



Maryland National Electric Vehicle Infrastructure Webinar

June 2024

Welcome & Introductions

Deron Lovaas, Chief of Environmental & Sustainable Transportation Program

Amanda Hinh, NEVI Program Manager

Colleen Turner, Michael Baker International

Rebecca Bankard, Michael Baker International

Housekeeping

General:

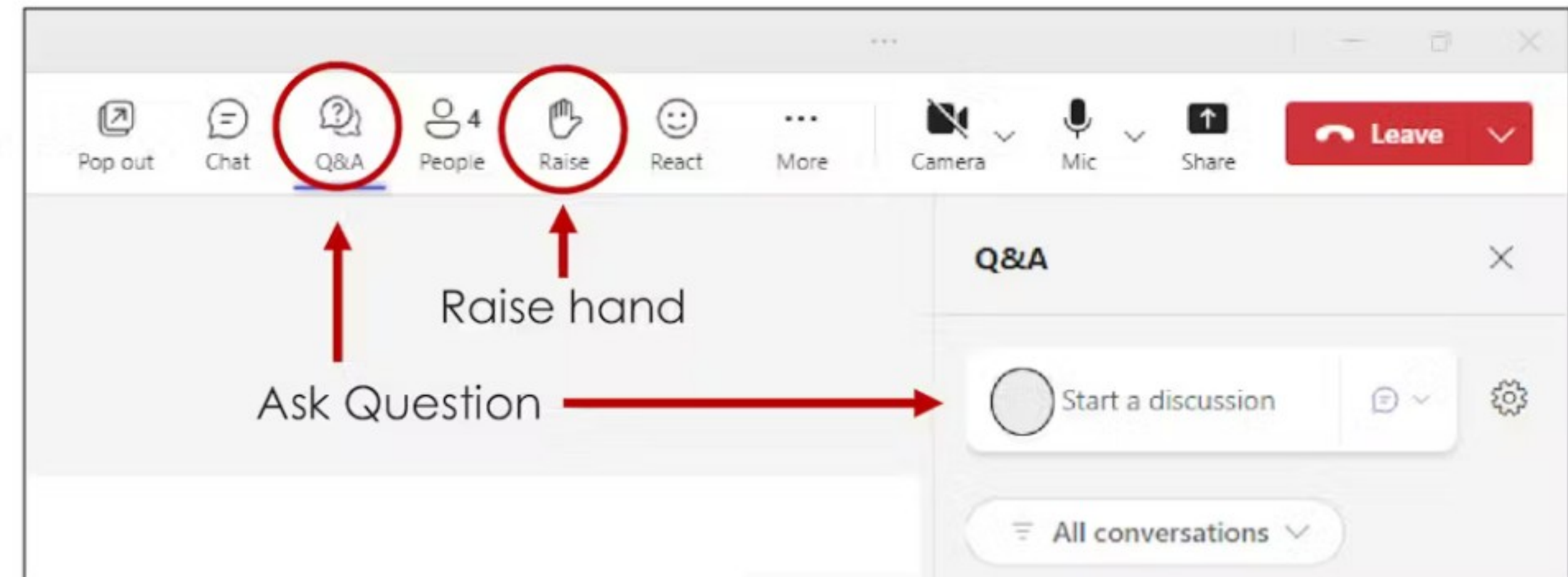
- This meeting is being recorded
- Slides & polling results will be available on EV Plan Website within 1 week

Comments/Questions:

- Ask question in Q&A box
- Raise hand to be unmuted

Polling:

- Go to: [Menti.com](https://www.menti.com)
- Use Code: 52 93 941



For assistance with technical difficulties:

- Contact us via: EVPlan@mdot.Maryland.gov

Agenda

- Introductions
- Opening Remarks
- Overview of Electric Vehicles & Charging with Interactive Polling
- Questions & Answers

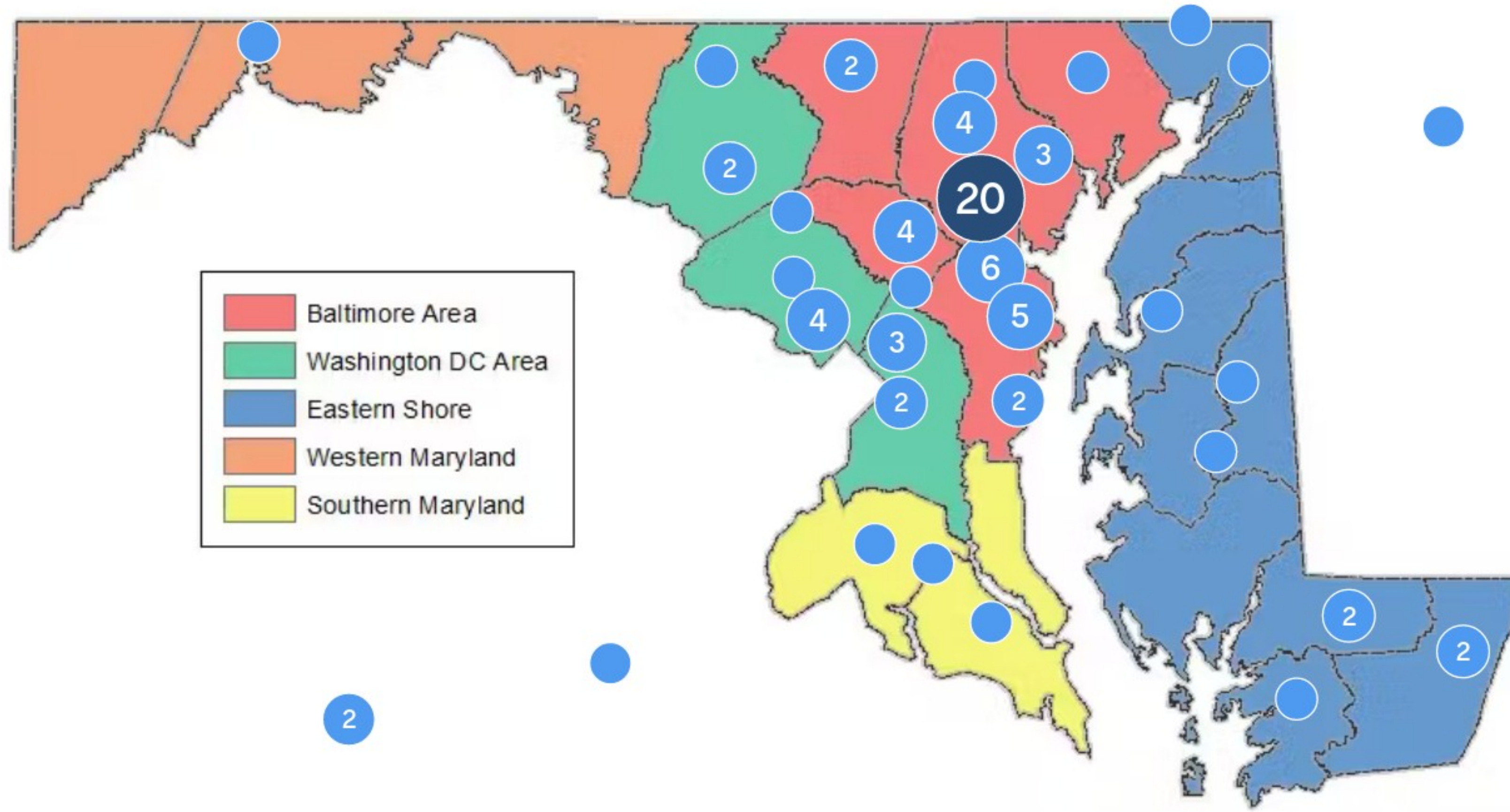
Opening Remarks

Deron Lovaas, Chief of Environmental & Sustainable Transportation Program

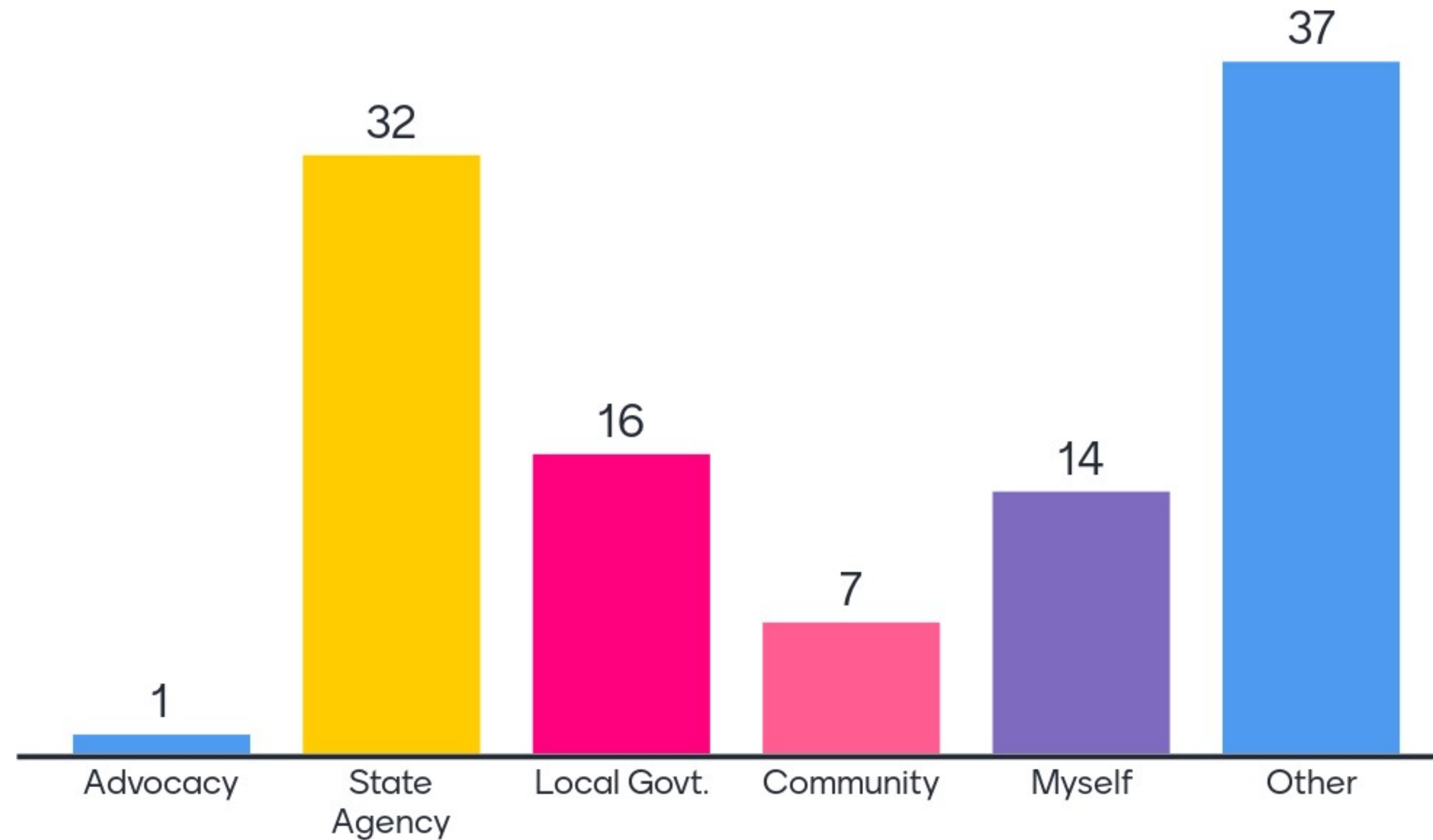
Polling

Mentimeter, Website, Code

Where are you joining us from?



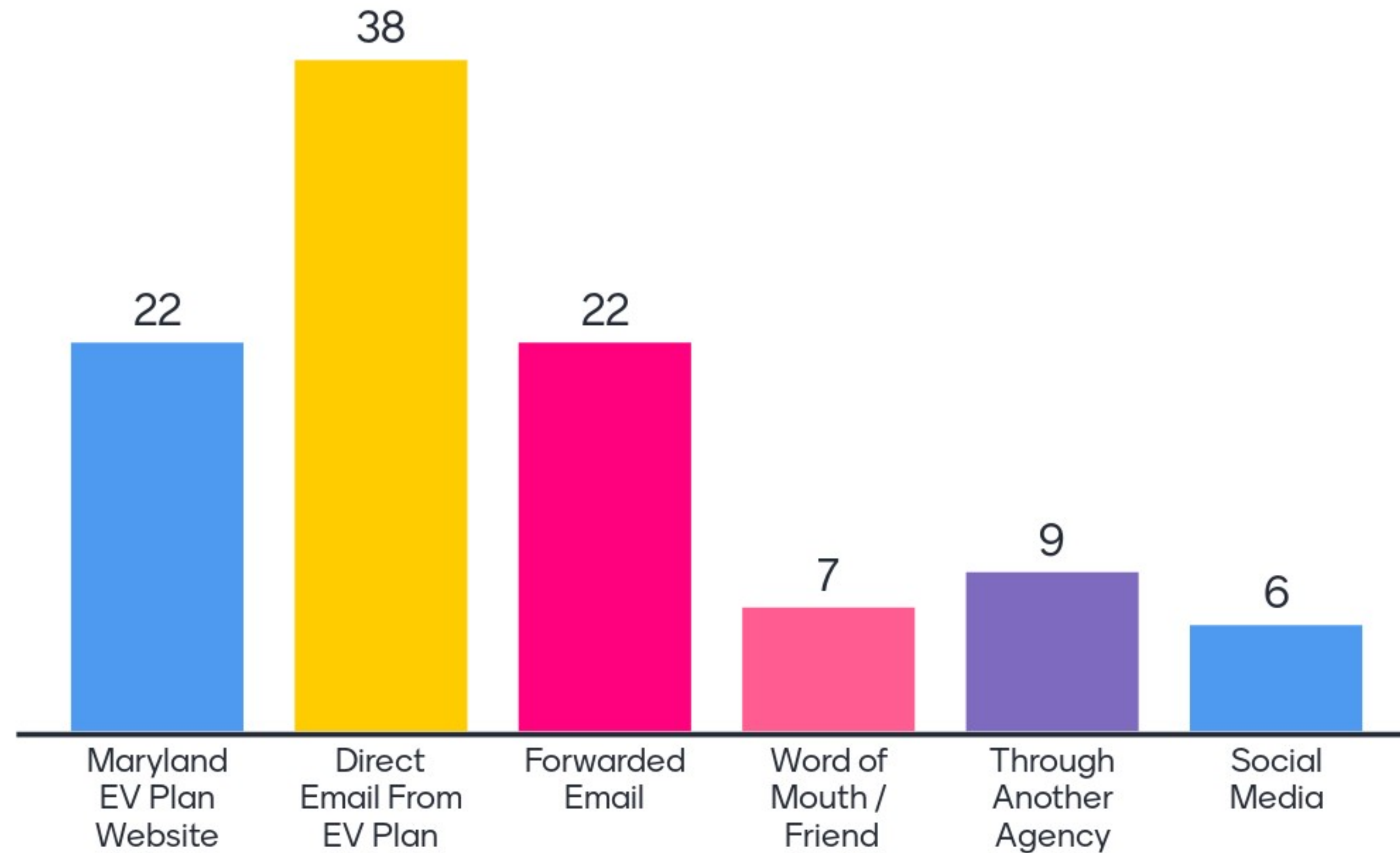
What org. or agency do you represent?



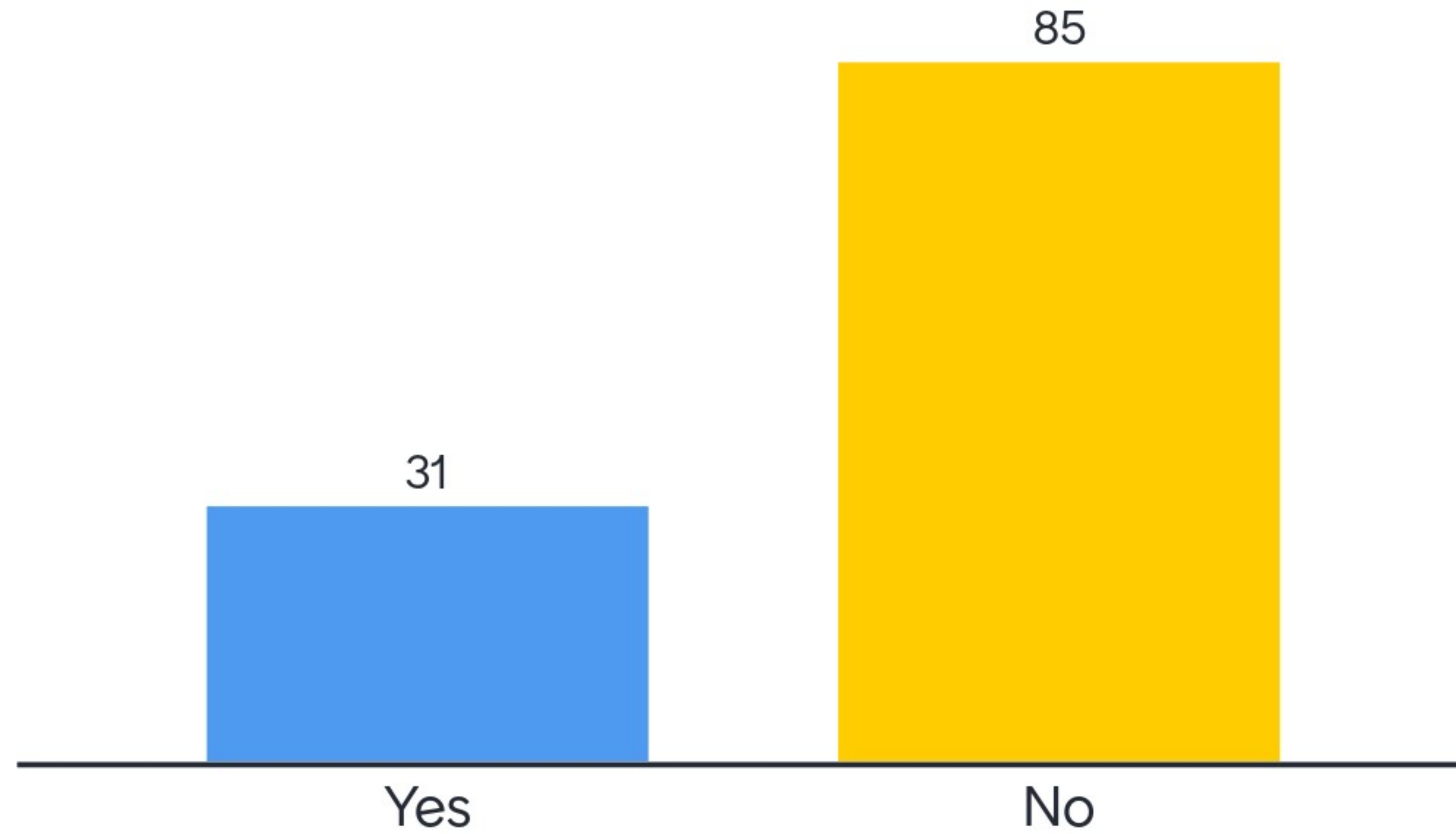
"Other" Responses Included the Following:

- Local Government (1)
- Private Sector (3)
- Academia/Education (2)
- Infrastructure/Engineering Architecture/Transportation Sectors(3)
- Smart City Company (1)
- Electric Company (1)
- EV Installation General Contracting Company (1)
- EVSE Manufacturer (1)

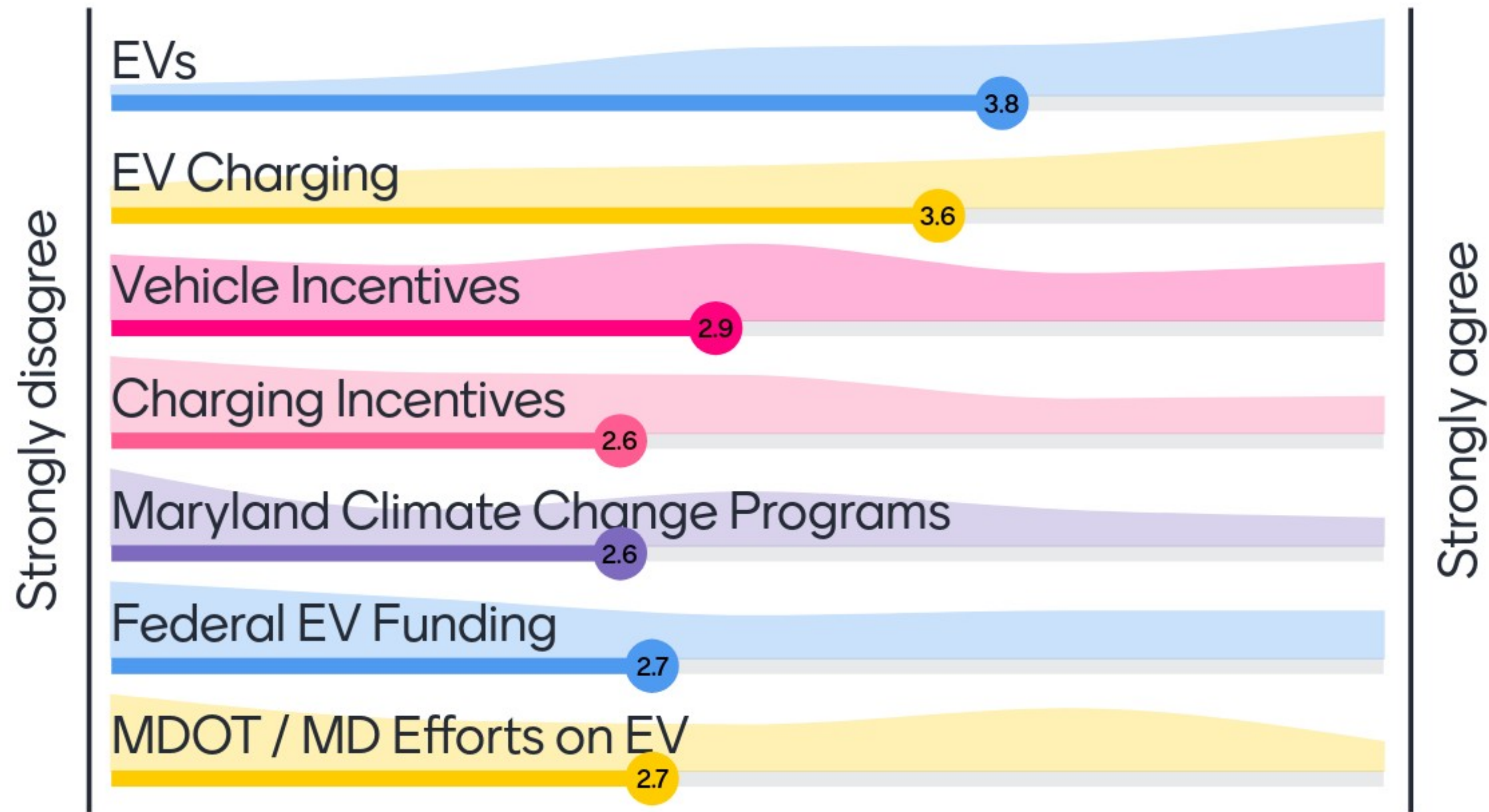
How did you hear about this webinar?



Do you own or regularly drive an EV?



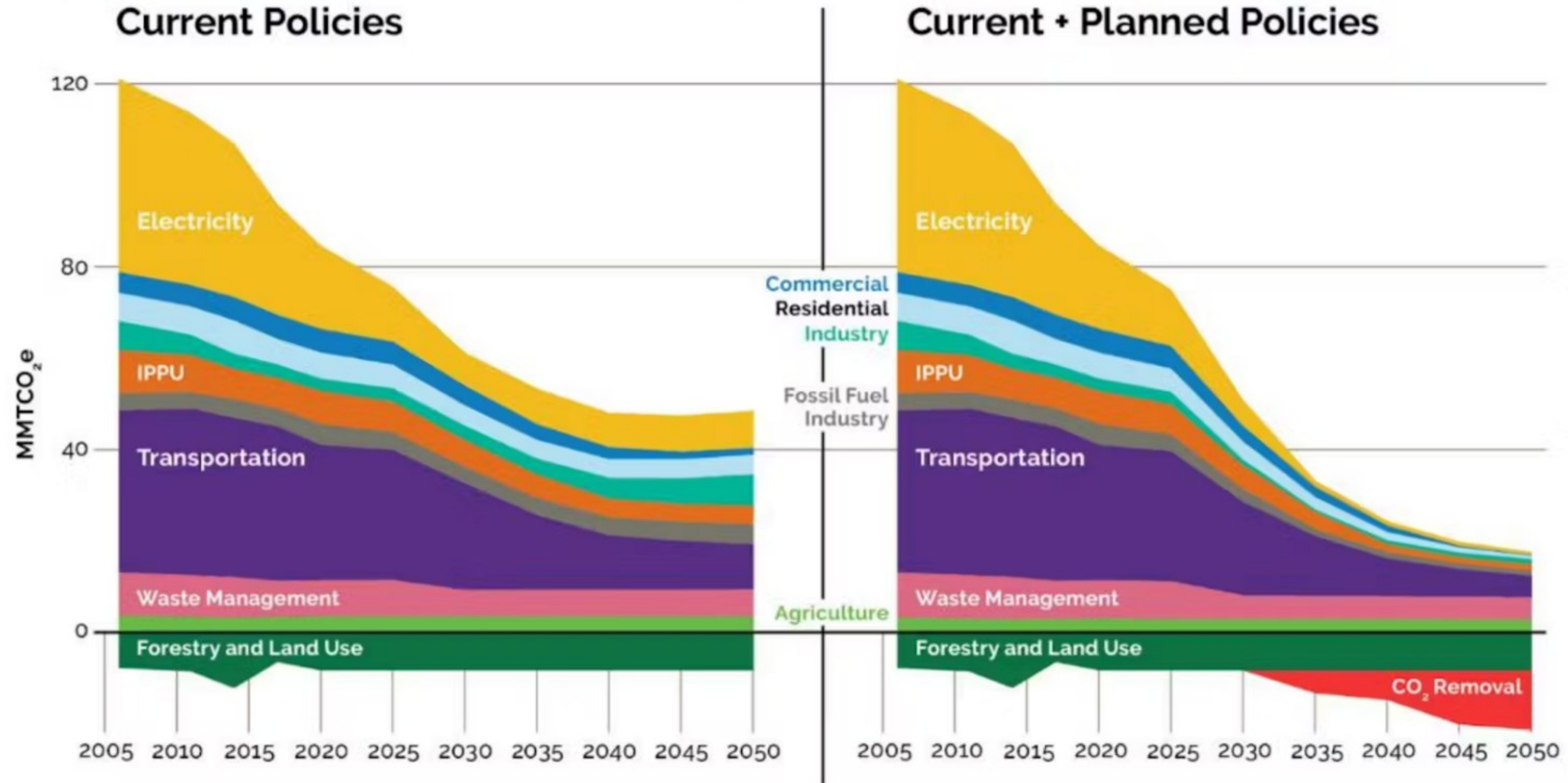
I am very familiar with



Background

Why Is Maryland Working On EVs?

Maryland's Statewide GHG Emissions and Sequestration Trends, Historical and Projected from 2006 to 2050 based on Current and New Policies

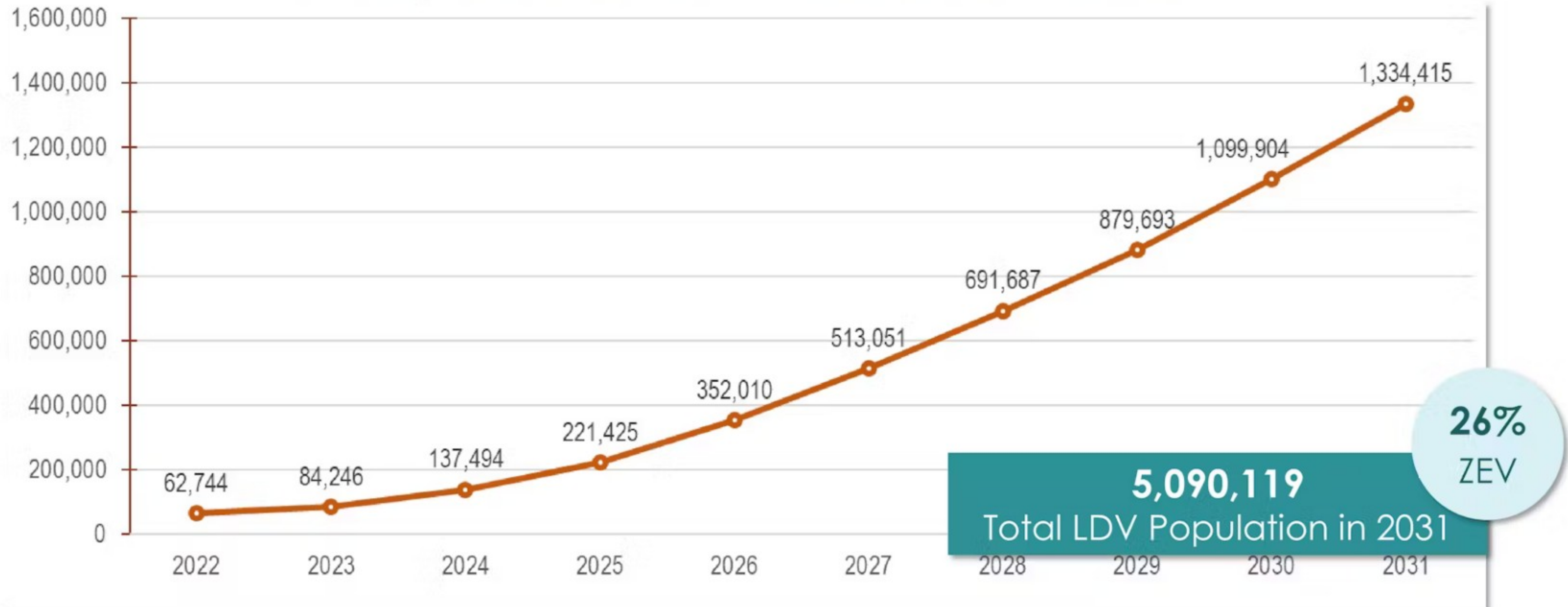


Climate Pollution Reduction under the Maryland Climate Solutions Now Act of 2022

60% reduction from 2006 levels by 2031 and Net Zero Emissions by 2045

Why Is Maryland Working On EVs?

EV Projections in Maryland Under Advanced Clean Cars II



ACC II (State Policy)

Requires 100% of new cars, light-duty trucks, and sport utility vehicles (SUVs) sold in Maryland to be ZEVs by 2035

IIJA (Federal Policy)

- NEVI - \$5 Billion
- CFI - \$2.5 Billion

Who Are The Key Agencies Involved?

Maryland Department of Transportation (MDOT)

- Vehicle electrification & charging infrastructure strategy
- Making transportation in Maryland more 'green'

Maryland Department of the Environment (MDE)

- Regulations

Maryland Energy Administration (MEA)

- Incentives



Maryland
Department of
the Environment



Maryland
Energy
Administration

Maryland is leading by example:

- Transitioning fleet to EVs
- Deploying EVSEs at State sites

What Is MDOT Working On?

National Electric Vehicle Infrastructure (NEVI)

- Part of the larger national electrification effort & charging network
- Approximately \$60 million will be invested in Maryland
 - Round 1 RFP Closed April 10th

Electric Vehicle Charging Reliability Accessibility & Accelerator (EVCRAA)

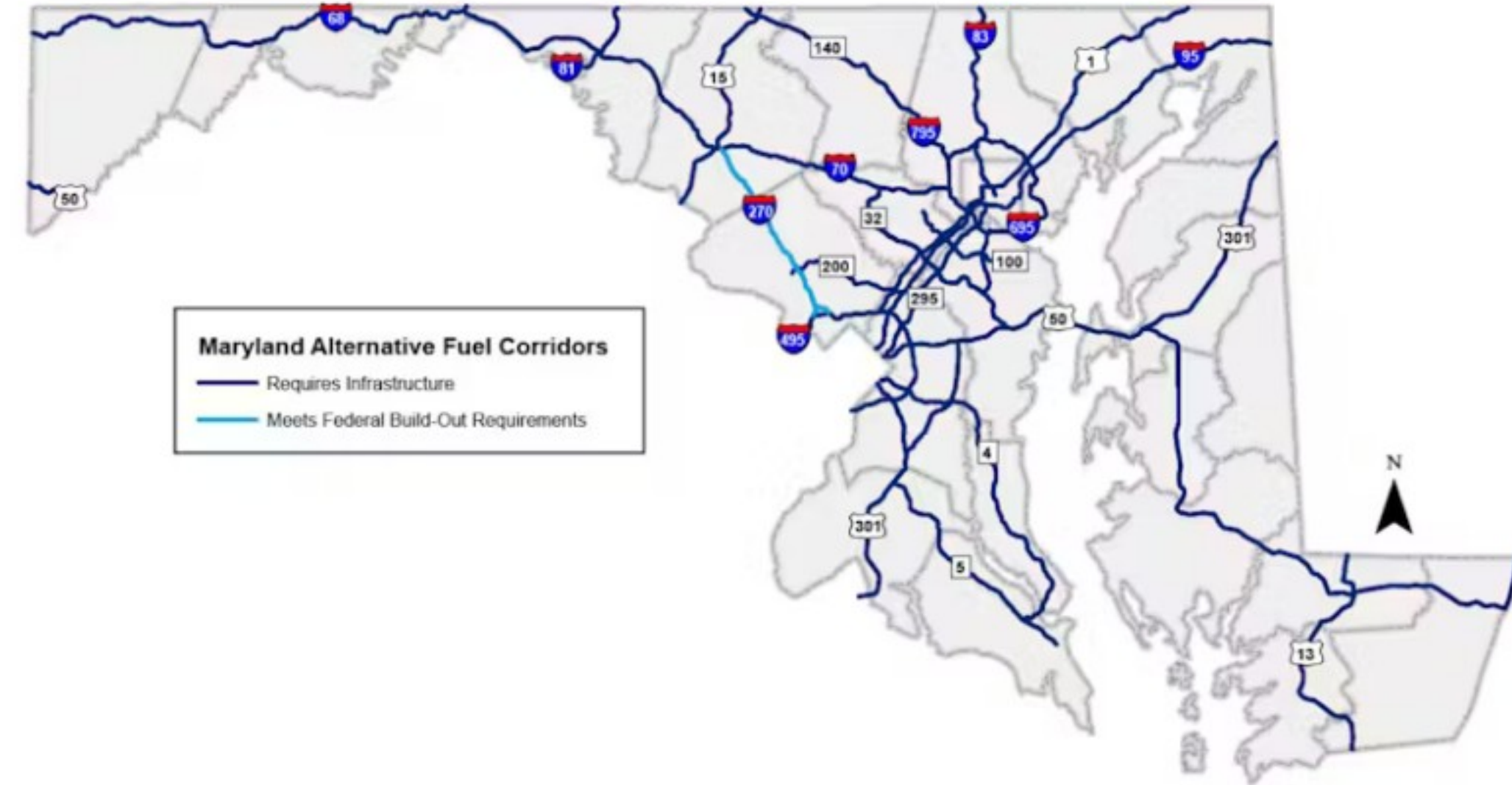
- Repair & replace existing public charging stations
 - Received \$4.36 million in Maryland

MarylandEV

- Provide consumer awareness on EVs, charging, incentives

Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC)

- Development of policies, recommendations, and incentives that increase of ZEV awareness



**23 Designated EV
Alternative Fuel Corridors**

Benefits

Electric Vehicles

Types of EVs

- Battery Electric Vehicle (BEV)
 - Zero-emission
- Plug-in Hybrid Electric Vehicles (PHEV)
 - Lower emission
 - Minimal range anxiety

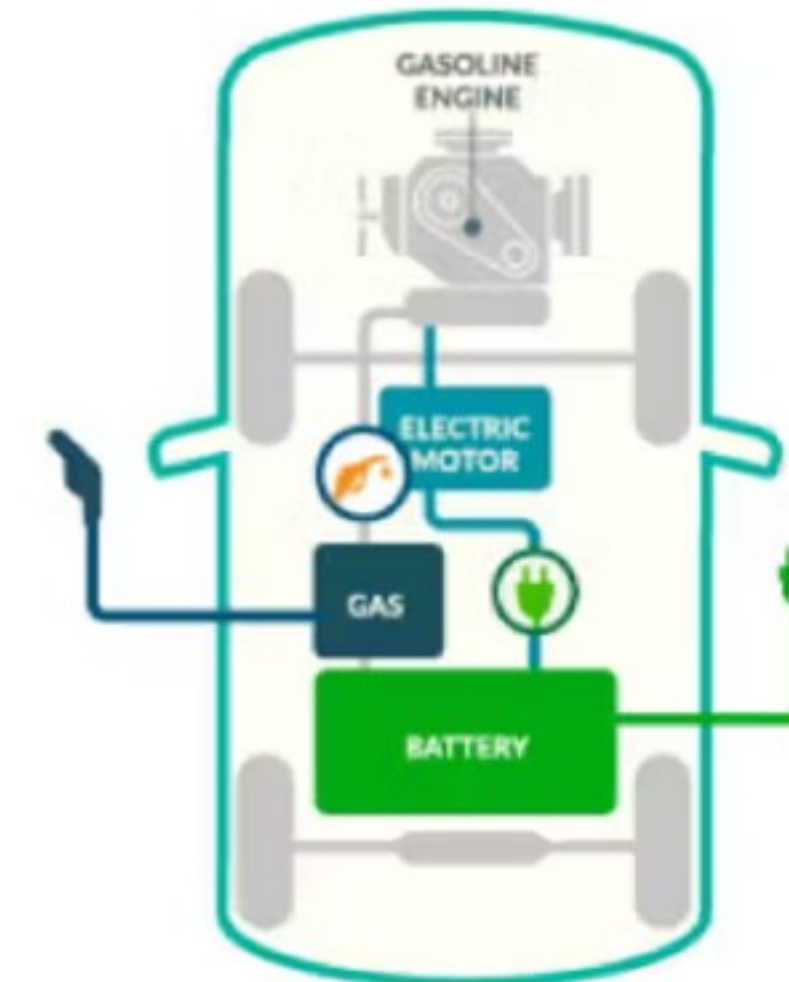
Cost Savings

- Lower maintenance and overall lifetime costs

Environmental & Health Benefits

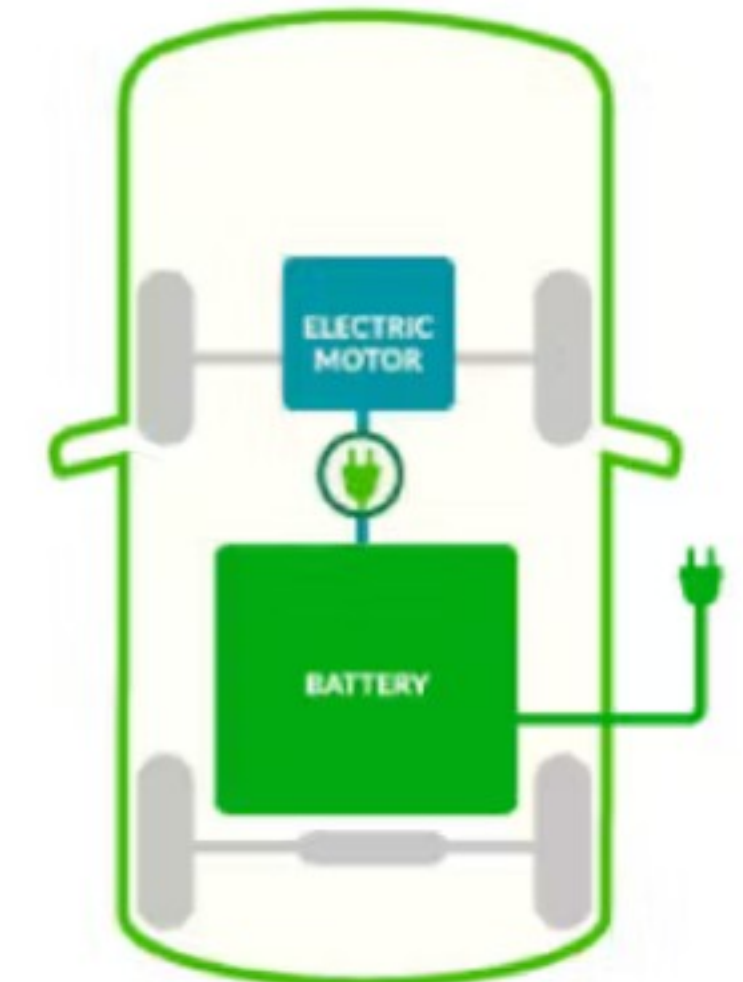
- Lower GHG emissions
- Reduced air pollution

PHEVs



PLUG-IN HYBRID ELECTRIC VEHICLES

BEVs



BATTERY ELECTRIC VEHICLES

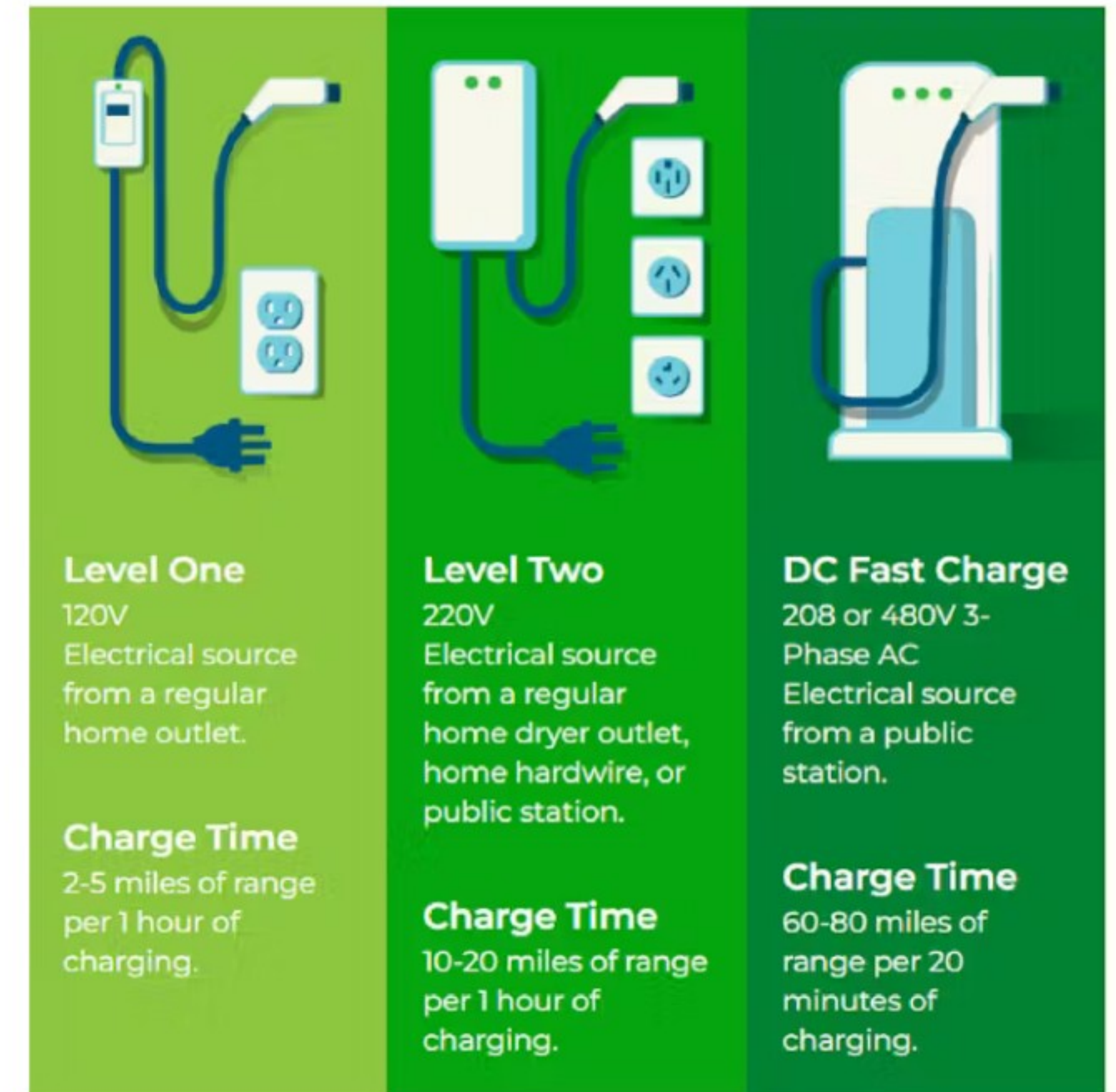
Charging Stations

Types of Charging Stations

- Level 1
 - Regular home outlet
- Level 2
 - Charge at home overnight or during work
- DC Fast
 - Provides 80% charge in 30 minutes

Interconnected Network of Charging

- Facilitates data collection, access, and reliability
- Chargers in BOTH community and along highways
- Reduced range anxiety



What Incentives Are Available?

MEA's EV Charging Rebate Program

- Rebate for 50% of eligible costs up to \$700 incurred acquiring and installing qualified charging stations
- FY 2024 Funding - \$2.5 Million

MVA's Excise Tax Credit

- One-time excise tax credit up to \$3,000 for the purchase of a qualified ZEV
- Current FY funds have been depleted

Federal Tax Credit Program

- Tax credit up to \$7,500 for the purchase of a qualified new ZEV
- Tax credit up to \$1,000 for the cost of hardware and installation of charging stations

Utility

- Rebate Programs
- Time of Use Rate Plans

Incentives

See how much you can save by going electric!

There are many federal and state tax incentives, as well as state grants, vouchers and rebates, for the purchase of plug-in electric vehicles and electric vehicle supply equipment.



Federal Incentives



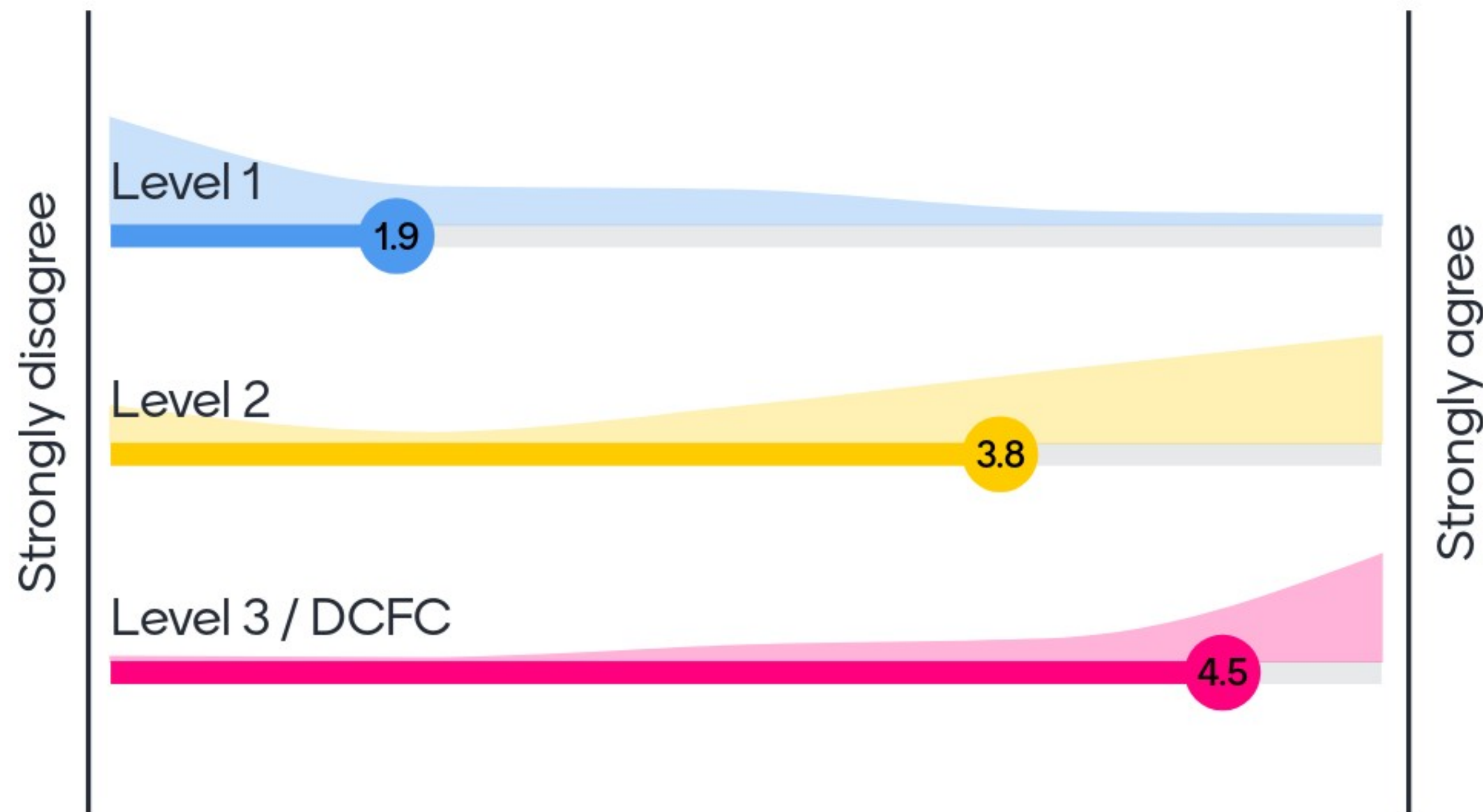
State Incentives



Utility Incentives

Visit MarylandEV.org
for more information on incentives

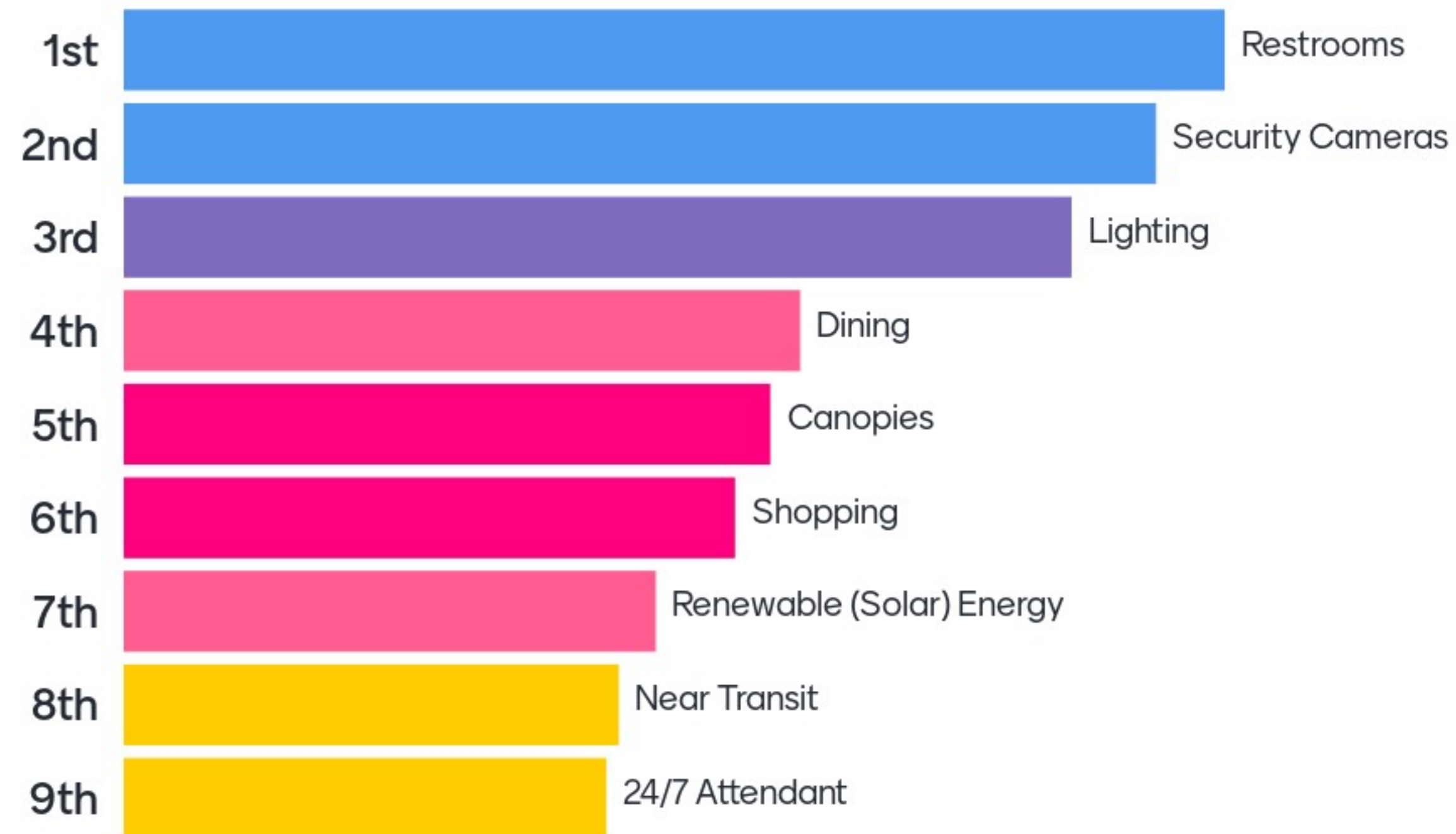
What level of charging do you think is needed most?



I think charging is best located at



What charging amenities are most important to you?



Other Comments Received Included:

- Air pumps to check/adjust the pressure in tires at some fast chargers.
- Squeegees at fast chargers! While the car is charging, it can use some maintenance!

3

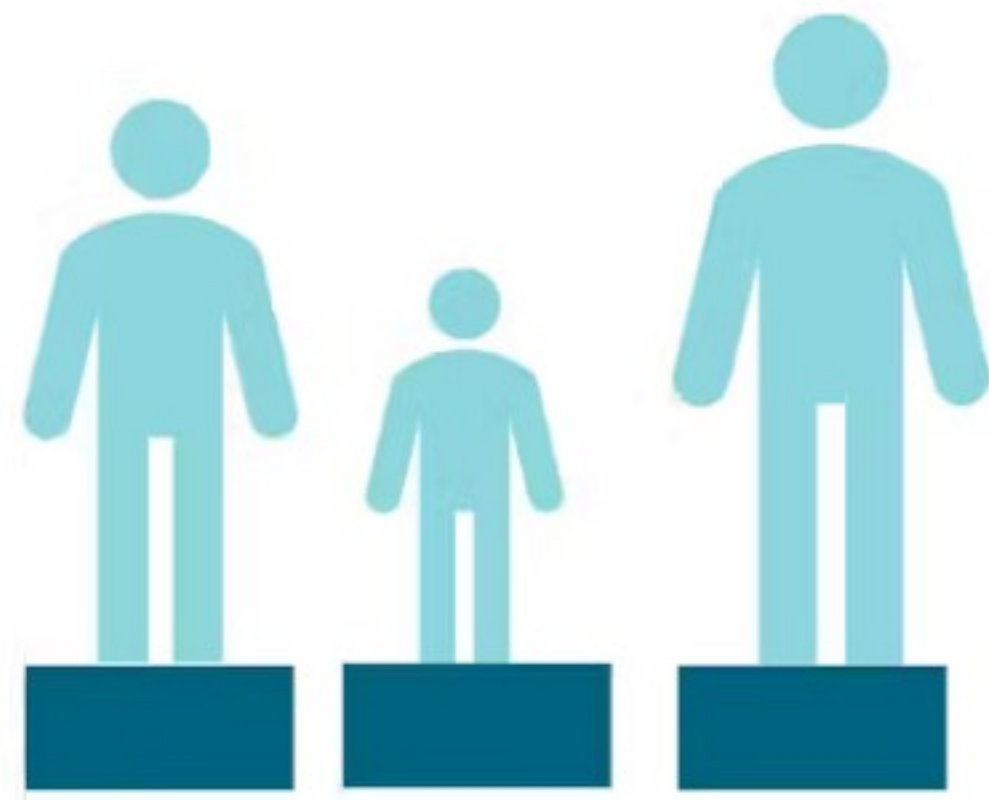


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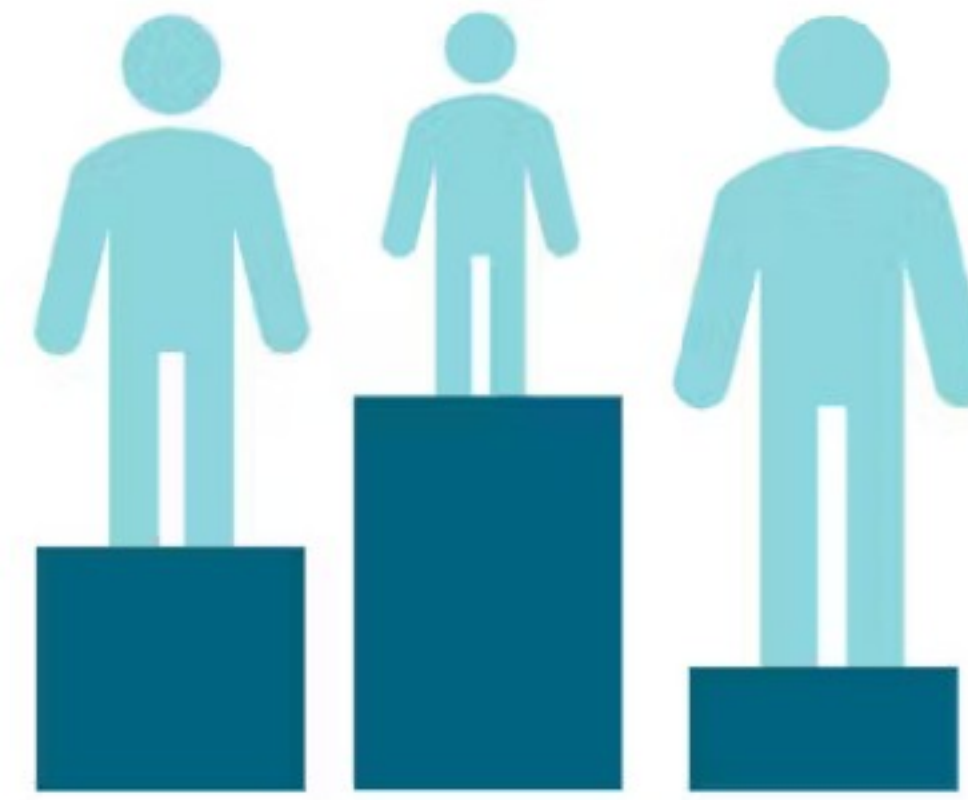
Equity

What is equity?



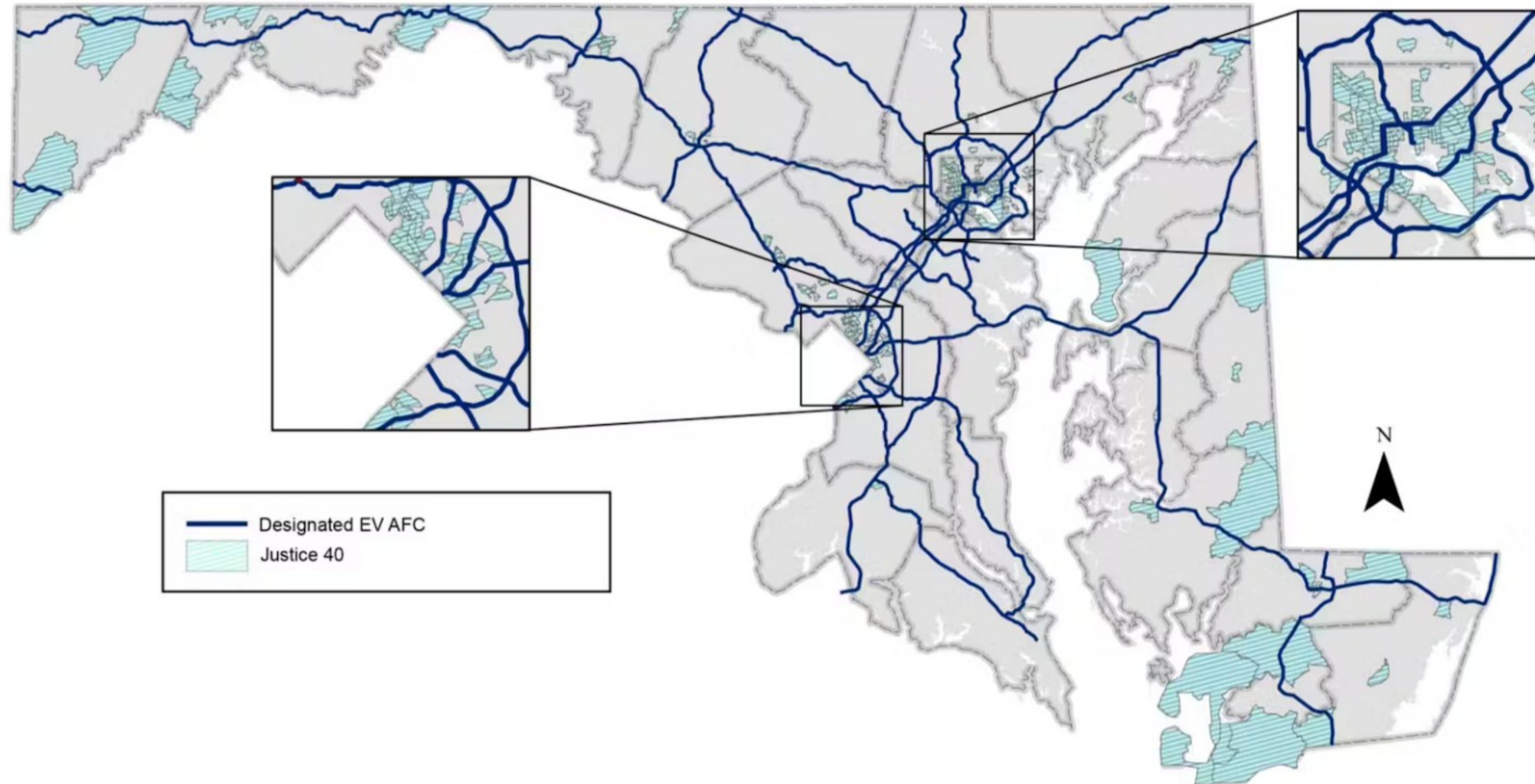
Equality

VS

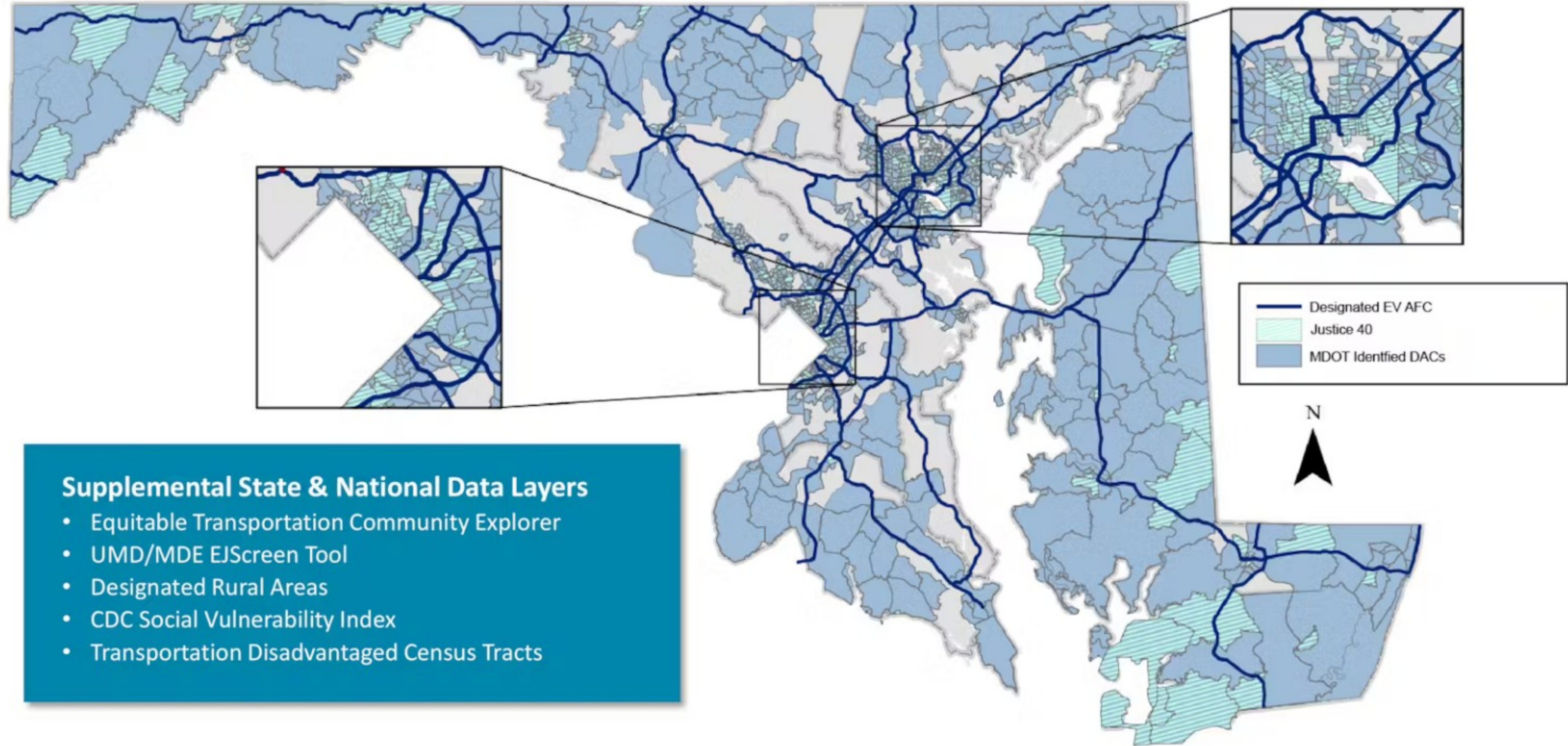


Equity

What is Justice40?



Going Beyond Justice40



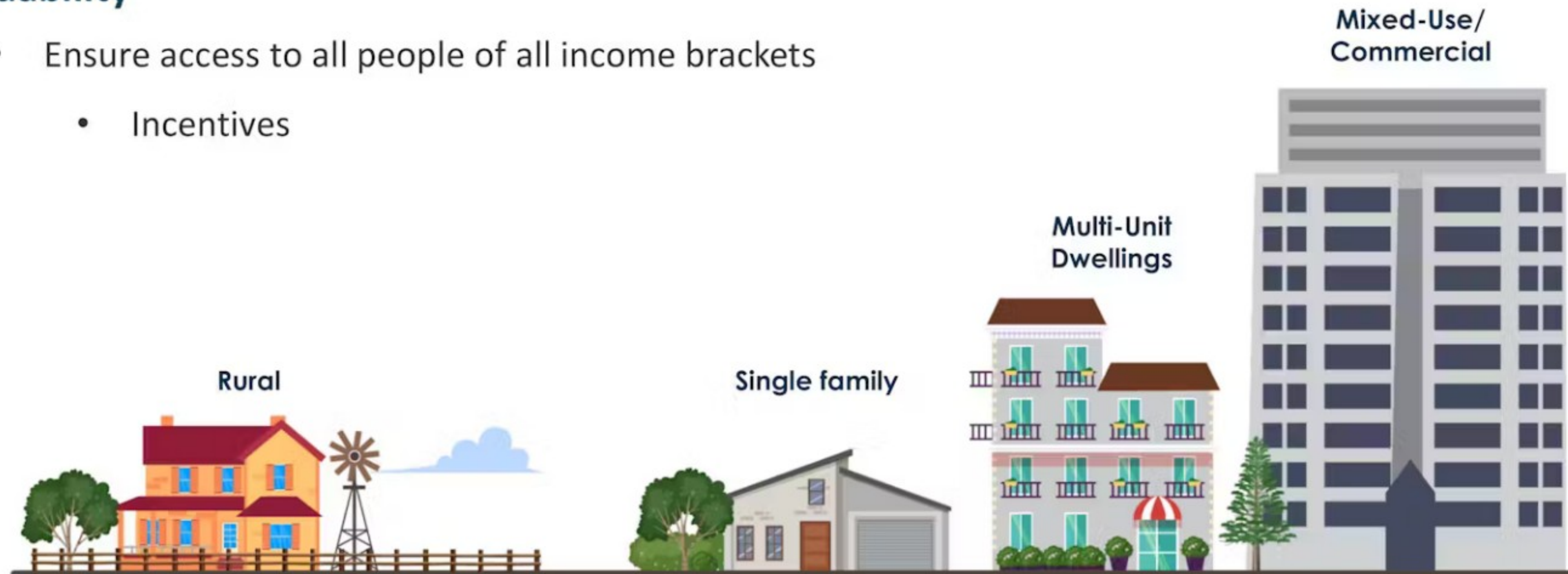
How does this relate to equity?

Accessibility

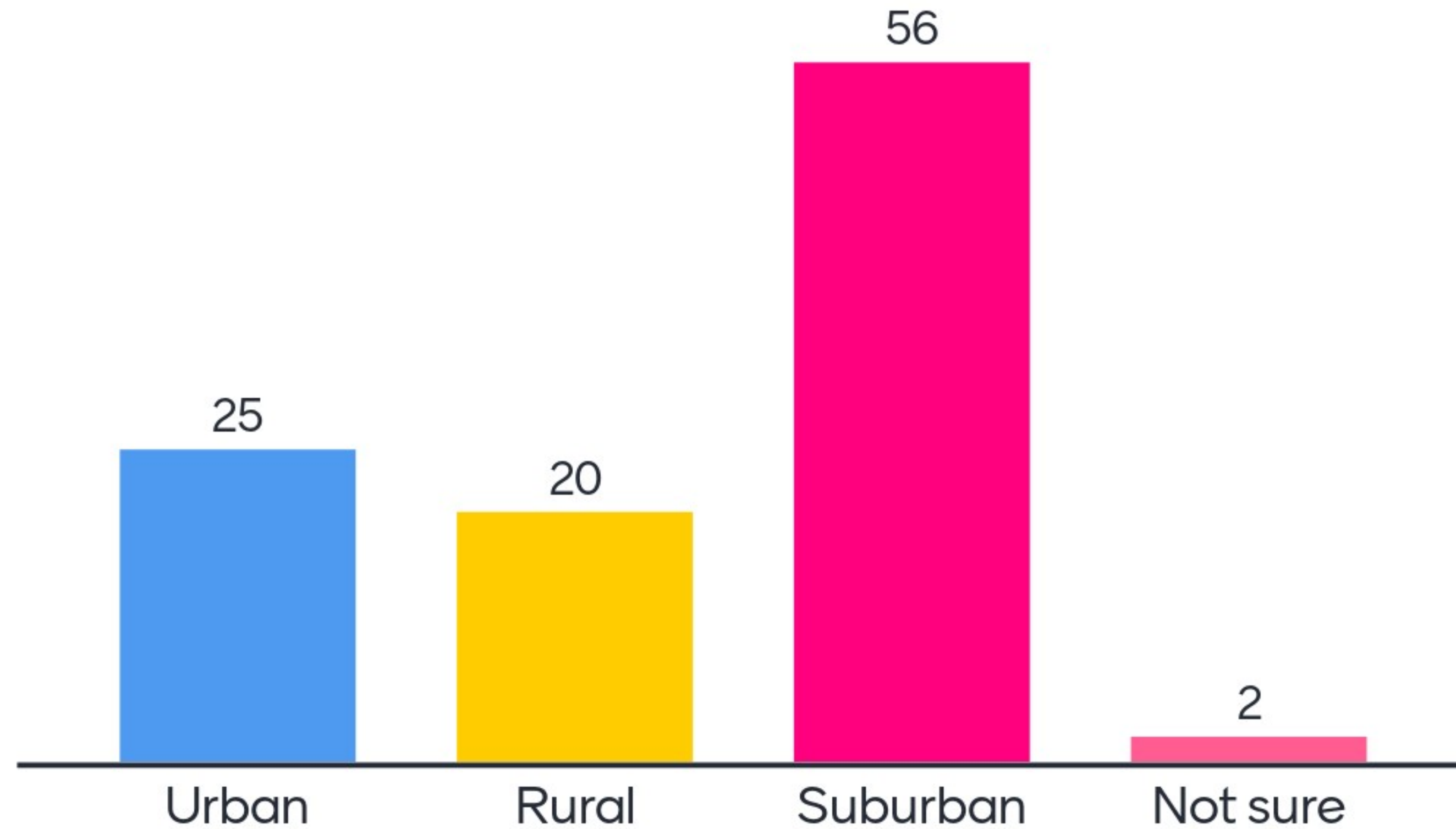
- Increasing public awareness about EVs, EVSEs, and incentives
- Expanding EV adoption, ownership, and usage
- Expanding the charging network
 - Home, workplace, multi-unit dwellings, community, and along highways
- Ensuring a reliable charging network

Affordability

- Ensure access to all people of all income brackets
 - Incentives



Would you describe your community as:



What does equity with respect to EVs mean to you?

124 responses



Outreach Efforts

What Has MDOT Done Previously?

Webinars

- Initial stakeholder webinars in June 2022

Meetings & Presentations

- Utilities | ZEEVIC | Local Government

Website & Tools

- EV Plan Website | EV Dashboard | EV Charging Siting Tool | MarylandEV

MetroQuest Survey

- 681 Respondents | NEVI Vision & Goals | Prioritization Criteria | Concerns | Optimal Charging Station Locations

Request for Information (RFIs)

- NEVI Formula Funding | EVSE End-to-End Data Collection & Data Reporting Solution

ZEEVIC Events

- 11 community events | 5,200+ Touchpoints

Outreach by the Numbers



2,099

Total Survey Participants



11

Community Events



5,242

People Engaged



53

Total RFI Respondents



502

Optimal Sites Identified

What Is MDOT Currently Doing?

Webinars

- Three Webinars
 - June 11, June 18, June 20
- Focused on education and why NEVI matters
 - Audience: Public

NEVI Plan Survey

- Feedback on electrifying transportation sector and developing statewide EV infrastructure plan
 - Audience : Public

Maryland NEVI Round 1 RFP Survey

- Gather feedback from on Round 1 RFP
 - Targeted Audience : Potential NEVI Applicants





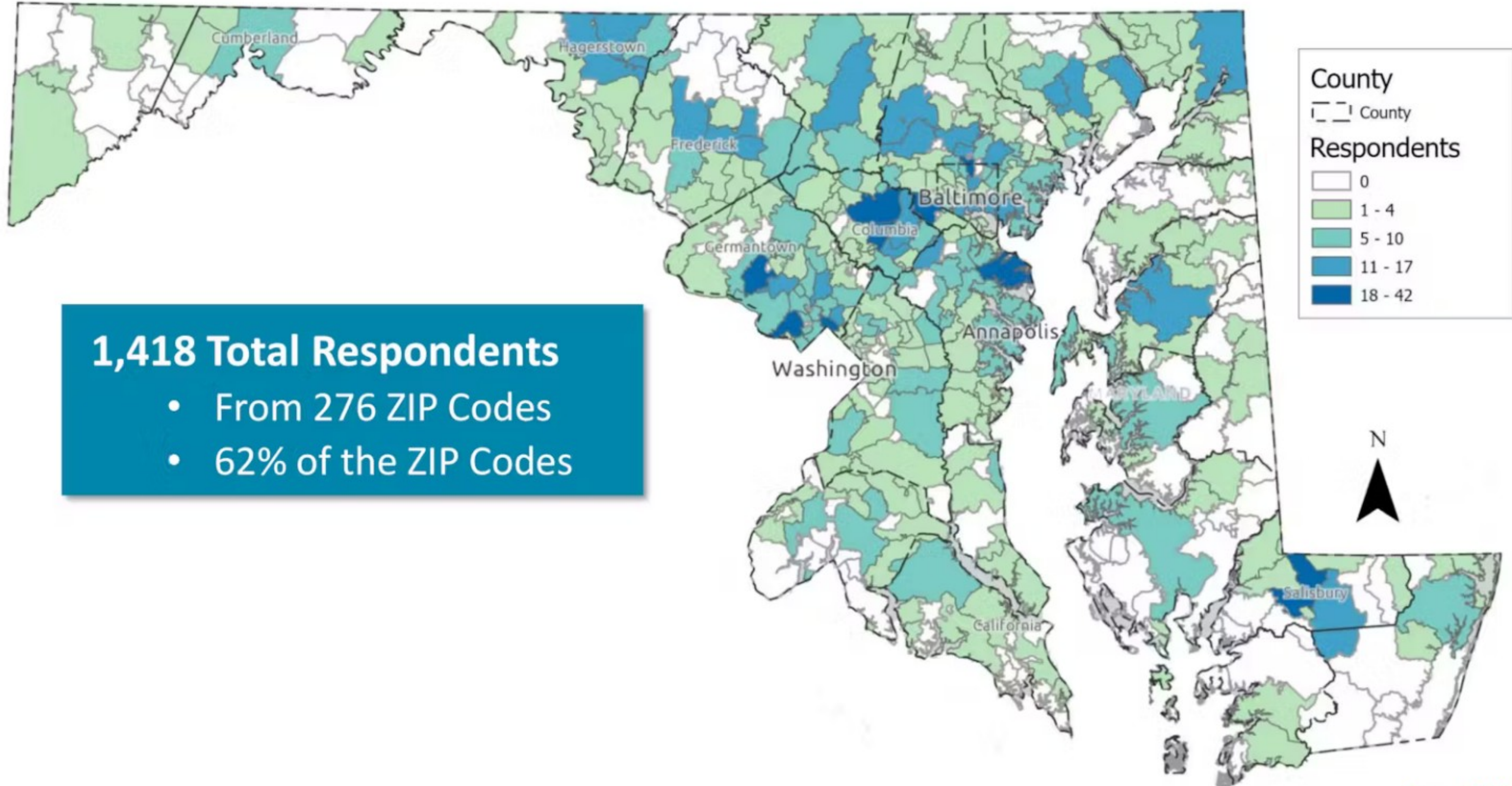
Get Plugged into the Future of Electric Vehicles!

The Maryland Department of Transportation (MDOT) invites you to join one of our virtual informational webinars to learn about Maryland's National Electric Vehicle Infrastructure (NEVI) Plan and NEVI Program, the adoption of electric vehicles (EVs) across Maryland, and the installation of EV Charging Stations.

The same information will be shared at all three webinars, so we invite you to register for **one** of the webinars below:

Tuesday, June 11, 2024 — 11:00 a.m. to 12:30 p.m.
Tuesday, June 18, 2024 — 11:00 a.m. to 12:30 p.m.
Thursday, June 20, 2024 — 6:00 p.m. to 7:30 p.m.

Survey Results

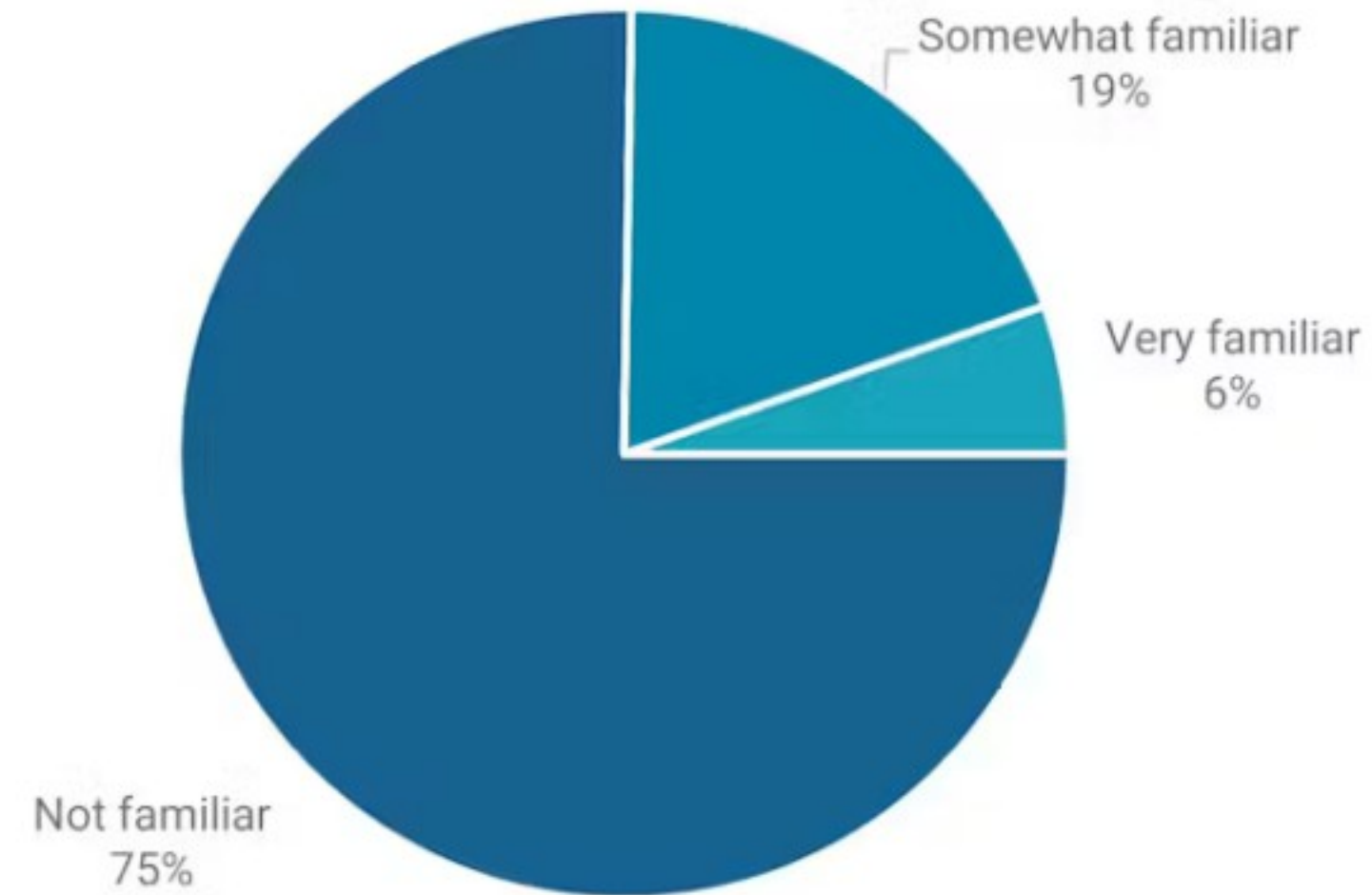


1,418 Total Respondents

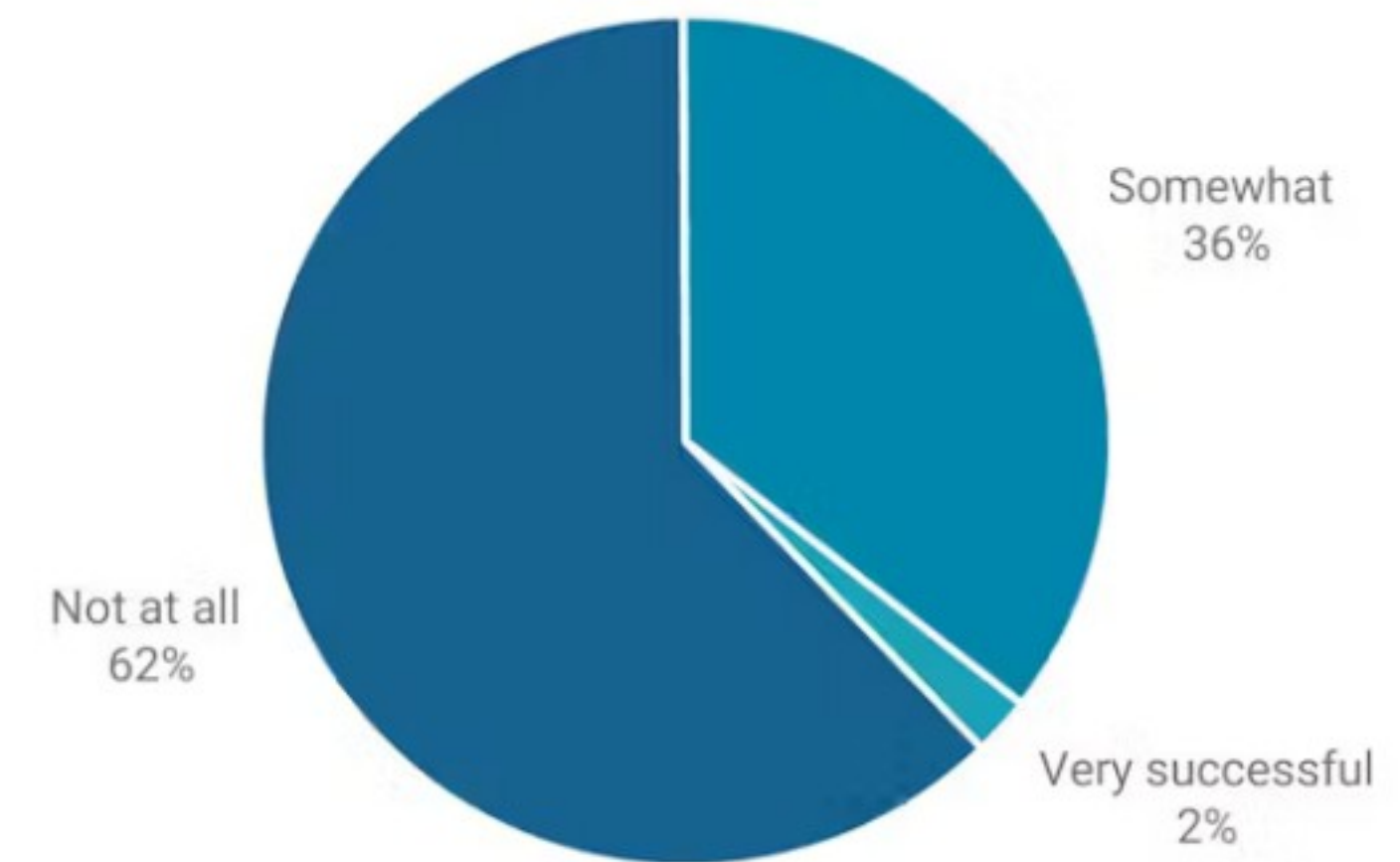
- From 276 ZIP Codes
- 62% of the ZIP Codes

What we heard

Familiarity with NEVI

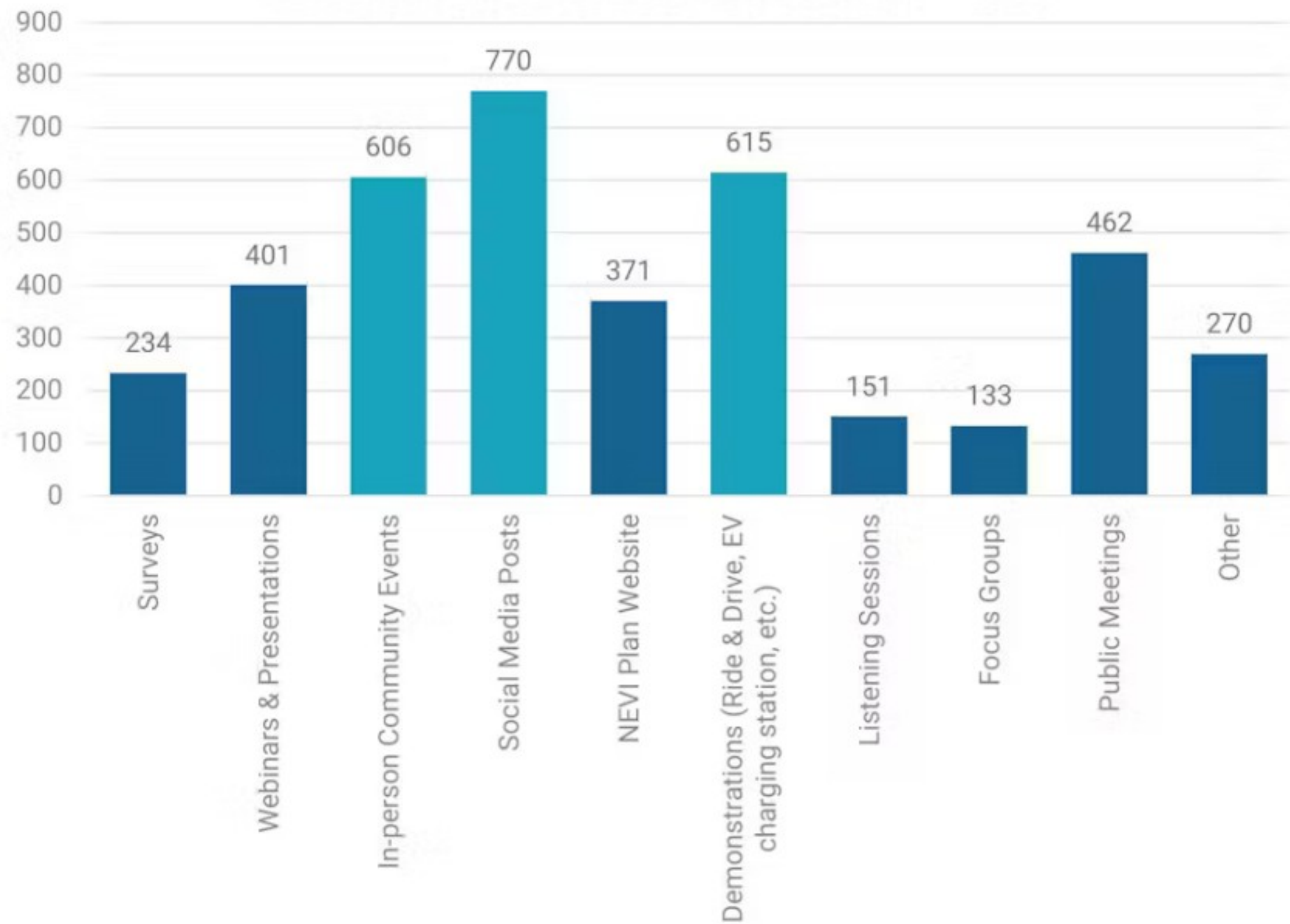


How Successful NEVI Outreach & Education to the Public Have Been

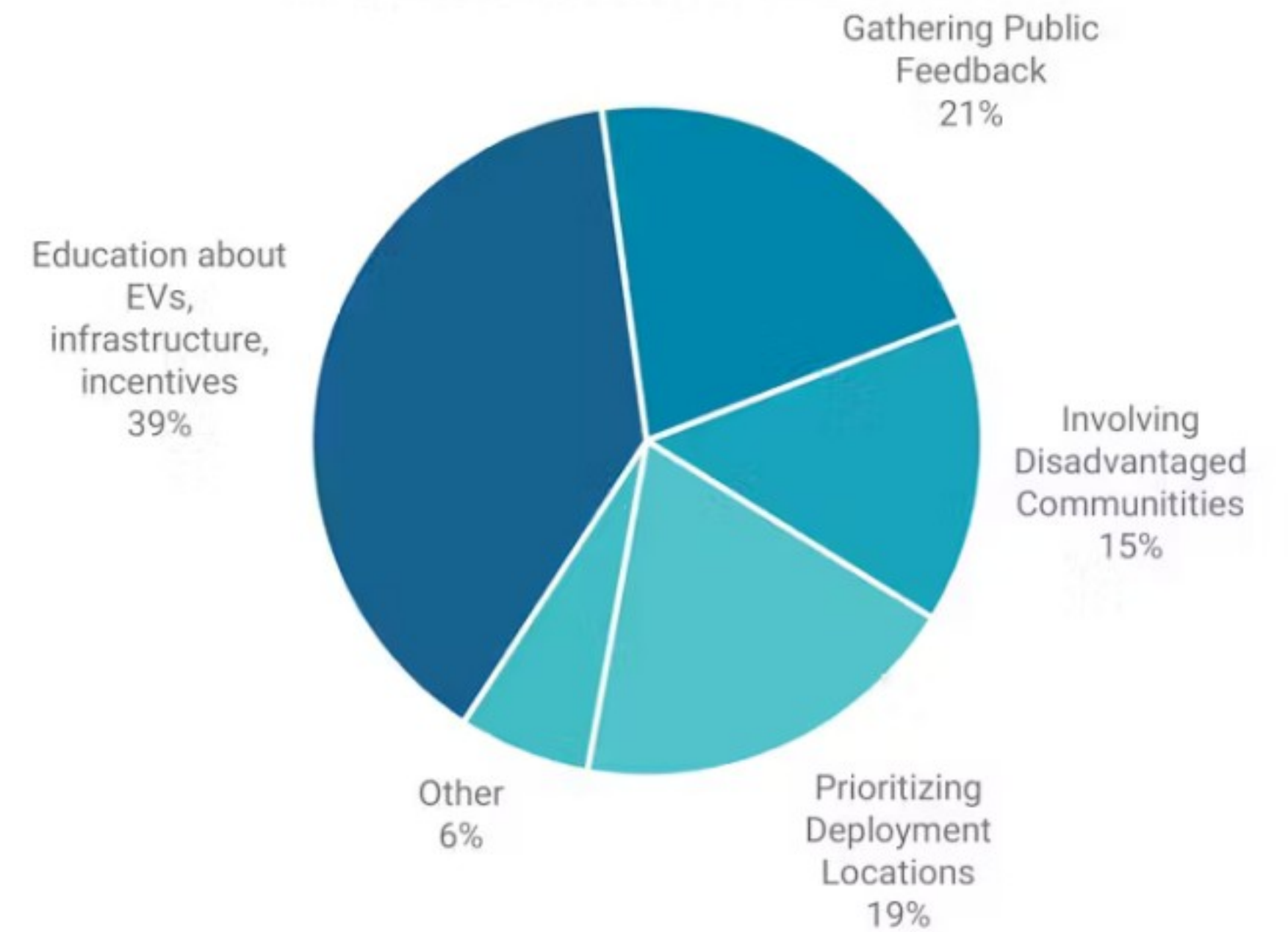


What we heard

Best Methods for Successful Outreach



What Should Outreach Focus On?



Are there any events you recommend we attend?

62 responses



What do you think would get you and your community interested in EVs?

107 responses



7

65



NOW THAT WE'VE DESCRIBED HOW WE ARE REACHING OUT

What else can we do to increase public awareness?

Get charging stations out and visible.

continue to spread the word

radio campaigns and short videos within 1 minute

Social Media, Radio, email

Target car dealerships

Possibly add billboards.

Working with car dealerships or even MVA for EV 101

TV and Social Media Ads

6



55



NOW THAT WE'VE DESCRIBED HOW WE ARE REACHING OUT

What else can we do to increase public awareness?

Prioritize outreach staff from marginalized communities, center the voices of the underserved.

Mailers

Make sure dealerships are educated on EVs

TV Commercials

Mail Out's

promote available incentives

Not over charge tag renewal just because it is an ev

presence at elections and information with mail in ballots

6



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NOW THAT WE'VE DESCRIBED HOW WE ARE REACHING OUT

What else can we do to increase public awareness?

This interactive designed webinar was great.

Tv commercials
Radio announcements
Partner with companies that sell EVs

low cost charges

Wayfinding signs for stations.

More tv commercials during sports broadcasts

target communities

Free food and events within community

Billboards.

6



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NOW THAT WE'VE DESCRIBED HOW WE ARE REACHING OUT

What else can we do to increase public awareness?

events after install

community events

more work with
dealerships

Get the technology out in
front of local officials

Be in high traffic areas -
shopping centers,
supermarkets, etc

Address common
misconceptions and/or
misinformation

TV News, Radio - address
misinformation

Promote private
residential charge
stations

6



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NOW THAT WE'VE DESCRIBED HOW WE ARE REACHING OUT

What else can we do to increase public awareness?

Address the negative issues on electrical vehicles as you travel around the state and on these webinars.

increase incentives for ride share drivers and taxis. people will get a "test-drive" that way.

Podcast

Tell them how much a full tank costs when it's electric.

give away free ev

Reach out to owners of big fleets (transportation companies, etc...) to increase exposure with more vehicles out there

community interactions

EV Curriculum in driving schools

6



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NOW THAT WE'VE DESCRIBED HOW WE ARE REACHING OUT

What else can we do to increase public awareness?

more information about what incentive programs are available to everyone

Build more charging infrastructure and promote that it has been built

Make charging stations easier to use, remove political bias, and make EV registration cheaper to make it more attractive

coordinating charging network buildout with fueling stations

dealership group buy events (large discount when a certain amount of people buy)

deploy more chargers

MVA/DMV

Vehicles that make a longer range today these vehicles are throw away when the battery goes, need a better design and guarantee on vehicle milage and battery range

6



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NOW THAT WE'VE DESCRIBED HOW WE ARE REACHING OUT

What else can we do to increase public awareness?

higher education
institutions

Increase comfort level
with EV

Explain more about the
cost of maintenance.

Education and Public
awareness outreach

Utility by-in and PSA

Direct mail = with MVA
mailings

Meet the communities
where they are at

american lung
association or other
health orgs

6



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NOW THAT WE'VE DESCRIBED HOW WE ARE REACHING OUT

What else can we do to increase public awareness?

Normalize - Establish a use tax to fund road use and charging and support emergency responders.

grocery stores

Communicate the ease of repair; the general info is that repair is much more expensive than gas-powered vehicles

Produce a public Oxford-style debate on the major issues surrounding EV's

Social media posts - Demonstrate easy to drive and charge

Partner with UMD, and schools. Something during climate education week

High Schools

Newspaper editorials

6



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NOW THAT WE'VE DESCRIBED HOW WE ARE REACHING OUT

What else can we do to increase public awareness?

In person visits at MVA,
connect people
w/literature

presentations at 50+
Centers

Partner with the faith-
based community.

Pay people to drive around
and promote the vehicles and
locations of available
chargers.

Information at
Dealerships to sway
apprehensive buyers

more details in tv ads
about the ways to access
and its benefits

free give aways

When licenses or other
mailings are generated by
MVA, send literature (can
save on postage)

6



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NOW THAT WE'VE DESCRIBED HOW WE ARE REACHING OUT

What else can we do to increase public awareness?

Create like QR codes to place around in different areas

Focus on education. The ability to leverage EV's requires unique knowledge of the specific vehicle you may own. Trying to manage these features while driving is dangerous

Radio Shows / Podcasts

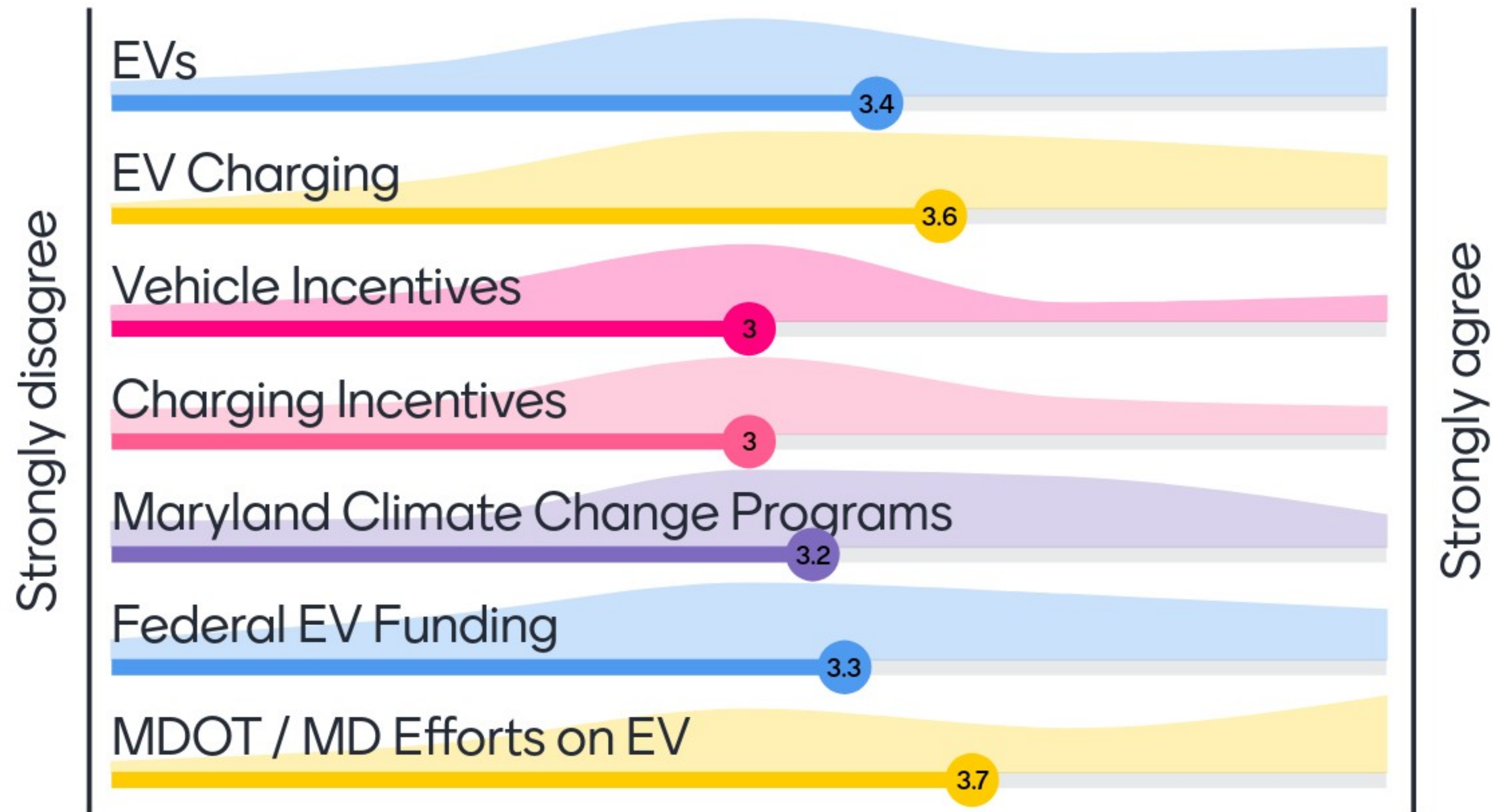
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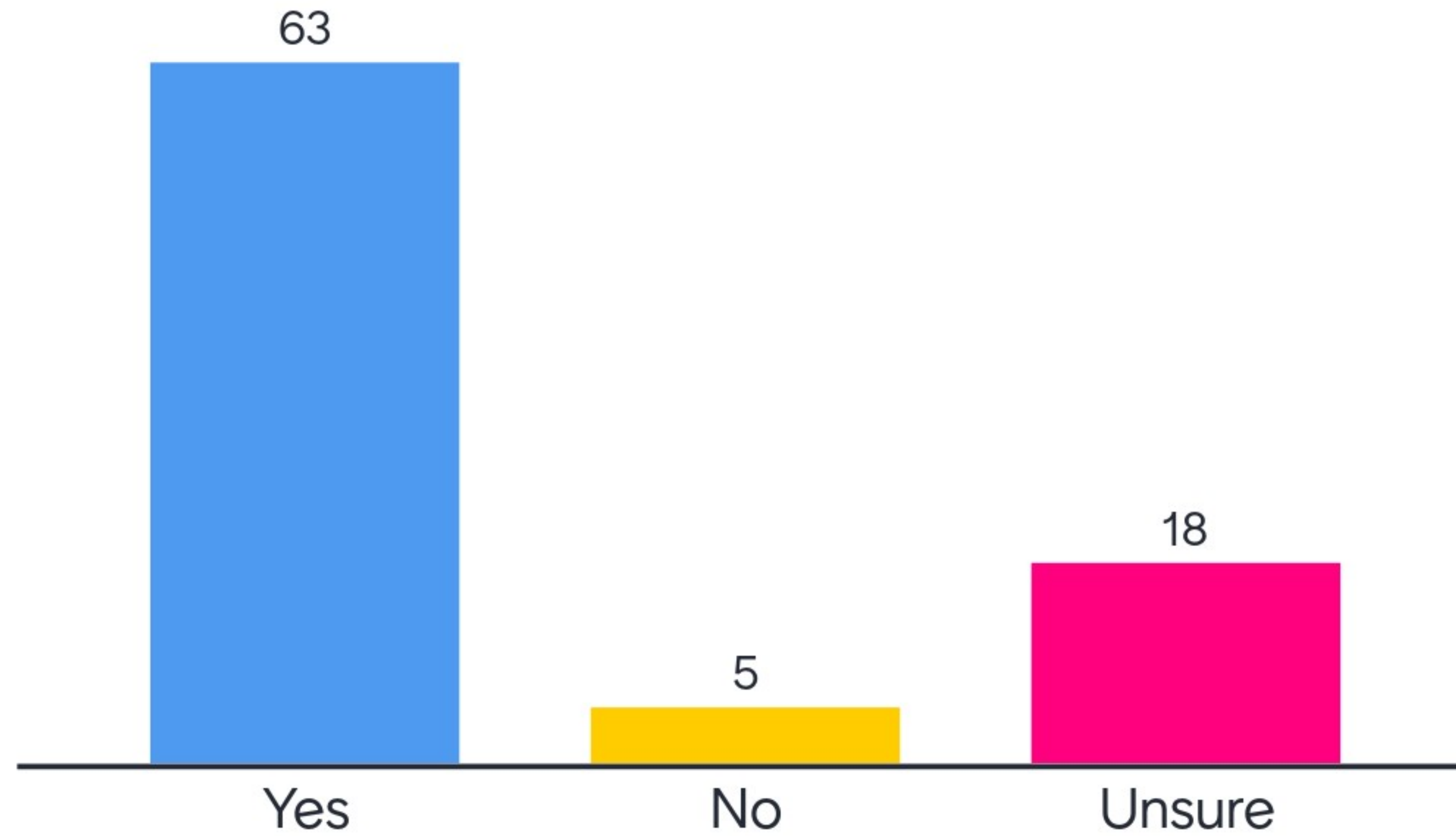
55



I feel more familiar with



I found this webinar informative



How can we improve our webinars?

51 responses



Question & Answer

Ask question in Q&A Box

Raise hand to be unmuted

Resources

Websites & Links

Maryland NEVI Plan and Program

- <https://evplan.mdot.maryland.gov/>

Join our NEVI Mailing list

- <https://evplan.mdot.maryland.gov/join-our-mailing-list/>

MarylandEV

- <https://marylandev.org/>

MDOT EV Dashboard

- <https://experience.arcgis.com/experience/d8d908d9e62f4054b14ec8f6cbb5392b/page/Dashboard-%26-Metrics/?views=Registration%2CEV-Registered>

ZEEVIC

- <https://www.mdot.maryland.gov/tso/pages/Index.aspx?PageId=81>

Contact Information



EV Plan

Email: EVplan@mdot.Maryland.gov



Thank You!

