

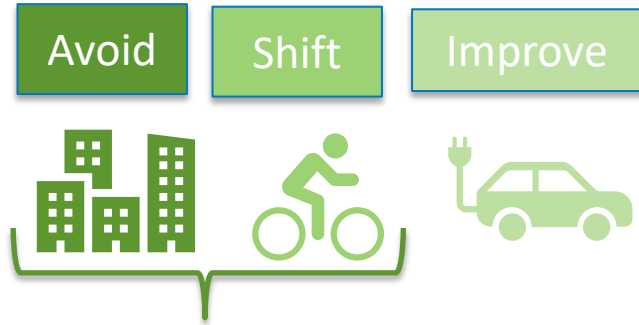


OpenPATH – Leveraging Technology to Measure Travel Behavior

Abigail Wheelis

August 26, 2024

Why was OpenPATH Created?



If you cannot measure it,
you cannot improve it

Pilot Program Sheds Light on E-Bike Use Patterns, Energy-Efficiency Benefits

Analysis Shows E-Bikes Are an Effective, Energy-Saving Alternative to Other Travel Modes

April 27, 2021 | Contact [media relations](#)



The National Renewable Energy Laboratory (NREL) partnered with the Colorado Energy Office to assess the travel-behavior impacts of providing low-income essential workers with e-bikes during the COVID-19 pandemic. Analysis results indicate that, among participants during the study period, e-bikes were the dominant travel mode for 30% of trips, followed by shared rides at 29% and single-occupancy-vehicle trips at just 20%.

Launched in fall 2020, the Colorado Energy Office's [Can Do Colorado eBike mini-pilot](#) was designed to encourage



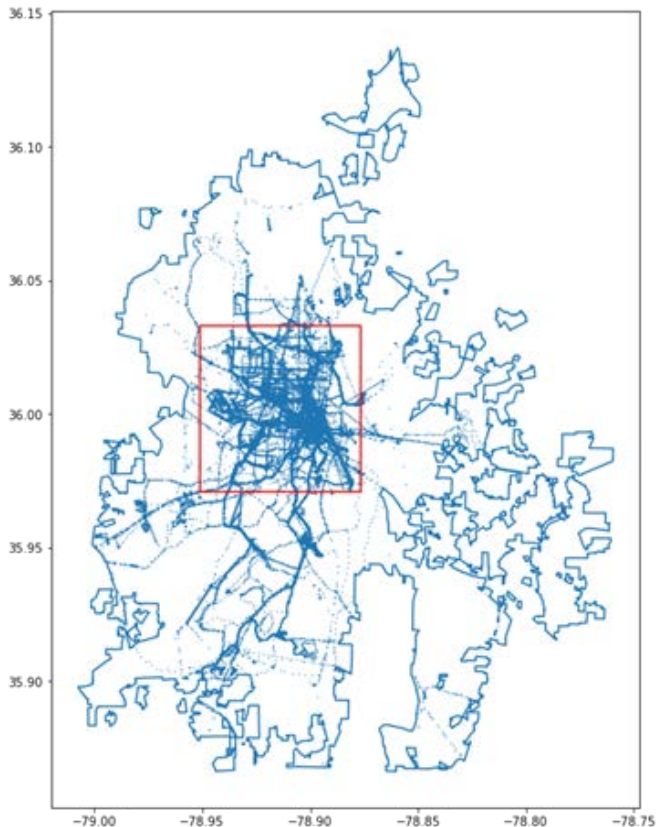
NREL OpenPATH Tool Enables Expanded E-Bike Pilot Program To Demonstrate Energy-Efficiency Benefits

July 11, 2022 | By [Natasha Nguyen](#) | Contact [media relations](#)

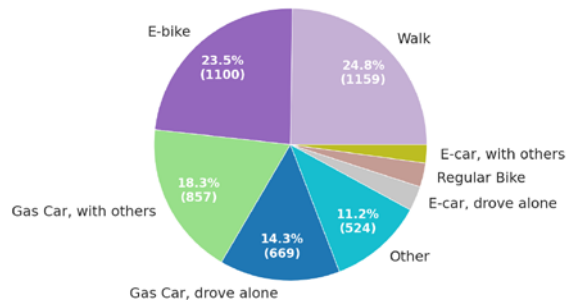


Participants cruise through Durango, Colorado, as part of 4Cone's e-bike pilot program, "Roll-to-Restaurants." Photo by Laura Heider, 4CONE

What data does OpenPATH collect?

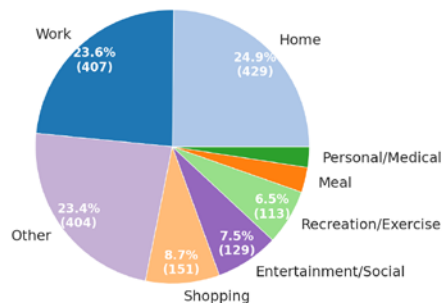


Number of trips for each mode (selected by users)
Based on 4681 confirmed trips from 90 users
of 8698 total trips from 104 users (53.82%)



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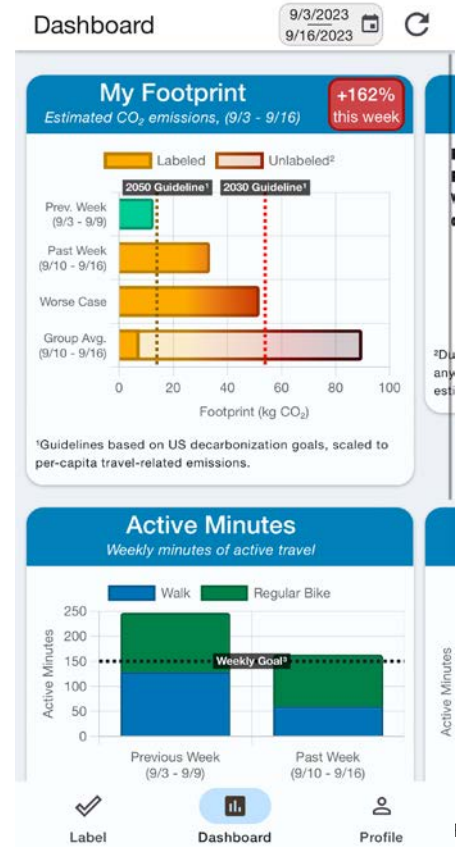
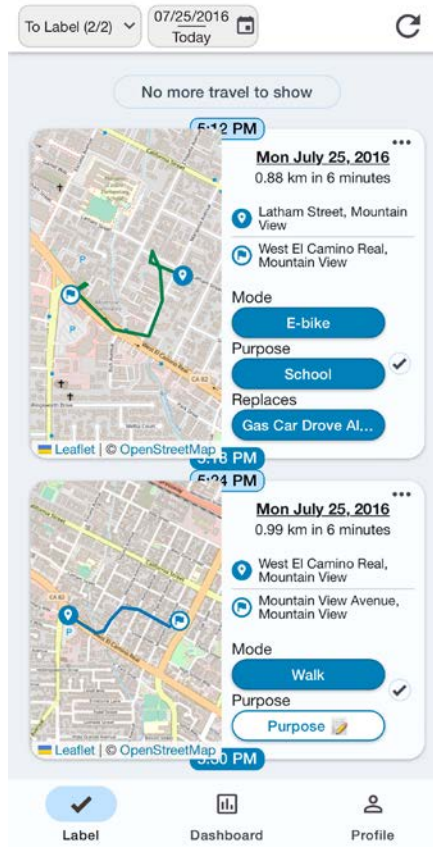
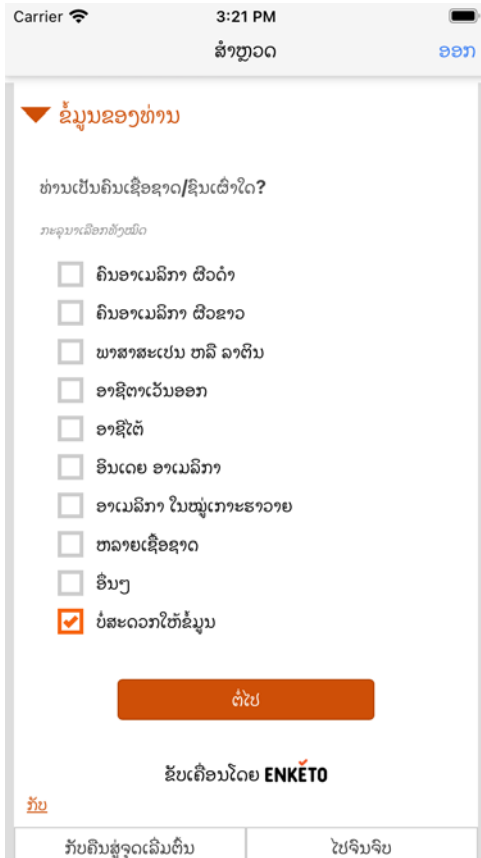
Number of trips for each purpose for e-bike only
Based on 1726 confirmed e-bike trips from 57 users
of 6128 total confirmed trips from 58 users (28.17%)



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- Mode
- Purpose
- Replaced Mode
- Route
- Demographics
- Trip Surveys

How does it work?



Initialize Project



Download App



OpenPATH

Scan Code

<https://<program>-openpath.nrel.gov>

Join the Study

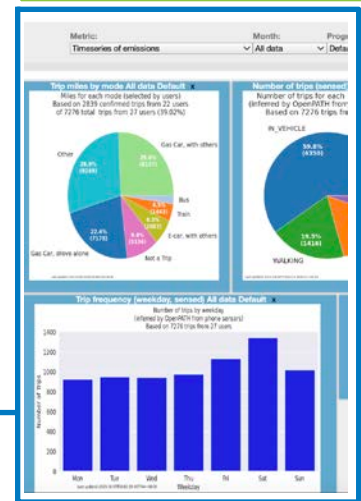
After you have installed the NREL OpenPATH app on your phone, join the study by scanning the QR code or copying the OPcode (OpenPATH token) using your phone.



Collect Data



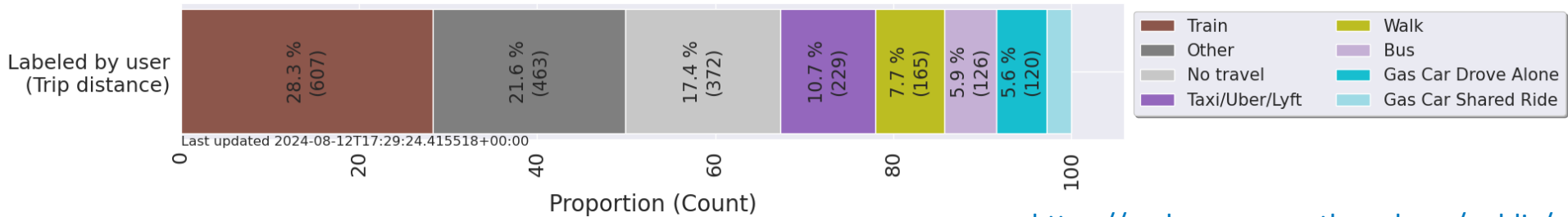
View Dashboards



Example Cases – Mobility Intervention

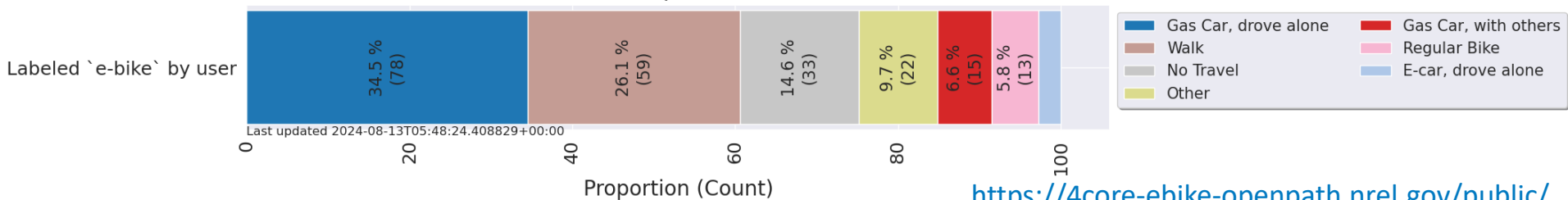
Total trip length (miles) covered by replaced mode

For bike: Based on 785 confirmed bike trips from 26 testers and participants of 2770 total confirmed trips from 31 users (28.34%)



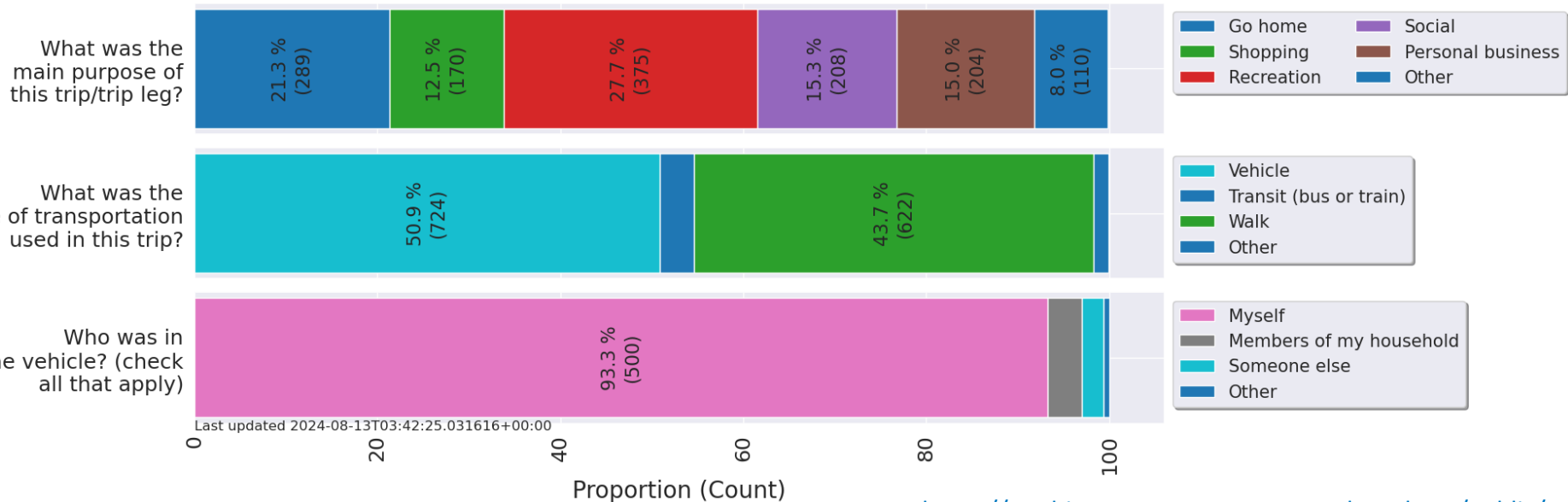
Number of trips for replaced mode

For e-bike: Based on 226 confirmed e-bike trips from 15 testers and participants of 1203 total confirmed trips from 16 users (18.79%)



Example Cases – Land Use

TripConfirmSurvey
Based on 1475 trips from 18 testers and participants

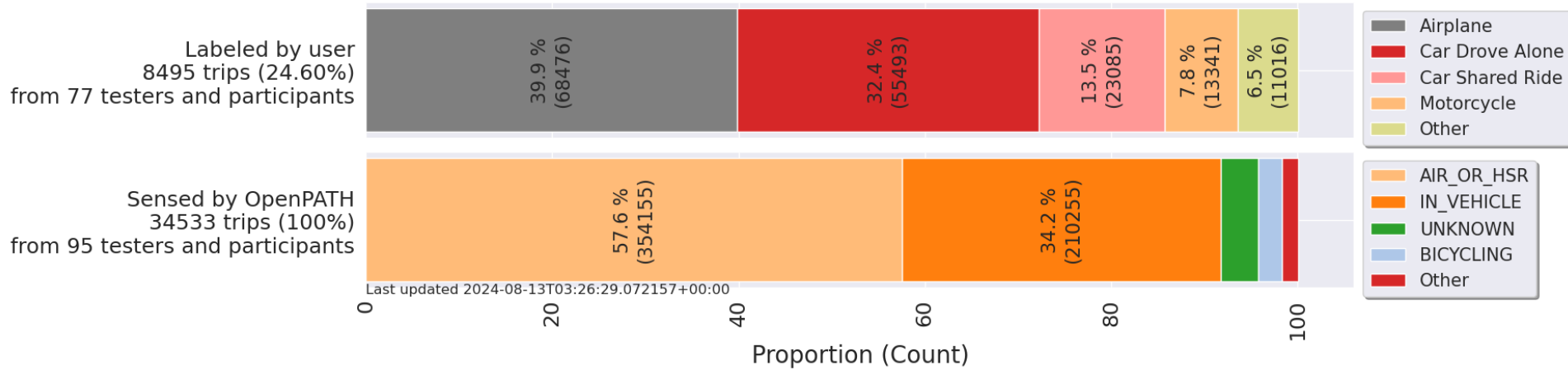


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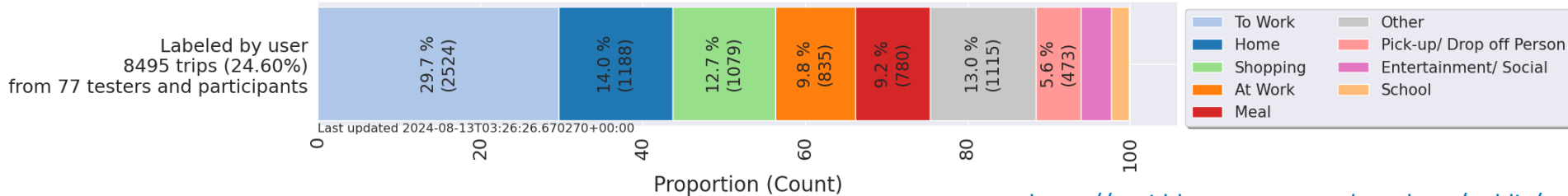
<https://washingtoncommons-openpath.nrel.gov/public/>

Example Cases – Baseline Behavior

Kilometers for each mode



Number of trips for each purpose



<https://usa-id-laos-ev-openpath.nrel.gov/public/>

Open Access Study



<https://open-access-openpath.nrel.gov/join/>

Questions?

www.nrel.gov

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