

Electric Vehicle Dealership Engagement

Forum on Electrifying Transportation

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with thanks to Colin Santulli and others at CSE



Center for
Sustainable Energy™

Outline

- Overview:
 - Center for Sustainable Energy
 - Electric Vehicle Activities
- Dealership Activities & Lessons Learned
 - Multi-State Dealership Activities & Resources
 - Findings/Emerging Lessons
 - Additional Research & Policy Activity
- Conclusions & Recommendations

Center for Sustainable Energy (CSE)



Building
Performance



Clean
Transportation



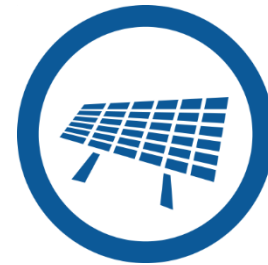
Distributed
Generation



Energy
Efficiency



Energy
Storage



Renewable
Energy

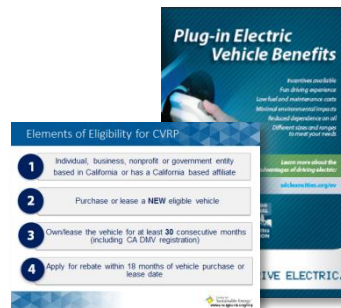
CSE Electric Vehicle (EV) Activities



Incentives Design & Administration



Fleet Consulting & Clean Cities



Dealership Education & Outreach



PEV and Alt-Fuel Planning



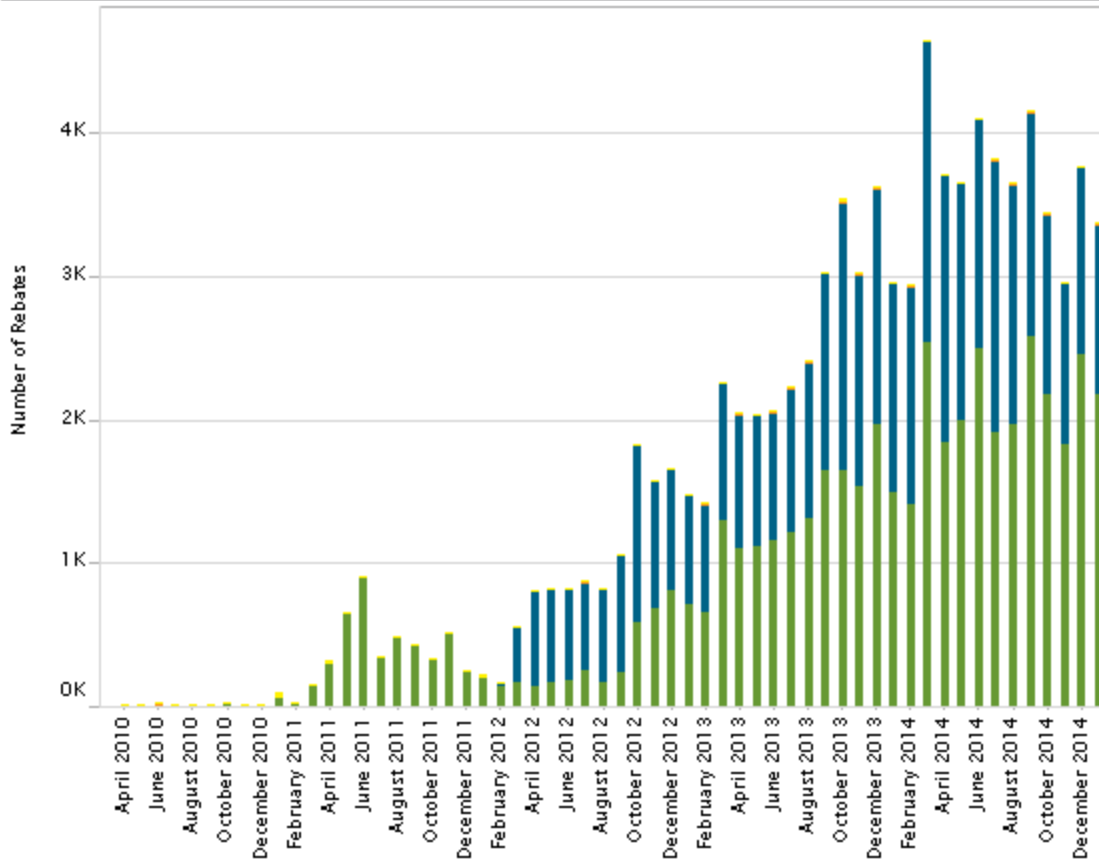
Consumer Education & Outreach



Stakeholder Engagement

Vehicle Incentives

CVRP Rebates by Month



Vehicle Category

- BEV
- PHEV
- FCEV
- Other

BEV	Highway capable, four-wheeled, all-battery electric vehicle
PHEV	Plug-in hybrid electric vehicle (powered by electricity and gasoline)
FCEV	Fuel-cell electric vehicle
Other	Non-highway, motorcycle, and commercial BEVs

CSE has processed more than:
101,000 vehicle rebates,
\$214 million in incentives



**CLEAN VEHICLE
 REBATE PROJECT**SM






MOR-EV
 Massachusetts Offers Rebates
 for Electric Vehicles

CT coming soon



**Airport Vehicle
 Rebate
 Program**

Eligible Vehicles and Rebates

		CA: CVRP	MA: MOR-EV
	Hydrogen Fuel-Cell Electric Vehicles	\$5,000	\$2,500
	Battery Electric Vehicles (& i3 REx)	\$2,500	\$2,500
	Plug-in Hybrid Electric Vehicles	\$1,500	\$2,500 (>10kWh) \$1,500
	Neighborhood Electric Vehicles	\$900	
	Zero-Emission Motorcycles	\$900	\$750

Incentives Administration: Market Transformation

- Operations
 - process applications, issue checks, etc.
- Outreach & Education
 - consumers, fleets, dealerships, and others
- Initiatives
 - Program & Market Transparency
 - online, interactive market statistics, map, and consumer-survey results
 - program analysis
 - Equity
 - developing markets
 - disadvantaged communities

The screenshot displays the website for the Clean Vehicle Rebate Project (CVRP). The page is titled "Clean Vehicle Rebate Project" and features a navigation menu with links for HOME, PROGRAMS, EDUCATION, POLICY, ABOUT, JOBS, NEWS, EVENTS, and CONTACT. A search bar is located in the top right corner.

The main content area includes a "CLEAN VEHICLE REBATE PROJECT" section with links for "Apply for a Rebate", "Frequently Asked Questions", "Project Statistics", "Upcoming Events", and "Contact Us". Below this is an "AVAILABLE REBATE FUNDS" section stating that CVRP is currently accepting applications for rebate reservations. A "Check Application Status" button is also present.

The "ADDITIONAL INCENTIVES" section provides information on finding rebates, discounts, tax breaks, and other incentives available in the user's area. It includes a "DriveClean" logo and a link to a "A buying guide for clean and efficient vehicles brought to you by California Air Resources Board".

The "LATEST ARTICLES" section lists several articles, including "CCSE Selected To Manage Massachusetts EV Rebate Program", "Experience Electric! Aims to Spark Bay Area EV Adoption", "ARS Adds Funding for Clean Vehicle Rebates", and "Clean Transportation Workshop for Local Employers".

The "Eligible Vehicles" section is a table listing various vehicle models and their corresponding rebate amounts. The table is organized into two main categories: "Zero-Emission Vehicles: Hydrogen Fuel Cell" and "Zero-Emission Vehicles: Battery Electric".

Make / Model	Rebate Amount
Zero-Emission Vehicles: Hydrogen Fuel Cell	
Honda FCX Clarity 2010-2012 manufacturer's website	\$ 2,500 Apply Now
Hyundai Tucson Fuel Cell 2015 manufacturer's website	\$ 2,500 Apply Now
Mercedes-Benz F-Cell 2011 and 2012 manufacturer's website	\$ 2,500 Apply Now
Zero-Emission Vehicles: Battery Electric	
BMW i8 or i8 REX 2014 manufacturer's website	\$ 2,500 Apply Now
BYD e6 2012-2014 manufacturer's website	\$ 2,500 Apply Now
Chevrolet Spark EV 2014 manufacturer's website	\$ 2,500 Apply Now
Fiat 500e 2013-2014 manufacturer's website	\$ 2,500 Apply Now



Multi-State Dealership Activities

Dealer Outreach & Education: Webinars

- Periodic general webinars
- Brand-specific webinars as added to the program
 - reached >500 known dealership employees
 - method limits tracking per site and overall
- Content:
 - incentive overview & updates
 - how to sell more EVs:
 - consumer survey feedback
 - top three services
 - other incentives
 - charging, etc.

Outline

- Introduction to the CVRP
- Program Funding
- Program Eligibility
- Application Process
- Additional Incentives



Elements of Eligibility for CVRP

1

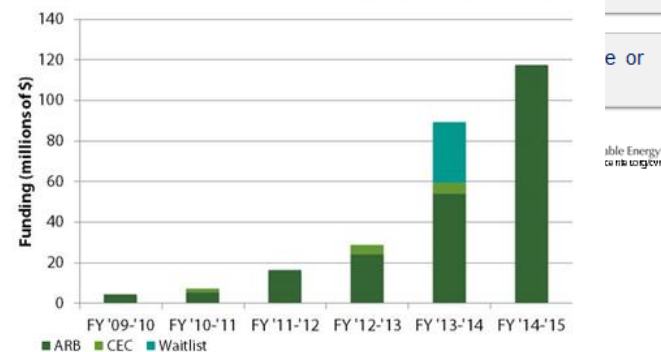
Individual, business, nonprofit or government entity based in California or has a California based affiliate

erisy
gcvrp

2

Purchase or lease a **NEW** eligible vehicle

Funding



California Environmental Protection Agency
Air Resources Board

Center for Sustainable Energy
www.nrgca.nrgcvrp

Dealer Outreach & Education: Direct

- OEM- / dealer-association-sponsored group training
- Direct dealership outreach
- 1-on-1 inquiry support
- Dealership outreach brochure and EV marketing materials
 - Incentives
 - Utility rates
- Tracking

It matters *when* you charge your electric car.

San Diego Gas & Electric's electric vehicle (EV) rates will help you pay the lowest price for your EV fuel, when charging from midnight to 5 a.m. Sign up for an EV time-of-use rate and program your car to charge when electric rates are at their lowest – during the "off-peak" and "super off-peak" hours.



Plug-in Electric Vehicle Benefits

Incentives available
Fun driving experience
Low fuel and maintenance costs
Minimal environmental impacts
Reduced dependence on oil
Different sizes and ranges to meet your needs

Learn more about the advantages of driving electric:

DRIVE CLEAN & SAVE!

Receive Up To **\$10,000** In Incentives

California Environmental Protection Agency
Air Resources Board

TEN THOUSAND DOLLARS

Check out the savings today!
energycenter.org/Nissan

Center for Sustainable Energy™

NOT REDEEMABLE FOR CASH

INCENTIVES AVAILABLE

DRIVE CLEAN & SAVE!

Dealer Engagement: Ride and Drives



- Experience Electric Campaign by Metropolitan Transit Commission
 - 4,250 test drives
 - 21 events around the San Francisco Bay Area
 - extensive dealer participation
 - preliminary feedback indicates high-quality consumer engagement and higher-than-average sales conversion rate

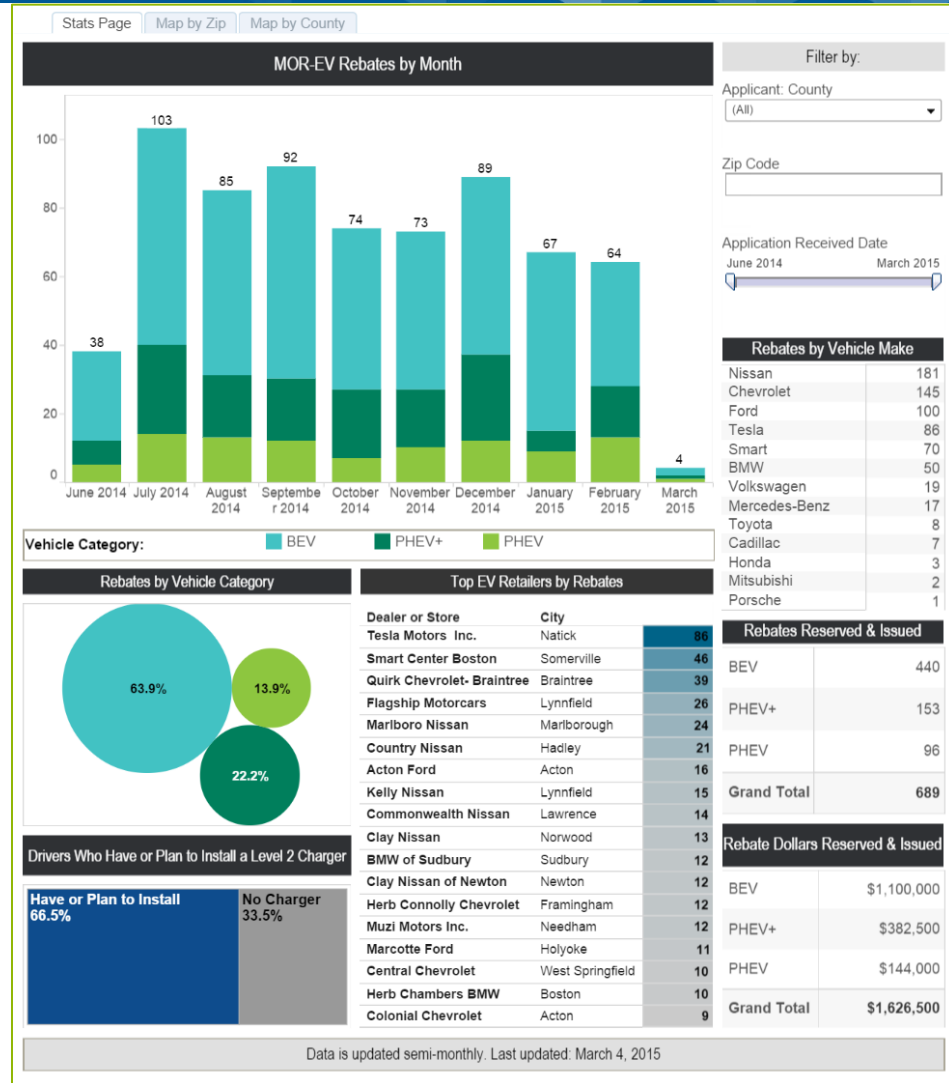
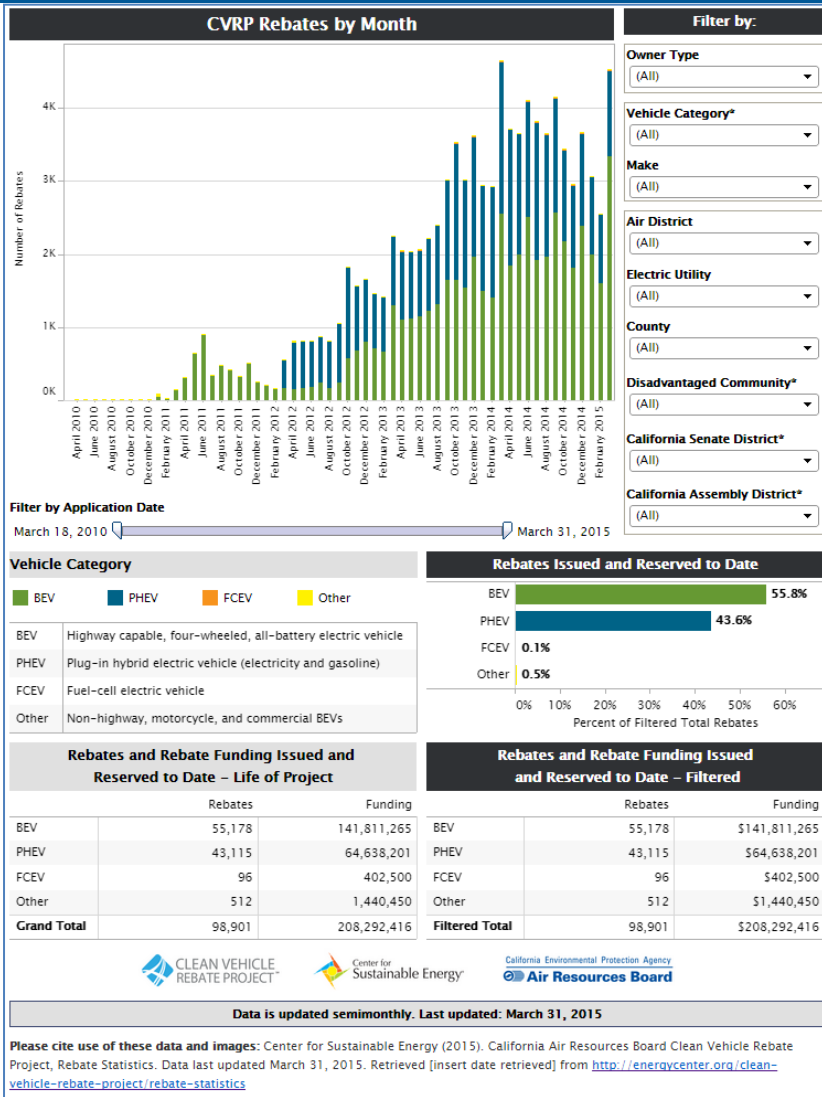




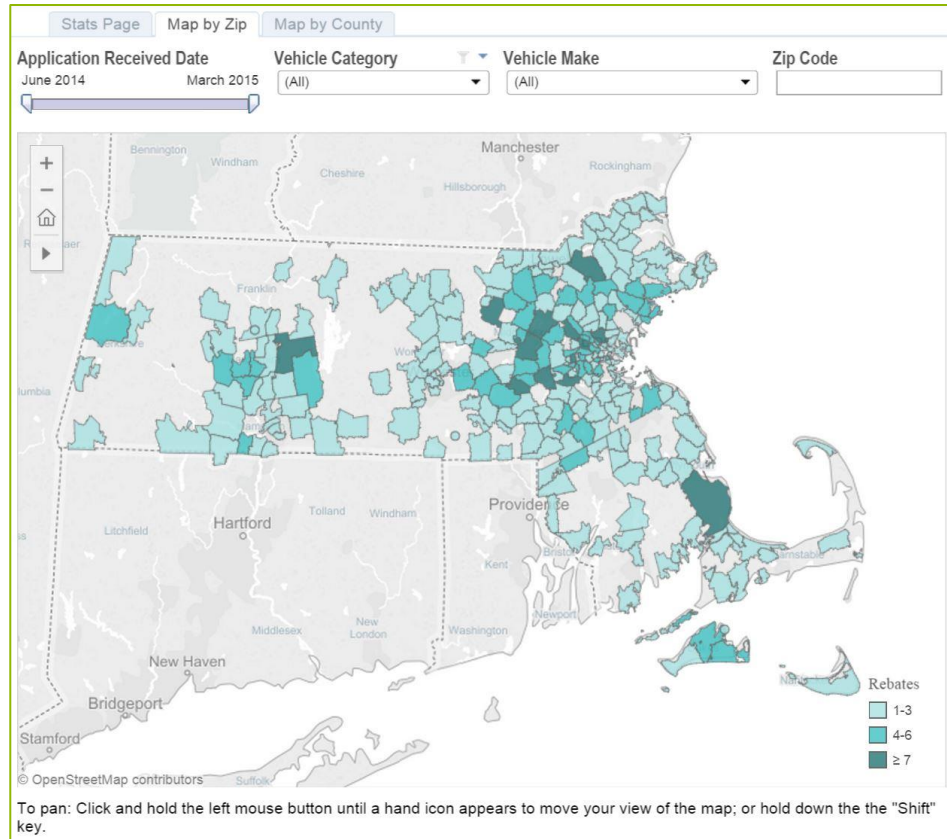
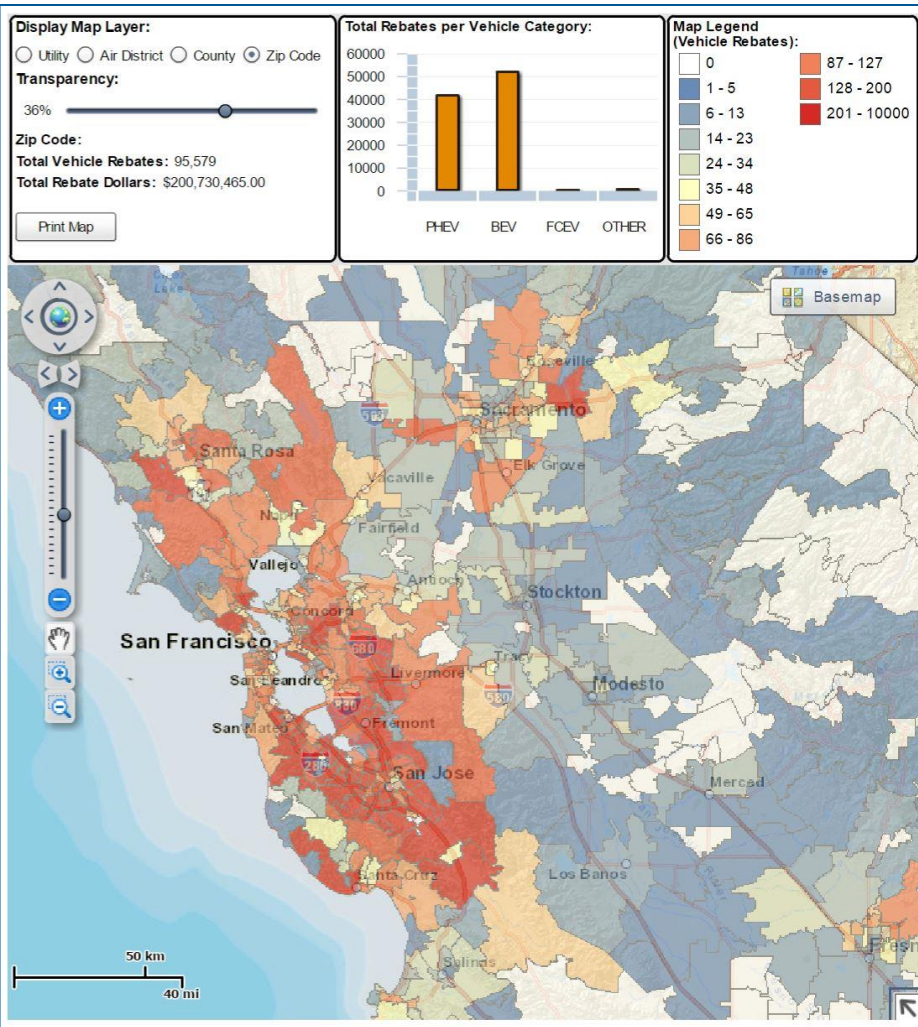
Multi-State Dealer Resources

<http://energycenter.org/cvrp> and <http://mor-ev.org>

Market Data Transparency: Rebate Dashboards



Market Data Transparency: Interactive Maps



Dealer Resources: Funding Availability

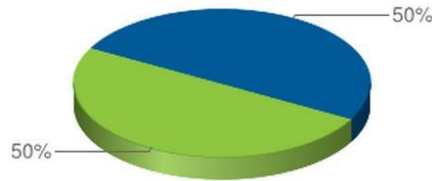
Real-Time Funding Status for the Clean Vehicle Rebate Project

Fiscal Year 2014-2015

Rebates Issued and Reserved	\$55,239,219
Remaining Funds	\$54,361,605

CVRP Funds (FY 2014-2015)

Remaining \$ 54,361,605 Issued & Reserved \$ 55,239,219



Since Program Began

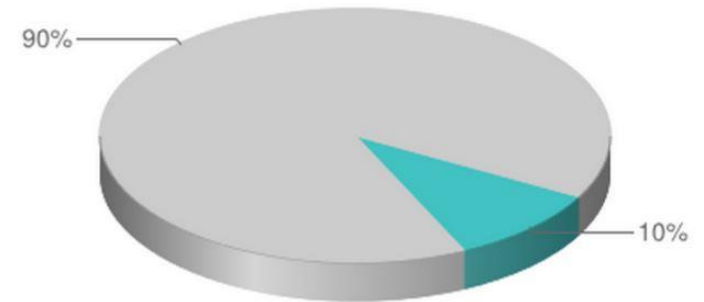
Rebates Issued	\$184,447,983
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Fiscal Year 2014-2015

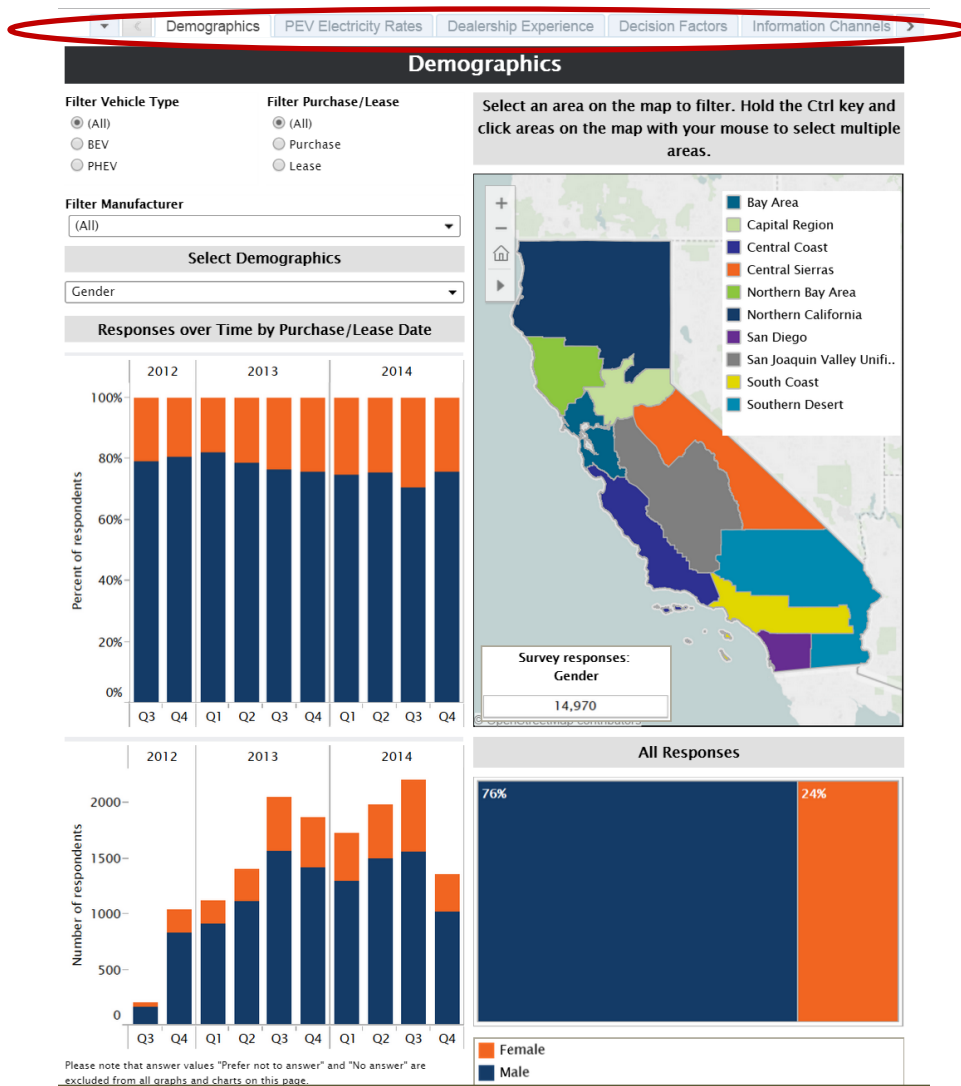
Rebates Issued	\$1,489,500
Currently Reserved	\$181,000
Remaining Funds	\$189,500

MOR-EV Funds (FY 2014-2015)

Remaining \$ 189,500 Issued & Reserved \$ 1,670,500



Dealer Resources: Consumer Survey Data



- All applicants invited to take a survey
- Topics include:
 - purchase motivations and enablers
 - dealership experience,
 - utility rate awareness
 - demographics
- CVRP responses updated monthly on an interactive dashboard for easy use
- >15,000 CVRP responses
- Weighting (internal)

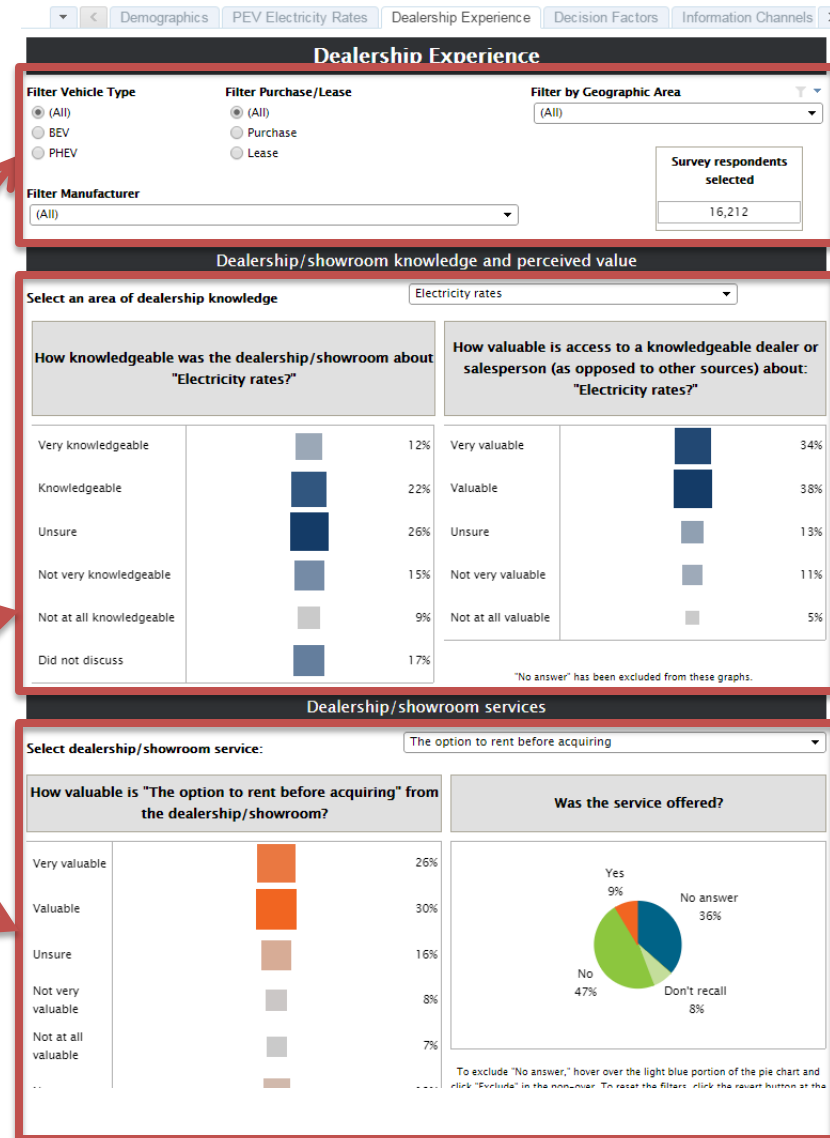
Consumer Survey: Dealership Experience

Filters:

- all-battery (BEV) vs. plug-in hybrid (PHEV)
- purchase vs. lease
- manufacturer
- region

Topics:

- How valuable is dealer knowledge of various EV-related topics?
- How knowledgeable was your dealer?
- How valuable are various EV-related services?
- Which services were offered?

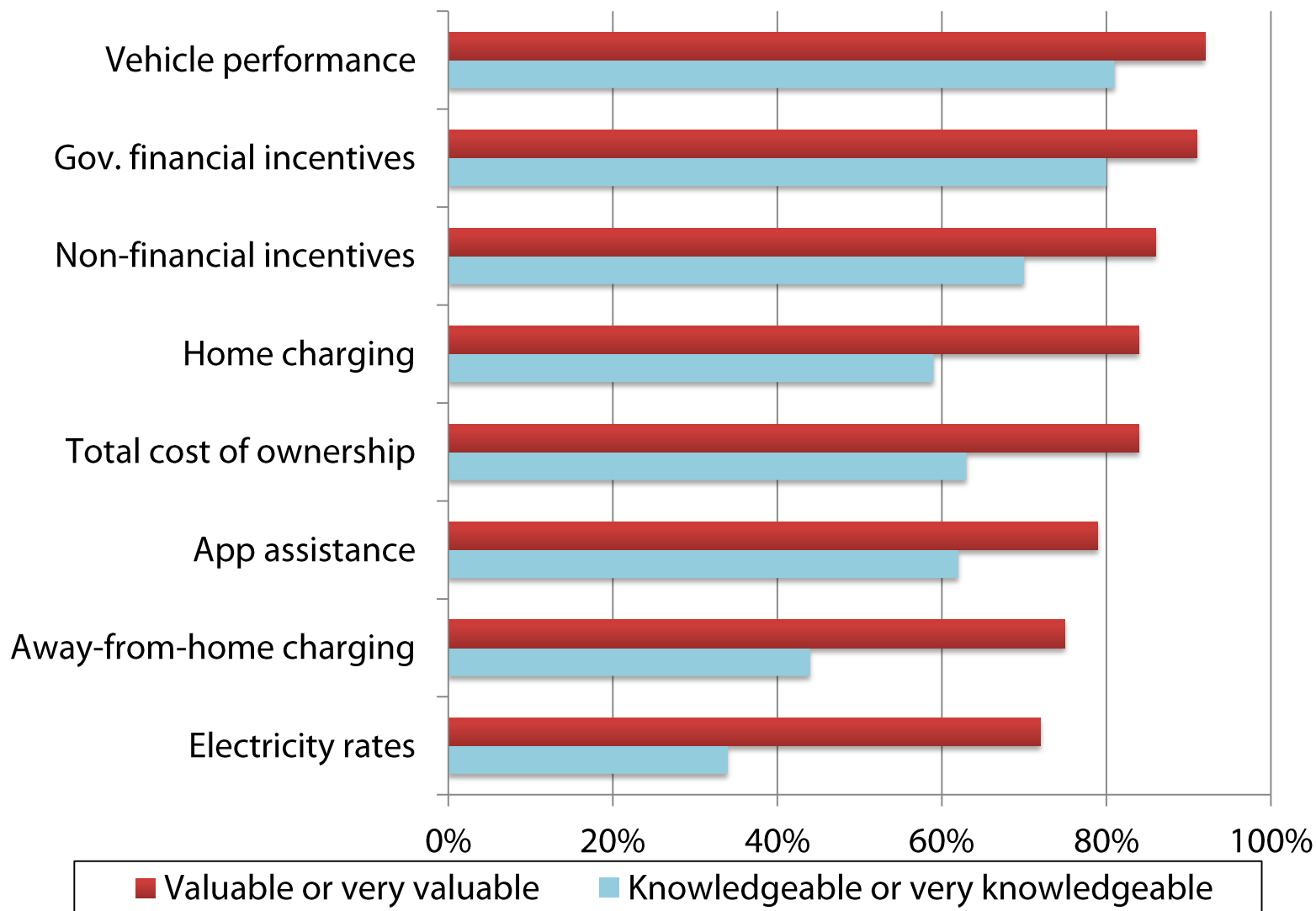




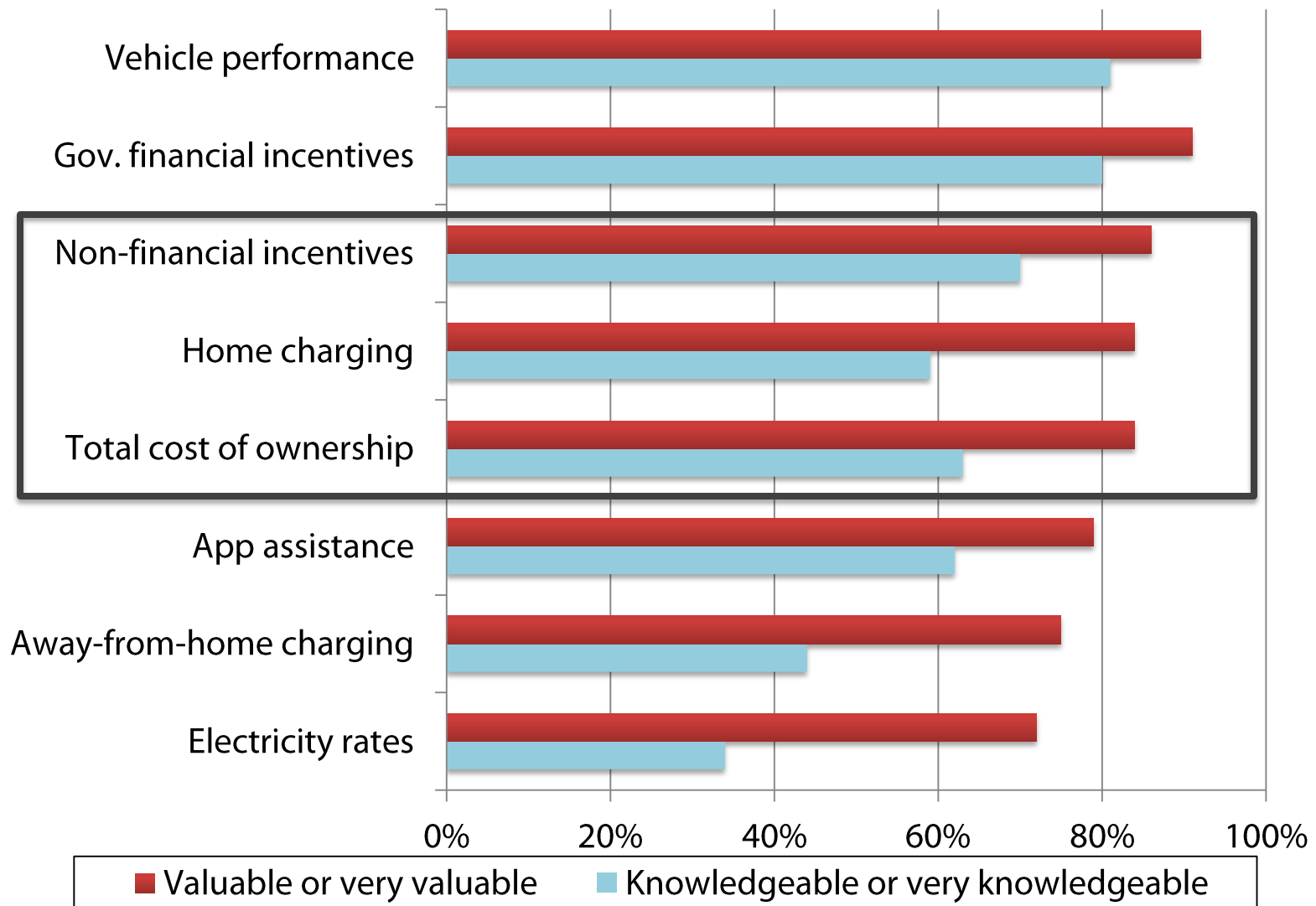
Findings/Emerging Lessons

Dealerships and EVs

Consumers: Value of *Knowledge* vs. Actual Dealer Knowledge



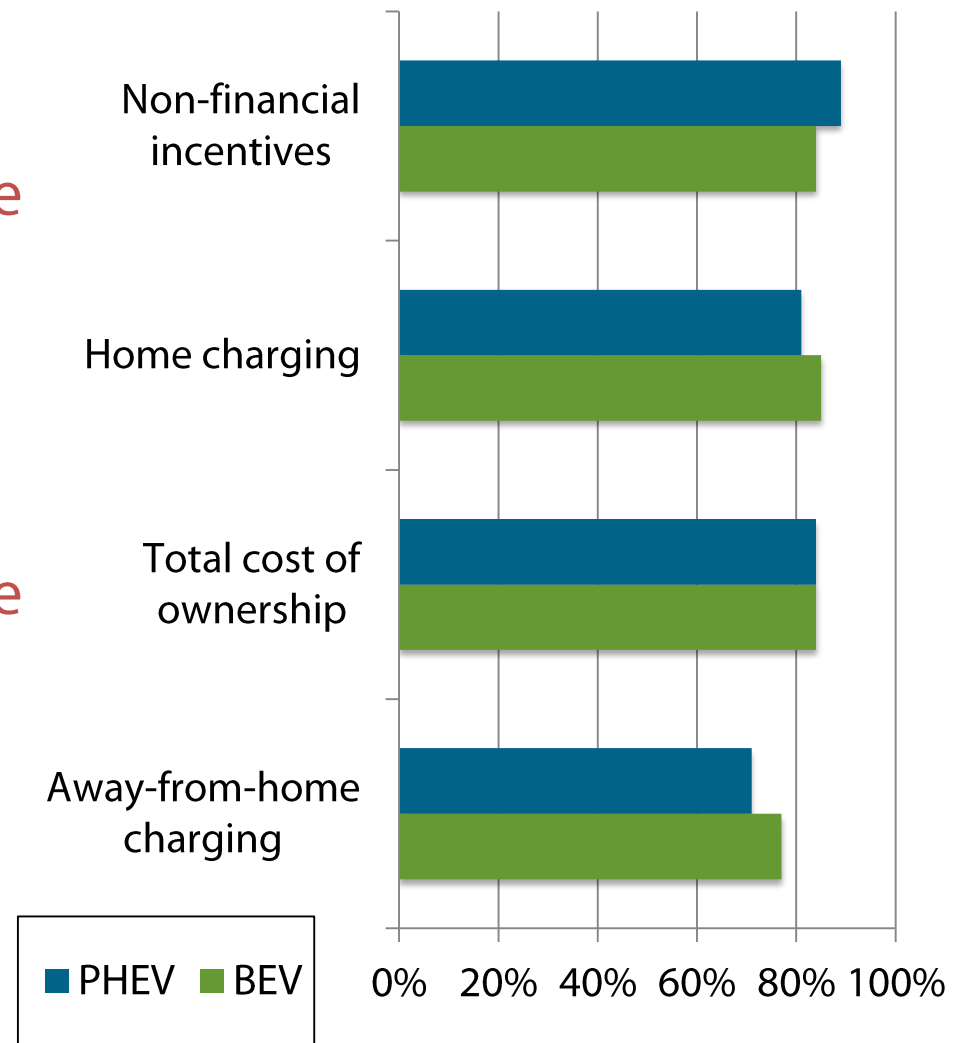
Where do consumers think dealer knowledge falls short?



Value of Dealer Knowledge by Vehicle Type

In California:

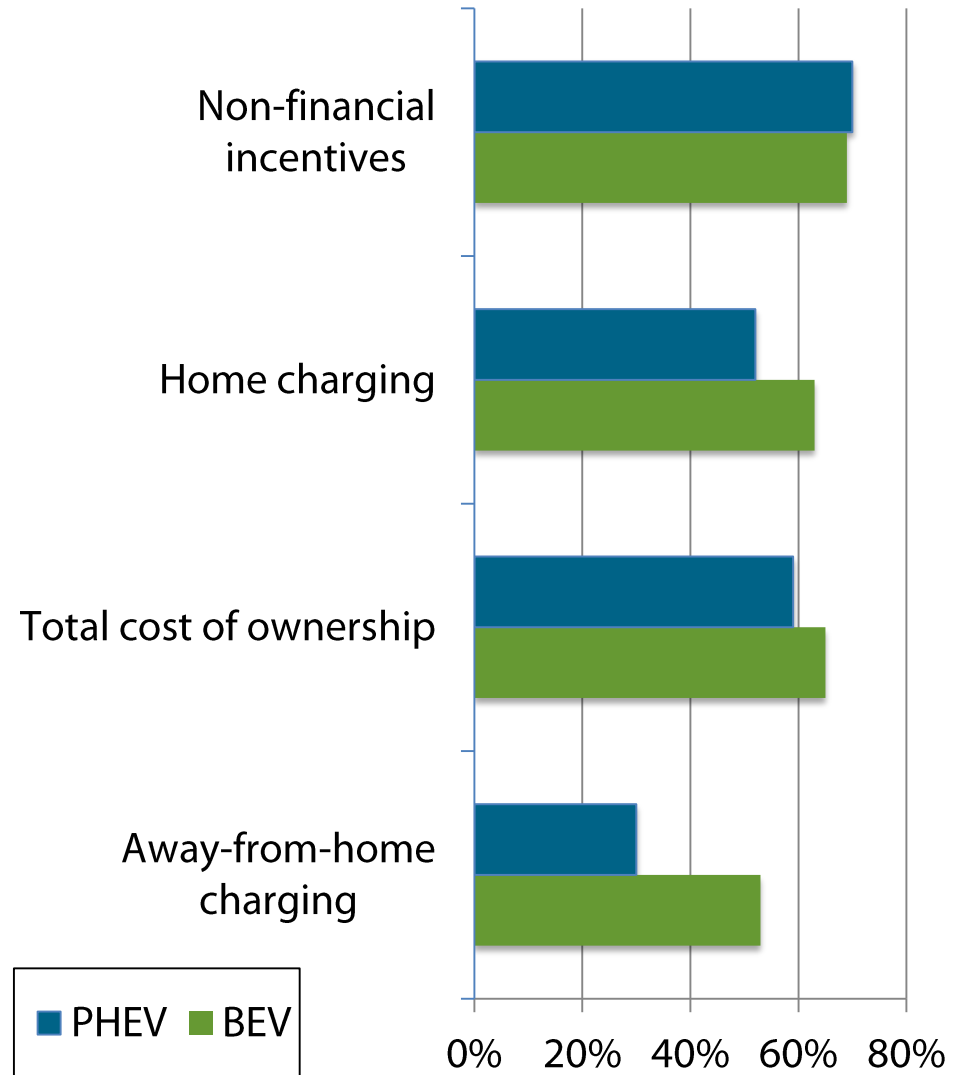
- **PHEV consumers** more frequently **value knowledge** about non-financial incentives (e.g., carpool-lane stickers)
- **BEV consumers** more frequently **value knowledge** about charging (home and away)



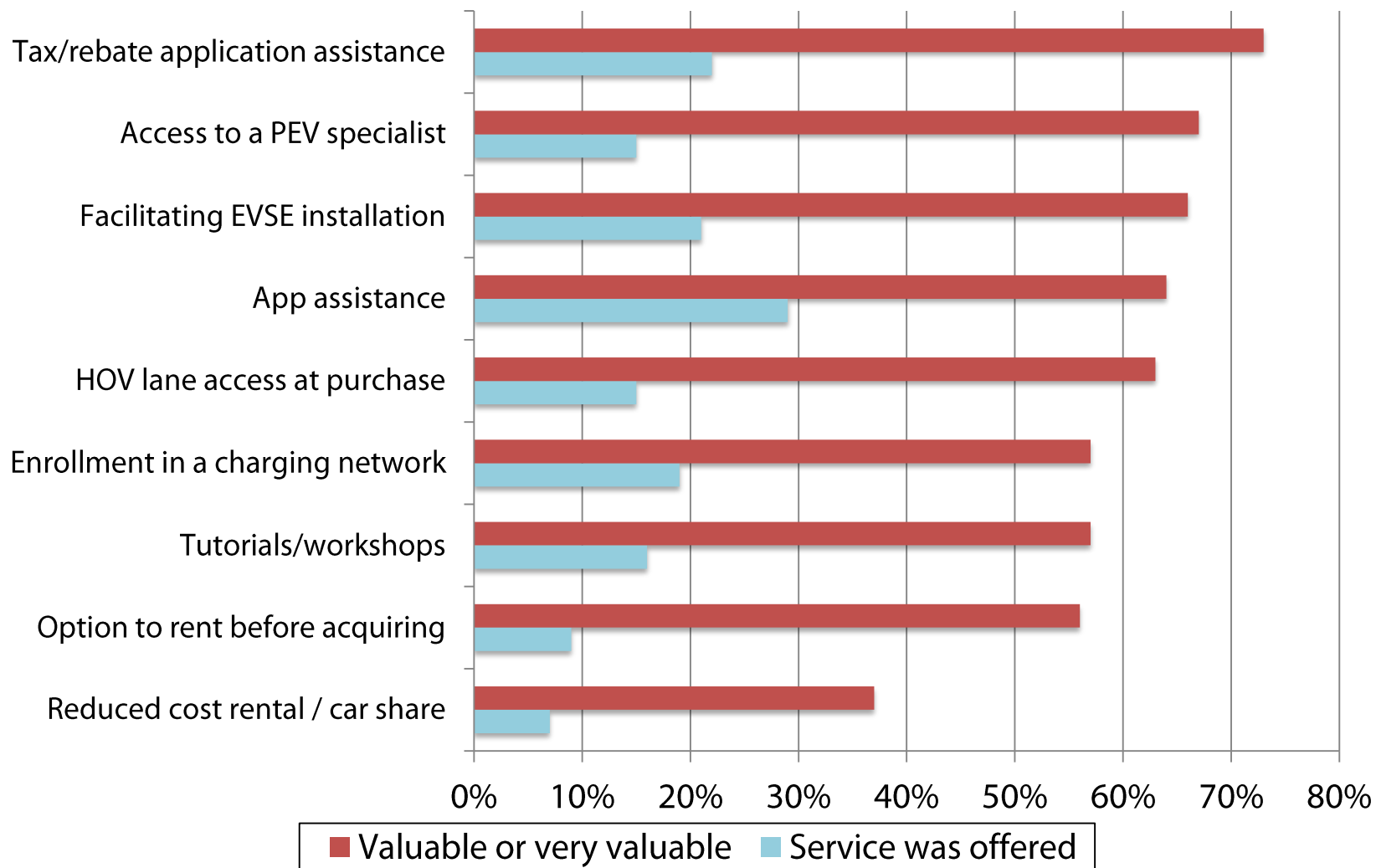
How does dealer knowledge vary by vehicle type?

California consumers more frequently rate:

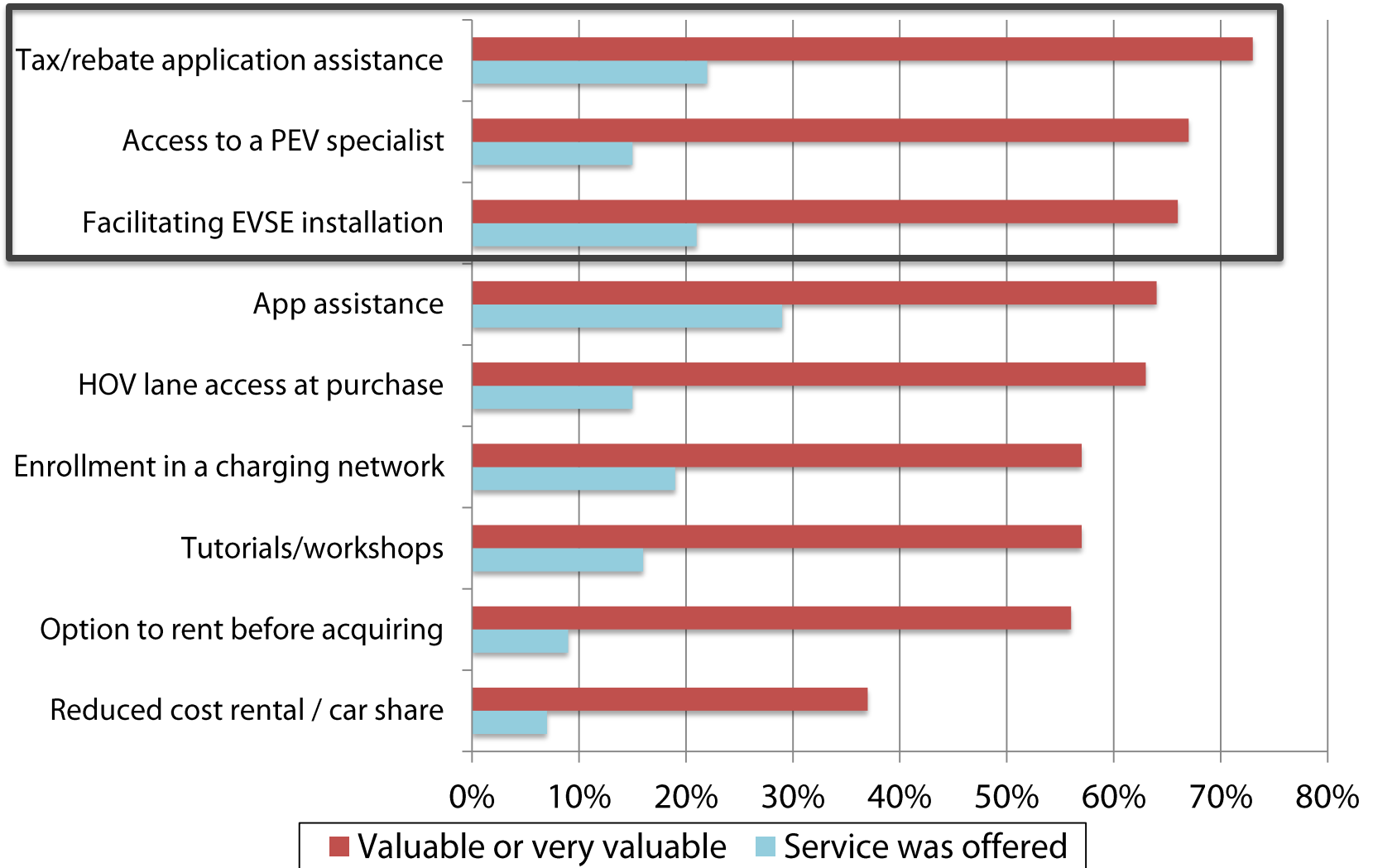
- PHEV dealers more knowledgeable about non-financial incentives
- BEV dealers as more knowledgeable about charging and TCO



Consumers: Value of *Services* vs. Actual Dealer Services Offered



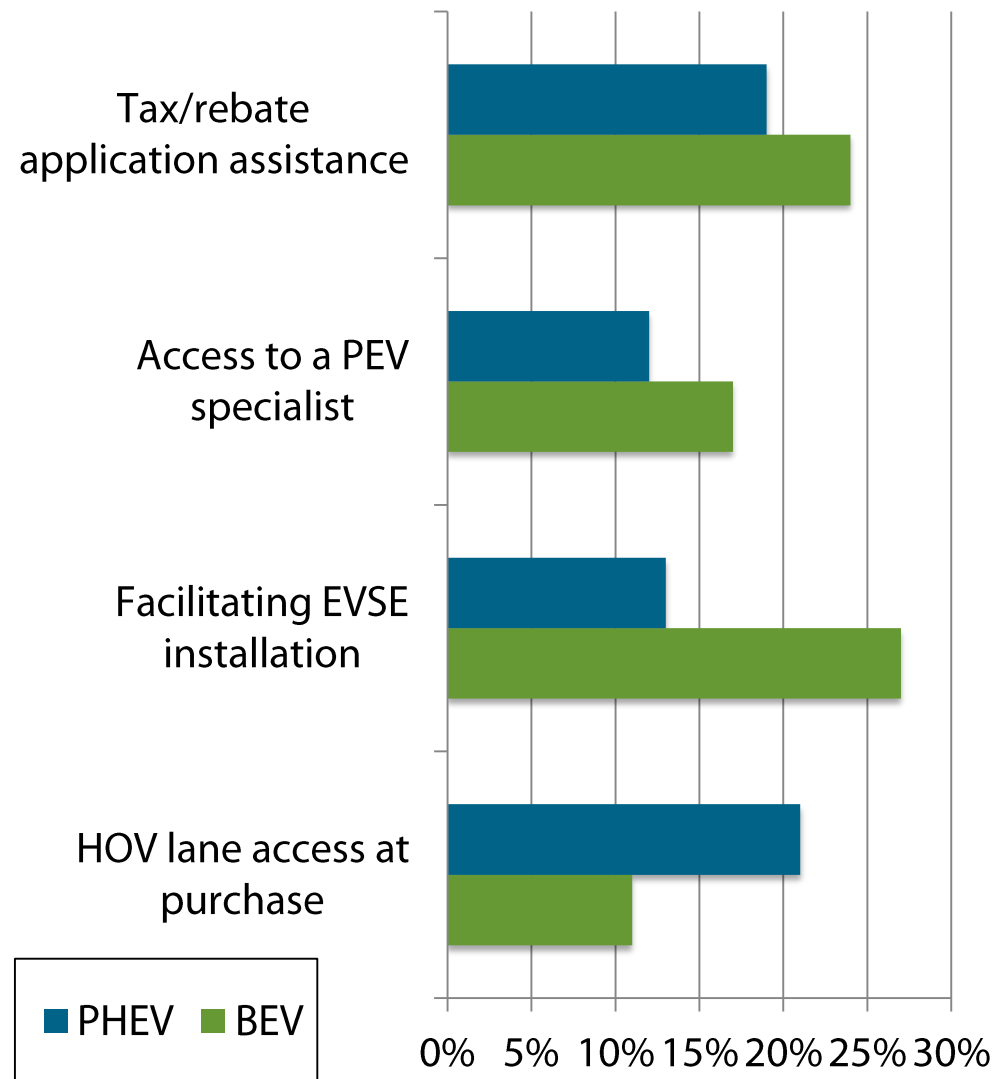
What services would consumers like to see dealers offer?



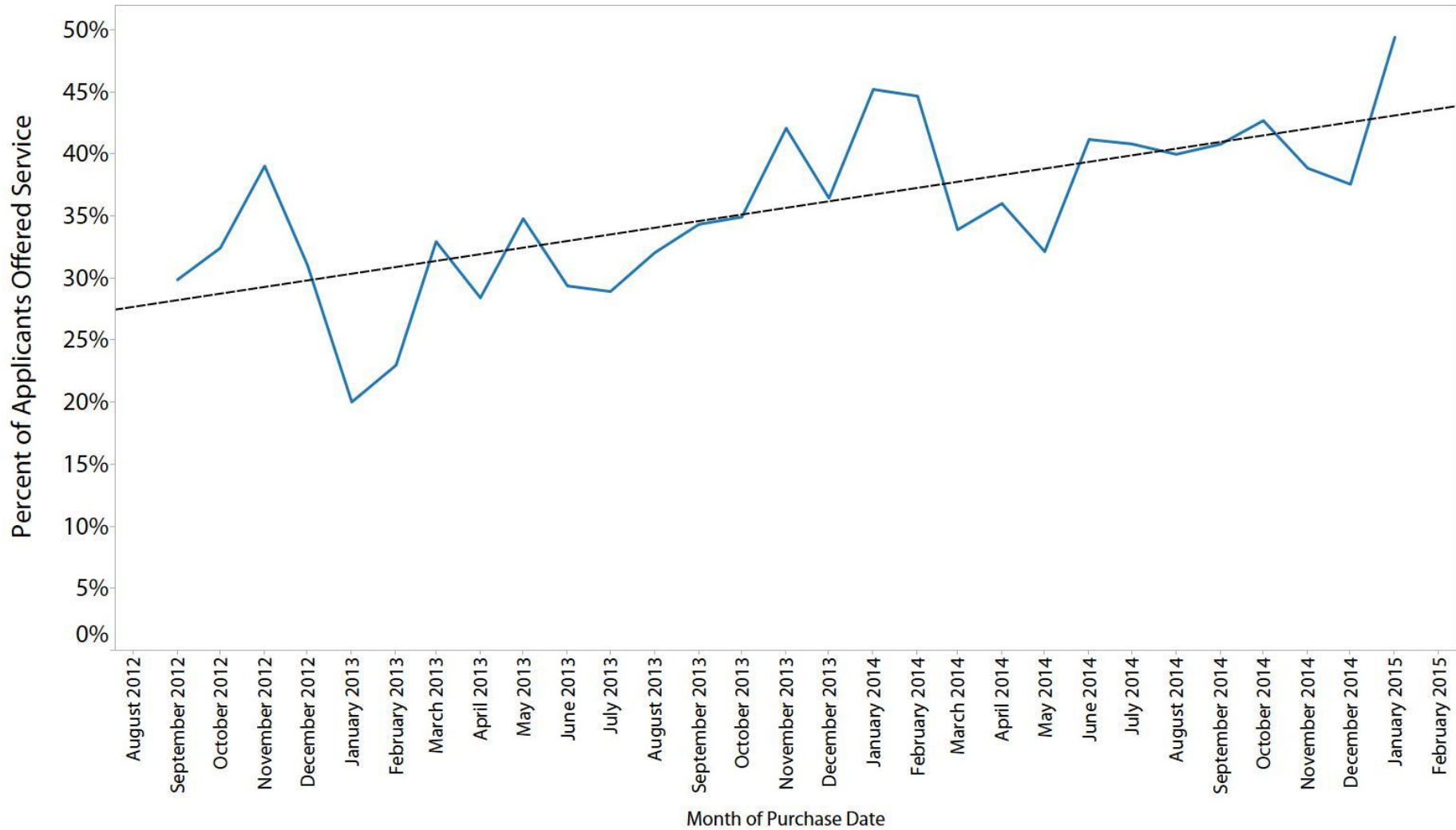
How do dealer services offered vary by vehicle type?

California consumers more frequently rate:

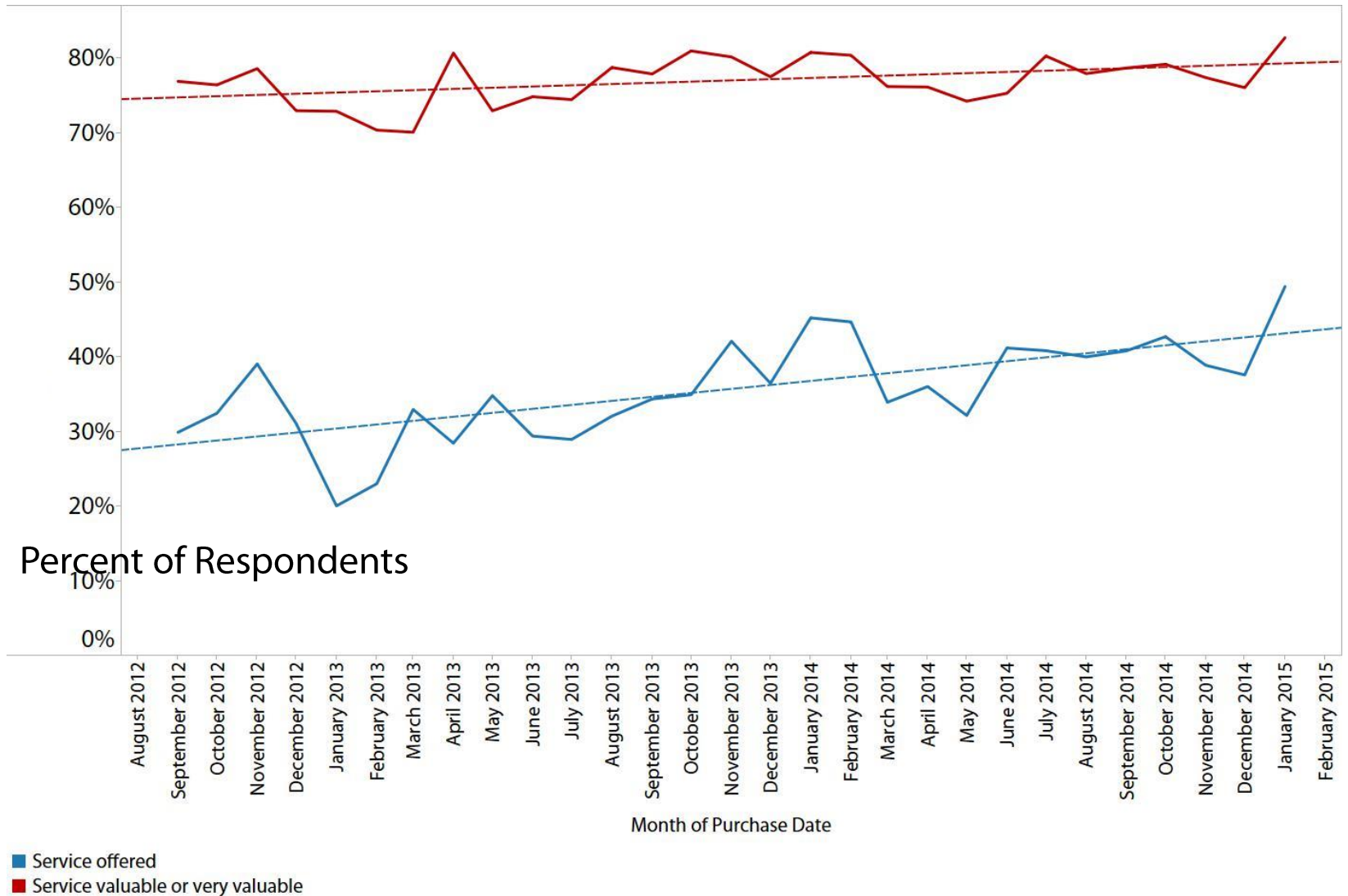
- PHEV dealers as offering carpool sticker assistance
- BEV dealers as offering tax/rebate assistance, access to a PEV specialist, and charging installation facilitation



How many applicants are offered rebate/tax-credit assistance?



How are expectations changing over time?





Other Efforts

Research & Policy Activities

Other Research Efforts

- Eric Cahill, Jamie Davies-Shawhyde and Tom Turrentine
- “New Car Dealers and Retail Innovation in California’s Plug-In Electric Vehicle Market”
 - http://www.its.ucdavis.edu/research/publications/publication-detail/?pub_id=2353
 - <http://phev.ucdavis.edu/project/dealer-study>

UCDAVIS

PLUG-IN HYBRID & ELECTRIC VEHICLE RESEARCH CENTER

of the Institute of Transportation Studies



Dealer success strategies:

PEV Specialists (Cahill et al.)

- PEV specialists on overlapping shifts
 - Ideally seasoned, tech-savvy salespeople, PEV fans
 - Concentrating efforts reinforces learning and retention
 - See PEV customers more frequently
 - Experience driving what they sell through ownership or demonstration loaners
 - Speeds learning and helps them communicate the value
 - Participate in online user groups
- Add specialists as demand grows

Dealer success strategies:

On the Lot (Cahill et al.)

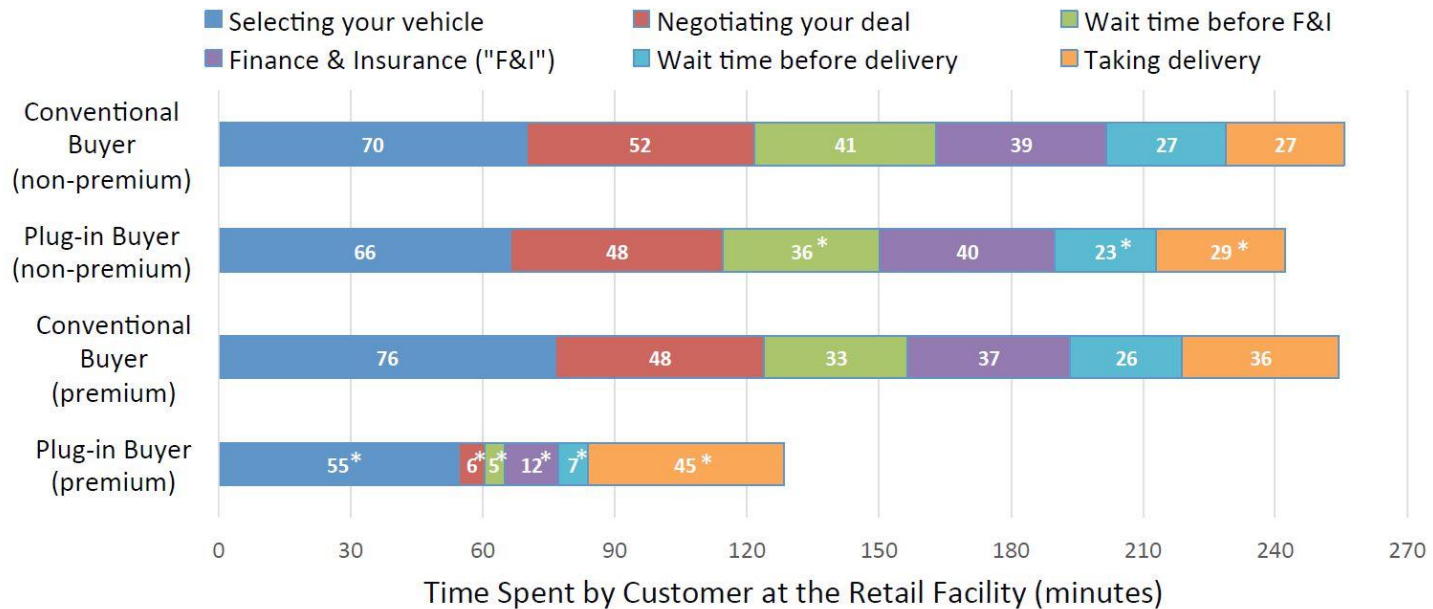
- Co-locate PEVs w/solar canopies & chargers
- Maintain drive-ready PEVs
 - Option for extended test drive?
- Pre-apply carpool stickers
- [Offer services identified as valuable by the survey—see above]
- Convey total monthly savings
 - Consistent with CVRP survey findings that indicate fuel-cost savings are the most frequent primary motivation for PEV purchase/lease
- Stock materials, equipment for delivery process

Dealer success strategies: Community Engagement (Cahill et al.)

- **Lead generation through:**
 - Participation in online user groups
 - Engaging local EV clubs
 - Source of enthusiastic volunteers for low-pressure sales events
- **Target corporate & university campuses with ride & drive events and special deals**
 - Consistent with CSE's Experience Electric campaign findings

Sales cycle and attention to delivery

Purchase Transaction: Average Time Spent by Customer at the Retail Facility



- (1) *Tesla spends ~67% and 25% more time with buyers at delivery than dealers of non-premium and premium makes, respectively.*
- (2) *Shorter upstream processes means Tesla buyers may be more receptive to extra time and attention at delivery.*

Source: 2013 Sales Satisfaction Index (SSI) Study, *JD Power & Associates*



*Denotes significant difference from conventional buyers at the 95% confidence level (N = 19,274)

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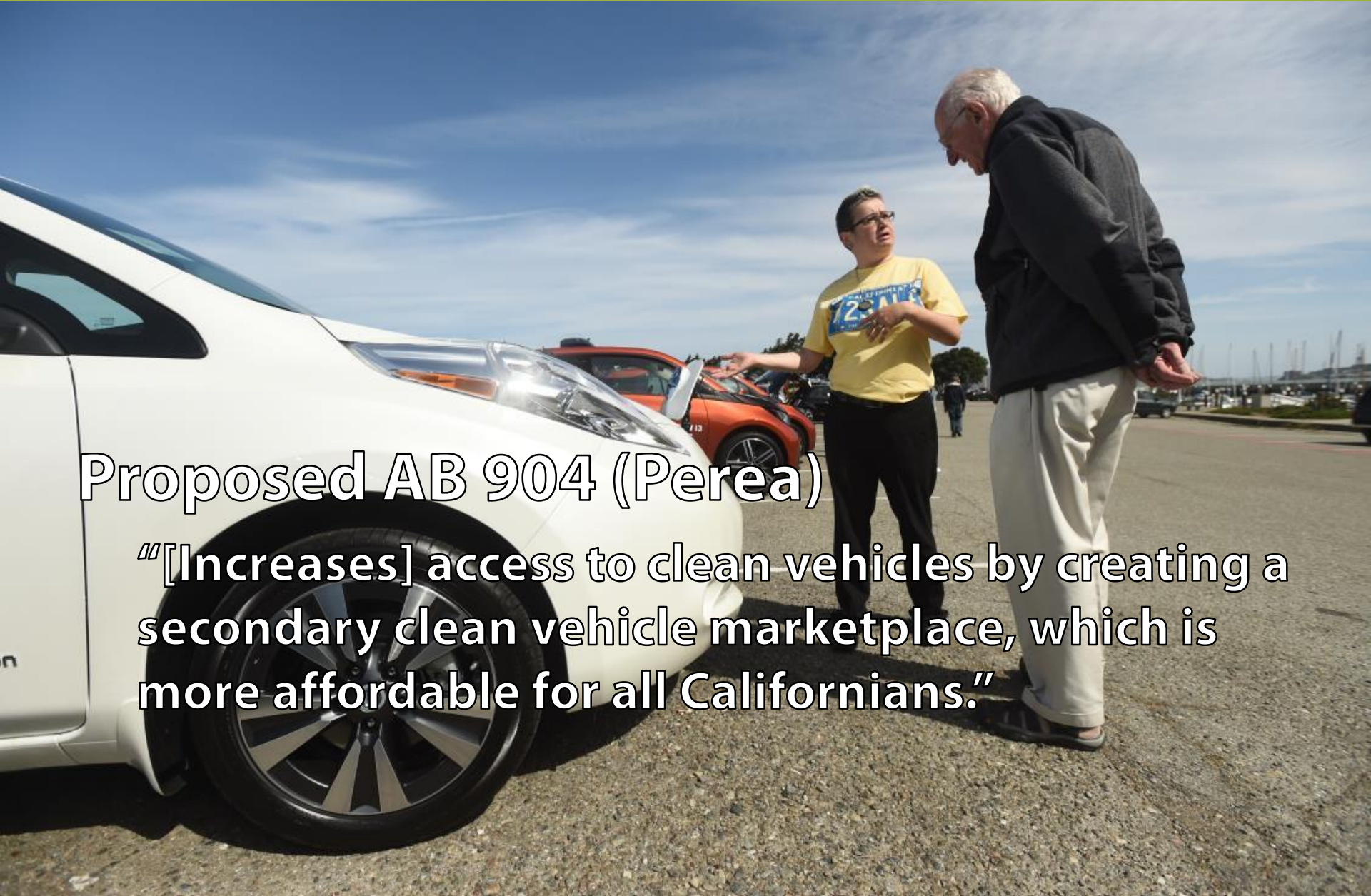
Delivery & post-sale support

- Demonstrate PEV-specific features at delivery
- Pre-configure in-vehicle PEV software and smartphone apps (e.g. Plugshare, ChargePoint)
- Enroll & issue charging network cards at delivery
- Take-away materials and resources for PEV buyers
- Provide publicly accessible chargers/fast chargers
- “No charge to charge” program
- Stock home charging equipment in service lobby
- Partner w/ local electricians for home EVSE installs
- Loaner program for access to conventional vehicles

Legislative Proposal: Clean Reused Vehicle Rebate Project

Proposed AB 904 (Perea)

“[Increases] access to clean vehicles by creating a secondary clean vehicle marketplace, which is more affordable for all Californians.”





Summary & Recommendations

Summary

- As part of its design & administration of incentive programs, CSE conducts various forms of dealer engagement:
 - webinars, direct outreach, marketing collateral, & ride-n-drive collaboration
 - lessons emerging, more metrics/tracking needed & being deployed
- Early experiences
 - integration into OEM- / dealer-association-sponsored trainings amongst the most effective
 - ride-n-drive initiatives creating high-value consumer interactions
- Various resources inform dealers & dealer engagement
 - market data & maps, funding tickers, consumer survey

Summary (cont.)

- **Broad knowledge & service gaps**
 - monetary & non-monetary incentives, home charging, and TCO/ownership costs
 - dealers are increasingly important to communicating and assisting with incentives, despite discomfort on several fronts
- **High dealer turnover & market evolution means sustained and consistent efforts are needed**
 - regular webinars, model-specific content development & delivery
- **Emerging research & policy activity addressing and impacting dealers**

Recommendations

Policies

- CSE exploring direct-to-dealer incentive design
- Desirable features to prevent rebate clogs:
 - Pre-fund program each FY rather than accumulate and disburse
 - Create contingency fund to minimize wait-listing, other disruptions
- Used-PEV incentives?

Resources:

- CSE has advocated for and developed a suite of informational resources (as illustrated previously)
- Continuing opportunities to provide better, tailored, authoritative, centralized databases/sources of information on incentives and other topics



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