rural communities



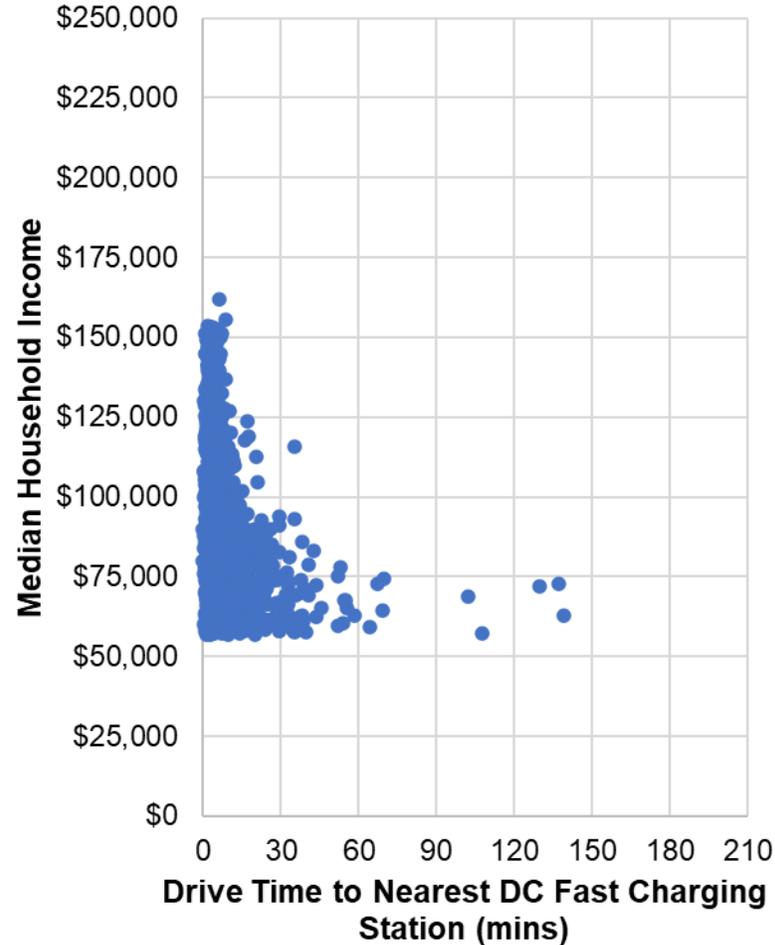


Low-income communities have some of the longest drive times to fast charging

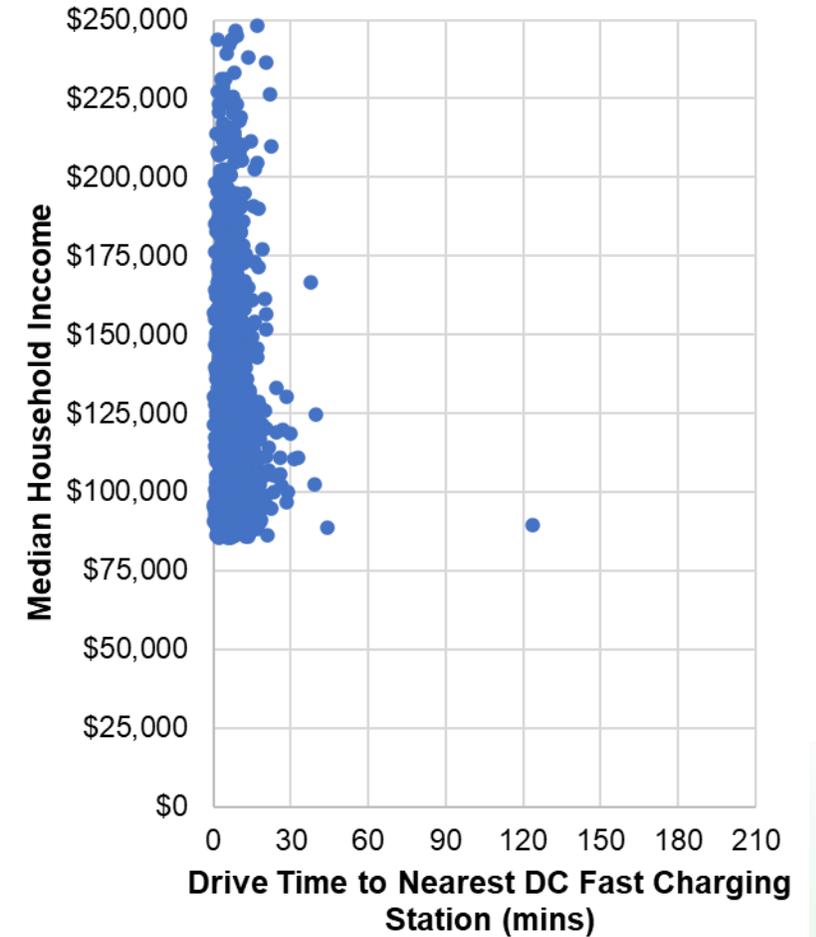
Low-Income



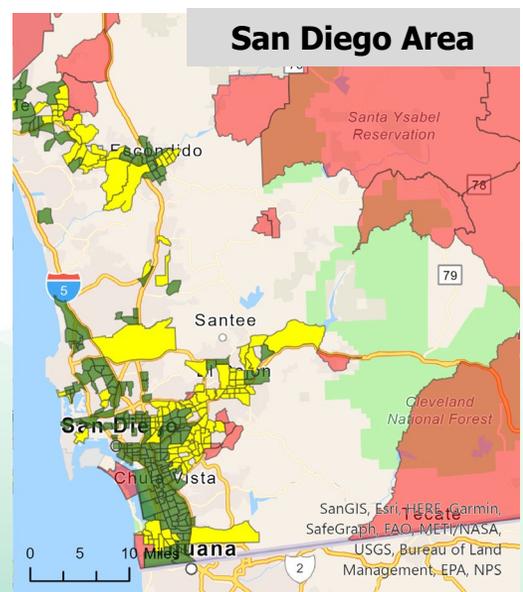
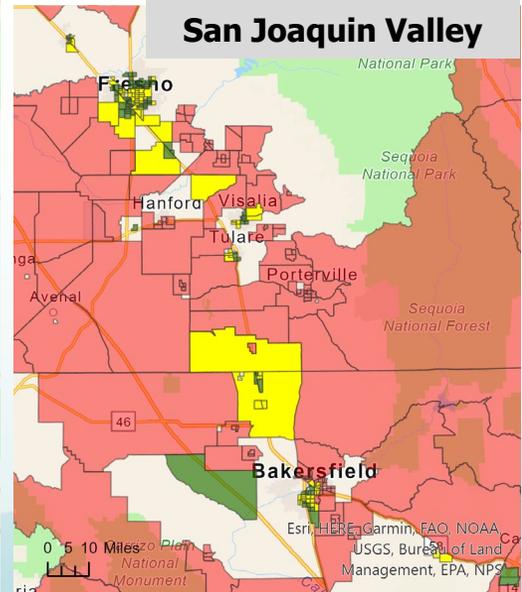
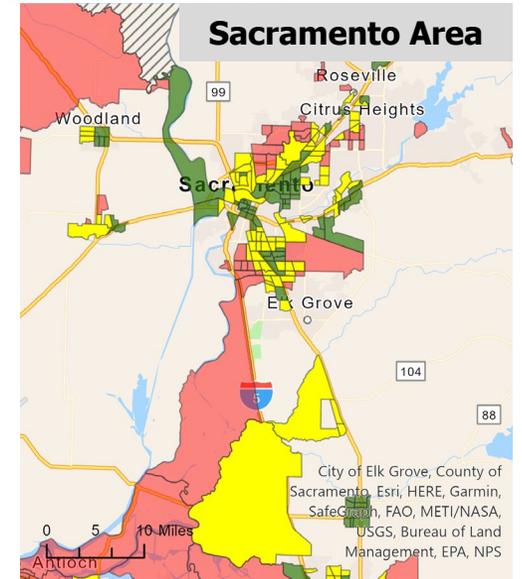
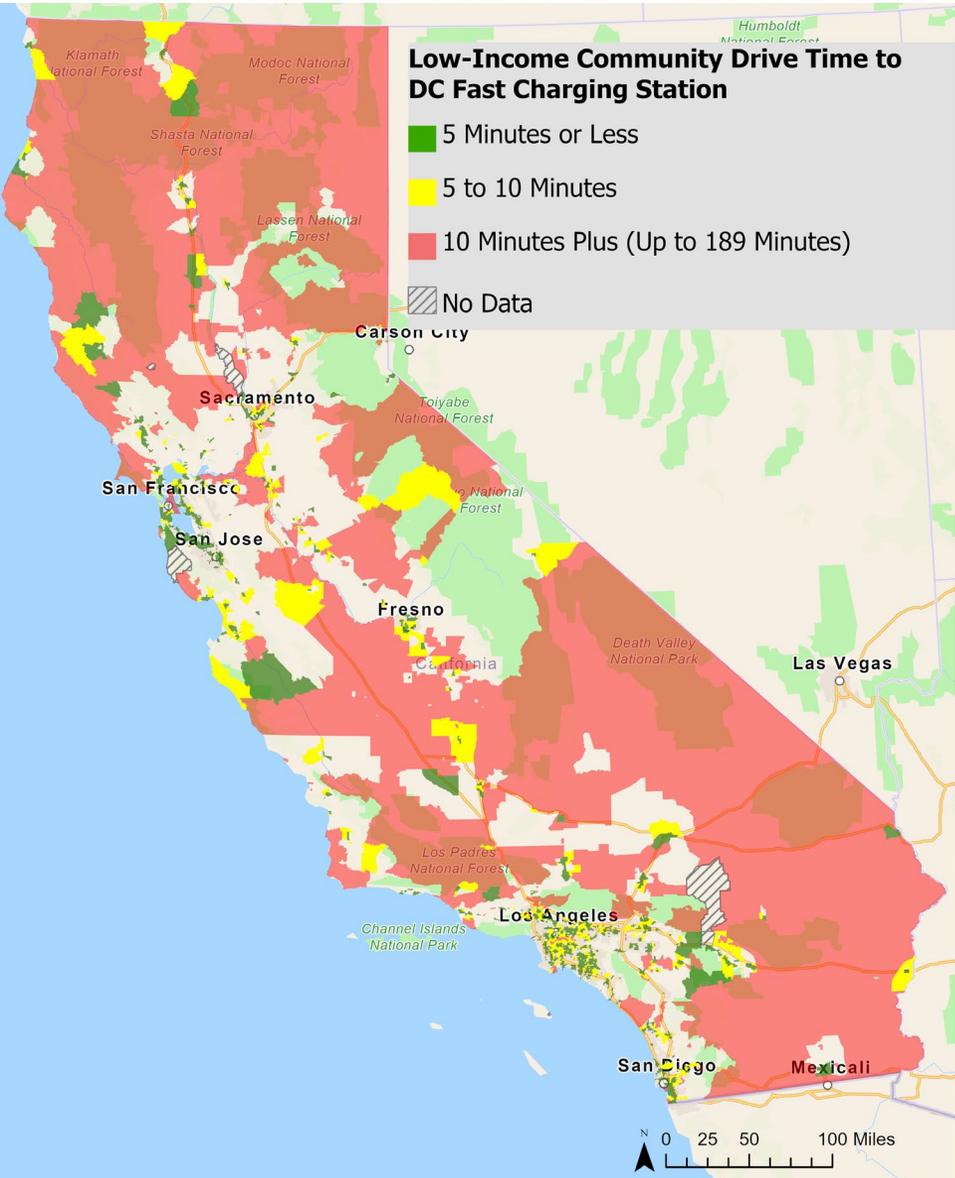
Middle-Income



High-Income

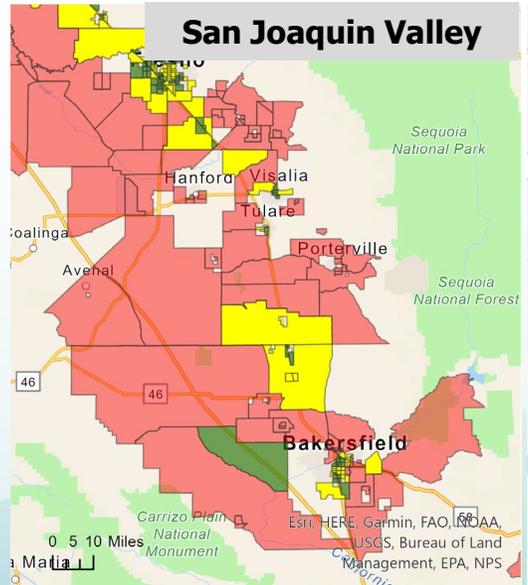
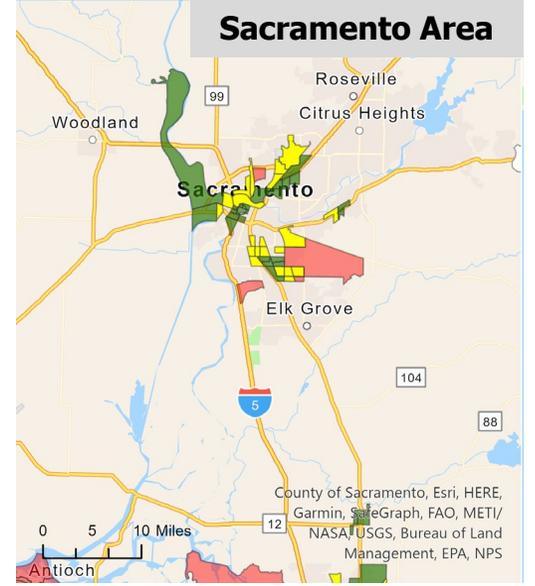
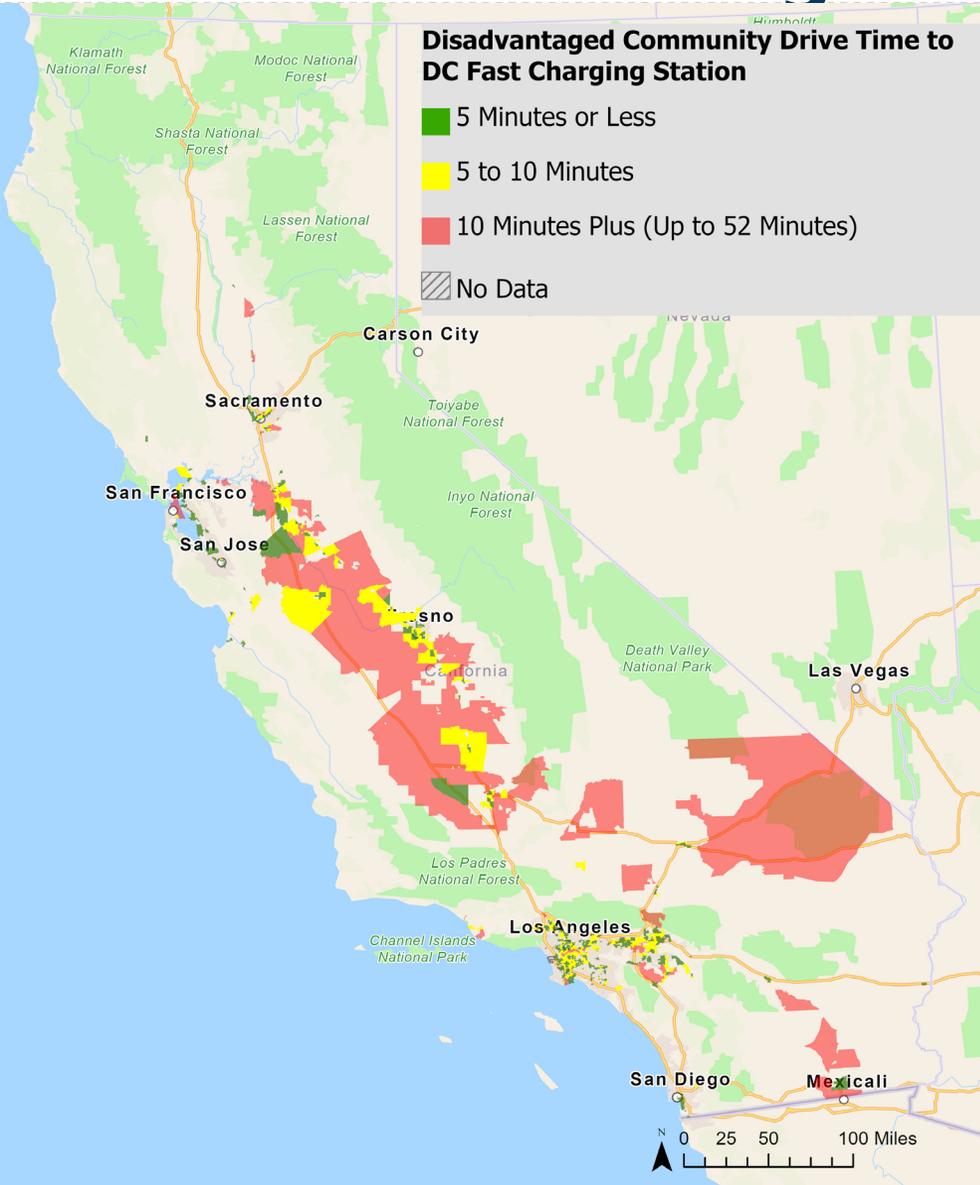


Variation in drive times to fast charging across low-income communities





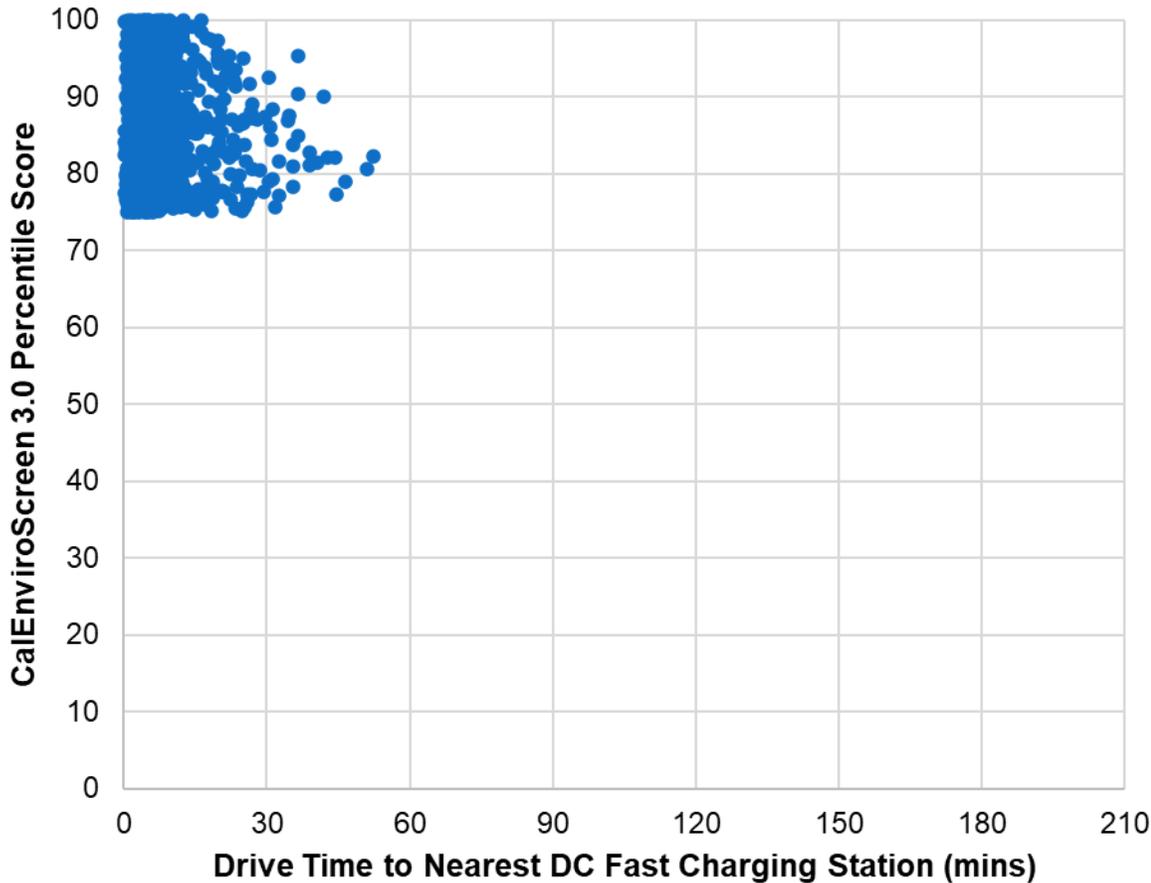
Variation in drive times to fast charging across disadvantaged communities



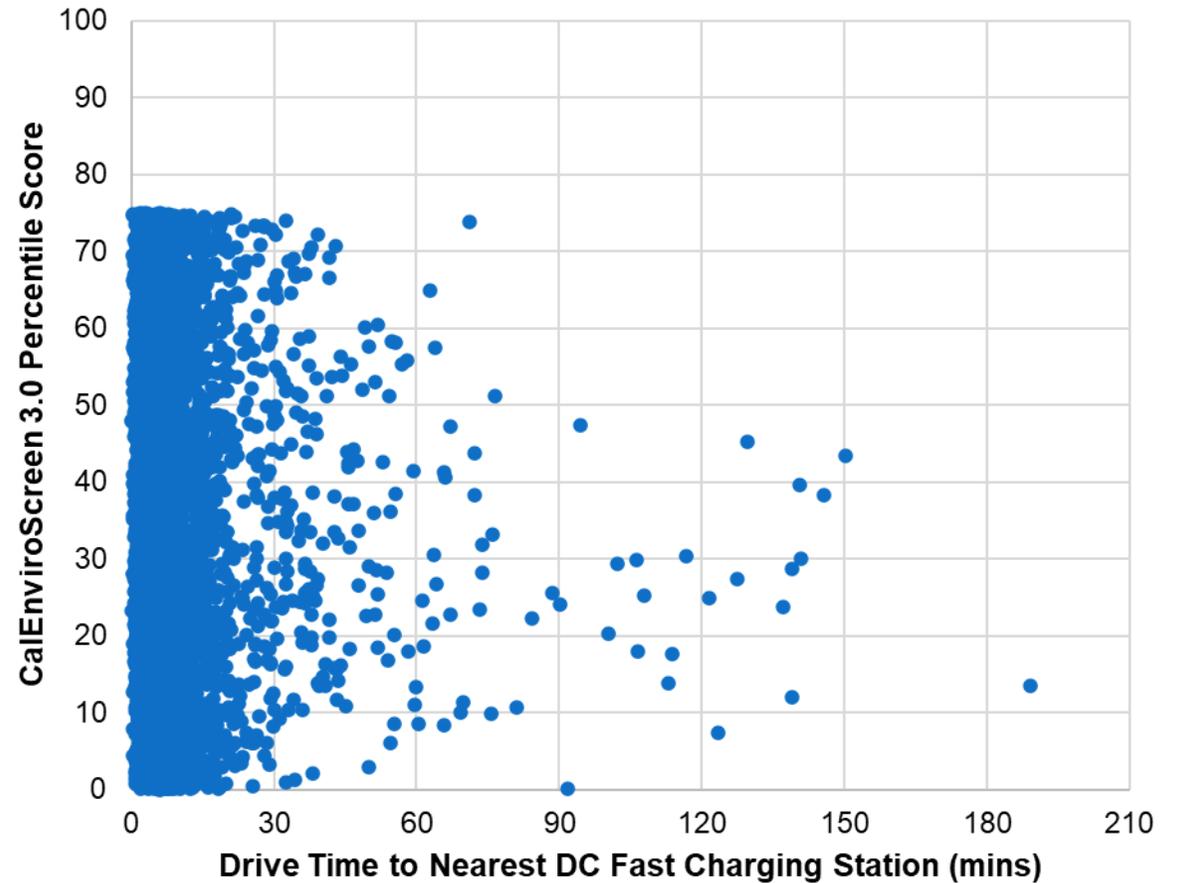


On average, disadvantaged communities are closer to fast charging but some drive times exceed 10 minutes

Communities in Top 25th Percentile of CalEnviroScreen Scores



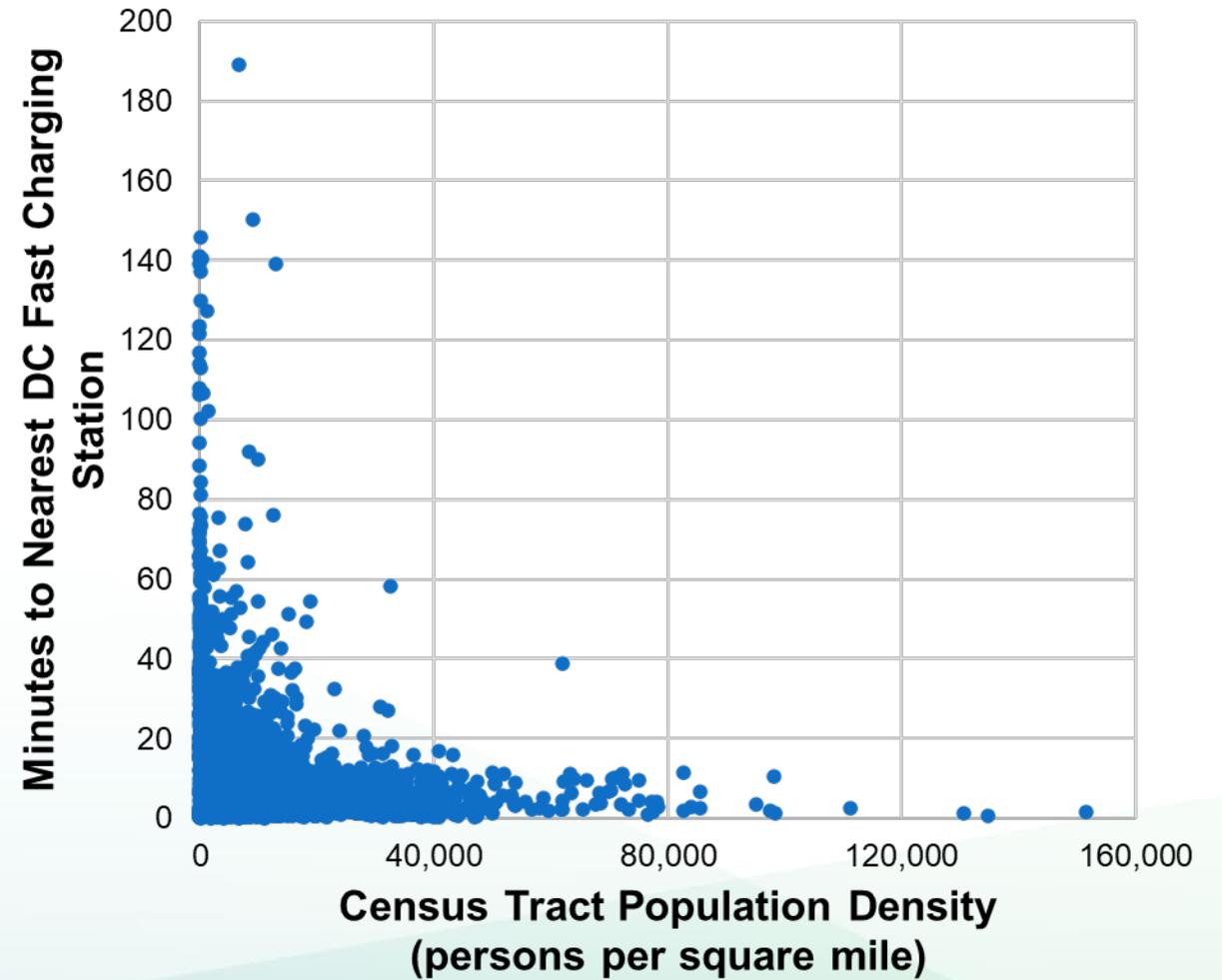
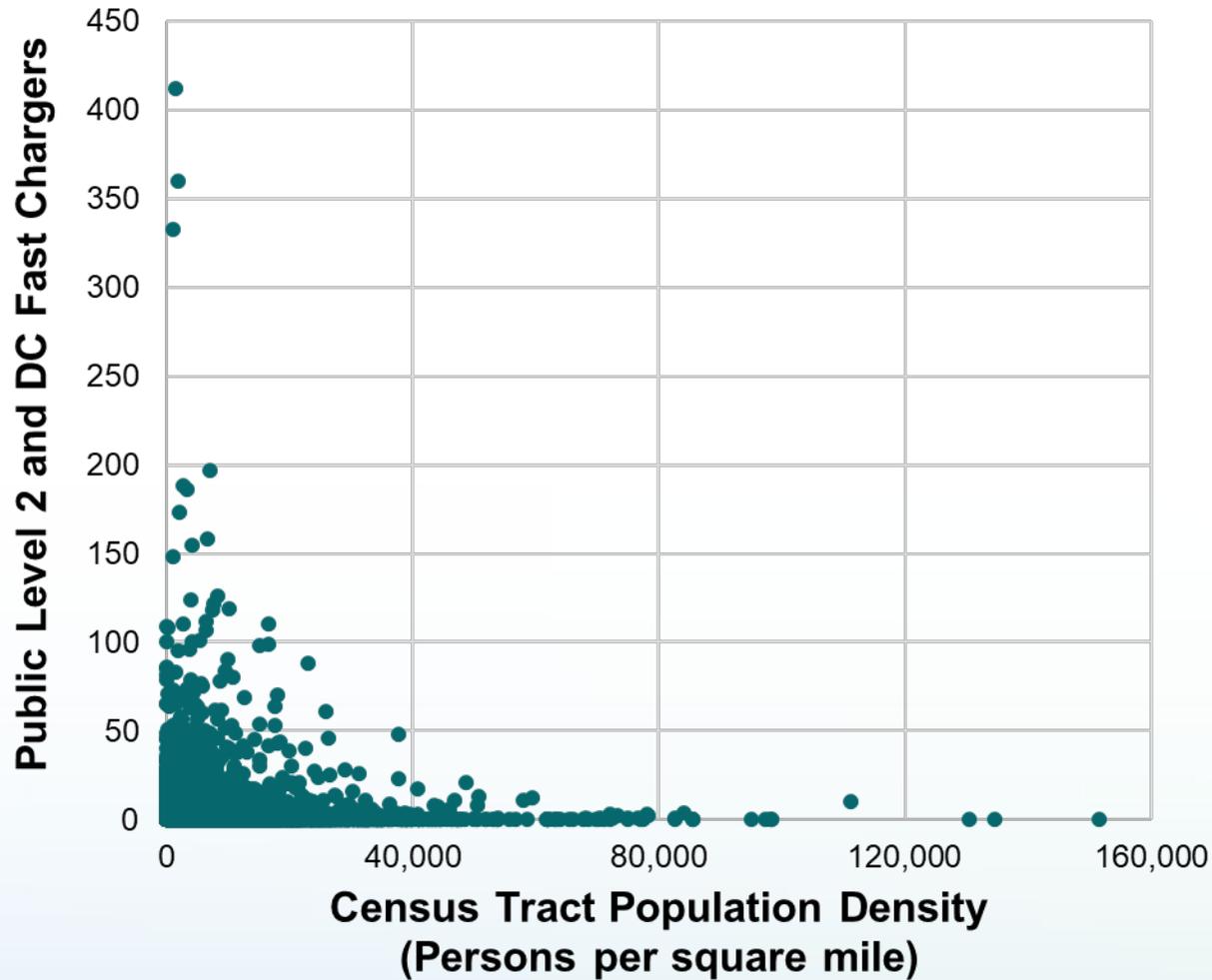
Communities Below 75th Percentile of CalEnviroScreen Scores



Sources: California Environmental Protection Agency CalEnviroScreen 3.0, U.S. Department of Energy's Alternative Fuels Data Center charger data as of February 2021, and California Air Resources Board California Hydrogen Infrastructure Tool (CHIT) roadway data.



High population density areas are closer to fast charging



Source: U.S. Census Bureau 2014 – 2018 American Community Survey Total Population 5-Year Estimates, U.S. Department of Energy's Alternative Fuels Data charger data as of July 2020 (chart on left) and February 2021 (chart on right), and California Air Resources Board California Hydrogen Infrastructure Tool roadway data.



Public Comment/Discussion Period

Zoom Participants

- Use the “raise hand” feature to make verbal comments
- Use the Q&A feature to type in your question

Telephone Participants:

- Dial *9 to raise your hand
- Dial *6 to mute/unmute your phone line.

1. How can drive time maps be used as a tool to help define areas to increase access for:

- Low-income communities?
- Disadvantaged communities?
- Rural communities?



Public Comment/Discussion

Zoom Participants

- Use the “raise hand” feature to make verbal comments
- Use the Q&A feature to type in your question

Telephone Participants:

- Dial *9 to raise your hand
- Dial *6 to mute/unmute your phone line.

2. How can we improve the mapping and provide more transparency with the data and results?
3. Are there additional data layers we should consider for analysis?



Submit Comments to Docket 20-TRAN-02

Electronic Commenting System

Visit the comment page for this docket at:

<https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=20-TRAN-02>

Comment by E-mail

E-mail: docket@energy.ca.gov

Subject Line: "20-TRAN-02 SB 1000 Electric Vehicle Charging Infrastructure Deployment Assessment"

All comments due by 5:00 pm on July 22, 2021



Thank you for participating remotely.