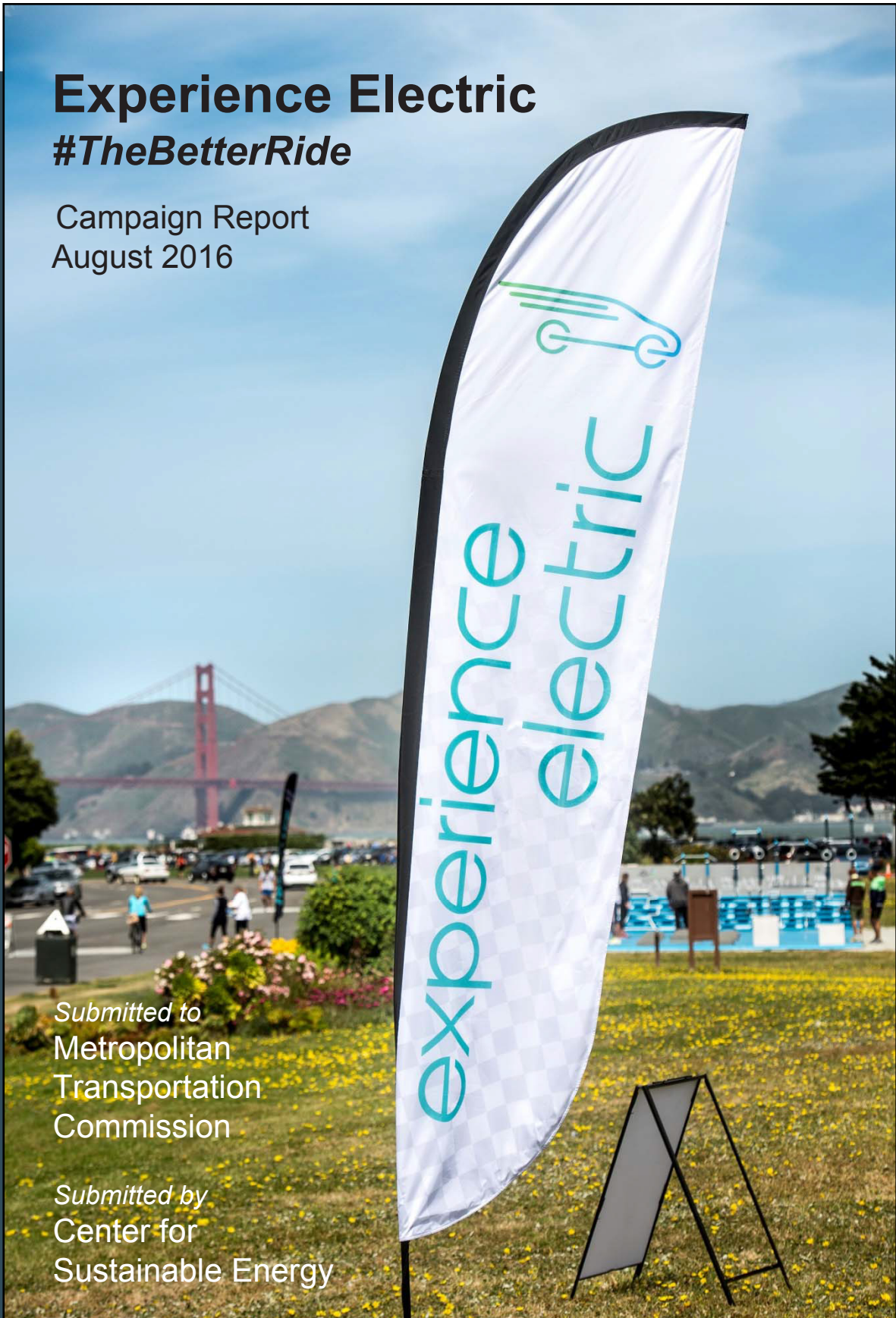


Experience Electric

#TheBetterRide

Campaign Report
August 2016



Submitted to
Metropolitan
Transportation
Commission

Submitted by
Center for
Sustainable Energy



Center for
Sustainable Energy™

Headquarters
9325 Sky Park Court
Suite 100
San Diego, CA 92123
858.244.1177 phone
www.energycenter.org

Office Locations
San Diego
Los Angeles
Oakland
Boston

Contents

- Introduction 5
 - Campaign Goals 5
- Campaign Overview 6
 - Target Demographics 6
 - Electric Vehicle Test-Drive Events 7
 - Event Types 7
 - Test-Drive Structure 8
 - Available Vehicles 8
 - EV Ambassadors 9
- Marketing Channels 9
 - Traditional and Digital Media 10
 - Social Media 13
- Participant Survey 17
- Campaign Results 18
 - Event Results 18
 - Suburban Events 18
 - Urban Events 19
 - Workplace Events 20
 - Marketing Channel Results 21
 - Traditional and Digital Media 21
 - Social Media 21
- Survey Results 23
 - Demographic Results 24
 - Perceptions, Experience, and Purchase Outcomes 24
 - Event Type Comparison 27
 - Event Strategy Comparison 29
- Conclusion 32
- Appendix 1: Campaign Extension, 2015 - 2016 33
 - Event 1 of 6: Treasure Island Flea 34
 - Event 2 of 6: San Francisco Chronicle 58th Annual International Auto Show 35

Event 3 of 6: Sonoma County Home and Garden Show 36

Event 4 of 6: Contra Costa Home and Garden Show 37

Event 5 of 6: Fairfield Total Home and Garden Show 38

Event 6 of 6: Marin Home and Garden Expo 39

Appendix 2: Overall Campaign Test Drive Results 40

Appendix 3: Experience Electric – The Better Ride Campaign Evaluation Report by True North 41

Table of Images

Image 1. Targeted demographics for the Experience Electric campaign	7
Image 2. Responses to the question “How did you hear about the ride-and-drive event?”	10
Image 3. Print ad in the East Bay Express for the Walnut Creek Farmers’ Market event	11
Image 4. Online banner advertisement for Berkeley Farmers’ Market event.....	11
Image 5. Targeted email marketing sent for the Pacific Commons, Fremont event	12
Image 6. Bike promotion: distributing flyers at the Burlingame on the Avenue event.....	13
Image 7. Twitter post about participant’s experience at the Berkeley Farmer’s Market event.....	13
Image 8. Experience Electric Facebook page	14
Image 9. Experience Electric Twitter page	15
Image 10. Experience Electric Instagram page	16
Image 11. Experience Electric mobile ad for the Walnut Creek event	17
Image 12. Experience Electric survey card.....	17
Image 13. Suburban event test drive results.....	18
Image 14. Suburban participant geographical reach	19
Image 15. Urban event test drive results	19
Image 16. Urban participant geographical reach.....	20
Image 17. Workplace event test drive results	20
Image 18. Traditional and digital media impressions.....	21
Image 19. Social media impressions.....	21
Image 20. Event page social media click-through metrics.....	22
Image 21. Overall test drive experience.....	25
Image 22. Likelihood of purchasing an EV post-test drive	26
Image 23. Percent of respondents who purchased or leased EV after their test drive.....	26
Image 24. Percent of respondents who said the event positively impacted their decision to purchase/lease an EV	27
Image 25. Responses by event type to the survey question: “Was your decision to purchase or lease an EV positively influenced by attending the ride and drive event?”	27
Image 26. Familiarity with EVs prior to test drive by event type.....	28
Image 27. Average stated likelihood of buying an EV in the next two years by event type	29
Image 28. Familiarity with EVs prior to test drive by event strategy.....	30
Image 29. Responses by event strategy to the survey question: “Was your decision to purchase or lease an EV positively influenced by attending the ride and drive event?”	31
Image 30. Average stated likelihood of buying an EV in the next two years by event strategy	31

Introduction

Experience Electric #TheBetterRide was a 12-month promotional outreach campaign with a six-month extension designed to influence the attitudes of San Francisco Bay Area residents toward electric vehicles (EV) through free EV test-drive events. The Experience Electric brand highlighted the emotional aspect of car buying to encourage positive conversation and experiences related to driving electric. The campaign promoted the message that “the electric ride is the better ride” by providing 21 free EV test-drive events in urban, community and workplace locations during the first 12 months. The extension included 6 events, for a grand total of 27 events (see Appendix 2 for information about the extension events). The initial campaign measured free test-drive events as an effective environment for EV sales; the extension did not.

Campaign Goals

Experience Electric campaign participants completed 4,251 test drives in the San Francisco Bay Area during the first 12 months and 1,033 during the 6-month extension, for a grand total of 5,284 test drives. See Appendix 3 for a summary of test drive results for the entire campaign.

The campaign achieved the following goals.

- Provided an opportunity for the public to experience the benefits of electric vehicles
- Changed the perceptions of Bay Area drivers by encouraging them to acquire or use electric vehicles when they make the decision to drive
- Promoted the Bay Area’s identity as a center for high-tech and green culture
- Motivated individuals to change their behavior to reduce Bay Area greenhouse gas (GHG) emissions

Funded by the Metropolitan Transportation Commission (MTC) in partnership with the Bay Area Air Quality Management District (BAAQMD) and the EV Strategic Council, the campaign is a key element in helping to achieve the region’s GHG emission reduction goals. These goals are derived from the California Global Warming Solutions Act (Assembly Bill 32), signed in 2006, which mandates a reduction in GHG emissions from all sources to 1990 levels by the year 2020. Adding momentum to this effort is Senate Bill 375, 2008 legislation that mandates the California Air Resources Board work with regional agencies like MTC and the Association of Bay Area Governments (ABAG) to curb sprawl and reduce GHG emissions. Because approximately 40 percent of the Bay Area’s GHG emissions come from transportation, educating consumers on the benefits of EVs through hands-on test-drive experiences is an excellent method for increasing the demand for EVs, influencing purchase or lease decisions toward plug-in electric and plug-in hybrid electric vehicles and, over time, lowering emissions.

¹ <http://www.arb.ca.gov/cc/ab32/ab32.htm>.

MTC contracted with the Center for Sustainable Energy (CSE) to lead the Experience Electric campaign. CSE subcontracted partners Plug In America and Charge Across Town to implement workplace and urban test-drive events, respectively, and SHIFT Communications to guide the social media component of the campaign. Event planning work took place during the first six months of the campaign and event execution took place during the final six months

This report presents the strategy and results of the Experience Electric campaign. It outlines the details of the test-drive events, the comprehensive marketing strategy, and the initial campaign survey data results to highlight the campaign's effectiveness. Lastly, the report also shares lessons learned to show how other public investments could be maximized.

Campaign Overview

Target Demographics

Prior to launching the campaign, MTC contracted with Fenton Communications to develop overall guidelines and an approach for the campaign. Fenton developed a campaign plan that identified two key campaign demographics:

- Primary: The tech-savvy homeowner
- Secondary: The urban car-sharer

Members of both groups share a propensity to have a smart phone, regularly use social media to communicate with friends, and are influential within their own peer groups. Because of these traits, these demographics are likely to amplify the benefits of EVs to their networks through social media and word of mouth.²

The tech-savvy homeowner primarily lives in a single-family home with an attached garage in suburban areas of the Bay Area such as Silicon Valley, East Bay suburbs or Marin County. The urban car-sharer is the secondary audience for the Experience Electric campaign and represents future EV buyers and lessees. This demographic lives in more densely populated urban areas such as San Francisco, Oakland, Berkeley and San Jose. Each demographic is described in more detail in Image 1.

² Fenton Communications Campaign Plan. "Bay Area Electric Vehicle Promotional Campaign." March 29, 2013.

Tech-Savvy Homeowner	Urban Car-Sharer
Lives in a household of two or more; likely married with children	Likely to be single
Age ranges from late 30s to early 50s	Age ranges from mid-20s to mid-30s
Predominantly male	Can be male or female
Highly educated, with at least a bachelor's degree and often an advanced degree	Has a college education
Already owns or leases a car, which may be a hybrid but is not a luxury car	Currently does not own a car; uses public transit to commute
Owens or leases more than one car for the household	Uses a car to run local errands
Commutes	May work for a large Bay Area tech company
Would be able to charge an EV at home	Likely to be technologically forward-thinking
Can afford an EV because household income is \$140,000 or more per year	

Image 1. Targeted demographics for the Experience Electric campaign

Electric Vehicle Test-Drive Events

Previous research identified that driving experience matters most when trying to build EV interest.³ Consequently, the campaign used test-drive events to provide an opportunity for individuals in the target demographics to experience the benefits of driving an EV.

Event Types

To encourage diversity of participants and reach targeted audiences, the Experience Electric events took place in three different environments: suburban events, urban events and workplace events.

- **Suburban Events:** These events targeted tech-savvy homeowners in Bay Area suburban communities. The events were held in conjunction with larger community events that were already drawing large attendance numbers.
- **Urban Events:** These targeted urban car-sharers in densely populated locations in the Bay Area, with a secondary focus on the tech-savvy homeowner. Location and space availability determined the number of test-drive and display vehicles at each event. Every urban event offered eight to twelve test-drive EVs, with four to six static (non-test-drive) EVs on display.
- **Workplace Events:** Workplace events were private events planned in close collaboration with the workplace host. Because most of the Bay Area workplace events were hosted at technology companies, they provided an excellent opportunity to reach large numbers of tech-savvy homeowners. Many employees met the criteria of having a household income of over \$140,000, being tech-savvy, using social media and smartphones regularly and commuting to work in a car.

³ Fenton Plan, focus group.

Test-Drive Structure

Experience Electric events offered free test drives of a variety of EVs. The events were structured as a non-sales, comfortable environment where participants could spend more time with the vehicles and ask questions.

To take a test drive, participants registered at a booth run by event staff. After signing a required insurance waiver and showing a valid driver's license, participants received a wristband to indicate that they had registered for the test drive. Wearing the wristband was mandatory for all drivers during test drives.

Each test-drive vehicle was staffed by a product specialist who accompanied participants on their test drives. The specialist provided vehicle information and guided the driver through a predetermined route. The test-drive routes were one to two miles long to keep drive times short and to avoid putting high mileage on dealership-owned vehicles. Individuals were free to test-drive as many vehicles as they desired.

Available Vehicles

The campaign events offered a variety of EVs from different manufacturers with varying all-battery ranges, passenger capacities, and prices to account for different needs and preferences. This approach benefitted the target demographics as well as non-targeted demographics such as passers-by—potential consumers who might not have considered EVs were exposed to a wide variety these vehicles.

The following vehicles were represented at the Experience Electric events during the initial 12-month campaign:

- BMW Active E
- BMW i3
- Cadillac ELR
- Chevy Spark
- Chevy Volt
- Fiat 500e
- Ford C-MAX Energi
- Ford Focus Electric
- Ford Fusion Energi
- Honda Accord Plug-in
- Nissan LEAF
- smart ED
- Tesla Model S
- Toyota Prius Plug-in Hybrid
- Toyota Rav4 EV
- Kia Soul EV

The majority of these vehicles were available for test drives; others were placed on static display (not available for test drives) for browsing. Participants who did not have the time or desire to test-drive an EV often spent time perusing the static display vehicles. Many OEMs provided at least one product specialist per car, which gave participants the opportunity to ask detailed questions about the EV without feeling sales pressure. Having this on-site expertise provided a comfortable and detailed educational experience for potential EV buyers.

Some vehicles were provided by OEMs at the corporate level, although the majority were provided by local dealerships. Dealership staff regularly reported to event staff that these events created sales leads, despite the focus on a non-sales environment.

EV Ambassadors

In addition to the professional EV product specialists, the Experience Electric campaign practiced peer-to-peer education by inviting local EV owners to events to share their positive EV experience and to represent the campaign. These “EV Ambassadors” volunteered four hours per event and typically displayed their EV at campaign events. EV Ambassadors were not expected to be technical experts; rather, they were encouraged to tell their personal story about life as an EV driver and owner. This peer-to-peer education was very powerful—the EV Ambassadors’ stories helped carry the message that EVs are a better choice.

The campaign budget included high-quality promotional items such as Patagonia fleece vests to incentivize the EV Ambassadors to volunteer their time and car at Experience Electric events. However, the EV Ambassadors were so passionate about their EVs and EV lifestyle that they were happy to volunteer their time and share their positive stories without any incentives.

Marketing Channels

Experience Electric used traditional, digital, and social media channels for marketing the campaign. Image 2 outlines the various forms of communication through which participants were notified of the events. The “Other” category most likely consisted of people passing by the event while it was taking place. Note that this question was excluded from workplace event surveys because those events did not use external marketing tactics to promote the events.

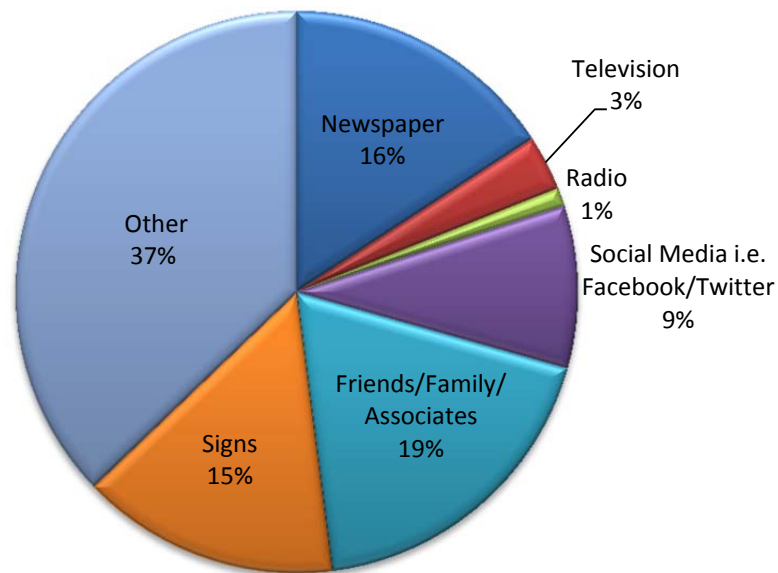


Image 2. Responses to the question “How did you hear about the ride-and-drive event?”

No significant differences existed between urban and suburban event attendees except that those attending urban events were twice as likely to report learning about the ride and drive through the newspaper as suburban attendees.

Traditional and Digital Media

The campaign leveraged traditional and digital media channels to garner mass awareness of scheduled events. Traditional media efforts included press releases for all public events, paid media advertising such as print and radio, and foot canvassing. Digital efforts included online banner advertising and targeted email marketing. By using both traditional and digital channels, the campaign’s advertising was effective at driving attendance for the events.

Although the Experience Electric campaign concentrated greatly on social media advertising and outreach, traditional media efforts had a stronger impact on getting people to the events. Twenty percent of event attendees heard about an Experience Electric event through traditional media channels (see Image 2). Several non-social media advertisements executed for the public Experience Electric events are shown on the following pages.

ARTS & CULTURE



Brett Cook.

own grandmother like playing bingo. Shared experiences anchor all his projects.

Though his art is now popular enough to be featured in big commercial galleries (and net a positive review in *The New York Times* in 2001), Cook's ideas about art have progressed outside of gallery walls. His community projects after his return to Oakland in 2003 best embody his signature use of art as a tool for change.

Reflections overwhelmingly features subjects from the Oakland community. Familiar figures include art activist Favianna Rodriguez and poet Chiniska Hodge. All of Cook's subjects come from diverse backgrounds.

Reflections isn't just a community craft project, however. Cook had each *Reflections* subject think of one question surrounding healing and wellness; he then incorporated those questions into his project. Some are more straightforward, such as, "What is the difference between healing and coping?" Others are more abstract: "Where does it hurt?" Once Cook gathered all of the questions, he interviewed each subject with the list. "This allows the participants to dictate the content of their conversation," he said. He pointed out that in historical Western art convention, portrait subjects almost never had a voice.

On the *Reflections* portraits, quotations from the subjects are displayed across the top of the panels. Conflict resolution teacher Kate Hobbs wrote: "The earliest hurts have spawned the great work that I have committed to for most of my adult life."

Cook asked each community leader for a photo of themselves as a teenager and placed the photo alongside their current portraits, with the aim of reminding viewers of youth's power in creating a thriving community. The gap we see between the baby-faced youth and the adult figure today may encourage young people who feel overwhelmed by the pressure to have a plan to change the world. Cook himself pointed out that he started out at UC Berkeley as a sociology major.

In a short documentary video also titled *Reflections*, Cook said the portraits result in "magnifying the effect of [the subjects'] work by setting equal parts reflection and action. These 'collectively made objects for healing are community monuments, not filled with the spirit of the dead, but the energy of the living," he wrote on his Flickr page.

The biggest change in regard to his solo work is that Cook has relinquished almost all artistic control over his portraits, allowing others at events, such as *Life Is Living*, to help with the outlining and coloring. "These ideas are absorbed by looking at past, present, and future models of healing by participating in art-making," he said. He described our tendency to associate art with the production of physical objects. But with *Reflections*, the practice matters most. "In the process, we come to the realization that there are countless people in the community that are doing things to promote healing," he said.

At the recent *Life Is Living* festival, Cook projected the *Reflections* portraits onto wooden boards so that the subjects themselves, along with friends and family, could trace the outlines, which stretched up to eight feet tall. He then supplied oil pastels for others to color in each smile line, cheekbone, and dimple. Afterward, he took the wood panels and "rifled" on each portrait, adding to the backgrounds to "bring out the spirit" of that person. The works formed cube structures with the participants' questions on the wall adjacent to their portrait. Festival-goers added their own answers to the questions with chalk provided.

Though the project began in 2010, this month brings *Reflections* to much larger audiences. Previously, the portraits had been displayed in Oakland public libraries, but on October 24, ten of Cook's portraits will become semi-permanent public installations on the wall of the Oakland Museum of California (on 12th Street facing Lake Merritt). The event, held in tandem with Friday Nights @ OMCA, will also feature food trucks, performances, live music, wellness activities, and art making.

Reflections portrait-making is unpredictable, but Cook is unfazed by impermanence and change. When asked what his expectations were of the project, he rejected the term and referred only to his intentions. The naked black outlines at the start are a bit frightening-looking — decayed, wrinkled, and almost unrecognizable as human. But as the flesh and features are added, thanks to those who come and go at their leisure — some staying for hours — the images take on a life of their own. There's an anxiety about color within the lines, either.

AJ.Kiyozumi@aol.com

CULTURE SPY

FACING FORWARD

Brett Cook's participatory portrait series, *Reflections of Healing*, aims to heal Oakland.

By A.J. Kiyozumi

During a recent visit to Brett Cook's studio, the local artist sat cross-legged on the floor, in front of more than a dozen uniform file boxes. In socked feet, he looked as if he could have slipped into a meditative state, if not for the energy he radiated when describing his work.

In this position, Cook would be a fitting model for his ongoing project, which features portraits of missing heroes of Oakland, and is titled *Reflections of Healing*. Cook's interpretation of community engagement, a buzzword for so many cultural figures and institutions, is rooted

in "holding relationships off trust, rather than just hosting events," he said.

Cook recently programmed a panel discussion on socially engaged education for the Open City/Art City Festival, hosted an interactive session in the "Art, Activism, and Technology" series at the David Brower Center, coordinated the *Reflections of Healing* keynote event of the *Life Is Living* festival, and will elaborate *Reflections* with an event at the Oakland Museum of Art on October 24.

The portraits Cook created during his focus on his solo career — which included many depictions of Cook's family, as well as self-portraits, at different times in his life — were reliable and important precursors to *Reflections*. Often he included ephemera at the bottom of his portraits. In "Documentation of a Grandma" (2010), hairbrushes, pillows embroidered with phrases such as "Grandmothers Are Special," chunky nursing shoes, birthday cards, and a yawning box of jewelry-dwelling pink pearls were just a few of the objects he chose to arrange. Cook said that, many times, viewers automatically reflect and relate to the portraits' details, such as how their

FEEL THE POWER!

Electric Vehicle Test Drives

experience electric
#TheBetterRide

Win FREE Prizes

Walnut Creek Farmers' Market

Sunday, October 26
9 a.m. – 1 p.m.

Facebook.com/TheBetterRide

22 OCTOBER 15-21, 2014 OAKLANDPRESS.COM ARTS & CULTURE

Image 3. Print ad in the East Bay Express for the Walnut Creek Farmers' Market event

FEEL THE POWER!

Electric Vehicle Test Drives

experience electric

Win FREE Prizes

Downtown Berkeley Farmers' Market

Saturday, June 28
10 a.m. – 4 p.m.

Image 4. Online banner advertisement for Berkeley Farmers' Market event



Electric Vehicle Test Drives



Experience Electric #TheBetterRide is bringing Electric Vehicle Test Drives to a Neighborhood near You.

You've seen them on the road, but you've probably never driven one.

Get behind the wheel of the newest electric vehicles at Pacific Commons!

[MORE INFO](#)



Pacific Commons
Saturday, August 9, 2014
10 a.m. – 4 p.m.
43349 Pacific Commons Blvd.
Fremont, CA 94538
Event is Free!

Curious about what it feels like to drive an electric vehicle? Join us for a chance to find out in a hassle-free, no-sales environment.



Come chat with your neighbors who own electric vehicles (EVs) and local EV experts about available models, home charging, generous rebates, tax incentives and much more.



Test drive cars from Nissan, Ford, BMW, Fiat, Cadillac, Chevrolet, Via Motors and more!

All drivers receive a FREE medium sub and drink at Firehouse Subs (located at 43344 Boscell Rd, Pacific Commons) and a pair of #TheBetterRide sunglasses.



EVs cost considerably less to fuel and maintain, and help achieve cleaner air.

Brought to you by the Experience Electric #TheBetterRide campaign. Get zooming!

[MORE INFO](#)

This email sent from the following address: 428 17th Street, Suite 700, Oakland, CA 94612

Image 5. Targeted email marketing sent for the Pacific Commons, Fremont event



Image 6. Bike promotion: distributing flyers at the Burlingame on the Avenue event

Social Media

The social media component of the Experience Electric campaign provided the primary source of information regarding all campaign details, including event dates, times, locations, relevant EV news and real-time conversations for EV drivers. SHIFT Communications managed all aspects of social media, including advertising, content and social media influencer relationships.

The campaign used three social media channels to spread awareness of the brand and offer information about the test-drive events: Facebook, Twitter and Instagram. The campaign included paid social media and landing page ads.

In addition, social media followers were encouraged to use the hashtag #TheBetterRide (Image 7). To encourage use of the social media handles and the hashtag #TheBetterRide, event participants were urged to share their EV experience on their Facebook and Twitter accounts. When event participants used the hashtag #TheBetterRide, they were entered to win a free, one-week Chevy Spark rental from Hertz Rental Car. This rental prize allowed people to experience what it was like to own an EV for a week. The intention behind this giveaway item was to increase the winner’s comfort level and awareness of EVs and to further promote EV purchases and leases. The following sections



Image 7. Twitter post about participant’s experience at the Berkeley Farmer’s Market event

summarize how the campaign used social media to achieve its goals.

Facebook

The majority of campaign outreach materials and advertisements drove consumers to the campaign's Facebook page (Image 8). This page displayed content updated daily, with the news feed featuring articles about EVs and information about upcoming test-drive events. Users were able to tag their Facebook friends into event posts to notify their networks about the events. Other users would upload photos or comments while at the test-drive events, creating real-time conversations about their EV test-drive experience (Image 7).

Initially, Experience Electric focused on growing its Facebook fan base by using a promoted account campaign to drive targeted audience members to the Experience Electric Facebook page. The promotion targeted Elon Musk and Tesla Motors to take advantage of Musk and Tesla's popularity at the time of the campaign. It also targeted the environmentally friendly and green-living interests of people living in California, such as sustainability and hybrid electric vehicles.

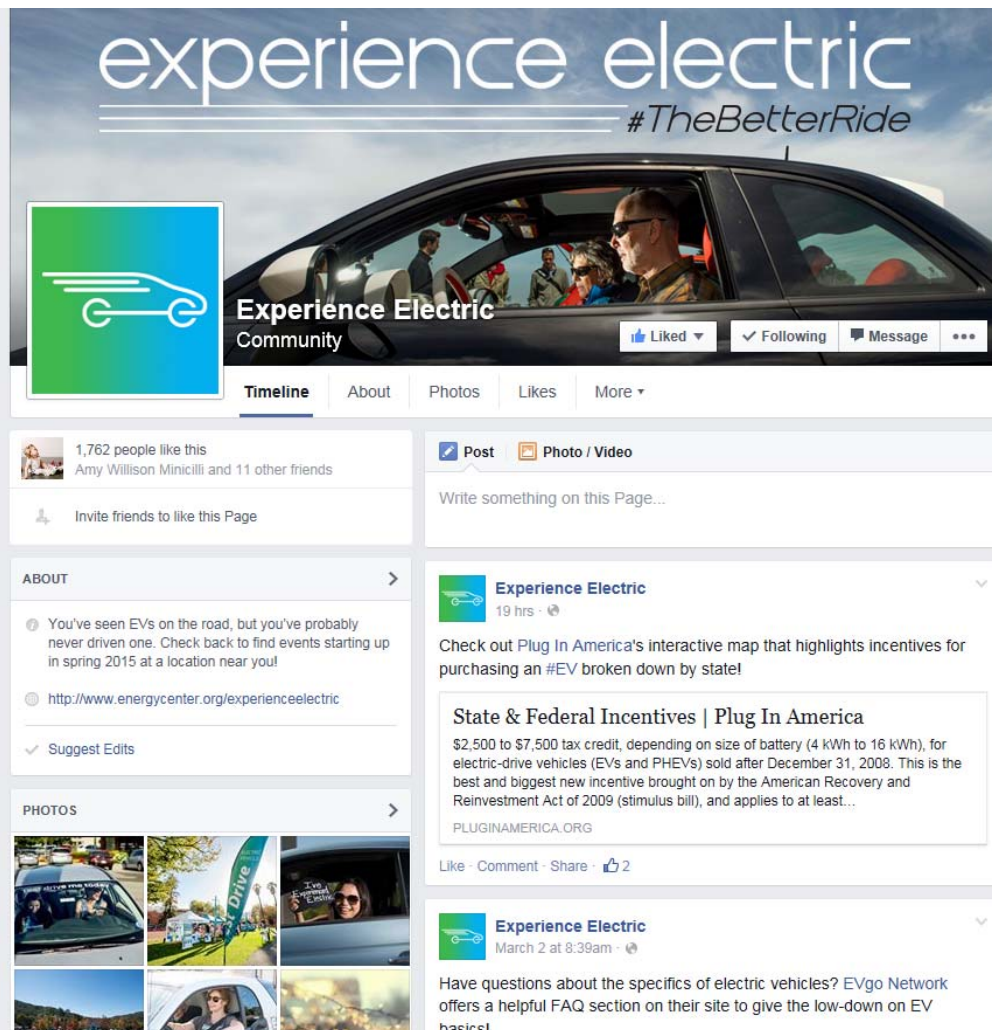


Image 8. Experience Electric Facebook page

Twitter

The growth strategy for #TheBetterRide Twitter following started with a similarly promoted account campaign on the network, encouraging users to follow the @TheBetterRide handle (Image 9). The audience targeted on Twitter included users with a demonstrated interest in automotive news, car culture and electric vehicles, as well as followers of several electric car manufacturers and local green-living handles (i.e., @SFCleanTech and @CommuteSmartSF).

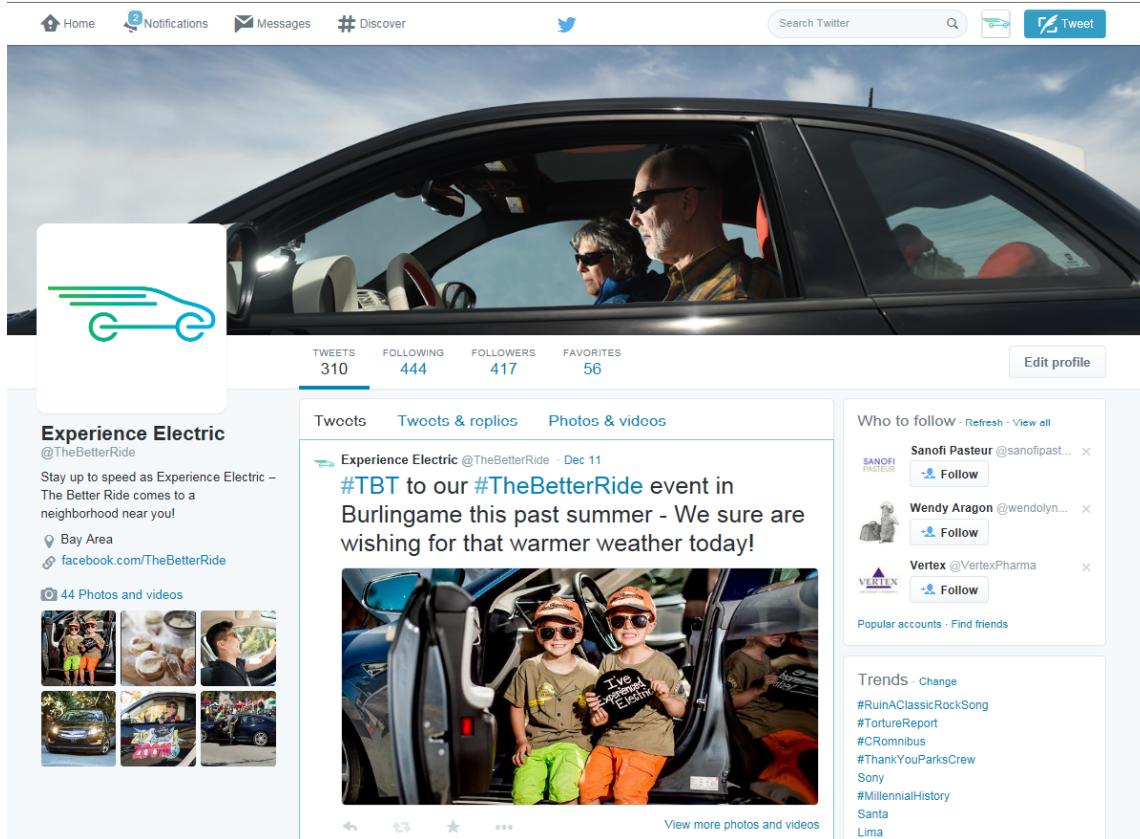


Image 9. Experience Electric Twitter page

Instagram

The Instagram handle was not implemented until later in the campaign. The campaign did not execute any Instagram advertisements; however, photos were uploaded on the Experience Electric Instagram account to highlight events and participant experiences (Image 10).

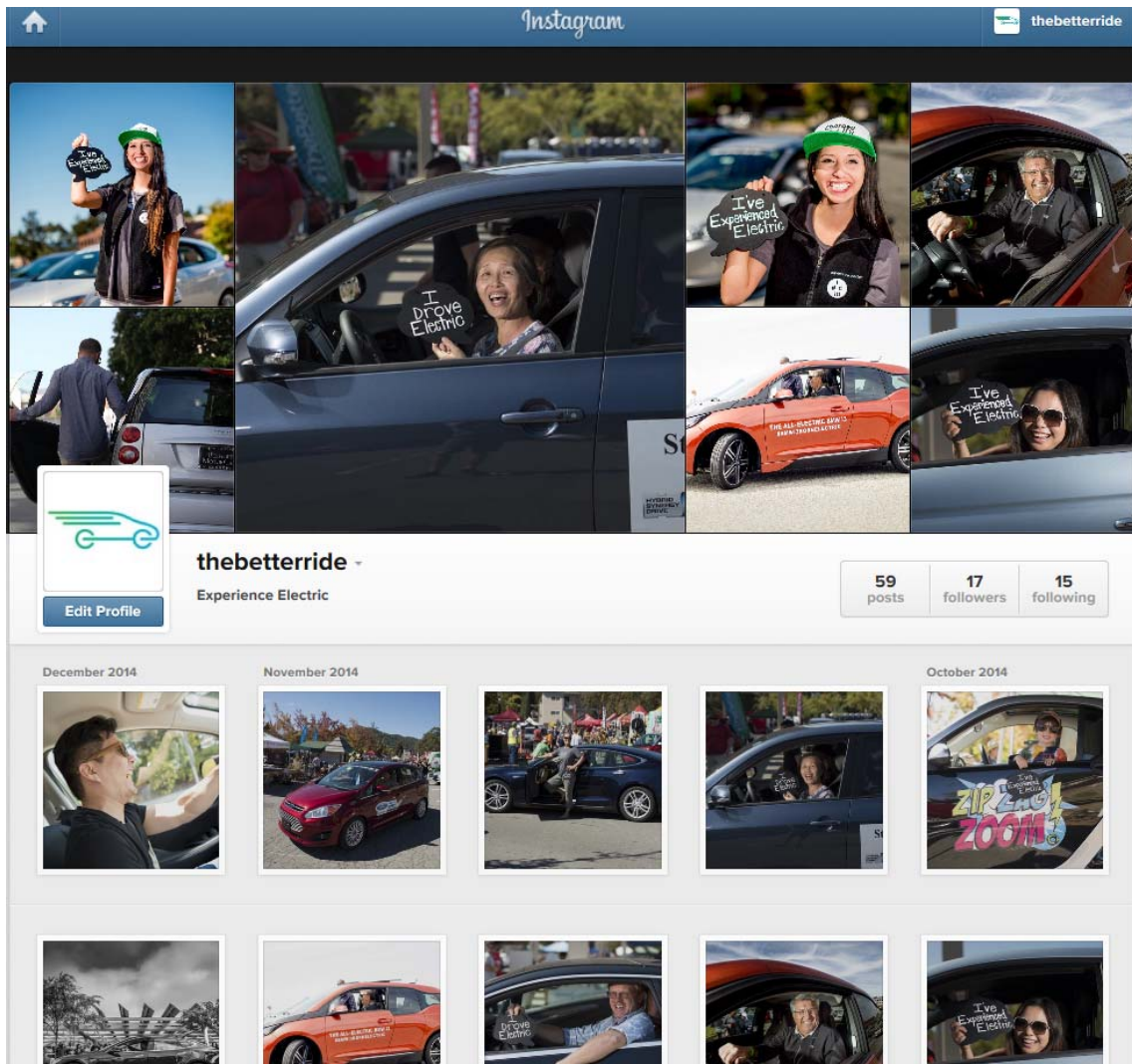


Image 10. Experience Electric Instagram page

Landing Page Ads

Following a decrease in Facebook reach opportunities, the targets were adjusted to be more specific in both geography and interest-based targeting. The campaign's strategy was also adjusted to promote the Better Ride landing page on the Experience Electric website, providing potential event attendees with more information and a clearer call to action than was present on the Facebook event page.

When the strategy was adjusted to drive traffic to the campaign landing page instead of the Facebook event pages, it enabled the campaign to include mobile targeting in the Facebook advertising strategy (Image 11).

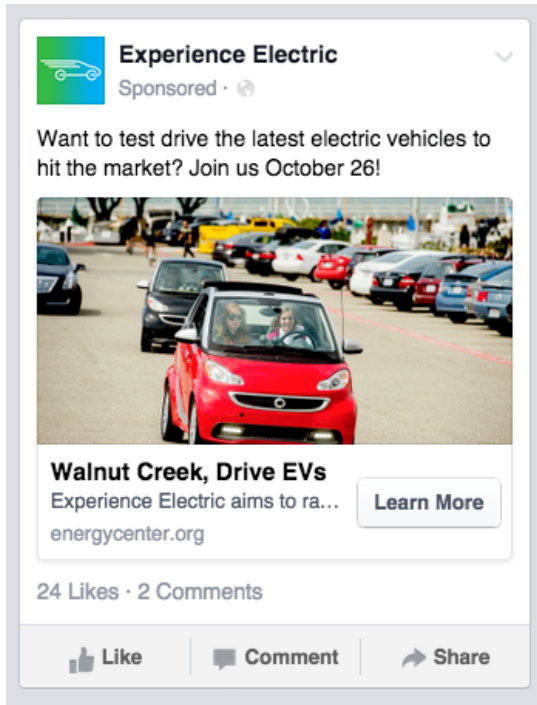


Image 11. Experience Electric mobile ad for the Walnut Creek event

Participant Survey

Participants were surveyed at each event to measure the campaign’s goals and effectiveness. Tablets were available at the registration booth for pre-test-drive surveys. Event staff engaged test-drive participants with tablets to complete the post-test-drive survey. After completing the post-test-drive survey, participants were given a promotional item such as sunglasses or a \$5 food voucher.

The surveys were designed to be compatible with mobile devices and could be taken at events on a campaign tablet or participant’s smart phone. The campaign offered survey cards with a URL or Quick Response (QR) code to the survey so participants could take the survey on their smart phone while waiting for a test drive (Image 12). This approach helped gather more survey responses when all the campaign tablets were in use; it also accommodated those participants who preferred to complete the survey on their smart phone.



Image 12. Experience Electric survey card

The following section presents a summary of the survey results. The full survey report, created by True North Research, is in Appendix 3: Experience Electric – The Better Ride Campaign Evaluation Report.

Campaign Results

Measurement was a key component of the Experience Electric campaign. Tracking the results of the events, marketing activities, and survey provides insight into how well the campaign met its stated goals.

Event Results

The event results are reported by event type.

Suburban Events

The campaign executed seven suburban test-drive events and resulted in 794 test drives. Image 13 presents information on each suburban event.

	Event Name	City	County	Date	Test Drive Totals
1	Burlingame on the Avenue	Burlingame	San Mateo	8/16/2014	100
2	National Drive Electric Week	Cupertino	Santa Clara	9/20/2014	314
3	Sonoma Valley Vintage Festival	Sonoma	Sonoma	9/28/2014	165
4	Napa Chamber Business EXPO	Napa	Napa	10/2/2014	30
5	Biketoberfest	Fairfax	Marin	10/11/2014	29
6	VivaFest! Dia De Los Muertos	San Jose	Santa Clara	10/25/2014	56
7	Walnut Creek Farmers' Market	Walnut Creek	Contra Costa	10/26/2014	100
Total Community Events Test Drives					794

Image 13. Suburban event test drive results

At times, the community-based suburban events weakened EV test-drive numbers. For example, events that served alcohol did not provide an effective test-drive environment, although they still encouraged people to look at the EVs, speak to EV Ambassadors and ask questions about the cars.

Suburban events attracted tech-savvy homeowners from many of the areas identified for this target demographic, including Silicon Valley, the East Bay suburbs, and surrounding counties (Image 14).

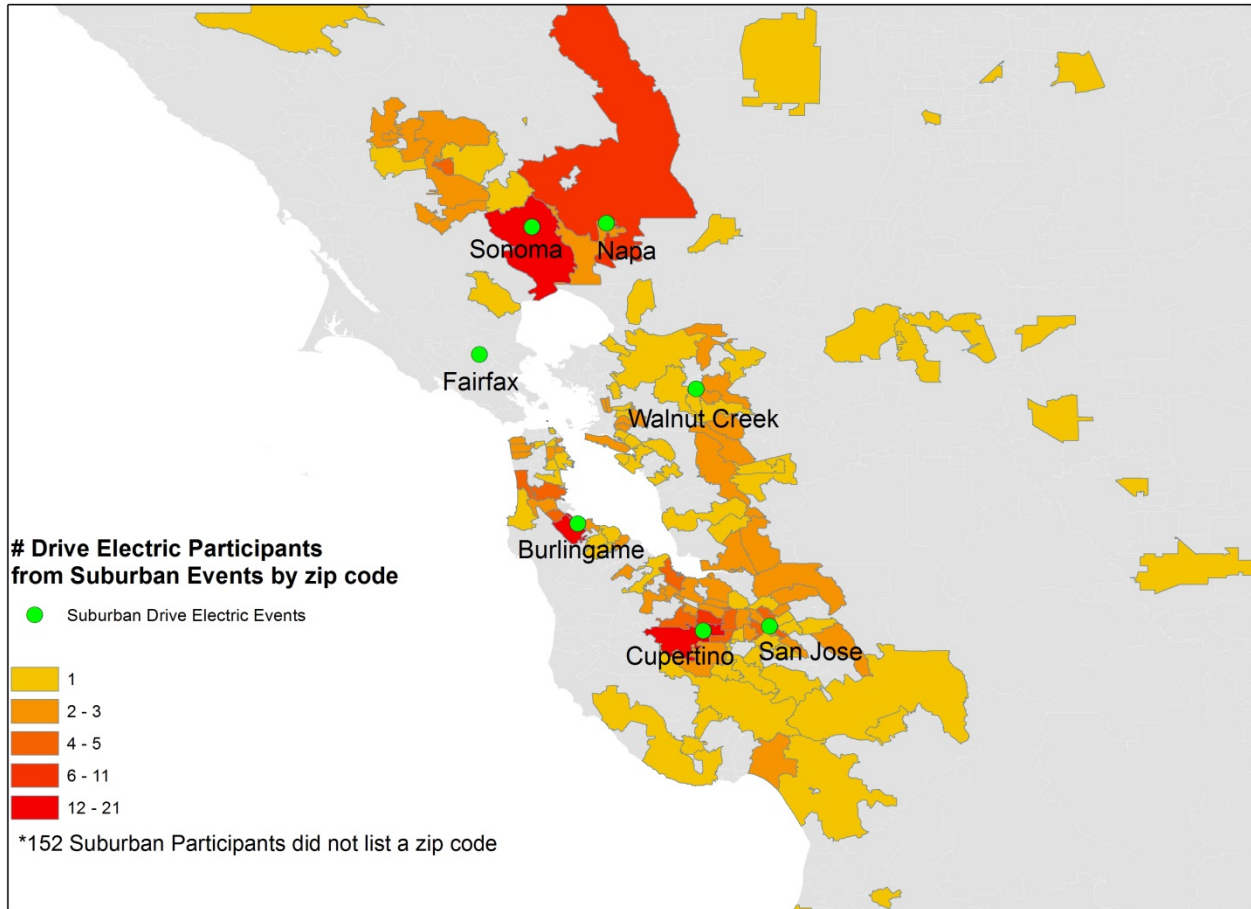


Image 14. Suburban participant geographical reach

Urban Events

The campaign executed five urban test-drive events, which resulted in 1,295 test drives. Image 15 presents information on each urban event.

	Event Name	City	County	Date	Test Drive Totals
1	Oakland EarthEXPO	Oakland	Alameda	4/9/2014	200
2	San Francisco Marina Green	San Francisco	San Francisco	5/17/2014	300
3	Berkeley Farmers' Market	Berkeley	Alameda	6/28/2014	190
4	Santana Row	San Jose	Santa Clara	7/27/2014	308
5	Fremont Pacific Commons	Fremont	Alameda	8/9/2014	297
Total Urban Events Test Drives					1,295

Image 15. Urban event test drive results

When EVs did not arrive at events due to last-minute cancellations or no-shows, static display vehicles were the first vehicles to be converted to test-drive vehicles. Event staff followed this practice because having a sufficient supply of test-drive vehicles was the priority. As expected, test-drive numbers were lower when EV test-drive vehicles did not show up to events.

As expected, urban events attracted greater numbers of local participants than suburban events, many of whom fit the targeted urban car-sharer demographic (Image 16).

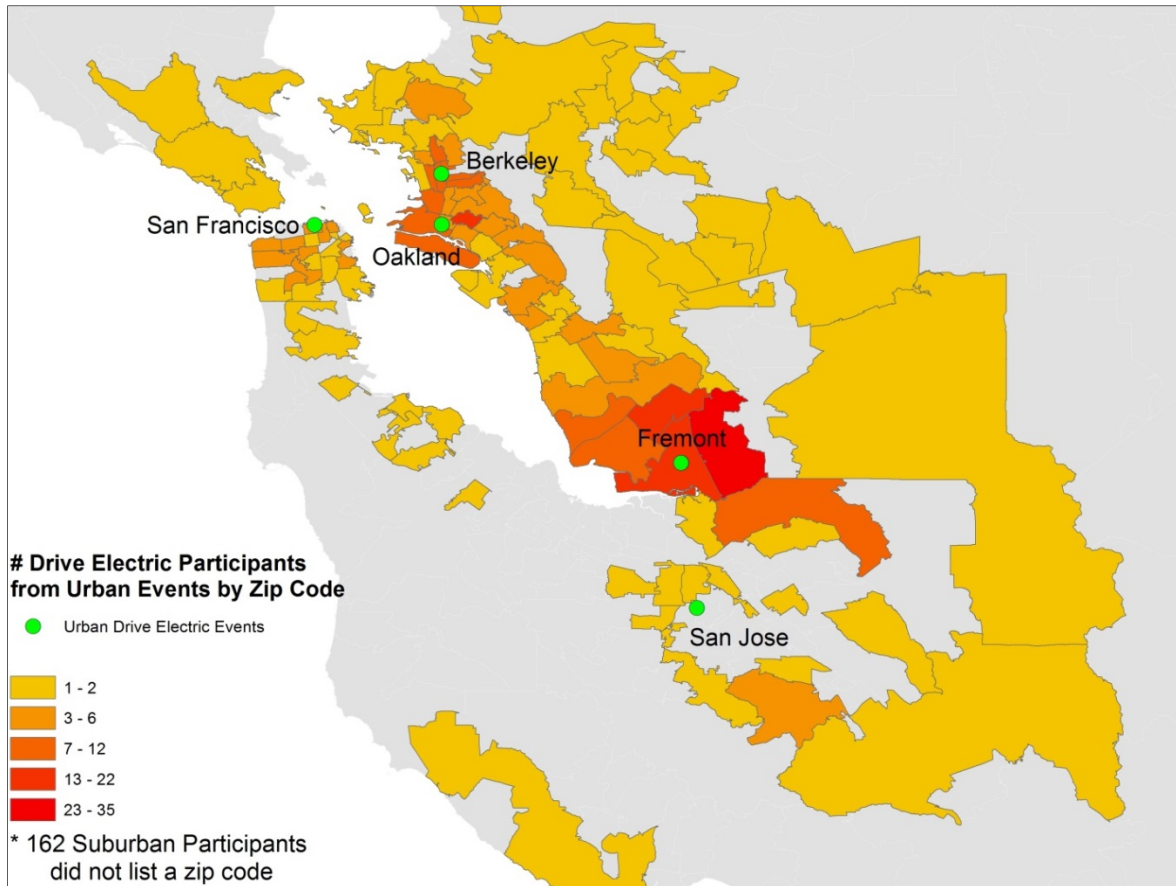


Image 16. Urban participant geographical reach

Workplace Events

The campaign executed nine workplace test-drive events and resulted in 2,162 test drives. Image 17 presents information on each workplace event.

	Event Name	City	County	Date	Test Drive Totals
1	Google	Mountain View	Santa Clara	5/15/2014	575
2	Intel	Santa Clara	Santa Clara	8/27/2014	261
3	Oracle	Pleasanton	Alameda	9/3/2014	207
4	City of San Ramon	San Ramon	Contra Costa	9/18/2014	62
5	Coca-Cola	San Leandro	Alameda	9/30/2014	37
6	NetApp	Sunnyvale	Santa Clara	10/1/2014	267
7	Bayer	Berkeley	Alameda	10/8/2014	234
8	PG&E	San Francisco	San Francisco	10/16/2014	308
9	Oracle	San Mateo	San Mateo	10/22/2014	211
Total Workplace Events Test Drives					2,162

Image 17. Workplace event test drive results

The success of workplace events depended heavily on the cooperation and efforts of the workplace host to promote the event through their internal communication networks. Many workplace campuses effectively supported their Experience Electric event by promoting the event in advance and on the day of the event to their employees. Often, workplaces would provide a hosted lunch for employees who participated in the test-drive event. This approach increased participation in test drives during the lunch hour. When workplaces used internal communications networks such as company social media, newsletters, signage and email blasts, participation rates were higher. Workplace participant geographical reach was not analyzed because workplace surveys did not collect demographic data.

Marketing Channel Results

Image 18 reports traditional and digital outreach results based on marketing outreach categories, while Image 19 reports them by social media tactic.

Traditional and Digital Media

	Media Tactic	Impressions
1	Press Releases	74,326,682
2	Print	5,070,482
3	Bus Ads	1,838,040
4	Online	2,306,769
5	Email Blasts	555,297
6	Radio	59,590
Total Impressions		84,156,860

Image 18. Traditional and digital media impressions

Social Media

	Social Media Tactic	Impressions
1	Facebook Likes ⁴ (www.Facebook.com/TheBetterRide)	1,762
2	Twitter Followers ⁵ (@TheBetterRide)	444
3	Instagram Followers ⁶ (@TheBetterRide)	18
4	Paid Ad Impressions ⁷	7,181
5	Launch Video Views	2,526
6	Launch Video Shares	59
Total Social Media Impressions⁸		2,800,000

Image 19. Social media impressions

⁴ As of March 3, 2015.

⁵ Ibid.

⁶ Ibid.

⁷ 4,916 visits to Experience Electric website and 2,265 visits to Facebook event page.

⁸ As of March 3, 2015. The social impressions include #TheBetterRide hashtag impressions, such as how many people have used it and how many people it has reached.

Social Media Advertising

Ads on Facebook and Twitter were targeted by geography (ZIP code and surrounding area of each event), demographic information and interests (electric vehicles, green energy, etc.). The social media advertising budget was allocated between Facebook and Twitter for each event promotion and adjusted using the performance data from advertising campaigns for past events.

For the first four public events,⁹ the initial strategy was to promote the individual ride-and-drive Facebook event pages. Twitter drove the most traffic to the event pages for the first few promotions (Image 20). Note: Due to the timeframe of initial targeting discussions on Twitter, only Facebook ads were executed for the Marina Green event.

Over the course of the campaign, the approach to the social media advertising strategy for test drive events directly resulted in 4,916 visits to the Experience Electric website and 2,265 visits to the individual ride-and-drive event pages on Facebook.¹⁰

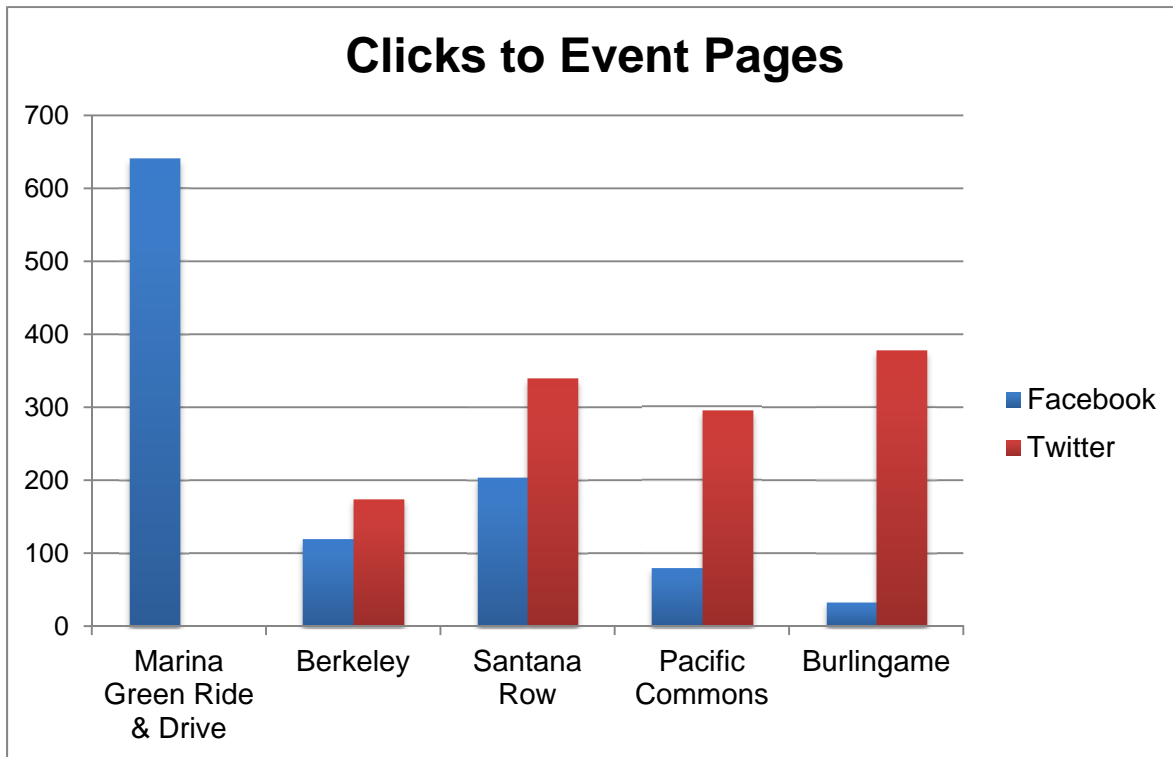


Image 20. Event page social media click-through metrics

⁹ Community and urban events were public events. Workplace events were private events and therefore had no social media marketing driving individuals to those events.

¹⁰ As of Nov. 27, 214.

Landing Page Ads

After the first five events, the strategy was changed to drive traffic to the campaign landing page rather than the Facebook event pages. This change, combined with target adjustments, caused the number of clicks from Facebook to increase by 245%. Clicks from Twitter remained consistent with the previous set of promotions, increasing by only 0.7% on average. This indicated that the targeting for Twitter was accurate because the audience was consistently engaged with @TheBetterRide content and event advertisements.

When mobile ads were used in the campaign, they resulted in a substantial increase in mobile engagements on Facebook, accounting for more than 87% of ad traffic to the landing page during the final five promotions.

The average click-through rate (CTR) between Twitter and Facebook varied greatly throughout the campaign. Twitter remained fairly consistent, trending down slightly toward the end of the campaign. Facebook, however, showed a tremendous increase in average CTR when the advertising strategy shifted. The clear messaging and layout of the landing page shared more information with those who clicked on the ads, resulting in better performance.

Optimizing the Experience Electric landing page and website for mobile was the most effective strategy because most social traffic during the campaign resulted from mobile devices. Future campaigns should request that website visitors register to attend events or to sign up for email newsletters about future events. This would create an additional list of people to target with more information.

Survey Results

The Experience Electric survey was designed to measure participant perceptions of EVs before and after their test drive. To do this, MTC and the campaign team created a three-part survey:

1. Pre-test-drive survey: A 17-question survey that participants took before test-driving an EV. This survey took approximately 5-7 minutes to complete.
2. Post-test-drive survey: An 11-question survey that participants completed after their test drive. Only the participants who completed the pre-test-drive survey were asked to complete the post-test-drive survey for comparison data. This survey took approximately 3-5 minutes to complete.
3. Follow-up survey: Approximately 2-5 months after the EV test drive, participants were contacted via email or phone to determine if they purchased or leased an EV.

The campaign had a data plan that provided a 4G Wi-Fi connection for all the survey tablets regardless of the event location. This eliminated the need to set up a wireless network at each location. However, technical issues with internet connectivity still arose at times, which reduced the survey numbers in those cases. It would be beneficial for future campaigns to explore data storage options that do not require on-site internet connectivity to collect survey data.

All survey instruments are located in Appendix 3: Experience Electric – The Better Ride Campaign Evaluation Report.¹¹

Demographic Results

This section presents aggregated demographic survey data from the campaign. Data from 1,484 survey respondents was collected, representing 35% of campaign participants. Demographic data was not collected during workplace events due to employer privacy restrictions; therefore, all survey data analyzed in the demographic survey section refers only to suburban and urban event participants. While the Experience Electric – The Better Ride Campaign Evaluation Report (Appendix 3) analyzes demographic data overall, the section below only compares the demographic data from suburban and urban events.

Gender

The demographic survey results clearly showed that gender was a distinguishing factor across events: more males attended the events than females. When comparing event types, male attendance was slightly higher for suburban events (70.7%) than urban events (64.6%).

Age

Age ranges were basically consistent across event types. Notably, suburban events saw the highest percentage of attendees in the 45 to 54 year range, which is consistent with the targeted tech-savvy homeowner demographic. The campaign also saw a relatively even distribution of participants between 25 and 64 years old.

Household Annual Income

The campaign captured the interest of individuals with a broad range of household incomes. The dominant household income was between \$100,000 and \$149,000 for both suburban and urban demographics. Not surprisingly, between 15% and 20% of respondents declined to state their household income on the survey.

Likelihood of Purchasing an EV by Age, Gender and Income

When looking at the likelihood of purchasing an EV based on demographics, females, young drivers (under 25) and participants with over \$250,000 in household annual income indicated they were most likely to purchase or lease an EV after their test drive. Drivers aged 35 to 44 also showed one of the largest increases in likelihood of purchasing an EV after a test drive (10%).

Perceptions, Experience, and Purchase Outcomes

Having a positive impact on EV perceptions was a significant goal for the campaign. This section evaluates the overall perception change, test drive experience, and purchasing decision for all survey respondents.

¹¹ The Experience Electric – The Better Ride Campaign Evaluation Report may also be found here <https://energycenter.org/experienceelectric>.

Overall Perception Change

When asked whether the Experience Electric test drive had an immediate, positive impact on the driver, responses were very positive. As shown in Image 21, 94% of participants rated their overall experience test driving an EV as either excellent (59%) or good (35%). Additionally, more than three-quarters (79%) indicated immediately following their test drive that the experience improved their overall opinion of electric vehicles.

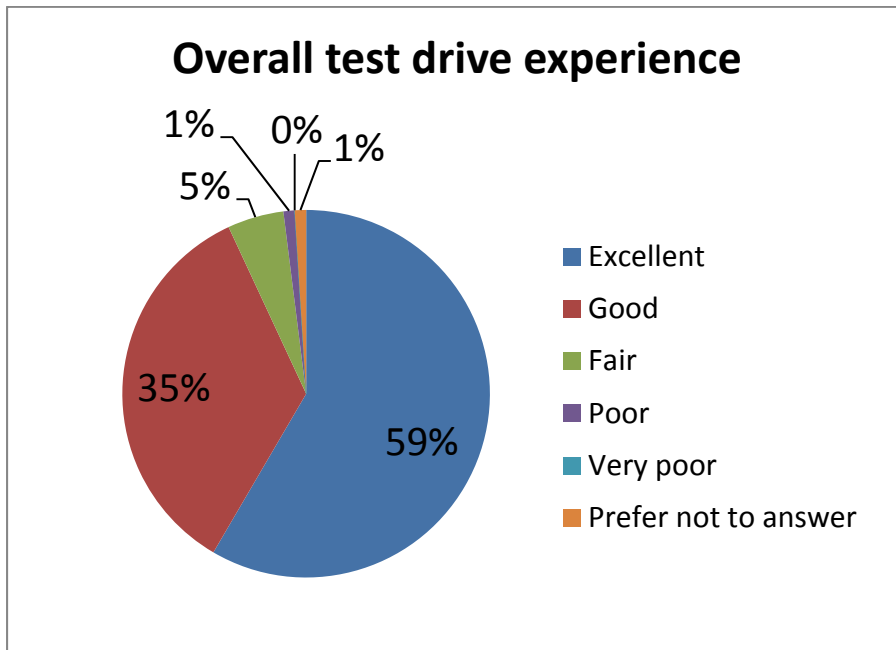


Image 21. Overall test drive experience

Post-test drive, participants were asked, "Now that you've had a chance to test-drive an electric vehicle, are you more likely to purchase an electric vehicle, less likely to purchase an electric vehicle or has your likelihood of purchasing an electric vehicle stayed about the same?" Approximately 70% of the survey respondents indicated that they were more likely to buy an EV (Image 22). This increase in positive attitude toward EVs is a significant metric for determining the success of meeting campaign goals.

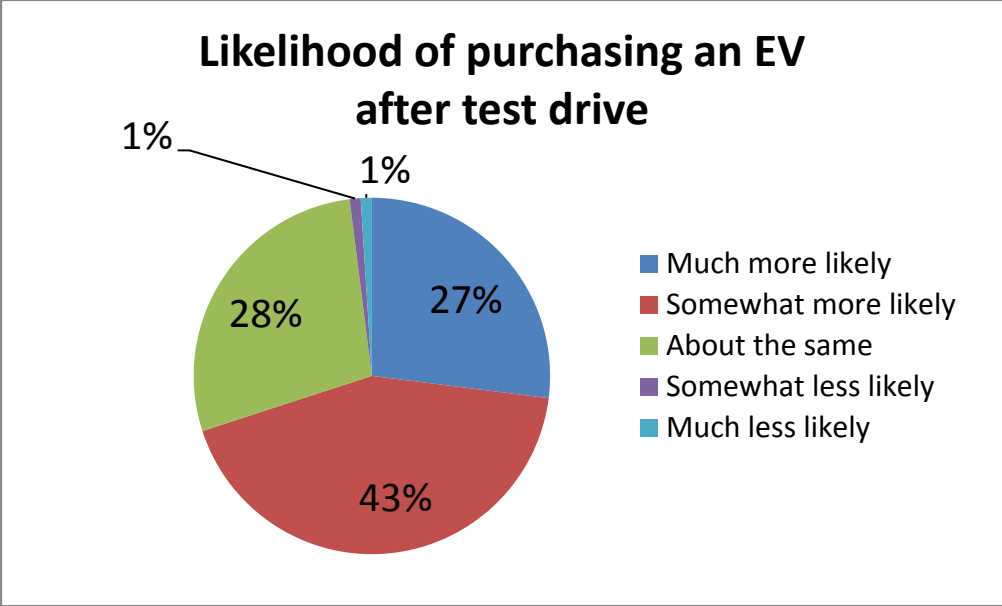


Image 22. Likelihood of purchasing an EV post-test drive

Purchasing Decision

Follow-up survey results indicate that 11% of survey respondents¹² either purchased or leased an EV within a few months of their Experience Electric test drive (Image 23). The group of campaign participants who purchased or leased an EV shortly after their Experience Electric test drive was composed of 22 respondents who were contacted for a follow-up survey. Of this group, 76% stated that the Experience Electric event impacted their decision to purchase or lease an EV (Image 24).

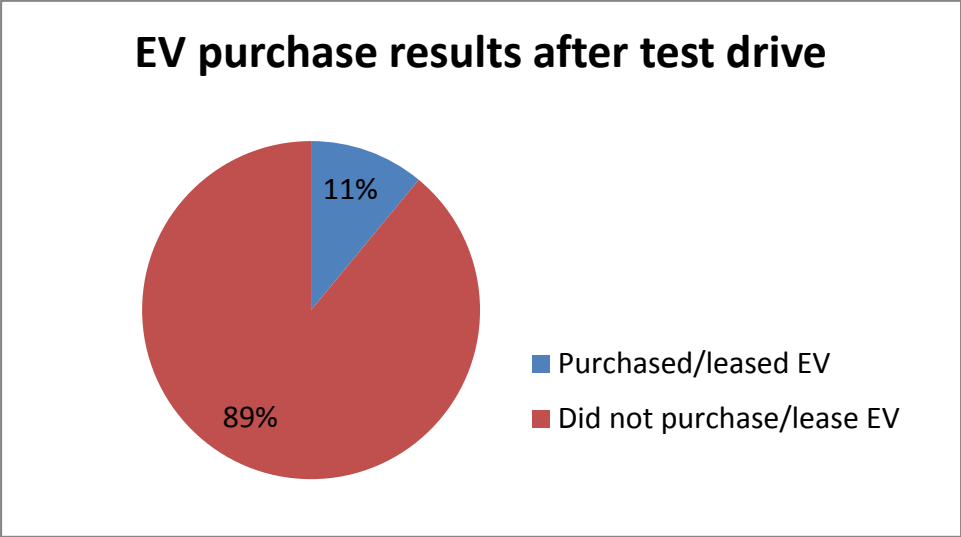


Image 23. Percent of respondents who purchased or leased EV after their test drive

¹² The majority of workplace events are excluded from these results.

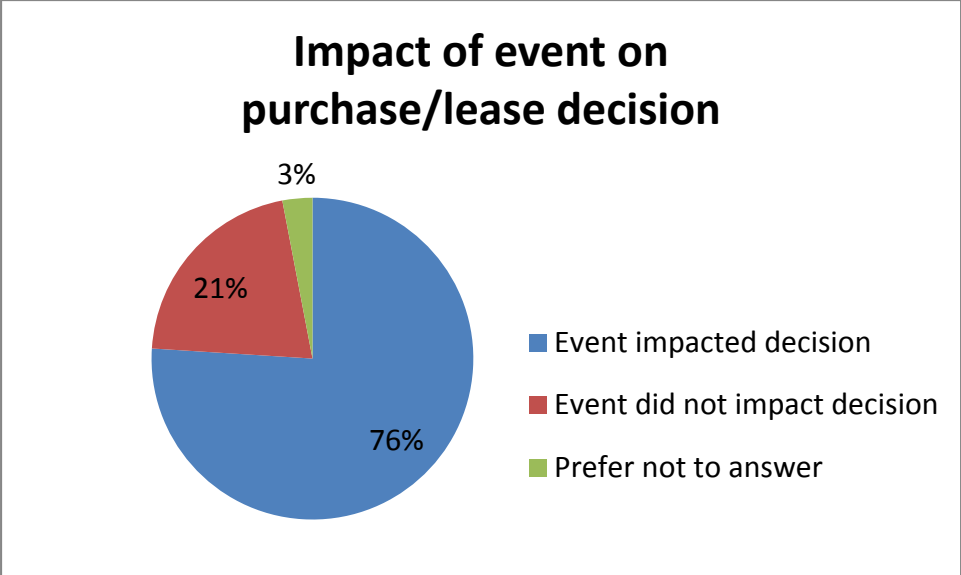


Image 24. Percent of respondents who said the event positively impacted their decision to purchase/lease an EV

Participants overwhelmingly reported that their decision was positively influenced by attending a test-drive event regardless of location type (Image 25). Note: While the majority of follow-up surveys did not include workplace participants, some workplace participants opted-in and were contacted for follow-up data, which is presented as workplace results in Image 25.

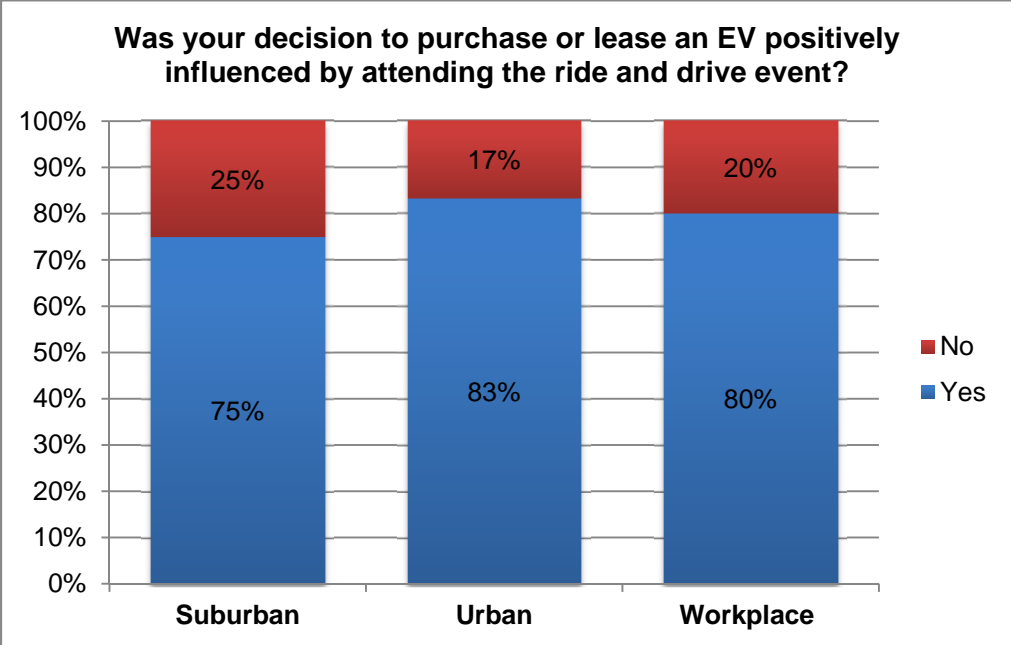


Image 25. Responses by event type to the survey question: “Was your decision to purchase or lease an EV positively influenced by attending the ride and drive event?”

Event Type Comparison

This section compares survey responses across event type: workplace, suburban, and urban.

Familiarity with EVs

When looking at familiarity with EVs prior to the test drive, urban participants expressed the least amount of familiarity with EVs, while suburban participants reported the highest amount (Image 26).

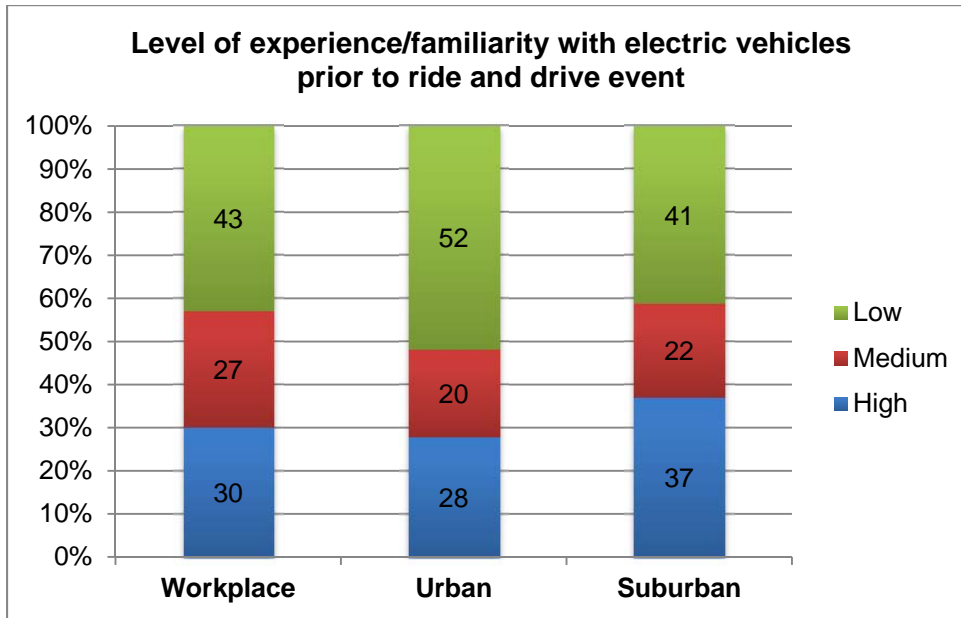


Image 26. Familiarity with EVs prior to test drive by event type

To determine whether an individual’s perceptions differed depending on the location of the event they attended, a test of independence was created to measure the correlation between influence and event type. This test found no association between these measures, indicating that each event location was equally effective in its influence. This finding can be useful in guiding the design of future EV ride and drive campaigns—location doesn’t have to be a determining factor.

Purchasing Decision

Participants were also asked about the likelihood of purchasing or leasing an EV in the next two years. One noteworthy finding was that 21% of suburban event participants said there was a 100% chance that their next vehicle would be an EV (Image 27). This result was 5% higher than urban participants, and 8% higher than workplace participants.

The red horizontal lines in Image 27 show the average response to this question for each event type. On average, workplace and urban event participants fell into the high end of the 60-69% range for chance that their next vehicle would be an EV, while suburban participants fell into the low end of the 70-79% range. This relatively minor variation in the average response indicates that each event type was equally effective in influencing participants to purchase or lease an EV within the two years from the event.

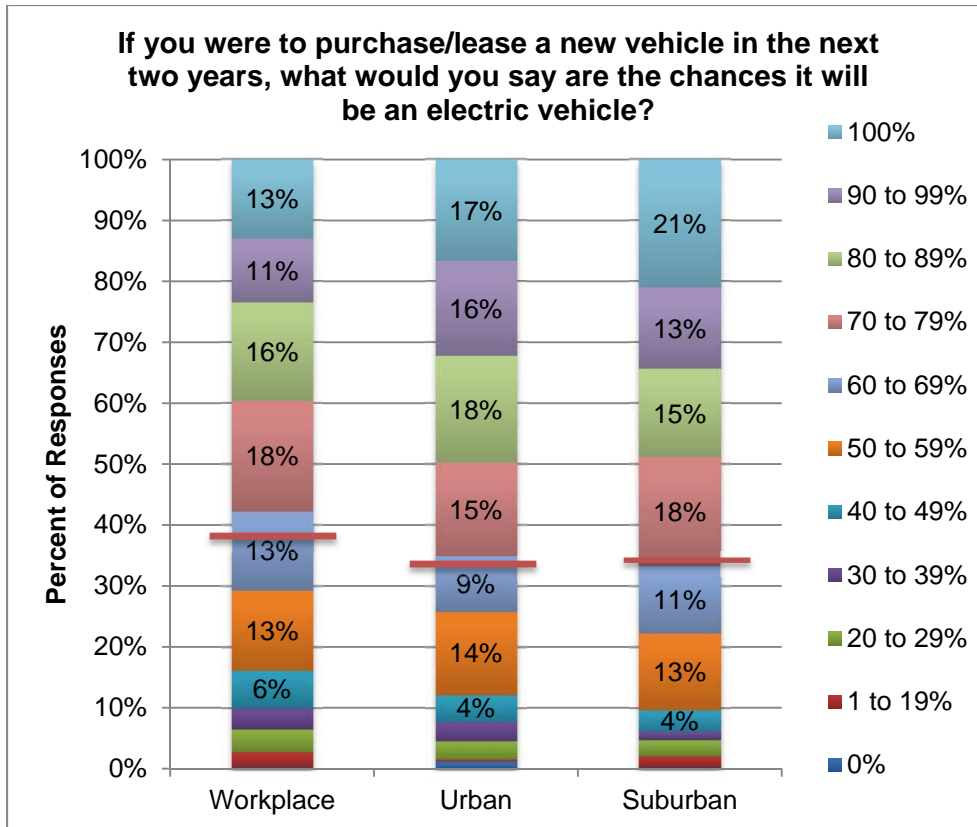


Image 27. Average stated likelihood of buying an EV in the next two years by event type

Event Strategy Comparison

The events were also produced using three different strategies:

- Workplace events were produced in conjunction with the host organization.
- Community events were produced in conjunction with a larger events taking place in the community, such as festivals or farmers’ markets.
- Self-produced events were standalone Experience Electric events.

Community and self-produced events took place in suburban and urban locations.

Since each event strategy includes different costs and complexities, the survey data was analyzed to see if any strategy was better than the others at attracting potential EV drivers and/or changing participant perceptions of EVs.

Familiarity with EVs

When comparing participants’ level of familiarity with EVs across event strategy, no strategy produced a drastically higher or lower level of familiarity. Community event participants represented the highest level of familiarity (33%), while self-produced event participants had the lowest level at 28% (Image 28).

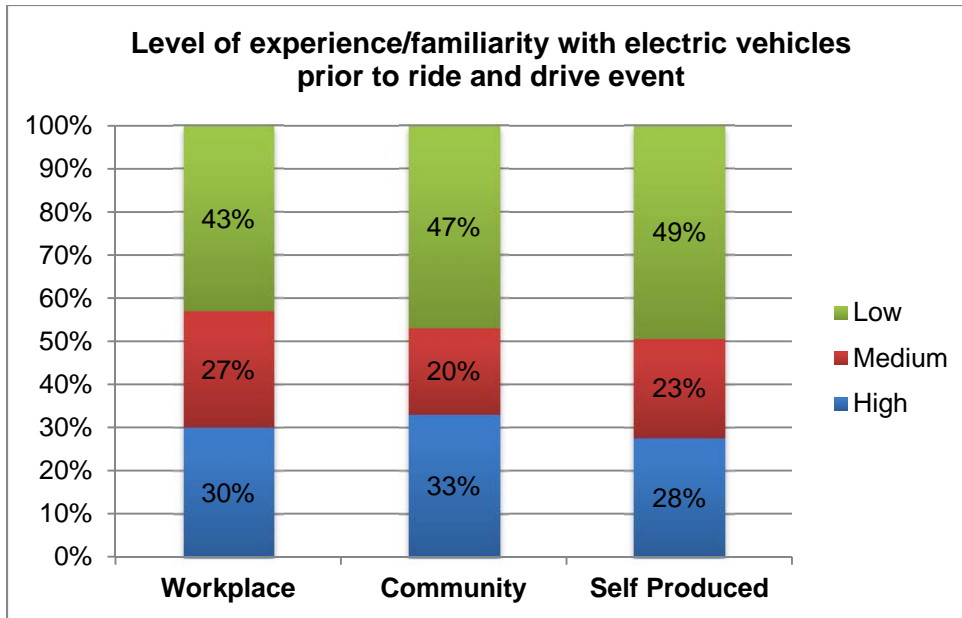


Image 28. Familiarity with EVs prior to test drive by event strategy

Purchasing Decision

No single event strategy encouraged significantly higher EV purchases or leases (Image 29). This result reflects favorably on the campaign’s goals—all event strategies were more or less equally effective at influencing an individual’s decision to purchase or lease an EV. Participants at the self-produced events did have a slightly higher response rate, but this finding makes sense considering that the self-produced events were standalone, destination events. The majority of event participants most likely planned to go to the event rather than unexpectedly running across it. When an individual is motivated to make the effort to attend a self-produced event, they most likely already have interest in EVs and possibly higher motivation to purchase an EV.

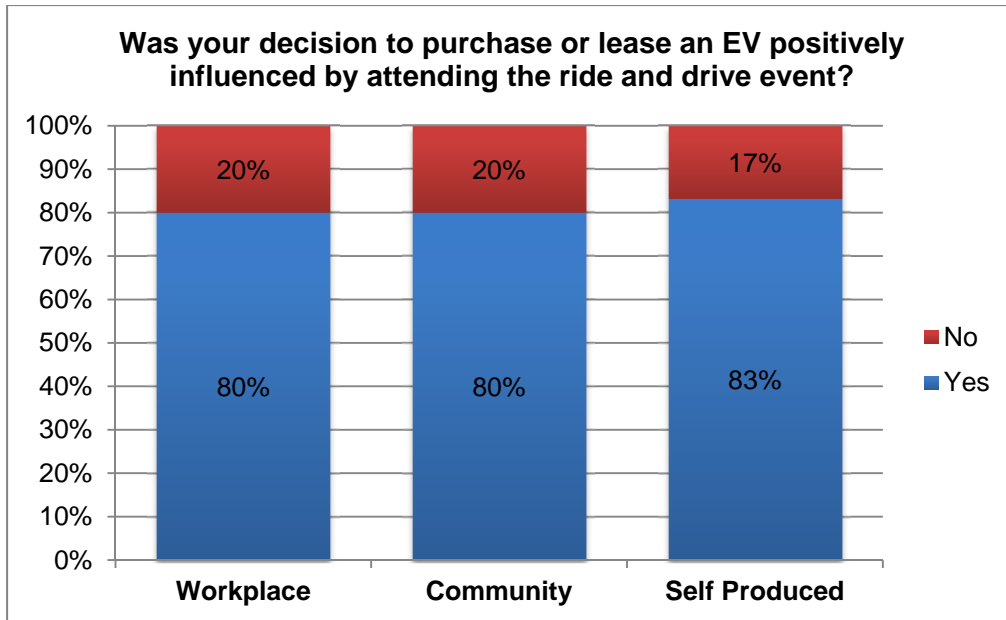


Image 29. Responses by event strategy to the survey question: "Was your decision to purchase or lease an EV positively influenced by attending the ride and drive event?"

When considering the likelihood of purchasing or leasing an EV in the next two years, participants at self-produced events reported a 70-79% chance on average that their next car would be an EV (averages are shown by the red bars in Image 30). Community and workplace event participants reported a 60-69% chance on average that their next car would be an EV. The higher averages for self-produced events are logical since self-produced events were often destination events for participants.

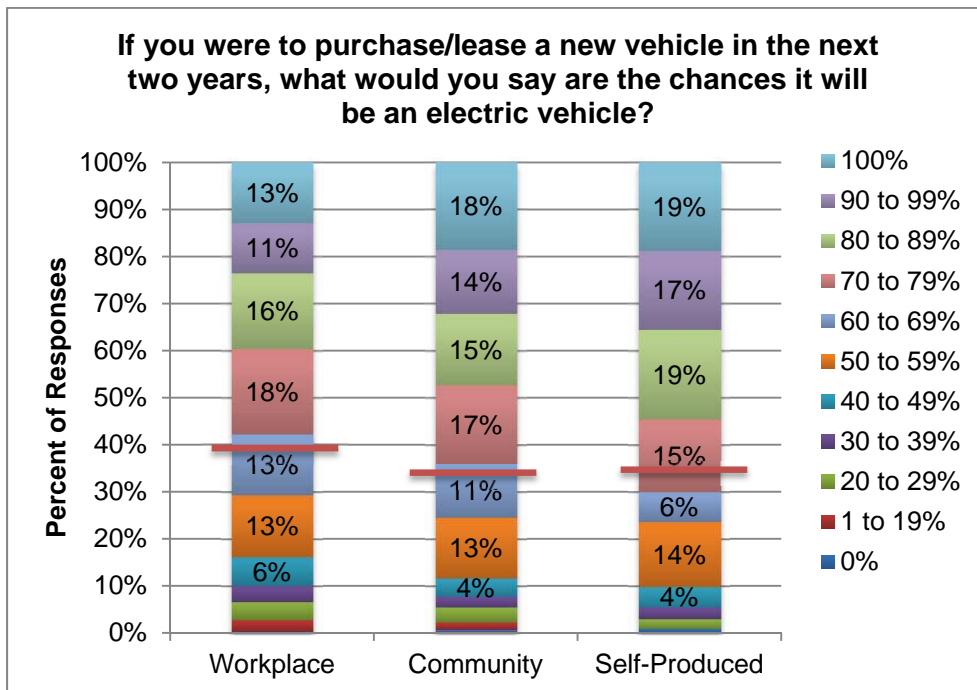


Image 30. Average stated likelihood of buying an EV in the next two years by event strategy

Conclusion

The initial Experience Electric campaign resulted in 4,251 EV test drives. The 6-month extension added 1,088 more test drives, for a grand total of 5,284 test drives.

The campaign promoted EVs in the Bay Area to the targeted demographics of tech-savvy homeowners and urban car-sharers and achieved the campaign's goals:

- Provide an opportunity for the public to experience the benefits of electric vehicles
- Change the perceptions of Bay Area drivers by encouraging them to acquire or use electric vehicles when they make the decision to drive
- Promote the Bay Area's identity as a center for high-tech and green culture
- Motivate individuals to change their behavior to reduce Bay Area greenhouse gas (GHG) emissions

By using a set of carefully crafted surveys, the initial campaign captured responses from 1,484 participants, representing 35% of the total participant population. The campaign was able to quantitatively demonstrate that test-driving EVs positively changes perceptions of EVs. Notably, the survey data revealed the following:

- Post-test drive, approximately 70% of the survey respondents indicated that they were more likely to buy an EV.
- Females, young drivers (under 25) and individuals with a household annual income of over \$250,000 were most likely to purchase or lease an EV after their test drive experience.
- Drivers aged 35 to 44 showed one of the largest increases in likelihood of purchasing an EV after a test drive.
- On average, participants at self-produced events indicated a 70-79% chance that their next car would be an EV.
- 11% of surveyed campaign participants purchased or leased an EV within a few months of their Experience Electric test drive. Of this group, 76% stated that the Experience Electric test drive impacted their decision to purchase or lease an EV.

These results indicate that test drives change attitudes about EVs. The Experience Electric campaign contributed to positive attitudes toward EVs and increased EV adoption in the Bay Area. Future campaigns that focus on test drives will undoubtedly have a similar positive effect.

Appendix 1: Campaign Extension, 2015 - 2016

Due to the very positive results of the initial campaign, the Metropolitan Transportation Commission and Bay Area Air Quality Management District funded an additional six Experience Electric vehicle test drive events in the San Francisco Bay Area. These events were produced from October 2015 through May 2016 and resulted in an additional 1,033 test drives. This extension included the following vehicles:

- BMW 330e
- BMW 330e (2016)
- BMW i3 REX
- BMW i3 REX (2016)
- BMW X5 eDrive
- Chevrolet Spark EV
- Chevy Volt
- Chevy Volt (2016)
- Chevy Volt (2017)
- Fiat 500e
- Ford CMAX Energi
- Ford Focus Electric
- Ford Fusion Energi
- Mercedes-Benz B-Class 250e
- Mercedes-Benz S550e
- Mitsubishi i-MiEV
- Nissan LEAF
- Nissan LEAF SL
- Nissan LEAF SV
- Nissan LEAF SV (2016)
- smart for two EV
- Volkswagen eGolf



This section reports the results from each of these events.

Event 1 of 6: Treasure Island Flea

Event Information

- Date: Saturday, October 24, 2015
- Location: 1 Ave. of the Palms, Treasure Island, San Francisco, CA
- Event Time: 10am – 4pm

Results

- Total electric vehicle test drives: **68**
- Signed waivers: **60**
- Four test drive vehicles
- Pictures located on [Facebook](https://www.facebook.com/TheBetterRide/photos/?tab=album&album_id=876814499092076):

https://www.facebook.com/TheBetterRide/photos/?tab=album&album_id=876814499092076



Saturday, October 24, 2015	
Electric Vehicle	Test Drives
Chevrolet Spark EV	16
Chevrolet Volt	29
smart for two EV	9
smart for two EV	14
Total:	68

Summary

Eight staff members worked the event. Their uniform included an Experience Electric t-shirt, sunglasses and hat. The Clean Vehicle Rebate Project (CVRP) booth was near the test drive area, which helped drive traffic to the test drive.

The test drive vehicles were consistently busy throughout the day—especially the Volt. The event was a success in this regard as test drivers did not have to wait very long to get in a vehicle and drive. There were no traffic accidents or unsafe activity due to the test drive.

Nearby police activity caused major delays for those going to the event, and bridge exits to Treasure Island were closed for most of the morning. However, the vehicles were busy during the majority of the afternoon. Even though the police activity negatively impacted the day's overall numbers, Experience Electric's presence was strong and engaging with event participants.

Event 2 of 6: San Francisco Chronicle 58th Annual International Auto Show

Event Information

- Date: Monday, November 23 & Tuesday, November 24, 2015
- Location: Moscone Center - 747 Howard Street, San Francisco, CA 94103
- Event Time: 10am – 4pm



Results

- Total electric vehicle test drives: **288**
- Signed waivers: **292**
- Free auto show admission tickets distributed to test drivers (courtesy of PG&E): **290**
- Monday: 142 test drives, 156 waivers, and 9 vehicles
- Tuesday: 146 test drives, 136 waivers, and 9 vehicles
- Pictures located on [Facebook](https://www.facebook.com/media/set/?set=a.889951614445031.1073741838.517202638386599&type=3):
<https://www.facebook.com/media/set/?set=a.889951614445031.1073741838.517202638386599&type=3>

Monday, November 23, 2015		Tuesday, November 24, 2015	
Electric Vehicle	Test Drives	Electric Vehicle	Test Drives
Chevrolet Volt	20	Chevrolet Volt	26
Ford CMAX Energi	16	Ford CMAX Energi	13
Ford Fusion Energi	9	Ford Fusion Energi	15
Mercedes-Benz B250e	16	Mercedes-Benz B250e	21
Nissan LEAF	14	Nissan LEAF	12
Nissan LEAF	17	Nissan LEAF	19
smart for two EV	17	smart for two EV	13
smart for two EV	8	smart for two EV	11
Volkswagen eGolf	25	Volkswagen eGolf	16
Total:	142	Total:	146

Summary

The test drive was located directly in front of the main entrance to the auto show. Eight staff members worked the event using the standard Experience Electric uniform of a t-shirt, sunglasses and hat. PG&E sponsored a free ticket giveaway to the auto show, which helped incentivize more people to take a test drive. The event was also cross-promoted at the PG&E and CVRP booths inside the show.

The test drive vehicles were consistently busy throughout the day—especially the Volt and Mercedes-Benz. In general, test drivers did not have to wait long to get in a vehicle, although at times the Mercedes-Benz had up to a 30 minute wait. There were no traffic accidents or unsafe activity due to the test drive.

Event 3 of 6: Sonoma County Home and Garden Show

Event Information

- Date: Saturday, March 19 & Sunday, March 20, 2016
- Location: Santa Rosa Fairgrounds – 1350 Bennett Valley Road, Santa Rosa, CA 95402
- Event Time: 10am – 5pm



Results

- Total electric vehicle test drives: **152**
- Signed waivers: **81**
- Saturday: 144 test drives, 73 waivers, and 8 vehicles
- Sunday (rained out): 8 test drives, 8 waivers, and 2 vehicles
- Pictures located on [Facebook](https://www.facebook.com/media/set/?set=a.954113761362149.1073741841.517202638386599&type=3):
<https://www.facebook.com/media/set/?set=a.954113761362149.1073741841.517202638386599&type=3>

Saturday, March 19, 2016		Sunday, March 20, 2016	
Electric Vehicle	Test Drives	Electric Vehicle	Test Drives
BMW i3 REX	27	BMW i3	2
BMW i3 REX	37	Chevy Volt	6
Chevrolet Volt	10		
Chevrolet Volt	10		
Chevrolet Spark	22		
Ford Focus Electric	9		
Ford Fusion Energi	10		
Nissan LEAF	19		
Total:	144	Total:	8

Summary

Six staff members worked the event using the standard Experience Electric uniform of a t-shirt, sunglasses and hat. The CVRP booth was inside the show room and cross promoted the event.

On Saturday, event participants showed a large amount of interest in the vehicles, which were consistently busy throughout the day—especially the Volt and BMW. The event was a success as test drivers did not have to wait very long to get in a vehicle and drive. There were no traffic accidents or unsafe activity due to the test drive. Staff set up the event on Sunday, but rainy weather hindered test drives. Staff closed the event at 2:30pm due to the rain.

Event 4 of 6: Contra Costa Home and Garden Show

Event Information

- Date: Saturday, April 2 & Sunday, April 3, 2016
- Location: Concord Pavilion - 2000 Kirker Pass Road, Concord, CA 94521
- Event Time: 10am – 5pm



Results

- Total electric vehicle test drives: **180**
- Signed waivers: **119**
- Saturday: 100 test drives, 71 waivers, and 5 vehicles
- Sunday: 80 test drives, 48 waivers, and 5 vehicles
- Pictures located on [Facebook](https://www.facebook.com/media/set/?set=a.963935103713348.1073741842.517202638386599&type=3):

<https://www.facebook.com/media/set/?set=a.963935103713348.1073741842.517202638386599&type=3>

Saturday, April 2, 2016		Sunday, April 3, 2016	
Electric Vehicle	Test Drives	Electric Vehicle	Test Drives
2016 BMW 330e	19	2016 BMW 330e	17
2016 BMW i3 REX	18	2016 BMW i3 REX	14
2017 Chevy Volt	21	2017 Chevy Volt	14
2016 Chevy Volt	34	2016 Chevy Volt	24
2016 Nissan LEAF SV	8	2016 Nissan LEAF SV	11
Total:	100	Total:	80

Summary

Seven staff members worked the event using the standard Experience Electric uniform of a t-shirt, sunglasses and hat. The CVRP booth was inside the show room and cross promoted the event.

Throughout the event the test drive vehicles were consistently busy—especially the BMW 330e. Test drivers did not have to wait very long; in fact, the line was only one to two people deep, and usually only for the BMW. Saturday was busier than Sunday due to show attendance being much higher on Saturday. There were no traffic accidents or unsafe activity due to the test drive.

Event 5 of 6: Fairfield Total Home and Garden Show

Event Information

- Date: Saturday, April 16 & Sunday, April 17, 2016
- Location: 300 Chadbourne Road, Fairfield CA 94553
- Event Time: 10am – 5pm



Results

- Total electric vehicle test drives: **115**
- Signed waivers: **69**
- Saturday: 62 test drives, 38 waivers, and 5 cars
- Sunday: 53 test drives, 31 waivers, and 3 cars
- Pictures located on [Facebook](#):

<https://www.facebook.com/media/set/?set=a.974642632642595.1073741843.517202638386599&type=3>

Saturday, April 16, 2016		Sunday, April 17, 2016	
Electric Vehicle	Test Drives	Electric Vehicle	Test Drives
BMW i3 REX	15	Fiat 500e	17
BMW 330e	15	Mercedes-Benz S550e	25
Fiat 500e	6	Nissan LEAF SL	11
Mercedes-Benz S550e	12		
Nissan LEAF SL	14		
Total:	62	Total:	53

Summary

Seven staff members worked the event using the standard Experience Electric uniform of a t-shirt, sunglasses and hat. The CVRP booth was inside the show room and cross promoted the event.

Throughout the event the vehicles were consistently available for test drives. Test drivers did not have to wait very long to get in a vehicle and drive; the Mercedes-Benz had the longest wait times of up to 15 minutes. There were no traffic accidents or unsafe activity due to the test drive.

After his ride in the Nissan LEAF, one gentleman mentioned that he was going to trade in one of his cars for a Nissan LEAF—as a direct result of the test drive. The BMW staff indicated that they received more qualified leads, handed out more business cards and were engaged in more consistent, solid conversations with event attendees at this event than at the Contra Costa event.

Event 6 of 6: Marin Home and Garden Expo

Event Information

- Date: Saturday, May 21 & Sunday, May 22, 2016
- Location: 10 Avenue of the Flags, San Rafael, CA 94903
- Event Time: 10am – 5pm



Results

- Total electric vehicle test drives: **230**
- Waivers: **134**
- Saturday: 115 test drives, 82 waivers, and 8 cars
- Sunday: 115 test drives, 52 waivers, and 5 cars
- Pictures located on [Facebook](#):

<https://www.facebook.com/media/set/?set=a.993548637418661.1073741844.517202638386599&type=3>

Saturday, May 21, 2016		Sunday, May 22, 2016	
Electric Vehicle	Test Drives	Electric Vehicle	Test Drives
BMW i3 REX	8	Ford Focus Electric	20
BMW X5 eDrive	15	Mercedes-Benz B Class 250e	20
Ford Focus Electric	10	Mercedes-Benz B Class 250e	40
Mercedes-Benz B-Class 250e	25	Nissan LEAF SV	20
Mercedes-Benz B-Class 250e	15	Nissan LEAF	15
Mitsubishi i-MiEV	8		
Nissan LEAF SV	14		
Nissan LEAF SL	20		
Total:	115	Total:	115

Summary

Eight staff members worked the event using the standard Experience Electric uniform of a t-shirt, sunglasses and hat. The CVRP and Plugless booths were next to the Experience Electric registration booth and cross promoted the test drive event.

The test drive vehicles were consistently busy. Drivers did not have to wait very long to get in a vehicle and drive; Mercedes-Benz and BMW had the longest wait times of 15 to 20 minutes. Additional barricades were set up to protect participants and pedestrian foot traffic. Staff monitored the test drive area both days, and there were no traffic accidents due to the test drives.

Test drivers provided positive feedback, and many people test drove more than one vehicle. After driving a Nissan LEAF and learning about discounted lease rates offered at the event, a member of the temporary staff said he was going to seriously consider leasing one. Feedback from the Mercedes-Benz staff was very positive, and their vehicle had the highest number of test drives on Sunday (40). Both Mercedes-Benz and Nissan had giveaway items. The event had a significant amount of foot traffic on Sunday, which helped test drive results even though there were fewer cars that day and all were BEVs.

Appendix 2: Overall Campaign Test Drive Results

The entire campaign (original and extension) produced a total of 27 events in all nine counties of the San Francisco Bay Area. This resulted in 5,284 electric vehicle test drives. Results by event for the overall campaign are listed in **Error! Reference source not found.** below.

	Event	Date	Event Type	Waivers	Test Drives
1	Oakland EarthEXPO	4/9/2014	Urban	151	200
2	Google	5/15/2014	Workplace	334	575
3	San Francisco Marina Green	5/17/2014	Urban	181	300
4	Berkeley Farmers' Market	6/28/2014	Urban	135	190
5	Santana Row	7/27/2014	Urban	233	308
6	Fremont Pacific Commons	8/9/2014	Urban	205	297
7	Burlingame on the Avenue	8/16/2014	Suburban	78	100
8	Intel	8/27/2014	Workplace	171	261
9	Oracle - Alameda	9/3/2014	Workplace	130	207
10	City of San Ramon	9/18/2014	Workplace	47	62
11	National Drive Electric Week, Cupertino	9/20/2014	Suburban	298	314
12	Sonoma Valley Vintage Festival	9/28/2014	Suburban	95	165
13	Coca-Cola	9/30/2014	Workplace	31	37
14	NetApp	10/1/2014	Workplace	152	267
15	Napa Chamber Business EXPO	10/2/2014	Suburban	30	30
16	Bayer	10/8/2014	Workplace	119	234
17	Biketoberfest	10/11/2014	Suburban	29	29
18	PG&E	10/16/2014	Workplace	216	308
19	Oracle - San Mateo	10/22/2014	Workplace	120	211
20	VivaFest! Dia De Los Muertos	10/25/2014	Suburban	49	56
21	Walnut Creek Farmer's Market	10/26/2014	Suburban	77	100
2014 Totals:				2881	4251
2015 - 2016 Campaign Extension:					
22	Treasure Island Flea	10/24/2015	Suburban	60	68
23	San Francisco Chronicle 58th Annual International Auto Show	11/23-24/2015	Suburban	292	288
24	Sonoma County Home & Garden Show	3/19-20/2016	Suburban	81	152
25	Contra Costa Spring Home & Garden Show	4/2-3/2016	Suburban	119	180
26	Fairfield Total Home & Garden Show	4/16-17/2016	Suburban	69	115
27	Marin Home & Garden Expo	5/21-22/2016	Suburban	134	230
2015 - 2016 Totals:				755	1033
Overall Campaign Test Drive Totals:				3636	5284

EXPERIENCE ELECTRIC - THE BETTER RIDE
CAMPAIGN EVALUATION REPORT

PREPARED FOR THE
METROPOLITAN TRANSPORTATION COMMISSION



DECEMBER 23, 2014



741 GARDEN VIEW COURT, SUITE 208
ENCINITAS CA 92024
760.632.9900 WWW.TN-RESEARCH.COM



TABLE OF CONTENTS

Table of Contents	i
List of Tables	iii
List of Figures	iv
Introduction	1
Motivation for Study.....	1
Methodology Overview.....	1
Pre-Drive Survey.....	1
Post-Drive Survey.....	2
Follow-Up Survey.....	2
Organization of Report.....	2
Acknowledgements.....	2
Disclaimer.....	2
About True North.....	2
Key Findings	4
Pre-Drive Survey	8
How Did You Learn of the Event?.....	8
Question 7 Pre-Drive.....	8
Comparative Performance Ratings for Electric Vehicles.....	8
Question 8 Pre-Drive.....	9
Barriers to Owning Electric Vehicle.....	10
Question 9 Pre-Drive.....	10
Question 10 Pre-Drive.....	11
Current Vehicle & Intent to Purchase/Lease New Vehicle.....	12
Chance Next Car will be an Electric Vehicle.....	12
Question 17 Pre-Drive.....	13
Participant Demographics.....	14
Post-Drive Survey	16
Which Vehicles Did You Drive?.....	16
Question 3 Post-Drive.....	16
Rating of Driving Experience.....	17
Question 4 Post-Drive.....	17
Perceived Impact of Test Drive on Overall Opinion of EVs.....	18
Question 5 Post-Drive.....	18
Post-Drive Comparative Performance Ratings for EVs.....	19
Question 6 Post-Drive.....	20
Post-Drive Barriers to Owning Electric Vehicle.....	23
Question 7 Post-Drive.....	23
Perceived Impact of Test Drive on Likelihood of EV Purchase.....	24
Question 8 Post-Drive.....	25
Post-Drive Chance Next Car will be an Electric Vehicle.....	26
Question 9 Post-Drive.....	26
Follow-Up Survey	28
Follow-Up Comparative Performance Ratings for EVs.....	28
Question 1 Follow-Up.....	28
Electric Vehicle Activities Since Event.....	30
Question 2 Follow-Up.....	30
Have You PURchased or Leased an Electric Vehicle?.....	30
Did the Ride & Drive Event Impact Purchase Behavior?.....	32
Question 3 Follow-Up.....	32
Make & Model of Purchased/Leased Electric Vehicle.....	33
Question 4 Follow-Up.....	33
Perceived Barriers to Owning Electric Vehicle Among Those Yet to Purchase/Lease EV.....	34

Question 5 Follow-Up 34

Chance Next Car will be an Electric Vehicle Among Those Yet to Purchase/Lease EV. 35

Question 6 Follow-Up 35

Questionnaires & Toplines. 36

Pre-Drive Survey - Regular Version 36

Pre-Drive Survey - Google Version. 41

Post-Drive Survey 45

Follow-Up Survey 50



LIST OF TABLES

Table 1	Current Vehicle & Expected Purchasing Profile: Pre-Drive	12
Table 2	Chance That a Vehicle Purchased in Next Two Years is EV by Considering New Car Purchase in Next Two Years	13
Table 3	Demographics of Event Participants: Pre-Drive Survey	15
Table 4	EV Compared With gas-powered Vehicle: Pre-Drive vs Post-Drive (Paired Samples T-Test of Means)	21
Table 5	Possible Barriers to Purchasing EV: Pre-Drive vs Post-Drive (Paired Samples T-Test of Means)	24
Table 6	Mean % Chance That a Vehicle Purchased in Next Two Years is EV: Pre-Drive vs Post-Drive (Paired Samples T-Test of Means)	27
Table 7	EV Compared With gas-powered Vehicle: Pre-Drive vs Follow-Up (Paired Samples T-Test of Means)	29
Table 8	Possible Barriers to Purchasing EV: Pre-Drive vs Follow-Up (Paired Samples T-Test of Means)	35
Table 9	Mean % Chance That a Vehicle Purchased in Next Two Years is EV: Pre-Drive vs Follow-Up (Paired Samples T-Test of Means)	35



LIST OF FIGURES

Figure 1	First Learned About Drive & Ride Event	8
Figure 2	EV Compared With ICE: Pre-Drive.	9
Figure 3	Significant Barriers That Would Prevent Owning EV	10
Figure 4	Significant Barriers That Would Prevent Owning EV by Age, Gender & Have Parking Space For EV.	10
Figure 5	Significant Barriers That Would Prevent Owning EV by Household Income, Previously Driven an EV & Previously Ridden as Passenger in EV	11
Figure 6	Possible Barriers to Purchasing EV: Pre-Drive.	11
Figure 7	Mean % Chance That a Vehicle Purchased in Next Two Years is EV by Age & Gender	14
Figure 8	Mean % Chance That a Vehicle Purchased in Next Two Years is EV by Household Income	14
Figure 9	Test Drive Vehicles	16
Figure 10	Overall Test Drive Experience	17
Figure 11	Overall Test Drive Experience by Age, Gender & Significant Perceived Barriers to Owning EV	17
Figure 12	Overall Test Drive Experience by Household Income, Previously Driven an EV & Previously Ridden as Passenger in EV.	18
Figure 13	Overall Opinion of EV After Test Drive.	18
Figure 14	Overall Opinion of EV After Test Drive by Age, Gender & Significant Perceived Barriers to Owning EV	19
Figure 15	Overall Opinion of EV After Test Drive by Household Income, Previously Driven an EV & Previously Ridden as Passenger in EV	19
Figure 16	EV Compared With ICE: Post-Drive.	20
Figure 17	EV Compared With gas-powered Vehicle on Overall Quality: Pre-Drive vs Post- Drive by Household Income	22
Figure 18	EV Compared With gas-powered Vehicle on Overall Quality: Pre-Drive vs Post- Drive by Age	22
Figure 19	EV Compared With gas-powered Vehicle on Overall Quality: Pre-Drive vs Post- Drive by Previously Driven an EV, Gender & Significant Perceived Barriers to Owning EV	23
Figure 20	Possible Barriers to Purchasing EV: Post-Drive	23
Figure 21	Likelihood of Purchasing EV After Test Drive.	25
Figure 22	Likelihood of Purchasing EV After Test Drive by Age & Gender	25
Figure 23	Likelihood of Purchasing EV After Test Drive by Household Income.	26
Figure 24	Mean % Chance That a Vehicle Purchased in Next Two Years is EV by Age & Gender (Showing Pre- and Post-Drive)	26
Figure 25	Mean % Chance That a Vehicle Purchased in Next Two Years is EV by Household Income (Showing Pre- and Post-Drive)	27
Figure 26	EV Compared With ICE: Follow-Up	28
Figure 27	Activities Since Event	30
Figure 28	Purchased or Leased EV Since Event	31
Figure 29	Purchased or Leased EV Since Event by Household Income & Purchase Vehicle in Next 2 Years	31
Figure 30	Purchased or Leased EV Since Event by Age & Gender	31
Figure 31	Event Had Positive Impact on Decision to Purchase/Lease EV	32
Figure 32	Event Had Positive Impact on Decision to Purchase/Lease EV by Age & Gender	32
Figure 33	Event Had Positive Impact on Decision to Purchase/Lease EV by Household Income & Purchase Vehicle in Next 2 Years	33
Figure 34	EV Purchased/Leased	33
Figure 35	Possible Barriers to Purchasing EV: Follow-Up	34



INTRODUCTION

In the most recent edition of its Regional Transportation Plan known as *Transportation 2035*, the Metropolitan Transportation Commission (MTC) committed over \$400 million towards a regional climate action campaign that invests in high-impact, innovative emission reduction strategies and aims to educate the public about how their travel behaviors and choices may help to reduce greenhouse gas emissions. As the first installment in this effort, in December 2009 MTC programmed \$80 million over a three year period to implement the *Climate Initiatives Program*, which included grants to local agencies and organizations to develop innovative pilot projects that result in reduced greenhouse gas (GHG) and motor vehicle-related emissions. In addition to funding the Climate Initiatives Program, MTC also recognized the need to establish a framework for evaluating the various programs and activities included in the Program in terms of their emission reduction impacts, cost-effectiveness, co-benefits, and ability to be replicated on a larger scale.

One program funded under the *Climate Initiatives Program* is the *Experience Electric—The Better Ride* campaign, which aims to build awareness, action and demand for plug-in electric vehicles in the Bay Area. Plug-in hybrid vehicles include both plug-in and battery-electric vehicles, hereafter referred to simply as electric vehicles (EVs). By promoting and hosting Ride & Drive events where members of the target market can test drive an electric vehicle, the campaign seeks to not only positively impact participants' opinions of EVs and likelihood of purchase, it also seeks to create electric vehicle ambassadors who will promote EVs in their subsequent interactions with others who did not attend the events.

MOTIVATION FOR STUDY The purpose of the research described in this report was to reliably measure the impacts of the *Experience Electric—The Better Ride* campaign on those who experienced a Ride & Drive event. To what degree did the event impact participants' knowledge, perceptions and attitudes about electric vehicles? Were the effects short-lived, or sustained? Moreover, for what percentage of participants did their event experiences positively impact their purchase intentions and ultimately their purchase behavior?

METHODOLOGY OVERVIEW To evaluate the impacts of the Ride & Drive events, a panel design was employed in which participants were asked to complete surveys at three separate points.

Pre-Drive Survey As part of the registration process to drive the electric vehicle, individuals were requested to fill out an online survey that measured their understanding and perceptions of EVs on a variety of performance dimensions, their anticipated purchase behavior for EVs, as well as relevant demographic and background information (see *Pre-Drive Survey - Regular Version* on page 36 and *Pre-Drive Survey - Google Version* on page 41). A total of 1,483 Pre-Drive Surveys were completed during the pilot.¹

1. There were two versions of the Pre-Drive Survey (Regular and Google), the latter of which lacked select demographic questions. The version without demographic questions was used when requested by a host company.

Post-Drive Survey Immediately following their test drive, participants were asked to fill-out a post-drive survey at the event which measured how their understanding and attitudes about EVs may have changed, captured their immediate and most salient impressions of the vehicles, and gauged the extent to which their anticipated purchase behavior for EVs may have changed. Like the Pre-Drive Survey, participants were able to access the Post-Drive Survey online via tablets provided at the event (see *Post-Drive Survey* on page 45). A total of 1,386 Post-Drive Surveys were completed during the pilot.

Follow-Up Survey The goal of the campaign is to leave an enduring impact on participants' understanding, perceptions and behaviors as they relate to EVs. Accordingly, several months after the Ride & Drive event, participants were asked to complete a Follow-Up Survey that measured the extent to which the experience may have changed each of these factors, including the individual's EV purchase behavior (see *Follow-Up Survey* on page 50). At the time of writing this report, a total of 266 Follow-Up Surveys were completed online or by telephone and incorporated into the analyses presented in this report.²

ORGANIZATION OF REPORT This report is designed to meet the needs of readers who prefer a summary of the findings as well as those who are interested in the details of the results. For those who seek an overview of the findings, the section titled *Key Findings* is for you. It provides a summary of the most important factual findings of the survey and a discussion of their implications. For the interested reader, this section is followed by a detailed question-by-question discussion of the results from the surveys by topic area across each of the three surveys, which includes figures summarizing all of the primary topics tested (see *Table of Contents*). And, for the truly ambitious reader, the questionnaires administered for the study are contained at the back of this report (see *Questionnaires & Toplines* on page 36).

ACKNOWLEDGEMENTS True North thanks those at MTC and the California Center for Sustainable Energy who contributed their valuable input during the design stage of this study. Their collective experience, local knowledge, and insight improved the overall quality of the research presented here.

DISCLAIMER The statements and conclusions in this report are those of the authors—Dr. Timothy McLarney and Richard Sarles at True North Research—and not necessarily those of MTC. Any errors and omissions are the responsibility of the authors.

ABOUT TRUE NORTH True North is a full-service survey research firm that is dedicated to providing public agencies with a clear understanding of the values, perceptions, priorities and concerns of their residents and customers. Through designing and implementing scientific surveys, focus groups and one-on-one interviews, as well as expert interpretation of the findings, True North helps its clients to move with confidence when making strategic decisions in a variety of areas—such as planning, program development and evaluation, establishing fiscal priorities, and developing effective public information campaigns.

2. Due to the need to allow at least two months after an event before conducting the Follow-Up Survey, individuals who participated in events that occurred after September 2014 had yet to receive a Follow-up Survey at the time this report was produced.

During their careers, Dr. McLarney (President) and Mr. Sarles (Principal Researcher) have designed and conducted over 800 survey research studies for public agencies, including dozens for the purposes of developing and/or evaluating pilots, programs, and public education campaigns related to conservation, climate change, and sustainability.



KEY FINDINGS

As noted in the *Introduction*, this study was designed to provide MTC with a statistically reliable assessment of the impacts of the *Experience Electric—The Better Ride* campaign on those who experienced a Ride & Drive event. As such, it can provide MTC with the information needed to make sound, strategic decisions with respect to future electric vehicle programs, promotions, and marketing strategies. Whereas subsequent sections of this report are devoted to conveying detailed results of the surveys, in this section we attempt to ‘see the forest through the trees’ and note how the collective results of the surveys answer some of the key questions that motivated the study.

In reviewing the results of this evaluation, it is important to keep in mind that individuals attending the Ride & Drive events were not randomly selected or assigned—they *chose* to attend based on their own interests and availability. This type of self-selection can be expected to create a participant profile that is likely more open to the prospect of owning an electric vehicle—and have more positive views of EVs—than the average consumer. The reader is thus encouraged to view the results of this study as reflecting the impact of the *Experience Electric—The Better Ride* campaign among Bay Area residents who would be interested enough to attend an event, and similarly cautioned against generalizing the results to all Bay Area residents.

How did event participants view electric vehicles on the natural?

On the natural, participants viewed electric vehicles as clearly outperforming similar gas-powered vehicles on seven of the eleven performance criteria tested. Electric vehicles enjoyed the largest competitive advantage with respect to the availability of tax rebates for purchase (91% viewed EVs as somewhat or much better), ability to use carpool lanes as a solo driver (91%), and cost of operating (74%). A clear majority also perceived EVs to be better than gas-powered vehicles when it comes to being fun to own (62%) and overall value (58%), whereas nearly half (48%) viewed the overall quality of EVs as being better (with 42% indicating it is about the same). Electric vehicles also enjoyed a slight edge in perceived driving performance/handling (39% EV better vs 21% worse).

Prior to taking their test drive, participants were rather evenly split in their perceptions of the power of EVs relative to gas-powered vehicles (38% EV better - 37% worse), as well as appearance (31% EV better - 25% worse). When it comes to cost of purchase (22% EV better - 61% worse) and driving range (19% EV better - 68% worse), however, gas-powered vehicles were widely perceived to outperform EVs.

Did participant's perceive significant barriers to owning an EV on the natural?

Despite viewing electric vehicles as outperforming similar gas-powered vehicles on most of the performance criteria tested (see above), most participants also perceived one or more barriers to owning an EV. Overall, difficulty finding a charging station on the road (62% big or medium barrier) and limited driving range (62%) were the most widely perceived barriers to owning an electric vehicle during the Pre-Drive Survey, followed by concerns about the vehicle running out of electricity while on the road (58%), cost of purchase (57%), and the time it takes to recharge

a vehicle (50%). Difficulty charging a vehicle at home (35%) was the only item tested that was *not* viewed by at least half of participants with an opinion as a medium or big barrier to purchasing an EV prior to their test drive/ride.

The aforementioned barriers notwithstanding, more than three-quarters of Ride & Drive event participants (78%) indicated prior to their test drive that the probability their next vehicle would be an electric vehicle was *at least* 50%, with 13% indicating their next car would *definitely* be an EV.

Did the Ride & Drive event have immediate, positive impacts?

Yes. More than nine-in-ten event participants were positive regarding their overall experience testing driving an EV, with 94% rating their experience as either excellent (59%) or good (35%). Moreover, more than three-quarters (79%) also indicated immediately following their test drive that the experience improved their overall opinion of electric vehicles.

More specifically, the experience of test driving an electric vehicle at a Ride & Drive event positively impacted participants' opinions of EVs on eight of the performance dimensions tested, resulting in EVs being perceived to outperform similar gas-powered vehicles on all dimensions tested with the exception of cost of purchase and driving range. When compared to the Pre-Drive Survey, the percentage of respondents who viewed EVs as being *better* than gas-powered vehicles immediately following their test drive increased the most for driving performance/handling (+18%), power (+17%), appearance (+17%), and overall quality (+15%), followed by driving range (+13%), being fun to own (+12%), cost of purchase (+10%), and overall value (+7%). Within-subjects T-tests confirmed that the improvements noted above in how participants viewed EVs immediately following their test drive experiences were statistically significant.

The experience of attending a Ride & Drive event also mitigated the concerns of some regarding potential barriers to owning an electric vehicle, with the largest declines being found for cost of purchase (-12%), limited driving range (-9%), difficulty finding a charging station on the road (-9%), and concerns about the vehicle running out of electricity on the road (-9%). More modest reductions in the percentage of respondents who viewed the item as a big or medium barrier to purchasing an EV were found with respect to the time it takes to recharge a vehicle (-7%) and difficulty charging a vehicle at their home (-5%). Within-subjects T-tests confirmed that the average participant was significantly less likely to perceive each item tested as a barrier to owning an electric vehicle immediately after they had the opportunity to attend a Ride & Drive event.

An improved opinion of electric vehicles' performance characteristics relative to gas-powered vehicles *combined* with a reduction in perceived barriers to ownership could be expected to translate to an increased likelihood of purchasing an EV for some respondents. This was indeed the case. When asked in the Post-Drive Survey whether the test drive experience impacted their likelihood of purchasing an EV, 26% stated they were much more likely to purchase an EV now, and an additional 42% offered that they were somewhat more likely. Consistent with this finding, the average stated probability of making their next car an EV also increased significantly between the Pre-Drive and Post-Drive surveys, from 65% to 71%.

Did the positive impacts of the Ride & Drive event endure?

The primary objectives of the Ride & Drive events were to positively influence participants' opinions and ultimately their purchase behavior with respect to electric vehicles. The Post-Drive survey confirmed that the events had immediate, short-term impacts on how participants' viewed electric vehicles relative to similar gas-powered vehicles, mitigated concerns about some of the potential barriers to owning an electric vehicle, and increased participants' stated likelihood of purchasing an EV in the future (see above). The question yet to be answered, however, is whether these positive impacts would endure. The Follow-Up Survey, conducted with respondents at least two months after they experienced a Ride & Drive event, was designed to identify whether these effects were sustained and whether the events ultimately impacted electric vehicle purchasing behavior.

The Follow-Up Survey results indicate that a number of the short-term positive impacts on perceptions of electric vehicles recorded immediately after the test drive experience (Post-Drive Survey) endured, while others faded and in one case was actually reversed during the months after the event. Several months after they experienced a Ride & Drive event participants still exhibited statistically significant improvements in their views of EVs in three areas: cost of operating, being fun to own, and availability of tax rebates. Interestingly, their opinions of electric vehicles' driving range actually declined significantly during this period. Among those who had yet to purchase/lease an EV several months after experiencing a Ride & Drive event, there was no significant improvement in perceived barriers to owning an EV or in their stated likelihood that their next vehicle would be an electric vehicle when compared to the values recorded prior to their test drive experience.

Although having a positive impact on awareness and opinions of EVs are instrumental goals, the extent to which the *Experience Electric—The Better Ride* campaign actually impacted purchase behavior is the true litmus test of the program's effectiveness. And on this key metric, there is evidence that the campaign succeeded in shaping the behavior of a significant percentage of participants. Of the 11% of participants who indicated

that they purchased and/or leased an electric vehicle in the several months following their attendance at a Ride & Drive event, the vast majority (8% of *all* participants) stated flatly that the experience of test driving a vehicle at the Ride & Drive event positively impacted their decision to purchase/lease an EV.

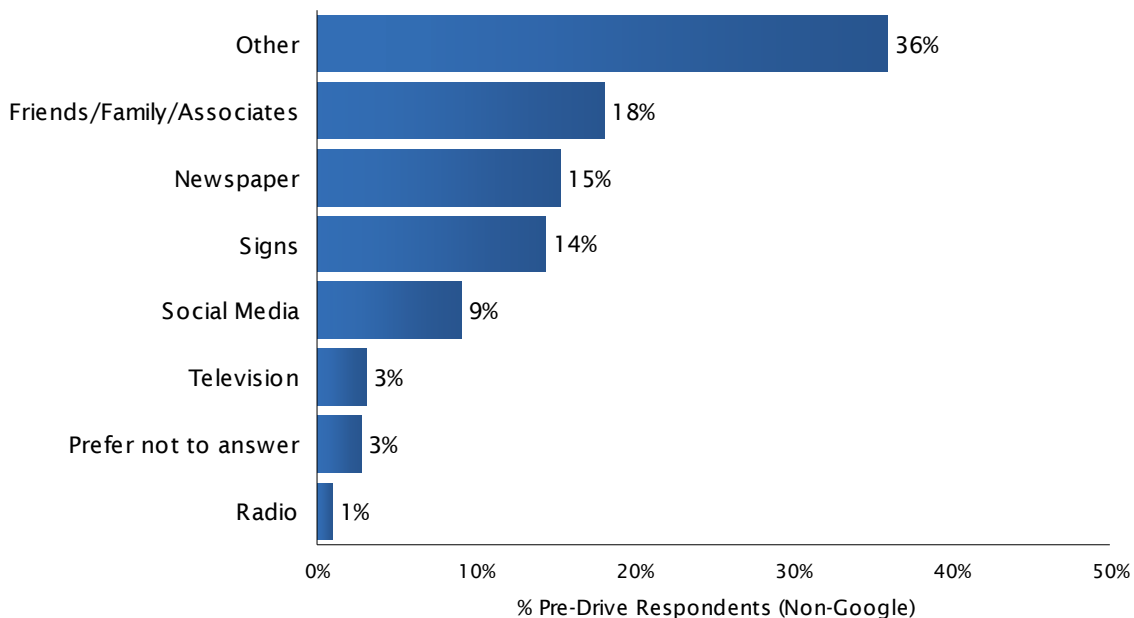
PRE-DRIVE SURVEY

Between May and October 2014, MTC sponsored more than 20 Experience Electric Ride & Drive events where participants were able to test drive and/or ride as a passenger in electric vehicles from a variety of manufacturers. As part of the registration process to drive the electric vehicle, individuals were requested to fill out an online survey that measured their understanding and perceptions of EVs on a variety of performance dimensions, their anticipated purchase behavior for EVs, as well as relevant demographic and background information.

HOW DID YOU LEARN OF THE EVENT? The first substantive question of the Pre-Drive Survey asked respondents how they learned of the Experience Electric Ride & Drive event. As shown in Figure 1 below, more than one-third of individuals provided an unspecified 'other' response, indicating that they learned through channels other than those specifically listed in the figure (most likely their employer). Among the specific sources that were mentioned, the most common were friends/family/associates (18%), newspaper (15%), signs (14%), and social media (9%). Less than 5% of respondents indicated that they learned of the event through television or radio, combined.

Question 7 Pre-Drive *How did you learn about today's Electric Vehicle Drive & Ride event?*

FIGURE 1 FIRST LEARNED ABOUT DRIVE & RIDE EVENT

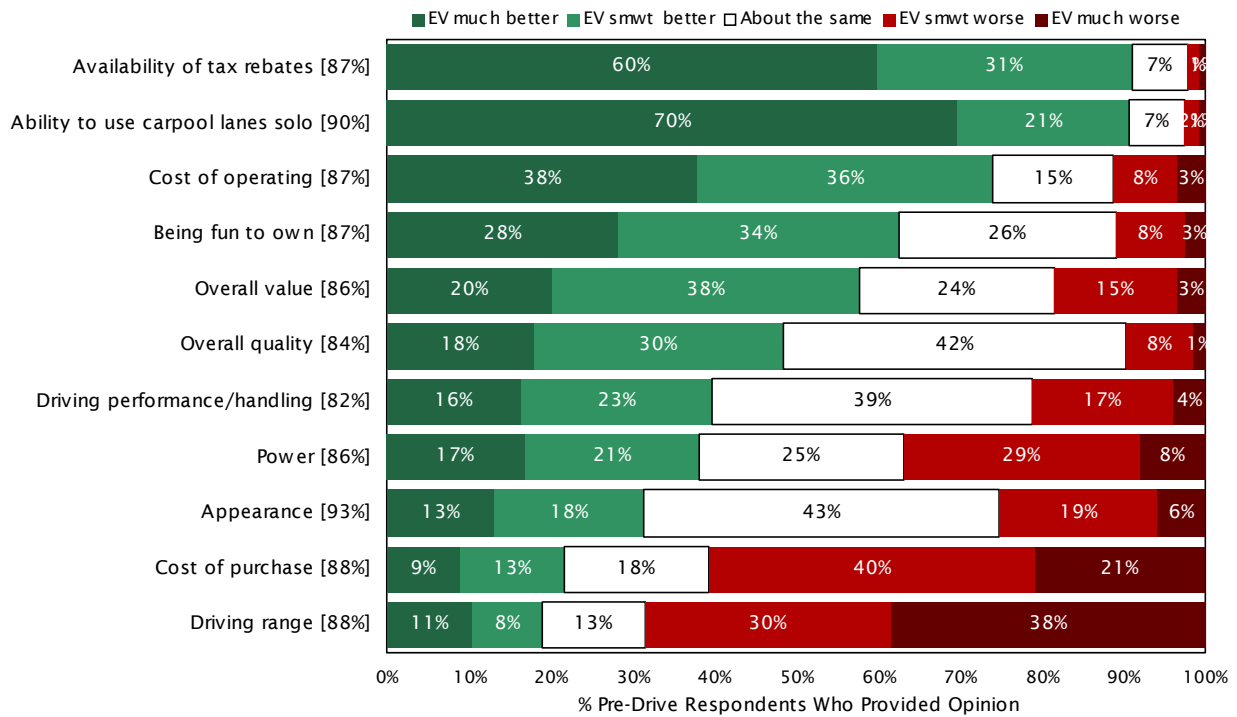


COMPARATIVE PERFORMANCE RATINGS FOR ELECTRIC VEHICLES The Pre-Drive Survey next turned to measuring respondents' *natural* perceptions of how well electric vehicles meet a variety of performance standards when compared to a similar gas-powered vehicle. In other words, how *competitive* is an electric vehicle in satisfying a variety of travel requirements and/or performance considerations when compared to the obvious alternative (gas-powered vehicle).

For each performance criteria listed on the left of Figure 2, respondents were simply asked whether electric vehicles perform better, worse, or about the same as a similar gas-powered vehicle. To avoid a systematic position-order bias, the performance criteria were presented in a random order to each respondent, although they are sorted from high to low in Figure 2 based on the percentage of participants who viewed electric vehicles as outperforming a gas-powered vehicle.

Question 8 Pre-Drive *When compared to a similar gas-powered vehicle, do you perceive electric vehicles (EVs) to be better, worse, or about the same on the following criteria? If you don't have an opinion, select the 'not sure' button.*

FIGURE 2 EV COMPARED WITH ICE: PRE-DRIVE



On the natural, participants viewed electric vehicles as clearly outperforming similar gas-powered vehicles on seven of the eleven criteria tested. Electric vehicles enjoyed the largest competitive advantage with respect to the availability of tax rebates for purchase (91% viewed EVs as somewhat or much better), ability to use carpool lanes as a solo driver (91%), and cost of operating (74%). A clear majority also perceived EVs to be better than gas-powered vehicles when it comes to being fun to own (62%) and overall value (58%), whereas nearly half (48%) viewed the overall quality of EVs as being better (with 42% indicating it is about the same). Electric vehicles also enjoyed a slight edge in perceived driving performance/handling (39% EV better vs 21% worse).

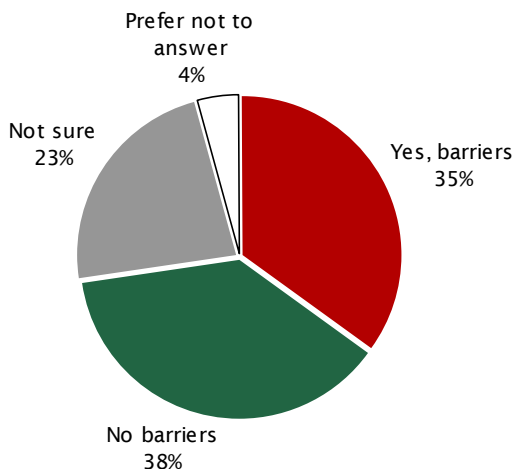
Prior to taking their test drive, participants were rather evenly split in their perceptions of the power of EVs relative to gas-powered vehicles (38% EV better - 37% worse), as well as appearance (31% EV better - 25% worse). When it comes to cost of purchase (22% EV better - 61% worse) and

driving range (19% EV better - 68% worse), however, gas-powered vehicles were widely perceived to outperform EVs.

BARRIERS TO OWNING ELECTRIC VEHICLE After profiling a respondent’s *natural* views of electric vehicles prior to their test drive/ride in Question 8, Question 9 of the Pre-Drive Survey asked if they perceived any significant *barriers* that would keep them from owning an EV. Overall, 38% did not perceive any barriers to owning an electric vehicle, 27% were unsure or unwilling to answer the question, whereas approximately one-third (35%) of participants indicated there was at least one significant barrier to them owning an EV (Figure 3).

Question 9 Pre-Drive *Are there any significant barriers that would keep you from owning an electric vehicle?*

FIGURE 3 SIGNIFICANT BARRIERS THAT WOULD PREVENT OWNING EV



For the interested reader, Figures 4 and 5 show how the percentage of participants who perceived significant barriers to owning an EV in the Pre-Drive Survey varied by age, gender, whether they have a private parking space with an electrical outlet at their home where they could charge a vehicle, household income, as well as prior experience driving and riding in an electric vehicle. Although the percentage ranged from 27% to 37% for most groups, individuals with annual incomes under \$50,000 stood out with more than half (51%) perceiving a significant barrier to ownership.

FIGURE 4 SIGNIFICANT BARRIERS THAT WOULD PREVENT OWNING EV BY AGE, GENDER & HAVE PARKING SPACE FOR EV

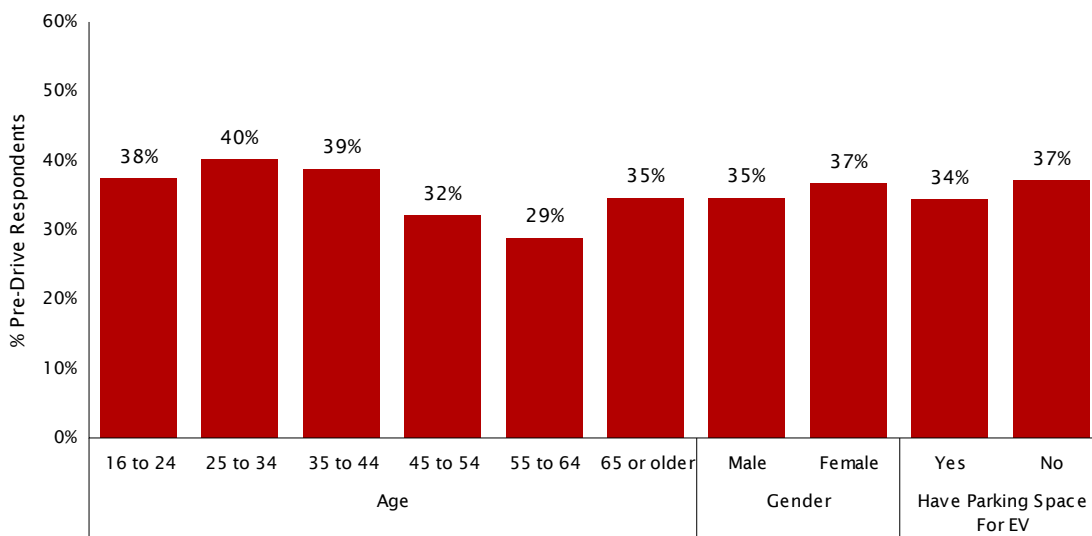
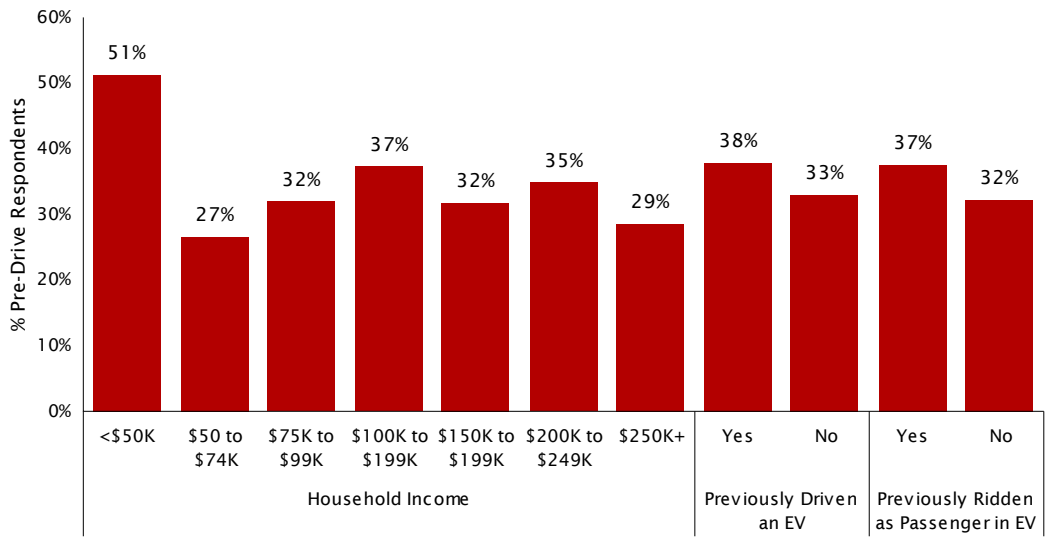


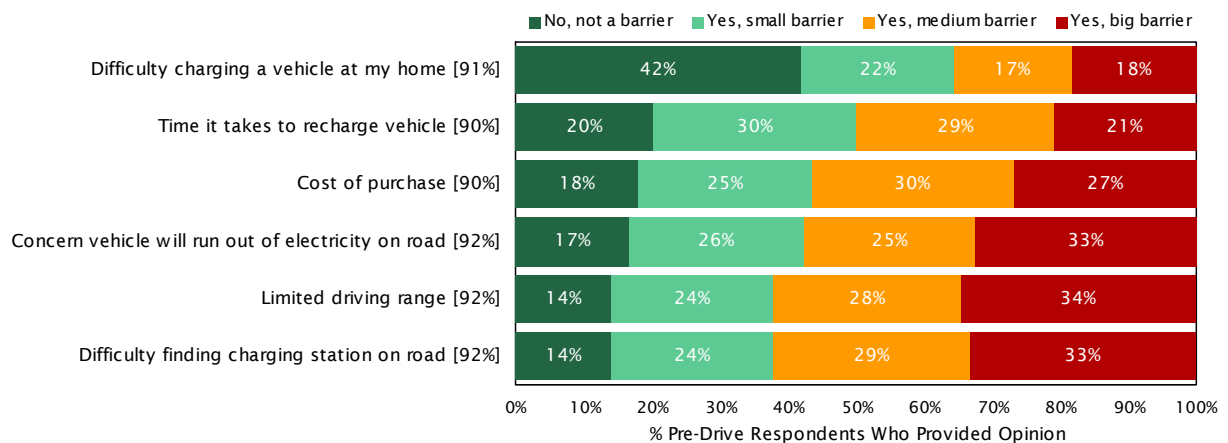
FIGURE 5 SIGNIFICANT BARRIERS THAT WOULD PREVENT OWNING EV BY HOUSEHOLD INCOME, PREVIOUSLY DRIVEN AN EV & PREVIOUSLY RIDDEN AS PASSENGER IN EV



Although most participants did not initially perceive a barrier to owning an electric vehicle (see above), Question 10 subsequently presented all respondents with the list of potential barriers shown in Figure 6 and asked that they rate the degree to which each was a barrier to them purchasing an EV. To allow for an apples-to-apples comparison across the potential barriers, only those who provided a definitive opinion are included in the percentage results (bars) shown in the figure. The percentage who provided an opinion is presented in brackets to the right of the barrier label. Thus, for example, 90% of respondents provided a definitive opinion regarding the cost of purchase being a barrier (or not). Among those with an opinion, 27% perceived cost of purchase to be a big barrier, 30% a medium barrier, and so on.

Question 10 Pre-Drive *Are any of the following factors a barrier to you purchasing an electric vehicle?*

FIGURE 6 POSSIBLE BARRIERS TO PURCHASING EV: PRE-DRIVE



Overall, difficulty finding a charging station on the road (62% big or medium barrier) and limited driving range (62%) were the most widely perceived barriers to owning an electric vehicle during the Pre-Drive Survey, followed by concerns about the vehicle running out of electricity while on the road (58%), cost of purchase (57%), and the time it takes to recharge a vehicle (50%). Difficulty charging a vehicle at home (35%) was the only item tested in Question 10 *not* viewed by at least half of participants with an opinion as a medium or big barrier to purchasing an EV prior to their test drive/ride.

CURRENT VEHICLE & INTENT TO PURCHASE/LEASE NEW VEHICLE Having measured respondents' natural perceptions of electric vehicles, the Pre-Drive Survey next turned to profiling their current vehicle status and their expectation of acquiring a new car in the next two years. Table 1 below summarizes this information for all Pre-Drive Survey respondents. Overall, 83% of those who attended a Ride & Drive event indicated that they currently own or lease a vehicle. Among those who have a personal vehicle, three-quarters (75%) indicated their vehicle is powered by gas and 2% by diesel/biodiesel. Nearly one-in-five event participants who own or lease a vehicle indicated their current vehicle is a hybrid (11%), plug-in hybrid (3%), or plug-in electric (5%) vehicle.

Table 1 also reveals that event participants were generally in the market to acquire a new vehicle, either in the next three months (7%), three to six months (7%), six months to one year (15%), or one to two years (30%). Less than one-quarter of participants stated that they do not intend to purchase/lease a new vehicle in the next two years, whereas 17% were unsure or preferred not to answer the question.

TABLE 1 CURRENT VEHICLE & EXPECTED PURCHASING PROFILE: PRE-DRIVE

Q13 Currently own/lease vehicle	
Yes	83%
No	15%
Prefer not to answer	2%
Q14 Current vehicle type	
Gas	75%
Hybrid (gas & electricity)	11%
Plug-in Electric (no gas)	5%
Plug-in Hybrid (gas & electricity)	3%
Diesel/Biodiesel	2%
Prefer not to answer	4%
Q15/Q16 Considering new car purchase/lease in next 2 years	
In next 3 mo	7%
3~6 mo	7%
6 mo~1 yr	15%
1~2 yrs	30%
Not in next 2 yrs	23%
Prefer not to answer	17%

CHANCE NEXT CAR WILL BE AN ELECTRIC VEHICLE The final substantive question in the Pre-Drive Survey sought to gauge respondents' natural interest in purchasing/leasing an EV as opposed to other alternatives on the market. If they were to purchase or lease a new vehicle in the next two years, what are the chances it would be an electric vehicle? Table 2 on the next page presents the responses to Question 17 overall, and according to whether the individual previously mentioned being in the market for a new car in the next two years.

Among all respondents, 13% indicated their next car would *definitely* be an electric vehicle, and an additional 32% gave it a 70% to 99% probability. Overall, more than three-quarters of respondents to the Pre-Drive Survey (78%) indicated that the probability their next car would be an electric vehicle was *at least* 50%.

The two columns on the right side of the table separate respondents according to whether they previously indicated they were in the market to acquire a car in the next two years. The percentages in each cell denote the percentage of *all* participants who were in that particular combination of purchase intent. Thus, for example, 10% of all Pre-Drive Survey respondents said they were considering a new car purchase in the next 2 years *and* it will definitely be an electric vehicle.

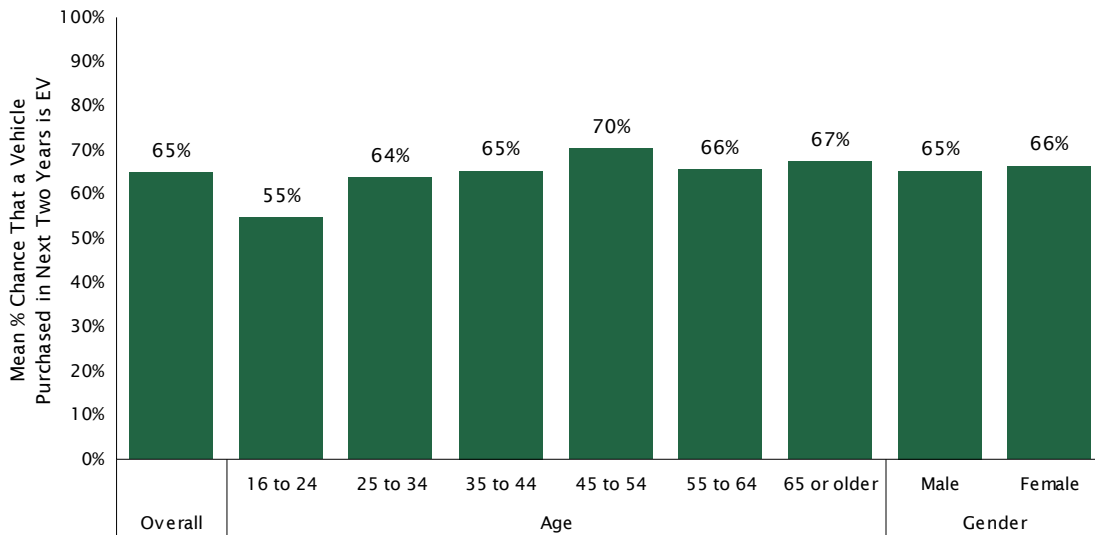
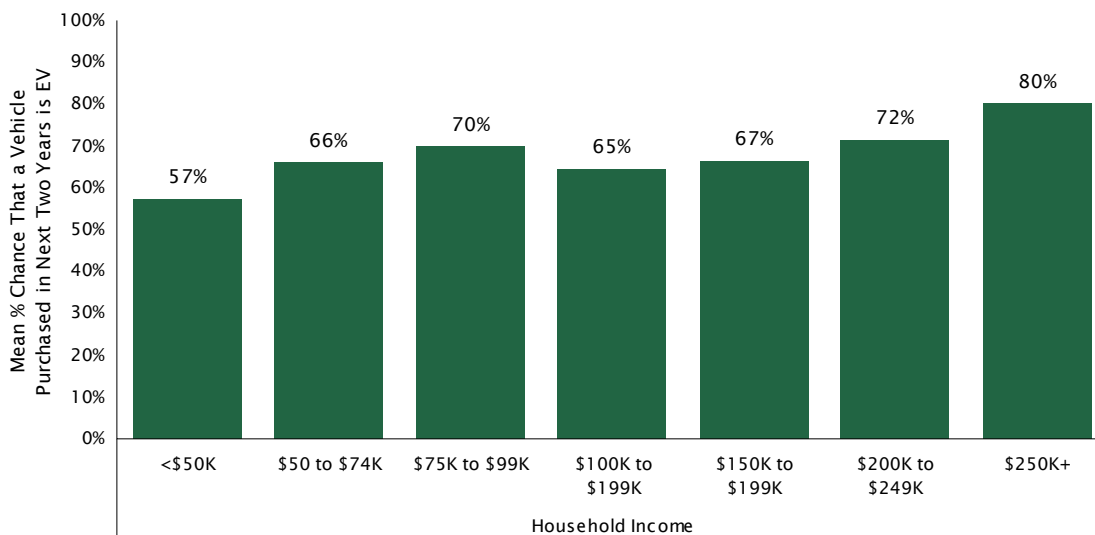
Question 17 Pre-Drive *If you were to purchase/lease a new vehicle in the next two years, what would you say are the chances it will be an electric vehicle?*

TABLE 2 CHANCE THAT A VEHICLE PURCHASED IN NEXT TWO YEARS IS EV BY CONSIDERING NEW CAR PURCHASE IN NEXT TWO YEARS

		Overall	Considering new car purchase/lease in next 2 years (Q15)	
			Yes	No
If vehicle purchased in next 2 years, chances that it will be an EV (Q17)	100% - Definitely will be an electric vehicle	13%	10%	2%
	90% to 99%	7%	6%	1%
	80% to 89%	11%	9%	2%
	70% to 79%	16%	12%	4%
	60% to 69%	9%	6%	3%
	50% to 59%	22%	17%	5%
	40% to 49%	7%	5%	2%
	30% to 39%	6%	3%	3%
	20% to 29%	5%	3%	2%
	1% to 19%	4%	3%	1%
	0% - Definitely will NOT be an electric vehicle	1%	1%	1%

To simplify the results of Question 17 and demonstrate how they vary across subgroups of event participants, Figures 7 and 8 present the mean (average) probability of making one's next car purchase an electric vehicle.³ Among all respondents, the average probability of choosing an electric vehicle for their next car during the Pre-Drive Survey was 65%. It was also fairly consistent across subgroups, ranging between 64% and 72% for all but two subgroups. When compared to their respective counterparts, however, young participants (under 25) stood out as having the lowest probability of choosing an EV for their next car (55%), whereas the affluent (\$250,000 annual income or higher) were substantially more likely to choose an EV (80%).

3. To calculate a mean with categorical data, True North assigned each respondent the mid-point value of their probability category (e.g., 75% if the person was in the 70% to 79% category), then averaged the values across all respondents.

FIGURE 7 MEAN % CHANCE THAT A VEHICLE PURCHASED IN NEXT TWO YEARS IS EV BY AGE & GENDER**FIGURE 8 MEAN % CHANCE THAT A VEHICLE PURCHASED IN NEXT TWO YEARS IS EV BY HOUSEHOLD INCOME**

PARTICIPANT DEMOGRAPHICS Although most of the Pre-Drive Survey focused on profiling participants' perceptions and attitudes about electric vehicles, the survey also gathered key demographic information including age, gender, household income, as well as participants' prior experiences with EVs and their ability to charge an EV in a private parking space at their home. Table 3 on the next page presents the demographic and EV experience profile of Experience Electric Ride & Drive Event participants.

TABLE 3 DEMOGRAPHICS OF EVENT PARTICIPANTS: PRE-DRIVE SURVEY

Q3 Age	
16 to 24	6%
25 to 34	21%
35 to 44	19%
45 to 54	21%
55 to 64	20%
65 or older	9%
Prefer not to answer	3%
Q4 Gender	
Male	67%
Female	30%
Prefer not to answer	3%
Q5 Ability to charge EV	
Yes	49%
No	43%
Not sure	7%
Prefer not to answer	2%
Q6 Hsld annual income	
Less than \$50,000	15%
\$50,000 to \$74,999	13%
\$75,000 to \$99,999	12%
\$100,000 to 149,999	20%
\$150,000 to \$199,999	10%
\$200,000 to \$249,999	6%
\$250,000 to \$299,999	3%
\$300,000 or more	4%
Prefer not to answer	18%
Q11 Previously driven an EV	
Yes	36%
No	62%
Prefer not to answer	2%
Q12 Previously ridden as passenger in an EV	
Yes	48%
No	50%
Prefer not to answer	2%

POST-DRIVE SURVEY

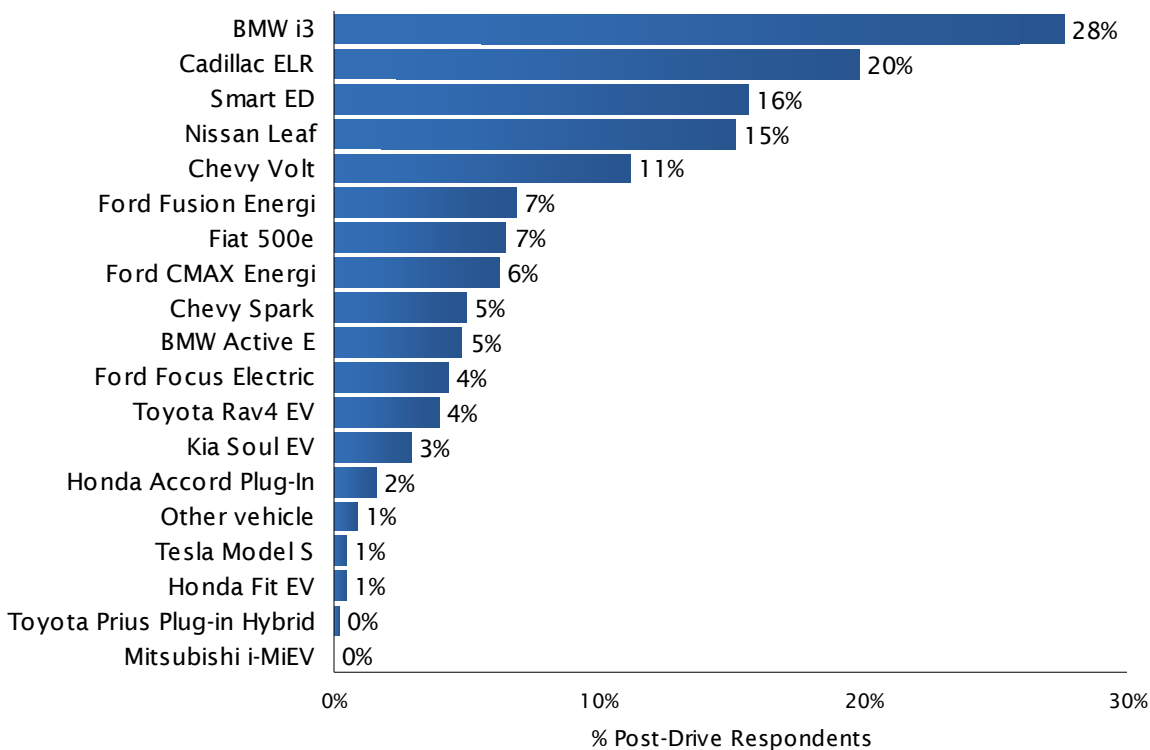
Once registered, participants were provided the opportunity to test drive and/or ride in electric vehicles provided by a wide selection of manufacturers. Although not necessarily present at every event, throughout the pilot period participants had access to electric vehicles provided by nearly all of the major manufacturers, including BMW, Cadillac, Chevrolet, Fiat, Ford, Honda, KIA, Nissan, Smart, Tesla, and Toyota. Experts were also available at the events to educate, inform, and answer participants' questions about available models, home charging, rebates, tax incentives, and related EV topics.

After experiencing one or more electric vehicles, participants who had completed a Pre-Drive Survey were asked to complete a Post-Drive Survey, the results of which are presented in this section along with comparisons to the Pre-Drive Survey results, where relevant.

WHICH VEHICLES DID YOU DRIVE? Participants reported test driving an average 1.35 vehicles per event, with the most frequently driven vehicles being the BMW i3 (28%), Cadillac ELR (20%), Smart ED (16%), Nissan Leaf (15%), and Chevy Volt (11%). Other vehicles driven by at least 5% of participants included the Ford Fusion Energi (7%), Fiat 500e (7%), Ford CMAX Energi (6%), Chevy Spark (5%), and BMW Active E (5%).

Question 3 Post-Drive *Which vehicle(s) did you test drive?*

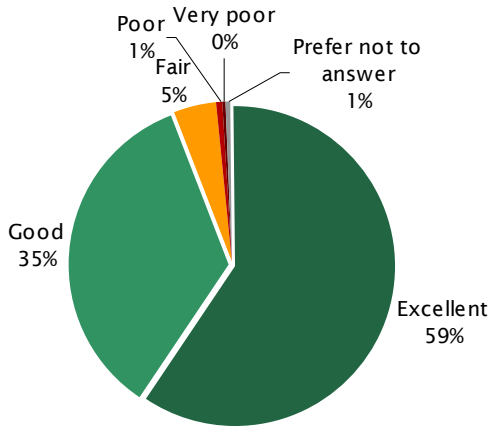
FIGURE 9 TEST DRIVE VEHICLES



RATING OF DRIVING EXPERIENCE More than nine-in-ten event participants were positive regarding their overall experience testing driving an EV, with 94% rating their experience as either excellent (59%) or good (35%). Approximately 5% rated their test drive experience as fair, whereas 1% used poor to describe their EV driving experience, 0% used very poor, and 1% preferred to not answer the question (Figure 10).

Question 4 Post-Drive Overall, how would you rate your test drive experience?

FIGURE 10 OVERALL TEST DRIVE EXPERIENCE



Figures 11 and 12 show how participants' overall experiences test driving an electric vehicle varied by age, gender, whether they perceived significant barriers to owning an EV, household income, and their prior experience driving or riding in an EV. Although there are some notable differences across subgroups (e.g., those 45 years of age or older being more likely than their counterparts to rate their EV experiences as excellent), the most striking pattern in the figures is the general consistency of the results. Indeed, across all subgroups the percentage who rated their EV driving experience as excellent or good never dips below 91%.

FIGURE 11 OVERALL TEST DRIVE EXPERIENCE BY AGE, GENDER & SIGNIFICANT PERCEIVED BARRIERS TO OWNING EV

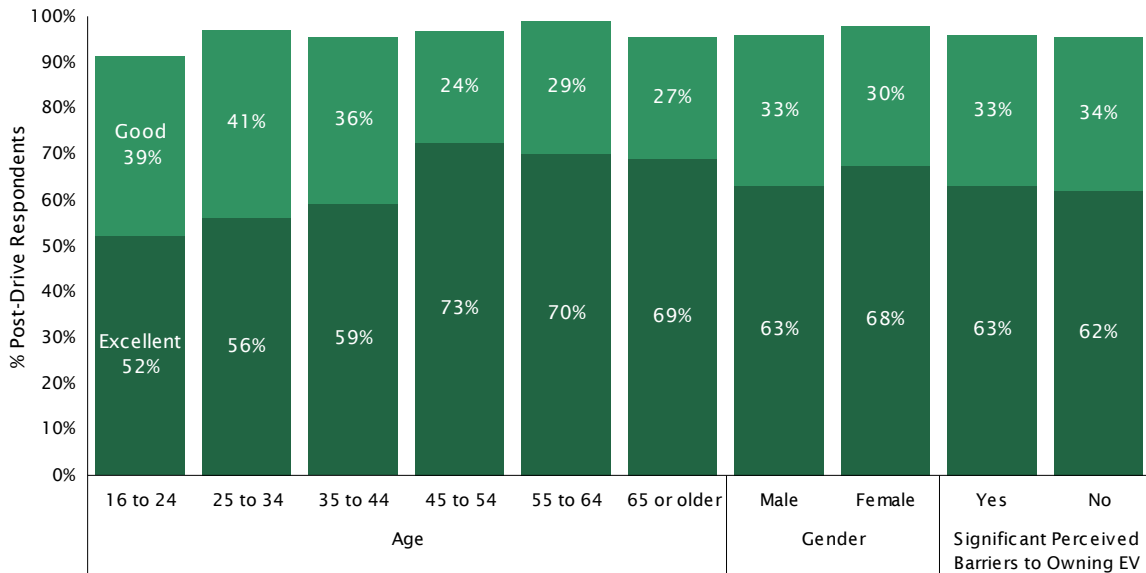
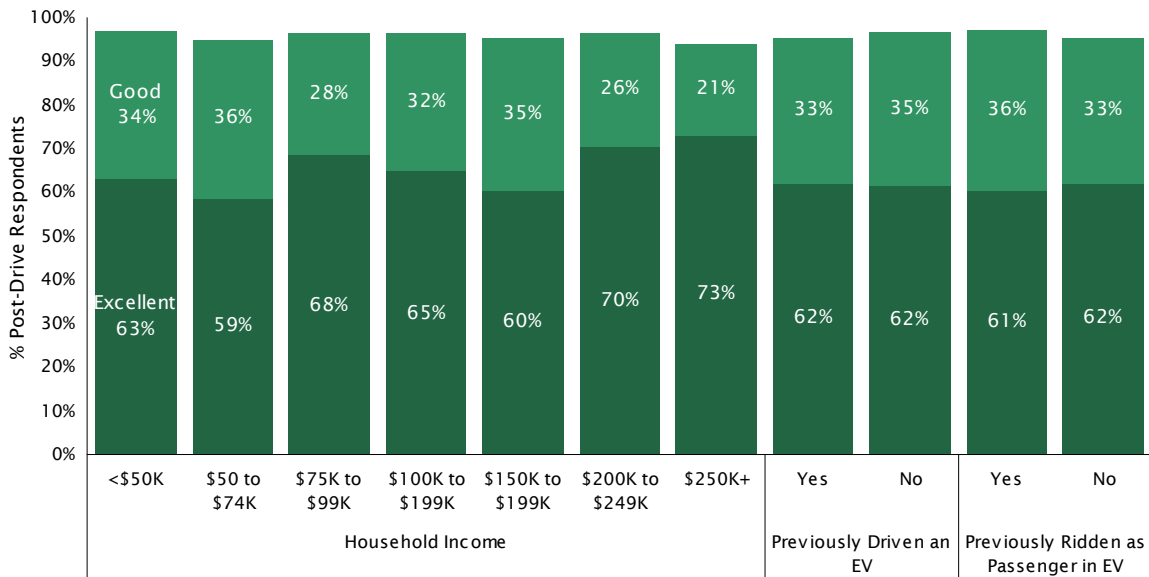


FIGURE 12 OVERALL TEST DRIVE EXPERIENCE BY HOUSEHOLD INCOME, PREVIOUSLY DRIVEN AN EV & PREVIOUSLY RIDDEN AS PASSENGER IN EV

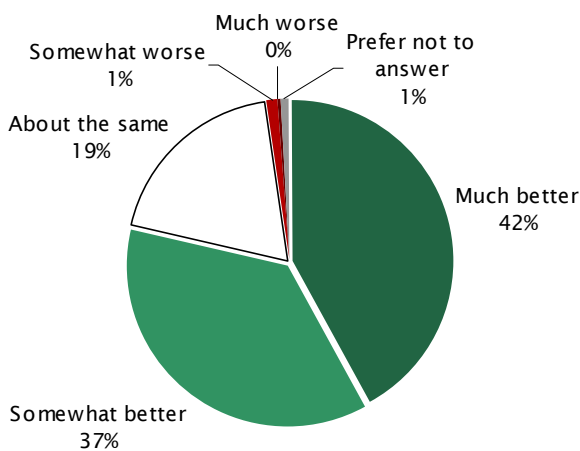


PERCEIVED IMPACT OF TEST DRIVE ON OVERALL OPINION OF EVS

Consistent with the positive assessments participants’ generally offered when asked to rate their test drive experiences, more than three-quarters (79%) also indicated in the Post-Drive Survey that the experience of test driving an EV improved their overall opinion of electric vehicles (Figure 13). Overall, 42% indicated that their opinion of EVs was much better after the test drive, 37% somewhat better, whereas 19% indicated that their opinion of EVs was about the same after the drive as before. Just 1% of participants offered that their test drive experience worsened their opinion of electric vehicles, and an additional 1% preferred to not answer the question.

Question 5 Post-Drive *Now that you've had a chance to test drive an electric vehicle, is your overall opinion of electric vehicles better, worse, or about the same?*

FIGURE 13 OVERALL OPINION OF EV AFTER TEST DRIVE



When compared to their respective counterparts, those under the age of 25, females, those with annual household incomes between \$75,000 and \$99,999, and those with no prior experience driving or riding in an EV were the most likely to report that their test drive experience positively impacted their opinions of electric vehicles (see Figures 14 & 15).

FIGURE 14 OVERALL OPINION OF EV AFTER TEST DRIVE BY AGE, GENDER & SIGNIFICANT PERCEIVED BARRIERS TO OWNING EV

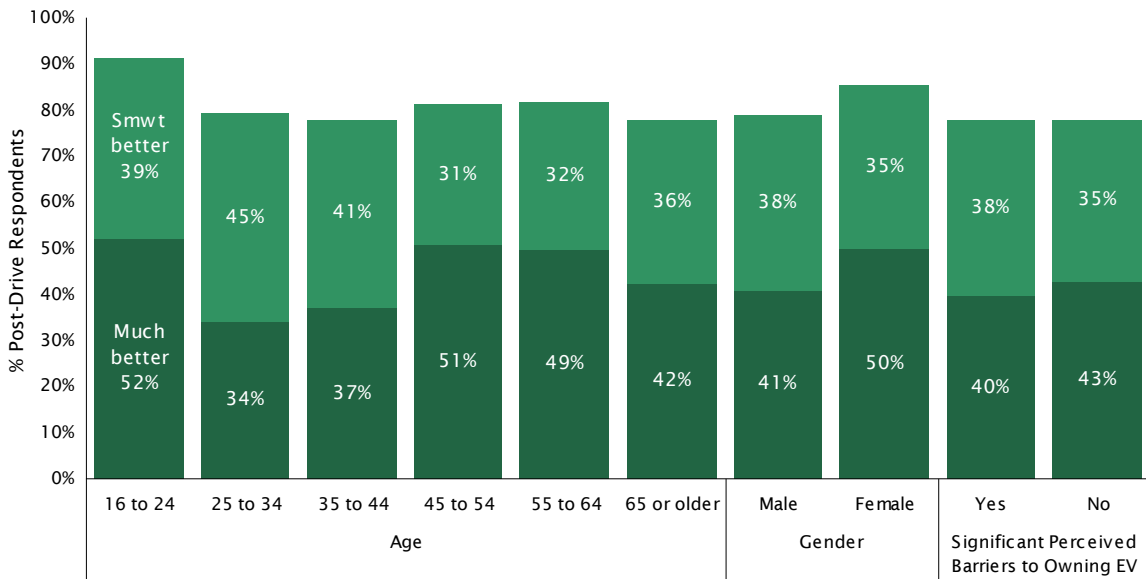
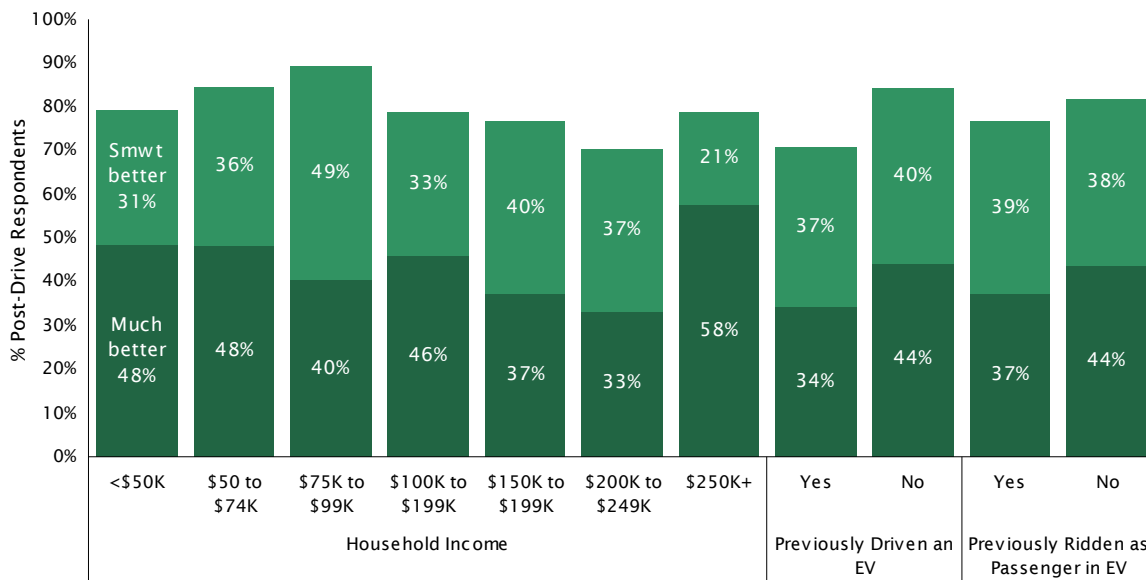


FIGURE 15 OVERALL OPINION OF EV AFTER TEST DRIVE BY HOUSEHOLD INCOME, PREVIOUSLY DRIVEN AN EV & PREVIOUSLY RIDDEN AS PASSENGER IN EV

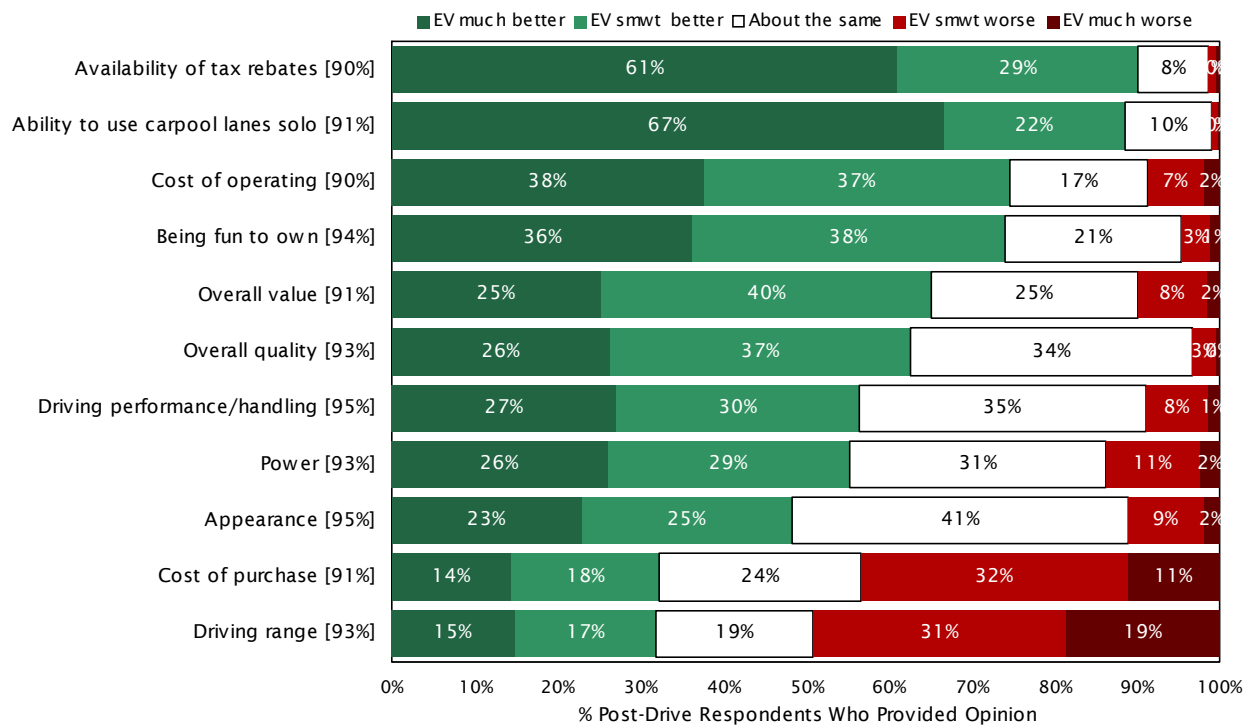


POST-DRIVE COMPARATIVE PERFORMANCE RATINGS FOR EVS During the Pre-Drive Survey (see *Comparative Performance Ratings for Electric Vehicles* on page 8), respondents were asked to rate how well electric vehicles meet a variety of performance standards when compared to a similar gas-powered vehicle. Having now had the experience of test driving and/or riding in an EV, respondents were provided the identical question series in the Post-Drive Survey to gauge whether—and on what dimensions—their test drive experience changed their comparative ratings for EVs.

Figure 16 presents the results of the comparative ratings for the Post-Drive Survey. The experience of test driving an electric vehicle positively impacted participants' opinions of EVs on eight of the performance dimensions tested, resulting in EVs being perceived to outperform similar gas-powered vehicles on all dimensions tested with the exception of cost of purchase and driving range. When compared to the Pre-Drive Survey, the percentage of respondents who viewed EVs as being *better* than gas-powered vehicles increased the most for driving performance/handling (+18%), power (+17%), appearance (+17%), and overall quality (+15%), followed by driving range (+13%), being fun to own (+12%), cost of purchase (+10%), and overall value (+7%). Perceptions were generally unchanged with respect to cost of operating (+1%), availability of tax rebates (-1%), and ability to use carpool lanes as a solo driver (-2%).

Question 6 Post-Drive *Now that you've had a chance to test drive an electric vehicle, let us ask you again: When compared to a similar gas-powered vehicle, do you perceive electric vehicles (EVs) to be better, worse, or about the same on the following criteria? If you don't have an opinion, select the 'not sure' button.*

FIGURE 16 EV COMPARED WITH ICE: POST-DRIVE



The pilot followed a within-subjects design in which the same individuals were administered a Pre-Drive Survey, a treatment (test drive), and a Post-Drive Survey. One of the advantages of a within-subjects design is it eliminates the between-group variance that would occur if the Pre- and Post-Drive surveys were administered to separate sample groups. In short, we have more statistical power to identify significant impacts in our study using a within-subjects design when compared to a between-subjects design.

To test whether the electric vehicle ride and drive experience resulted in statistically significant differences in participants’ opinions of EVs, the responses to the questions were converted to means according to the following coding scheme: EV is much better=2, EV is somewhat better=1, About the same=0, EV is somewhat worse=-1, EV is much worse=-2. The means for each dimension are presented in Table 4 for the Pre-Drive and Post-Drive Surveys, along with the results of a within-subjects T-test for a difference in mean scores.⁴ Dimensions on which a statistically significant *improvement* in participants’ opinions of EVs relative to gas-powered vehicles occurred between the Pre-Drive and Post-Drive Surveys are highlighted in green.

Overall, the test drive experience resulted in statistically significant improvements in eight of the performance dimensions tested, including overall quality, driving performance/handling, power, appearance, cost of purchase, driving range, overall value, and being fun to own.

TABLE 4 EV COMPARED WITH GAS-POWERED VEHICLE: PRE-DRIVE VS POST-DRIVE (PAIRED SAMPLES T-TEST OF MEANS)

		Paired Samples Statistics					df	Sig. (2-tailed)
		Mean	N	Std. Deviation	t			
Overall quality	Pre-Drive Q8A	.548	633	.944	-7.707	632	.000	
	Post-Drive Q6A	.844	633	.864				
Driving performance/handling	Pre-Drive Q8B	.288	618	1.064	-10.654	617	.000	
	Post-Drive Q6B	.722	618	.998				
Power	Pre-Drive Q8C	.102	646	1.237	-11.908	645	.000	
	Post-Drive Q6C	.615	646	1.037				
Appearance	Pre-Drive Q8D	.157	701	1.023	-11.776	700	.000	
	Post-Drive Q6D	.581	701	.998				
Cost of purchase	Pre-Drive Q8E	-.556	648	1.194	-9.373	647	.000	
	Post-Drive Q6E	-.106	648	1.242				
Cost of operating	Pre-Drive Q8F	.998	626	1.059	.466	625	.641	
	Post-Drive Q6F	.979	626	1.003				
Driving range	Pre-Drive Q8G	-.827	659	1.299	-10.014	658	.000	
	Post-Drive Q6G	-.331	659	1.305				
Overall value	Pre-Drive Q8H	.560	641	1.071	-5.453	640	.000	
	Post-Drive Q6H	.764	641	.960				
Being fun to own	Pre-Drive Q8I	.783	650	1.019	-9.044	649	.000	
	Post-Drive Q6I	1.085	650	.892				
Availability of tax rebates	Pre-Drive Q8J	1.511	652	.728	-.457	651	.648	
	Post-Drive Q6J	1.525	652	.697				
Ability to use carpool lanes solo	Pre-Drive Q8K	1.612	667	.732	1.246	666	.213	
	Post-Drive Q6K	1.577	667	.694				

For the interested reader, Figures 17-19 on the following pages compare the mean scores for *overall quality* in the Pre-Drive Survey and Post-Drive Survey across subgroups of participants. For all subgroups, the mean score for overall quality was higher *after* their test drive experience, and the difference was particularly pronounced among seniors and individuals with annual household incomes between \$50,000 and \$74,999.

4. This analysis was performed only for those individuals who had completed both the Pre-Drive and Post-Drive surveys.

FIGURE 17 EV COMPARED WITH GAS-POWERED VEHICLE ON OVERALL QUALITY: PRE-DRIVE VS POST-DRIVE BY HOUSEHOLD INCOME

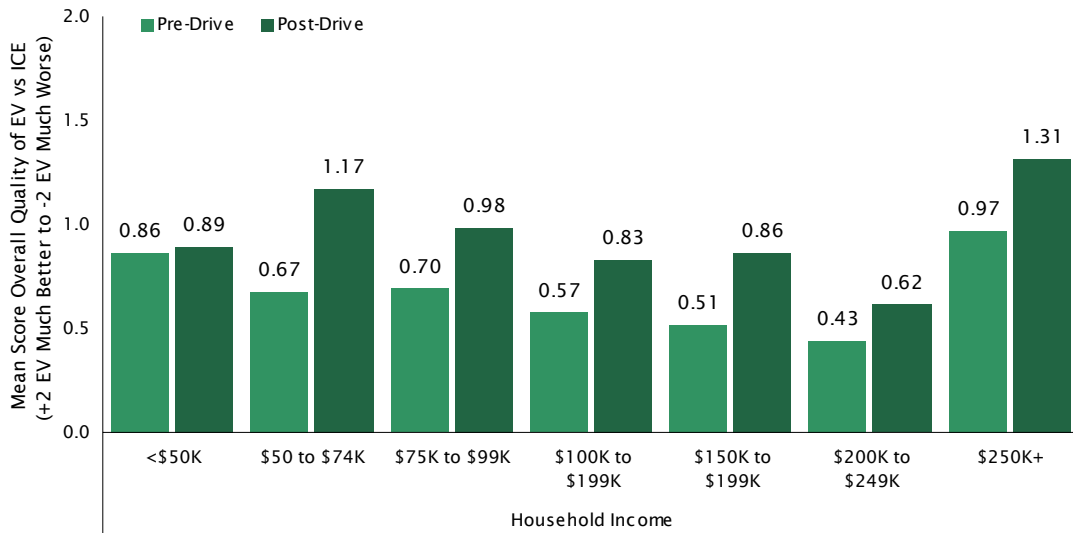


FIGURE 18 EV COMPARED WITH GAS-POWERED VEHICLE ON OVERALL QUALITY: PRE-DRIVE VS POST-DRIVE BY AGE

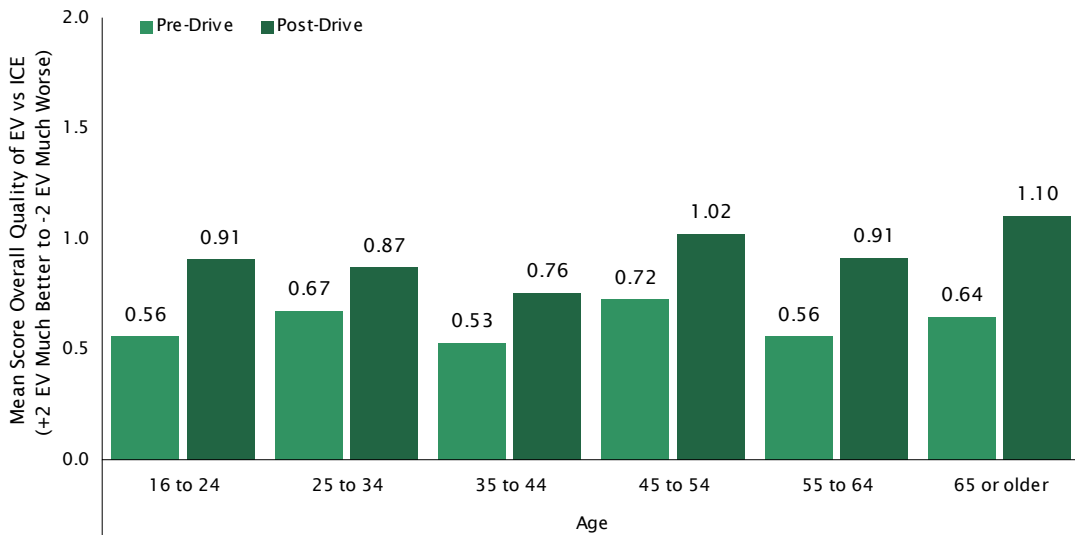
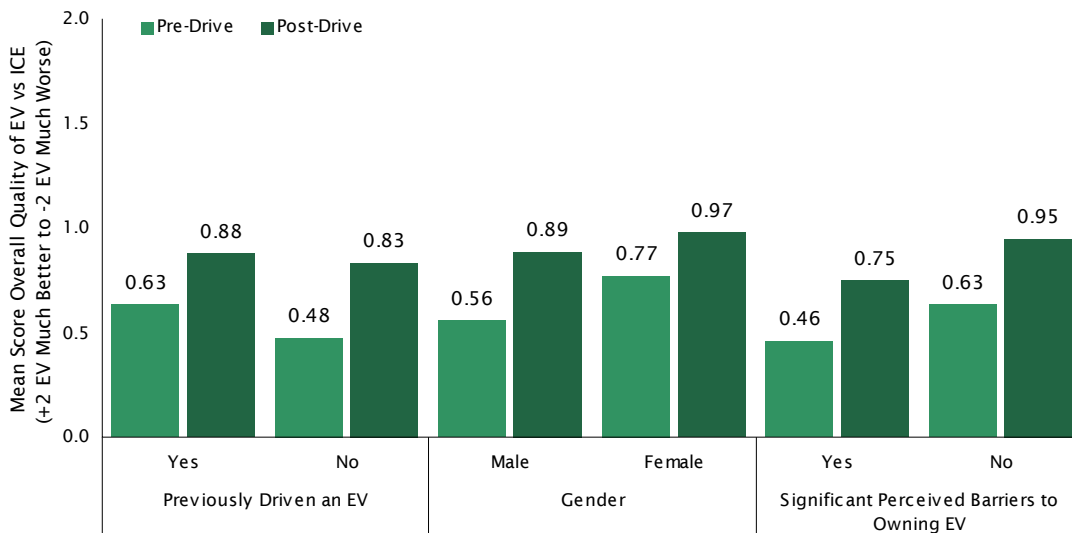


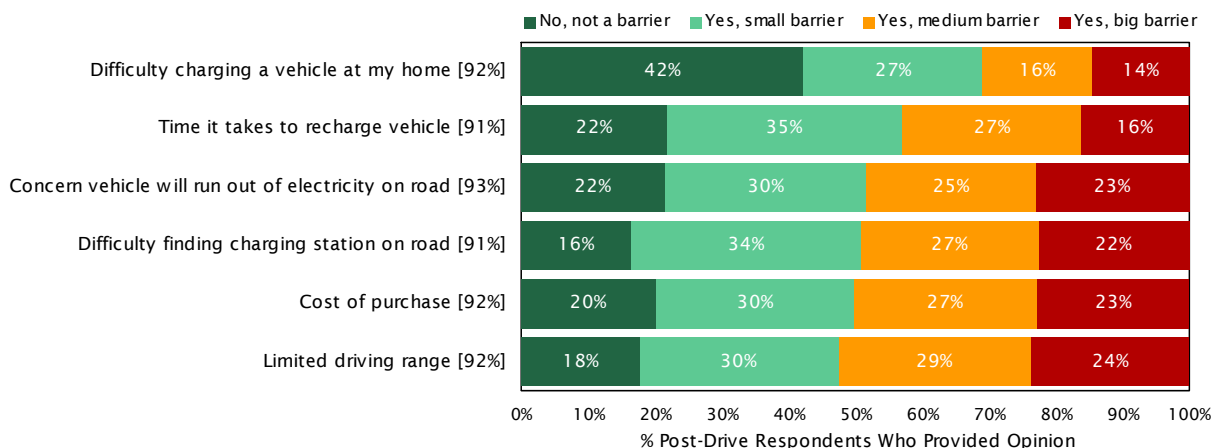
FIGURE 19 EV COMPARED WITH GAS-POWERED VEHICLE ON OVERALL QUALITY: PRE-DRIVE VS POST-DRIVE BY PREVIOUSLY DRIVEN AN EV, GENDER & SIGNIFICANT PERCEIVED BARRIERS TO OWNING EV



POST-DRIVE BARRIERS TO OWNING ELECTRIC VEHICLE The Post-Drive Survey also measured participants’ opinions about potential barriers to owning an electric vehicle now that they had a chance to ride in and/or drive an EV and learn more from EV experts. Once again, to allow for an apples-to-apples comparison across the potential barriers, only those who provided a definitive opinion are included in the percentage results (bars) shown in Figure 20. The percentage who provided an opinion is presented in brackets to the right of the barrier label.

Question 7 Post-Drive *At this point, are any of the following factors a barrier to you purchasing an electric vehicle?*

FIGURE 20 POSSIBLE BARRIERS TO PURCHASING EV: POST-DRIVE



The experience of attending a Ride & Drive event mitigated the concerns of some regarding potential barriers to owning an electric vehicle as measured in the Post-Drive Survey. When compared to the Pre-Drive Survey, the percentage of respondents who viewed each item listed in Figure 20 as a big or medium barrier declined, with the largest declines being found for cost of purchase (-12%), limited driving range (-9%), difficulty finding a charging station on the road (-9%), and concerns about the vehicle running out of electricity on the road (-9%). More modest reductions in the percentage of respondents who viewed the item as a big or medium barrier to purchasing an EV were found with respect to the time it takes to recharge a vehicle (-7%) and difficulty charging a vehicle at their home (-5%).

To test whether the electric vehicle ride and drive experience resulted in statistically significant differences in participants' perceived barriers to owning an EV, the responses to the questions were converted to means according to the following coding scheme: Not a barrier=1, Small barrier=2, Medium barrier=3, Big barrier=4. The mean scores for each potential barrier are presented in Table 5 for the Pre-Drive and Post-Drive Surveys, along with the results of a within-subjects T-test for a difference in mean scores.⁵ Items for which a statistically significant *reduction* in the perceived barrier mean score occurred between the Pre-Drive and Post-Drive Surveys are highlighted in green. Overall, the Ride & Drive experience resulted in statistically significant reductions in the average perceived barrier score for *every* potential barrier tested. In other words, the average participant was less likely to perceive each item tested as a barrier to owning an electric vehicle immediately after they had the opportunity to attend a Ride & Drive event.

TABLE 5 POSSIBLE BARRIERS TO PURCHASING EV: PRE-DRIVE VS POST-DRIVE (PAIRED SAMPLES T-TEST OF MEANS)

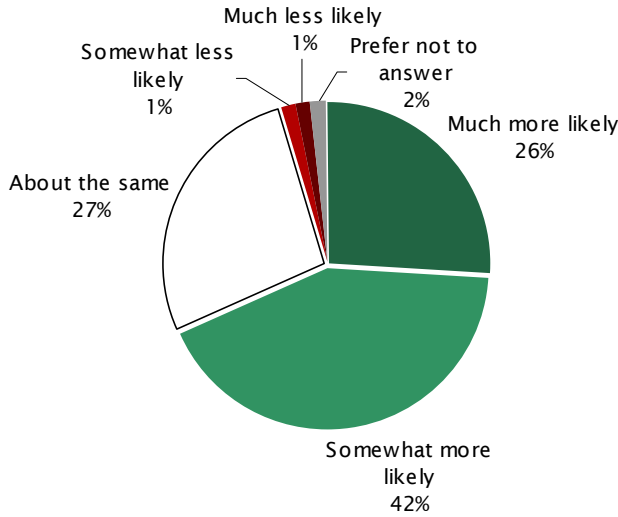
		Paired Samples Statistics					
		Mean	N	Std. Deviation	t	df	Sig. (2-tailed)
Difficulty finding charging station on road	Pre-Drive Q10A	2.856	693	1.021	8.773	692	.000
	Post-Drive Q7A	2.534	693	1.015			
Difficulty charging a vehicle at my home	Pre-Drive Q10B	2.096	686	1.127	3.378	685	.001
	Post-Drive Q7B	1.975	686	1.076			
Concern vehicle will run out of electricity on road	Pre-Drive Q10C	2.767	704	1.072	7.273	703	.000
	Post-Drive Q7C	2.491	704	1.064			
Limited driving range	Pre-Drive Q10D	2.875	697	1.046	7.114	696	.000
	Post-Drive Q7D	2.603	697	1.022			
Cost of purchase	Pre-Drive Q10E	2.745	678	1.019	6.580	677	.000
	Post-Drive Q7E	2.506	678	1.032			
Time it takes to recharge vehicle	Pre-Drive Q10F	2.533	675	1.019	4.633	674	.000
	Post-Drive Q7F	2.361	675	.967			

PERCEIVED IMPACT OF TEST DRIVE ON LIKELIHOOD OF EV PURCHASE An improved opinion of electric vehicles' performance characteristics relative to gas-powered vehicles *combined* with a reduction in perceived barriers to ownership could be expected to translate to an increased likelihood of purchasing an EV for some respondents. This was indeed the case. When asked in the Post-Drive Survey whether the test drive experience impacted their likelihood of purchasing an EV, 26% stated they were much more likely to purchase an EV now, and an additional 42% offered that they were somewhat more likely. Approximately one-quarter (27%) of those who test drove an EV indicated that their likelihood of purchasing an EV remained unchanged by the experience, whereas 2% indicated they were less likely to purchase an EV and a similar percentage (2%) preferred to not answer the question (see Figure 21).

5. This analysis was performed only for those individuals who had completed both the Pre-Drive and Post-Drive surveys.

Question 8 Post-Drive Now that you've had a chance to test drive an electric vehicle, are you more likely to purchase an electric vehicle, less likely to purchase an electric vehicle, or has your likelihood of purchasing an electric vehicle stayed about the same?

FIGURE 21 LIKELIHOOD OF PURCHASING EV AFTER TEST DRIVE



Figures 22 and 23 show how the impact of the test drive experience on a respondents' self-reported likelihood of purchasing an EV varied by age, gender, and household income. When compared to their respective counterparts, young drivers (under 25), females, and the affluent (\$250,000 or more) were the most likely to indicate that the test drive experience made them *much* more likely to purchase an EV.

FIGURE 22 LIKELIHOOD OF PURCHASING EV AFTER TEST DRIVE BY AGE & GENDER

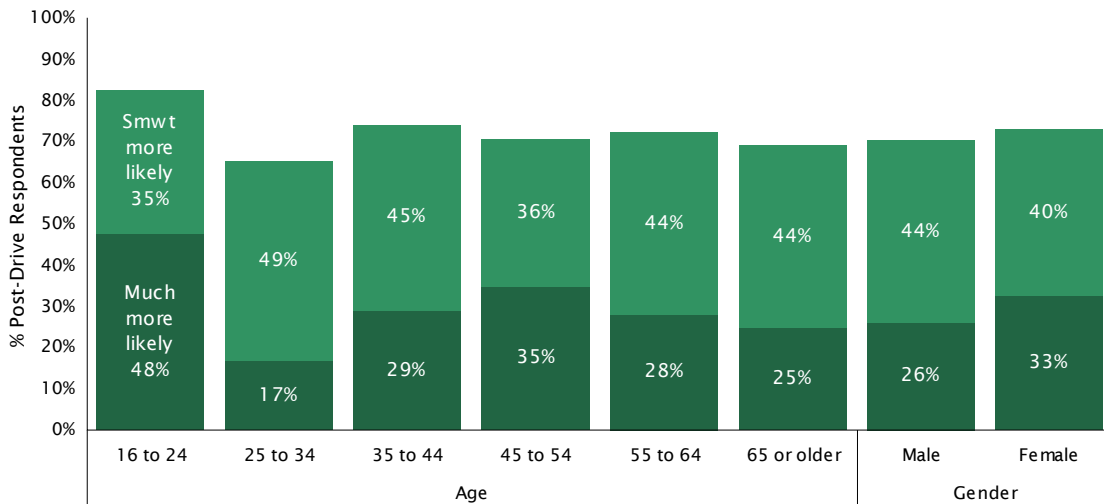
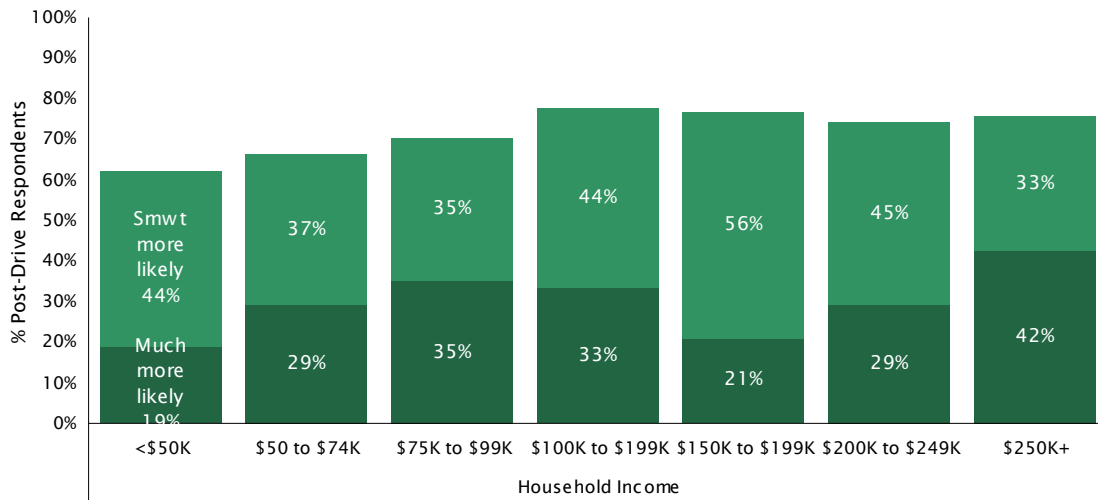


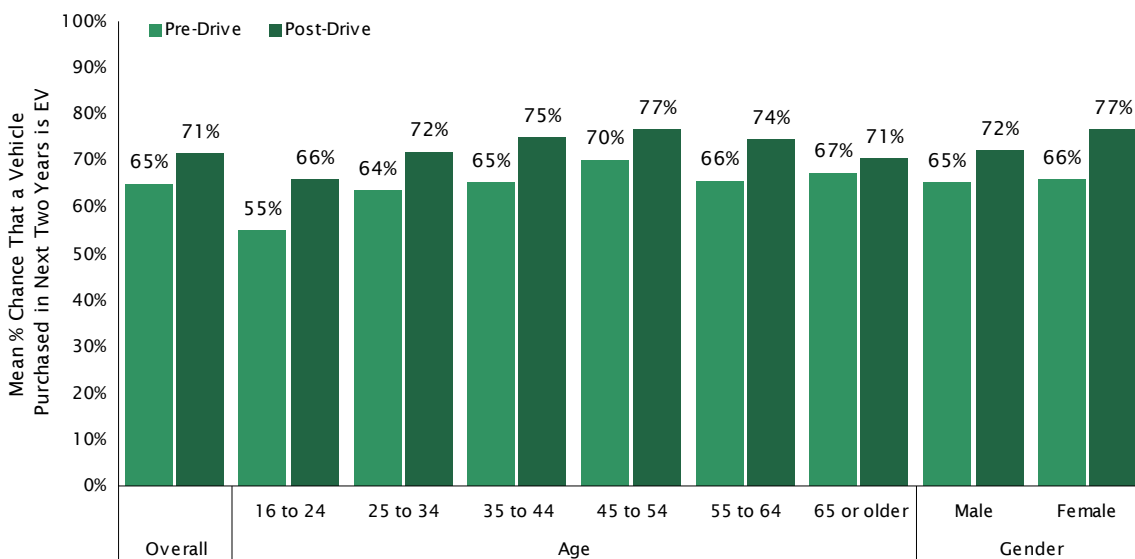
FIGURE 23 LIKELIHOOD OF PURCHASING EV AFTER TEST DRIVE BY HOUSEHOLD INCOME



POST-DRIVE CHANCE NEXT CAR WILL BE AN ELECTRIC VEHICLE The final substantive question in the Post-Drive Survey was the same as that in the Pre-Drive Survey: If they were to purchase or lease a new vehicle in the next two years, what are the chances it would be an electric vehicle? To simplify the comparison between the Pre-Drive and Post-Drive Surveys, Figures 24 and 25 present the *average* probability of purchasing an electric vehicle as their next car overall—and by key subgroups—as recorded in both surveys.

Question 9 Post-Drive *If you were to purchase/lease a new vehicle in the next two years, what would you say are the chances it will be an electric vehicle?*

FIGURE 24 MEAN % CHANCE THAT A VEHICLE PURCHASED IN NEXT TWO YEARS IS EV BY AGE & GENDER (SHOWING PRE- AND POST-DRIVE)



Overall, participants' average stated probability of purchasing an EV as their next car in the Post-Drive Survey was 71%, which represents a 6% increase when compared to the corresponding value in the Pre-Drive Survey (65%). The general increase in stated probability of purchasing an EV was also echoed at the subgroup level, with the largest increases found among participants under 25 (+11%), females (+11%), and those with annual household incomes under \$50,000 (+12%).

FIGURE 25 MEAN % CHANCE THAT A VEHICLE PURCHASED IN NEXT TWO YEARS IS EV BY HOUSEHOLD INCOME (SHOWING PRE- AND POST-DRIVE)

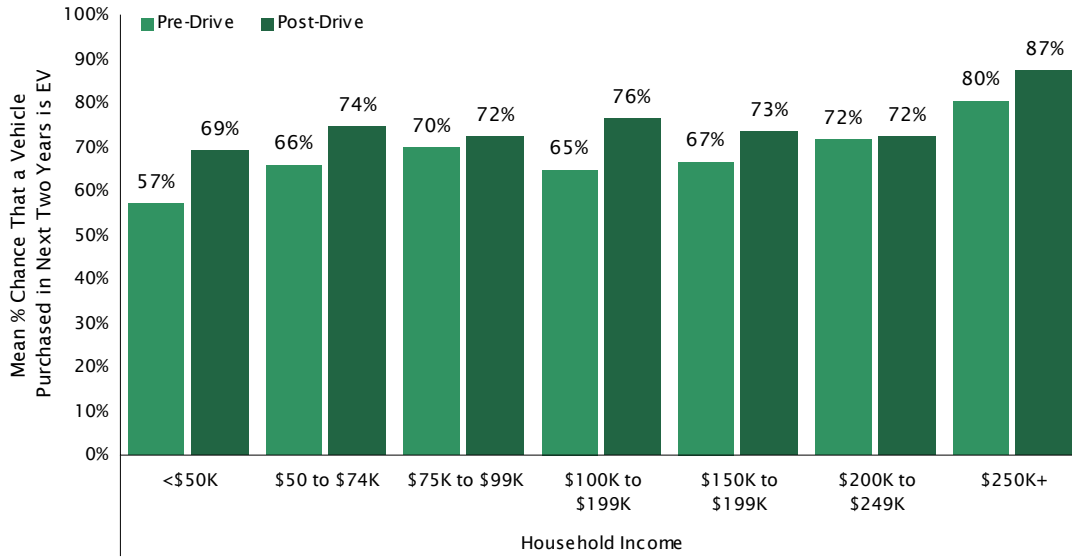


Table 6 shows the results of a within-subjects T-test that confirms the Ride & Drive experience resulted in a statistically significant increase between the Pre-Drive and Post-Drive surveys in participants' average stated probability of purchasing an electric vehicle as their next car.⁶

TABLE 6 MEAN % CHANCE THAT A VEHICLE PURCHASED IN NEXT TWO YEARS IS EV: PRE-DRIVE VS POST-DRIVE (PAIRED SAMPLES T-TEST OF MEANS)

		Paired Samples Statistics					
		Mean	N	Std. Deviation	t	df	Sig. (2-tailed)
Mean % Chance That a Vehicle Purchased in Next Two Years is EV	Pre-Drive Q17	64.913	748	23.996	-12.486	747	.000
	Post-Drive Q9	71.469	748	22.838			

6. This analysis was performed only for those individuals who had completed both the Pre-Drive and Post-Drive surveys.

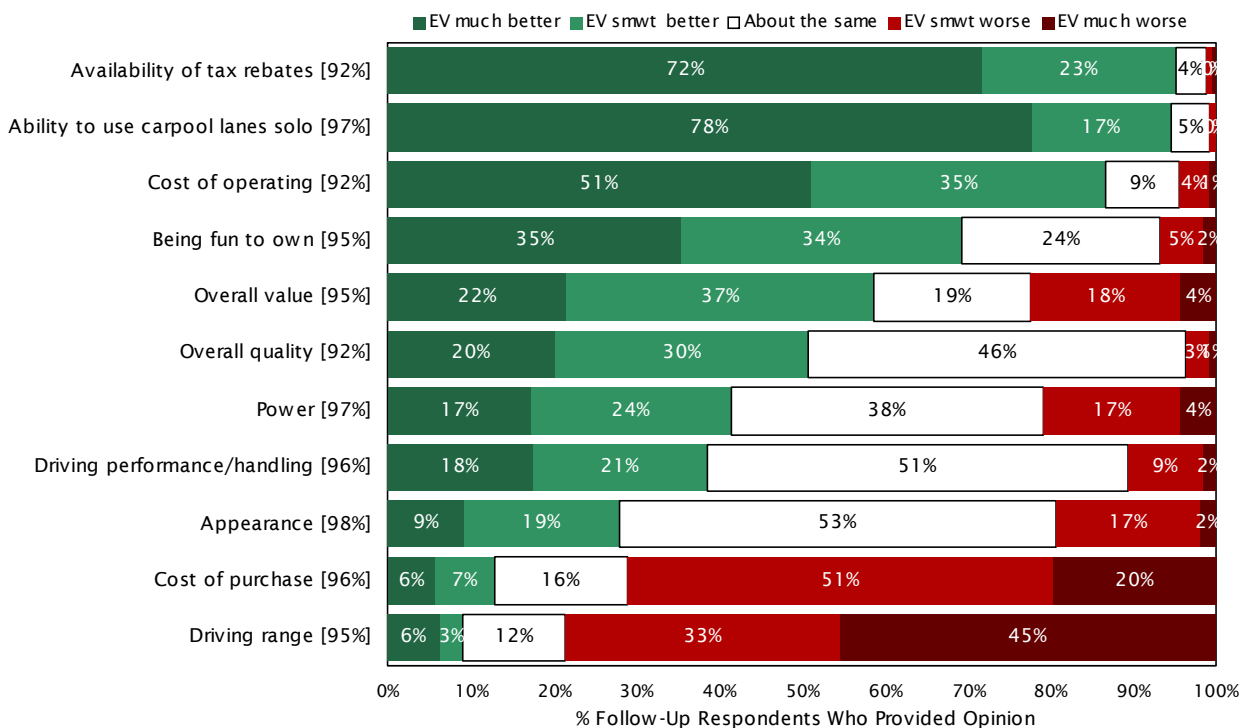
FOLLOW-UP SURVEY

The primary objectives of the Ride & Drive events were to positively influence participants' opinions and ultimately their purchase behavior with respect to electric vehicles. The Post-Drive survey confirmed that the events had immediate, short-term impacts on how participants' viewed electric vehicles relative to similar gas-powered vehicles, mitigated concerns about some of the potential barriers to owning an electric vehicle, and increased participants' stated likelihood of purchasing an EV in the future. The question yet to be answered, however, is whether these positive impacts would endure. The Follow-Up Survey, conducted with respondents at least two months after they experienced a Ride & Drive event, was designed to identify whether these effects were sustained and whether the events ultimately impacted electric vehicle purchasing behavior.

FOLLOW-UP COMPARATIVE PERFORMANCE RATINGS FOR EVS In a manner identical to that employed in both the Pre-Drive and Post-Drive Surveys, respondents who participated in the Follow-Up Survey were first asked to rate how well electric vehicles meet a variety of performance standards when compared to similar gas-powered vehicles (Figure 26).

Question 1 Follow-Up *When compared to a similar gas-powered vehicle, do you perceive electric vehicles (EVs) to be better, worse, or about the same on the following criteria? If you don't have an opinion, select the 'not sure' button.*

FIGURE 26 EV COMPARED WITH ICE: FOLLOW-UP



The Follow-Up Survey results indicate that a number of the short-term positive impacts on perceptions of electric vehicles recorded immediately after the test drive experience (Post-Drive Survey) endured, while others faded and in one case was actually reversed during the months after

the event. When compared to participants' natural opinions as measured in the Pre-Drive Survey, the percentage of respondents who viewed EVs as being *better* than gas-powered vehicles several months after the event remained higher for cost of operating (+12%), driving performance/handling (+8%), being fun to own (+7%), availability of tax rebates (+4%), ability to use carpool lanes as a solo driver (+4%), power (+3%), overall quality (+2%), and overall value (+1%). On three of the performance dimensions tested, however, opinions of electric vehicles' competitiveness with gas-powered vehicles were *lower* several months after the event when compared to Pre-Drive Survey findings: driving range (-10%), cost of purchase (-9%), and appearance (-3%). The former two dimensions are also those where gas-powered vehicles were widely perceived to outperform EVs in all three surveys.

To test whether the electric vehicle Ride & Drive experience resulted in statistically significant differences in participants' opinions of EVs that endured several months after the event, the responses to the questions were converted to means according to the following coding scheme: EV is much better=2, EV is somewhat better=1, About the same=0, EV is somewhat worse=-1, EV is much worse=-2. The means for each dimension are presented in Table 7 for the Pre-Drive and Follow-Up Surveys, along with the results of a within-subjects T-test for a difference in mean scores.⁷ Dimensions on which a statistically significant *improvement* in participants' opinions of EVs relative to gas-powered vehicles occurred between the Pre-Drive and Follow-Up surveys are highlighted in green, whereas those that experienced a statistically significant *decline* are highlighted in red.

TABLE 7 EV COMPARED WITH GAS-POWERED VEHICLE: PRE-DRIVE VS FOLLOW-UP (PAIRED SAMPLES T-TEST OF MEANS)

		Mean	N	Paired Samples Statistics		df	Sig. (2-tailed)
				Std. Deviation	t		
Overall quality	Pre-Drive Q8A	.614	210	.852	-.804	209	.422
	Follow-Up Q1A	.667	210	.820			
Driving performance/handling	Pre-Drive Q8B	.359	209	1.052	-1.560	208	.120
	Follow-Up Q1B	.469	209	.951			
Power	Pre-Drive Q8C	.272	224	1.180	-.930	223	.354
	Follow-Up Q1C	.344	224	1.068			
Appearance	Pre-Drive Q8D	.103	234	.971	-.879	233	.380
	Follow-Up Q1D	.154	234	.870			
Cost of purchase	Pre-Drive Q8E	-.630	230	1.101	1.258	229	.210
	Follow-Up Q1E	-.730	230	1.014			
Cost of operating	Pre-Drive Q8F	1.093	214	.969	-3.234	213	.001
	Follow-Up Q1F	1.336	214	.839			
Driving range	Pre-Drive Q8G	-.917	228	1.226	2.902	227	.004
	Follow-Up Q1G	-1.140	228	1.098			
Overall value	Pre-Drive Q8H	.546	218	1.043	.385	217	.701
	Follow-Up Q1H	.518	218	1.141			
Being fun to own	Pre-Drive Q8I	.787	221	1.038	-3.558	220	.000
	Follow-Up Q1I	.995	221	.970			
Availability of tax rebates	Pre-Drive Q8J	1.564	225	.666	-2.084	224	.038
	Follow-Up Q1J	1.680	225	.609			
Ability to use carpool lanes solo	Pre-Drive Q8K	1.655	238	.629	-1.776	237	.077
	Follow-Up Q1K	1.739	238	.558			

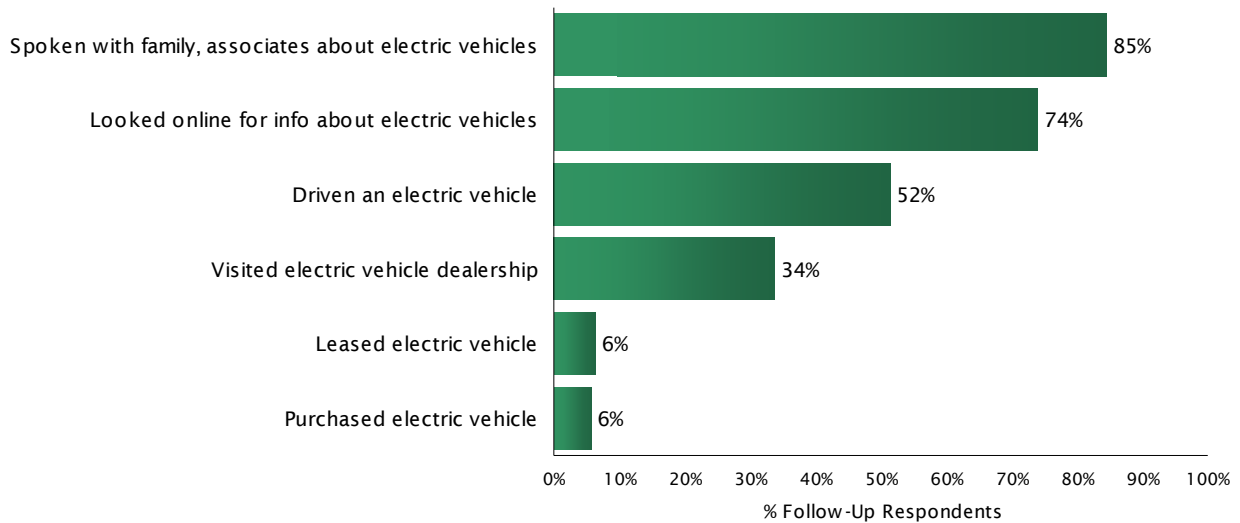
Despite the comparatively small sample size (266) for the Follow-Up Survey making it somewhat difficult to detect statistically significant effects, several months after they experienced a Ride & Drive event participants still exhibited statistically significant improvements in their views of EVs in three areas: cost of operating, being fun to own, and availability of tax rebates. Interestingly, their opinions of electric vehicles' driving range actually declined significantly during this period.

7. This analysis was performed only for those individuals who had completed both the Pre-Drive and Follow-Up surveys.

ELECTRIC VEHICLE ACTIVITIES SINCE EVENT The Follow-Up Survey next asked respondents whether they had engaged in any of the activities listed in Figure 27 since they participated in the Ride & Drive event. In the several months subsequent to the Ride & Drive event, the vast majority of participants had spoken with family or associates about electric vehicles (85%) and looked online for information about electric vehicles (74%). Subsequent to the event, more than half (52%) had driven an electric vehicle, and one-third (34%) had visited an electric vehicle dealership in person (34%). Overall, 6% of Ride & Drive participants who completed the Follow-Up Survey reported purchasing an EV in the months following the event, and an additional 6% reported they leased an EV during this same period.

Question 2 Follow-Up *Since you participated in the Experience Electric Ride & Drive Event, have you: _____?*

FIGURE 27 ACTIVITIES SINCE EVENT



HAVE YOU PURCHASED OR LEASED AN ELECTRIC VEHICLE? Combining purchase and lease behavior, 11% of Ride & Drive participants who completed the Follow-Up Survey indicated that they purchased and/or leased an electric vehicle after attending a Ride & Drive event (see Figure 28 on the next page). When compared to their respective counterparts, those earning \$75,000 to \$99,999 annually, those who intended to purchase a new car in the next two years at the time of participating in the Ride & Drive event, and seniors were the mostly likely to have purchased and/or leased an EV subsequent to the event (see Figures 29 & 30).

FIGURE 28 PURCHASED OR LEASED EV SINCE EVENT

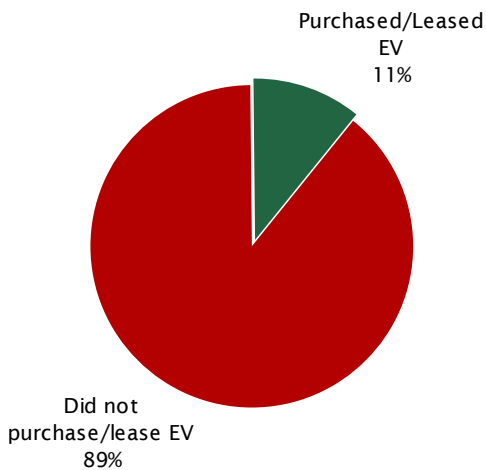


FIGURE 29 PURCHASED OR LEASED EV SINCE EVENT BY HOUSEHOLD INCOME & PURCHASE VEHICLE IN NEXT 2 YEARS

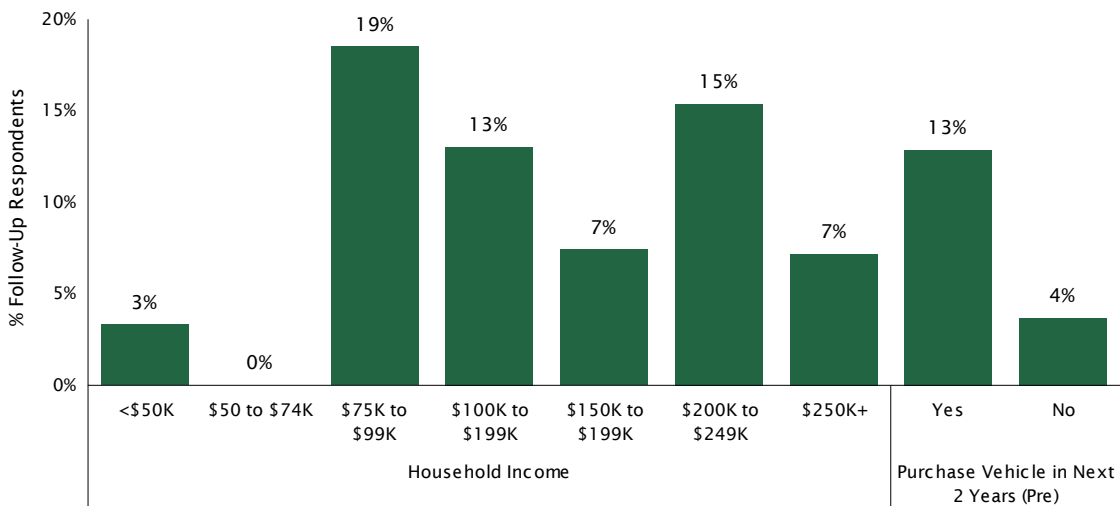
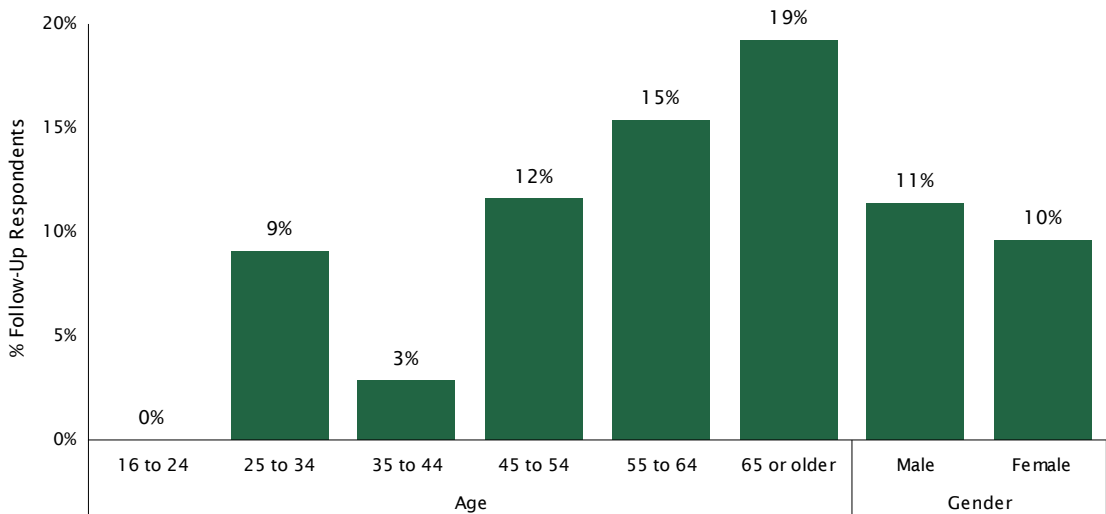


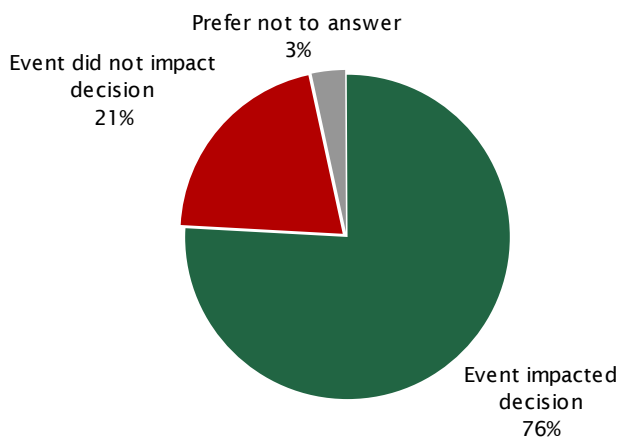
FIGURE 30 PURCHASED OR LEASED EV SINCE EVENT BY AGE & GENDER



DID THE RIDE & DRIVE EVENT IMPACT PURCHASE BEHAVIOR? The ultimate purpose of the Ride & Drive events is to positively impact electric vehicle purchase/lease behavior. Although having a positive impact on awareness and opinions of EVs are instrumental goals, the extent to which the *Experience Electric—The Better Ride* campaign actually impacted purchase behavior is the true litmus test of the program’s effectiveness. With that in mind, individuals who reported that they purchased and/or leased an EV subsequent to the event were asked if the experience of test driving a vehicle at the event positively impacted their decision to purchase/lease an EV.

Question 3 Follow-Up *Did the experience of test driving a vehicle at the Experience Electric Ride & Drive Event positively impact your decision to purchase/lease an electric vehicle?*

FIGURE 31 EVENT HAD POSITIVE IMPACT ON DECISION TO PURCHASE/LEASE EV



Overall, more than three-in-four individuals (76%) who reported purchasing and/or leasing an electric vehicle after the Ride & Drive event stated that their experience test driving a vehicle at the event positively impacted their purchase/lease decision (Figure 31).

Figures 32 and 33 put the results in the context of *all* event participants, with the green bars indicating the percentage of event participants who purchased/leased an EV *and* indicated the Ride & Drive event

positively shaped their purchase decision. Overall, 8% of event participants reported that they purchased/leased an EV and their decision to do so was positively impacted by their experience at the Ride & Drive event.

FIGURE 32 EVENT HAD POSITIVE IMPACT ON DECISION TO PURCHASE/LEASE EV BY AGE & GENDER

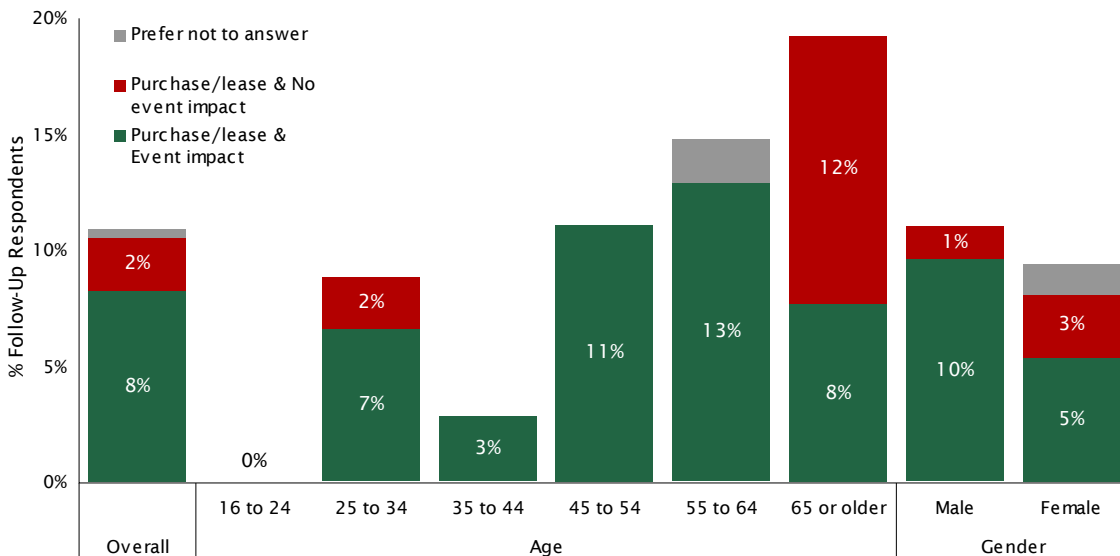
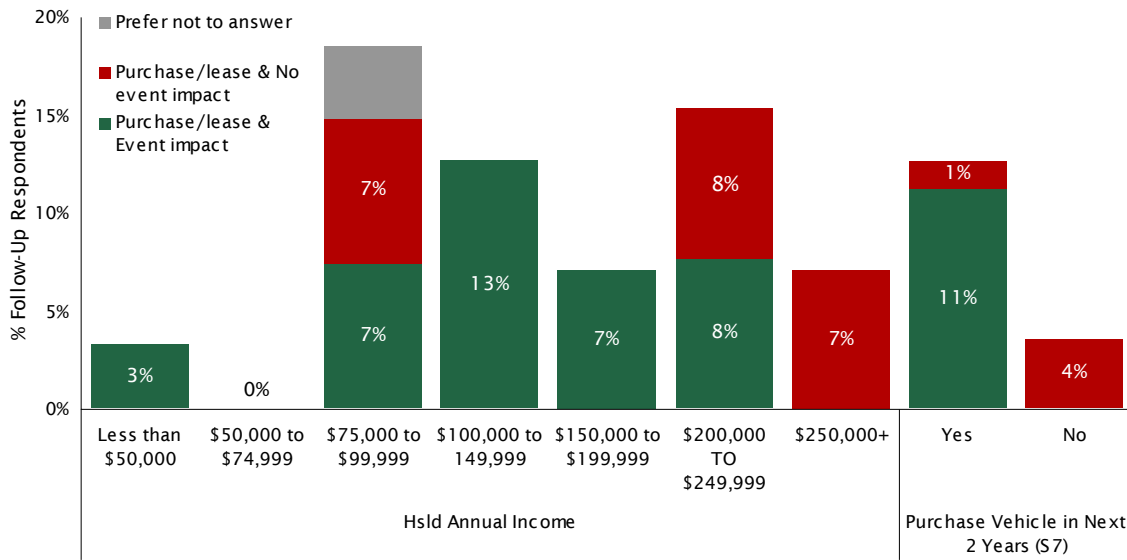


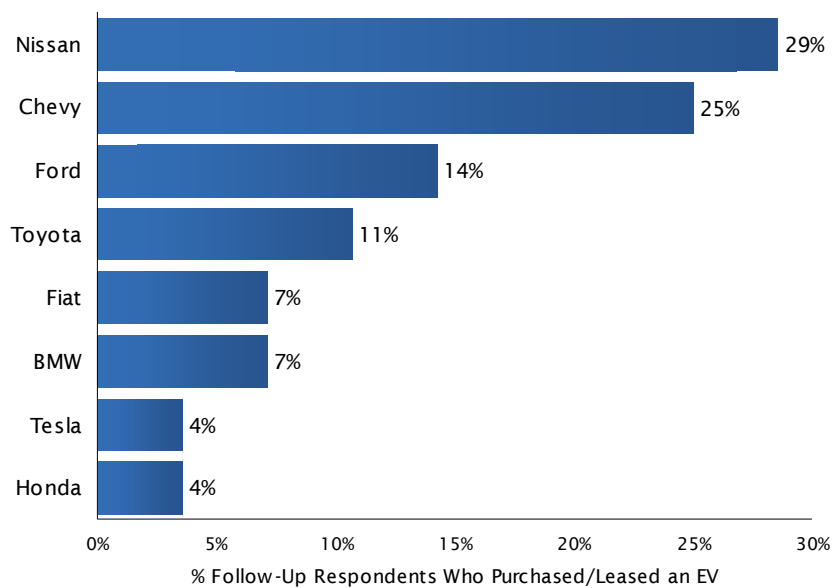
FIGURE 33 EVENT HAD POSITIVE IMPACT ON DECISION TO PURCHASE/LEASE EV BY HOUSEHOLD INCOME & PURCHASE VEHICLE IN NEXT 2 YEARS



MAKE & MODEL OF PURCHASED/LEASED ELECTRIC VEHICLE Among respondents who had purchased and/or leased an electric vehicle subsequent to participating in a Ride & Drive event, Nissan (29%) and Chevy (25%) accounted for more than half of all vehicles purchased/leased (Figure 34). Other manufacturers that accounted for more than 5% of vehicles purchased/leased by event participants included Ford (14%), Toyota (11%), Fiat (7%), and BMW (7%).

Question 4 Follow-Up *What is the make and model of the electric vehicle you purchased/leased?*

FIGURE 34 EV PURCHASED/LEASED



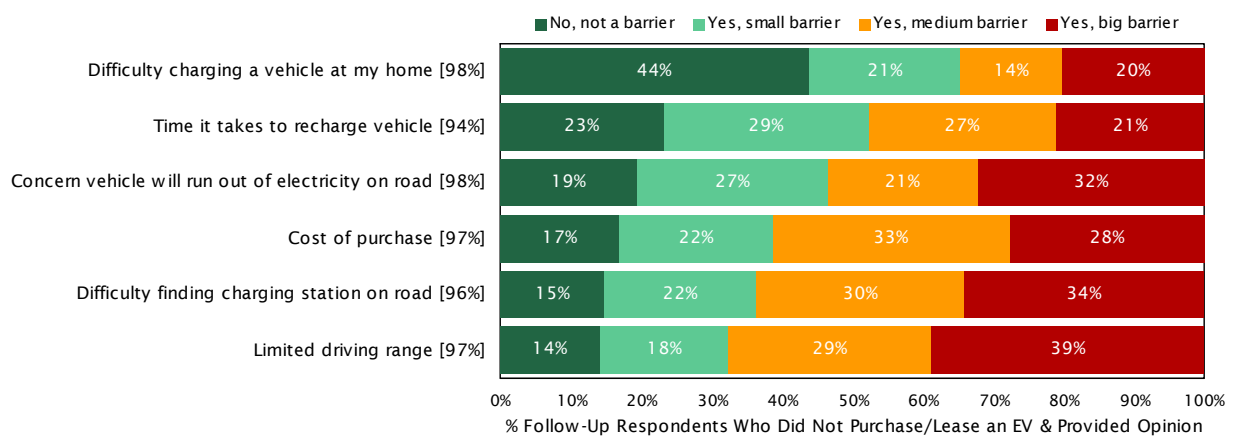
PERCEIVED BARRIERS TO OWNING ELECTRIC VEHICLE AMONG THOSE YET TO PURCHASE/LEASE EV

Among those who did not report purchasing or leasing an electric vehicle subsequent to participating in a Ride & Drive event, the Follow-Up Survey reexamined their opinions about potential barriers to owning an electric vehicle. Once again, to allow for an apples-to-apples comparison across the potential barriers, only those who provided a definitive opinion are included in the percentage results (bars) shown in Figure 35. The percentage who provided an opinion is presented in brackets to the right of the barrier label.

The percentage of participants in this select subgroup who viewed each item listed in Figure 35 as a big or medium barrier at the Follow-Up Survey was quite consistent with the patterns found among *all* participants in the Pre-Drive Survey. There were slight reductions in the percentage who viewed the limited driving range (-6%), cost of purchase (-4%), and difficulty finding a charging station on the road (-1%) as a barrier to acquiring an EV, as well as slight increases in the percentage who had concerns about the vehicle running out of electricity on the road (+3%), the time it takes to recharge a vehicle (+2%), and difficulty charging a vehicle at their home (+1%).

Question 5 Follow-Up *Is _____ a barrier to you purchasing an electric vehicle? If yes, ask: Would that be a big, medium or small barrier?*

FIGURE 35 POSSIBLE BARRIERS TO PURCHASING EV: FOLLOW-UP



To test whether the electric vehicle ride and drive experience resulted in statistically significant differences in participants' perceived barriers to owning an EV among those who had *not* purchased or leased an EV several months after the event, the responses to the questions were converted to means according to the following coding scheme: Not a barrier=1, Small barrier=2, Medium barrier=3, Big barrier=4. The mean scores for each potential barrier are presented in Table 8 for the Pre-Drive and Post-Drive Surveys, along with the results of a within-subjects T-test for a difference in mean scores.⁸ Within this subgroup of participants, there were no statistically significant changes in their perceptions of barriers to owning an electric vehicle several months after attending a Ride & Drive event.

8. This analysis was performed only for those individuals who had completed both the Pre-Drive and Follow-Up surveys and had *not* purchased or leased an electric vehicle several months after the event.

TABLE 8 POSSIBLE BARRIERS TO PURCHASING EV: PRE-DRIVE VS FOLLOW-UP (PAIRED SAMPLES T-TEST OF MEANS)

		Mean	N	Paired Samples Statistics			Sig. (2-tailed)
				Std. Deviation	t	df	
Difficulty finding charging station on road	Pre-Drive Q10A	2.923	208	.960	1.582	207	.115
	Follow-Up Q5A	2.813	208	1.058			
Difficulty charging a vehicle at my home	Pre-Drive Q10B	1.990	208	1.099	-1.016	207	.311
	Follow-Up Q5B	2.067	208	1.169			
Concern vehicle will run out of electricity on road	Pre-Drive Q10C	2.722	212	1.013	.943	211	.347
	Follow-Up Q5C	2.651	212	1.115			
Limited driving range	Pre-Drive Q10D	2.900	210	1.000	-.218	209	.828
	Follow-Up Q5D	2.914	210	1.073			
Cost of purchase	Pre-Drive Q10E	2.712	205	1.080	.060	204	.952
	Follow-Up Q5E	2.707	205	1.035			
Time it takes to recharge vehicle	Pre-Drive Q10F	2.562	201	.999	1.518	200	.131
	Follow-Up Q5F	2.448	201	1.072			

CHANCE NEXT CAR WILL BE AN ELECTRIC VEHICLE AMONG THOSE YET TO PURCHASE/LEASE EV

The final substantive question in the Follow-Up Survey asked those who had yet to purchase or lease an EV what are the chances their next vehicle would be an electric vehicle? To simplify the comparison between the Pre-Drive and Follow-Up surveys, Table 9 shows the *average* probability of purchasing an electric vehicle as their next car as recorded for this select group of respondents during the Pre-Drive (62.12) and Follow-Up surveys (62.18), as well as the results of a within-subjects T-test for a difference in mean scores. Among those who had yet to purchase or lease an electric vehicle several months after participating in a Ride & Drive event, their stated likelihood of having their next vehicle be an EV was the same as prior to the event—there was no significant difference.

Question 6 Follow-Up *If you were to purchase/lease a new vehicle in the next two years, what would you say are the chances it will be an electric vehicle?*

TABLE 9 MEAN % CHANCE THAT A VEHICLE PURCHASED IN NEXT TWO YEARS IS EV: PRE-DRIVE VS FOLLOW-UP (PAIRED SAMPLES T-TEST OF MEANS)

		Mean	N	Paired Samples Statistics			Sig. (2-tailed)
				Std. Deviation	t	df	
Mean % Chance That a Vehicle Purchased in Next Two Years is EV	Pre-Drive Q17	62.122	217	25.342	-.038	216	.970
	Follow-Up Q6	62.182	217	28.925			

QUESTIONNAIRES & TOPLINES

PRE-DRIVE SURVEY - REGULAR VERSION



MTC - Experience Electric Campaign
Pre-Test Drive Survey
Final Toplines (780 Respondents)
December 2014

Section 1: Introduction

Welcome to the Experience Electric Ride & Drive Event! Before you jump into your test drive vehicle, we need to collect some information from you. Please answer the following short survey – it should take just three or four minutes to complete

During the survey, please do not use the browser’s ‘Forward’ or ‘Back’ buttons. To move through the survey, use the ‘Next’ button at the bottom of each page.

When you have finished the survey click the ‘Done’ button to submit your survey.

Section 2: Pass Code

Q1 To begin, enter in the box below the six digit Pass Code on the wristband that was provided to you.

Record 6 digit code NOTE: This is needed to link Pre and Post surveys.

999	Prefer not to answer	
-----	----------------------	--

Section 3: Contact Info & Demographics

Q2 Please provide the following information.

a	First Name	Data on file
b	Last Name	Data on file
c	ZIP Code where you live	Data on file
d	Phone #	Data on file
e	Email address	Data on file

Q3 What is your age?

1	16 to 24	6%
2	25 to 34	21%
3	35 to 44	19%
4	45 to 54	21%
5	55 to 64	20%
6	65 or older	9%
99	Prefer not to answer	3%

Q4 What is your gender?

1	Male	67%
2	Female	30%
99	Prefer not to answer	3%

Q5	Do you have a private parking space that has an electrical outlet where you could charge a vehicle?	
1	Yes	49%
2	No	43%
3	Not sure	7%
99	Prefer not to answer	2%
Q6	Which of the following categories best represents your household's total annual income before taxes?	
1	Less than \$50,000	15%
2	\$50,000 to \$74,999	13%
3	\$75,000 to \$99,999	12%
4	\$100,000 to \$149,999	20%
5	\$150,000 to \$199,999	10%
6	\$200,000 to \$249,999	6%
7	\$250,000 to \$300,000	3%
8	\$300,000 or more	4%
99	Prefer not to answer	18%

Section 4: Learn of Event

Q7	How did you learn about today's Electric Vehicle Drive & Ride event?	
1	Newspaper	15%
2	Television	3%
3	Radio	1%
4	Social Media like Facebook and Twitter	9%
5	Friends/Family/Associates	18%
6	Signs	14%
7	Other	36%
99	Prefer not to answer	3%

Section 5: Perceptions of Electric Vehicles

In these next questions, we'd like to understand how you perceive electric vehicles. There are no right or wrong answers – please just give us your candid opinions.

Q8 When compared to a similar gas-powered vehicle, do you perceive electric vehicles (EVs) to be better, worse, or about the same on the following criteria? If you don't have an opinion, select the 'not sure' button.

		EV is much better	EV is somewhat better	About the same	EV is somewhat worse	EV is much worse	Not Sure	Prefer not to answer
A	Overall quality	17%	24%	33%	5%	1%	17%	3%
B	Driving performance/handling	15%	19%	29%	12%	2%	21%	3%
C	Power	16%	17%	20%	21%	7%	17%	3%
D	Appearance	12%	17%	39%	15%	5%	9%	3%
E	Cost of purchase	8%	11%	17%	32%	16%	13%	3%
F	Cost of operating	34%	28%	12%	4%	3%	15%	3%
G	Driving range	9%	7%	11%	25%	32%	13%	3%
H	Overall value	19%	30%	18%	11%	3%	17%	3%
I	Being fun to own	27%	28%	19%	6%	2%	14%	3%
J	Availability of tax rebates for purchase	50%	25%	6%	1%	1%	14%	3%
K	Ability to use carpool lanes as a single driver	59%	19%	6%	2%	1%	11%	3%

Q9 Are there any significant **barriers** that would keep you from owning an electric vehicle?

1	Yes	35%
2	No	38%
3	Not Sure	23%
99	Prefer not to answer	4%

Q10 Are any of the following factors a **barrier** to you purchasing an electric vehicle?

		No, not a barrier	Yes, small barrier	Yes, medium barrier	Yes, big barrier	Not sure	Refused
A	Difficulty finding a charging station on the road	13%	24%	24%	28%	10%	1%
B	Difficulty charging a vehicle at my home	38%	21%	13%	16%	11%	1%
C	Concern that the vehicle will run out of electricity while on the road	18%	23%	23%	27%	9%	1%
D	Limited driving range	14%	23%	23%	29%	10%	1%

E	Cost of purchase	15%	21%	24%	25%	13%	1%
F	Time it takes to recharge vehicle	19%	25%	25%	18%	12%	1%

Section 6: Vehicle Background

Q11	Prior to today, had you personally driven an electric vehicle?						
	1	Yes					37%
	2	No					61%
	99	Prefer not to answer					2%
Q12	Prior to today, had you personally ridden as a passenger in an electric vehicle?						
	1	Yes					46%
	2	No					51%
	99	Prefer not to answer					2%
Q13	Do you currently own/lease a vehicle?						
	1	Yes					81%
	2	No					16%
	99	Prefer not to answer					3%
Q14	How is your current vehicle powered?						
	1	Gas					71%
	2	Diesel/Biodiesel					2%
	3	Hybrid (gas & electricity)					12%
	4	Plug-in Hybrid (gas & electricity)					3%
	5	Plug-in Electric (no gas)					7%
	99	Prefer not to answer					6%
Q15	Are you considering purchasing/leasing a new vehicle in the next two years?						
	1	Yes	60%				Ask Q16
	2	No	25%				Skip to Q17
	99	Prefer not to answer	15%				Skip to Q17

Q16 How soon do you think you will purchase/lease a new vehicle?		
1	Within next 3 months	12%
2	3 to 6 months	11%
3	6 months to 1 year	23%
4	1 year to 2 years	47%
99	Prefer not to answer	8%
Q17 If you were to purchase/lease a new vehicle in the next two years, what would you say are the chances it will be an electric vehicle?		
1	100% - Definitely will be an electric vehicle	12%
2	90% to 99%	9%
3	80% to 89%	10%
4	70% to 79%	14%
5	60% to 69%	8%
6	50% to 59%	19%
7	40% to 49%	6%
8	30% to 39%	6%
9	20% to 29%	5%
10	1% to 19%	3%
11	0% - Definitely will NOT be an electric vehicle	1%
99	Prefer not to answer	8%
Thank you for sharing your opinions! Enjoy your test drive!		

PRE-DRIVE SURVEY - GOOGLE VERSION

MTC - Experience Electric Campaign Pre-Test Drive Survey

December 2014

H	Overall value	15%	34%	22%	15%	3%	10%	1%
I	Being fun to own	21%	30%	26%	8%	3%	11%	1%
J	Availability of tax rebates for purchase	53%	29%	6%	1%	0%	10%	1%
K	Ability to use carpool lanes as a single driver	65%	18%	7%	1%	1%	8%	1%
Q4	Are there any significant barriers that would keep you from owning an electric vehicle?							
	1	Yes	34%					
	2	No	42%					
	3	Not Sure	22%					
	99	Prefer not to answer	2%					
Q5	Are any of the following factors a barrier to you purchasing an electric vehicle?							
	<i>Randomize.</i>		No, not a barrier	Yes, small barrier	Yes, medium barrier	Yes, big barrier	Not sure	Refused
A	Difficulty finding a charging station on the road		13%	20%	29%	33%	6%	0%
B	Difficulty charging a vehicle at my home		38%	20%	18%	17%	7%	0%
C	Concern that the vehicle will run out of electricity while on the road		12%	24%	23%	34%	6%	1%
D	Limited driving range		12%	20%	27%	33%	7%	0%
E	Cost of purchase		17%	24%	29%	23%	7%	0%
F	Time it takes to recharge vehicle		17%	29%	26%	20%	8%	0%

Section 6: Vehicle Background

Q6	Prior to today, had you personally driven an electric vehicle?							
	1	Yes	36%					
	2	No	63%					
	99	Prefer not to answer	1%					
Q7	Prior to today, had you personally ridden as a passenger in an electric vehicle?							
	1	Yes	50%					
	2	No	49%					
	99	Prefer not to answer	1%					

Q8	Do you currently own/lease a vehicle?			
	1	Yes	85%	
	2	No	14%	
	99	Prefer not to answer	2%	
Q9	How is your current vehicle powered?			
	1	Gas	80%	
	2	Diesel/Biodiesel	2%	
	3	Hybrid (gas & electricity)	10%	
	4	Plug-in Hybrid (gas & electricity)	3%	
	5	Plug-in Electric (no gas)	4%	
	99	Prefer not to answer	3%	
Q10	Are you considering purchasing/leasing a new vehicle in the next two years?			
	1	Yes	69%	Ask Q11
	2	No	21%	Skip to Q12
	99	Prefer not to answer	9%	Skip to Q12
Q11	How soon do you think you will purchase/lease a new vehicle?			
	1	Within next 3 months	10%	
	2	3 to 6 months	12%	
	3	6 months to 1 year	24%	
	4	1 year to 2 years	46%	
	99	Prefer not to answer	8%	
Q12	If you were to purchase/lease a new vehicle in the next two years, what would you say are the chances it will be an electric vehicle?			
	1	100% - Definitely will be an electric vehicle	11%	
	2	90% to 99%	5%	
	3	80% to 89%	10%	
	4	70% to 79%	16%	
	5	60% to 69%	9%	
	6	50% to 59%	24%	
	7	40% to 49%	7%	
	8	30% to 39%	5%	

Q8	Do you currently own/lease a vehicle?			
	1	Yes	85%	
	2	No	14%	
	99	Prefer not to answer	2%	
Q9	How is your current vehicle powered?			
	1	Gas	80%	
	2	Diesel/Biodiesel	2%	
	3	Hybrid (gas & electricity)	10%	
	4	Plug-in Hybrid (gas & electricity)	3%	
	5	Plug-in Electric (no gas)	4%	
	99	Prefer not to answer	3%	
Q10	Are you considering purchasing/leasing a new vehicle in the next two years?			
	1	Yes	69%	<i>Ask Q11</i>
	2	No	21%	<i>Skip to Q12</i>
	99	Prefer not to answer	9%	<i>Skip to Q12</i>
Q11	How soon do you think you will purchase/lease a new vehicle?			
	1	Within next 3 months	10%	
	2	3 to 6 months	12%	
	3	6 months to 1 year	24%	
	4	1 year to 2 years	46%	
	99	Prefer not to answer	8%	
Q12	If you were to purchase/lease a new vehicle in the next two years, what would you say are the chances it will be an electric vehicle?			
	1	100% - Definitely will be an electric vehicle	11%	
	2	90% to 99%	5%	
	3	80% to 89%	10%	
	4	70% to 79%	16%	
	5	60% to 69%	9%	
	6	50% to 59%	24%	
	7	40% to 49%	7%	
	8	30% to 39%	5%	

9	20% to 29%	3%
10	1% to 19%	4%
11	0% - Definitely will NOT be an electric vehicle	1%
99	Prefer not to answer	4%

Section 7: Extended Post Survey Opt-In

Q13 We would like to do a short, follow-up survey with you in about three months. As a show of appreciation for sharing your opinions with us, you will be entered into a sweepstakes to win one of five \$100 prizes for participating in the follow-up survey.

Can we contact you by email or telephone in three months for the follow-up survey?

1	Yes	47%	Ask Q14
2	No	43%	Skip to End
99	Prefer not to answer	10%	Skip to End

Q14 Please provide the following information.

a	First Name	Data on file
b	Last Name	Data on file
c	ZIP Code where you live	Data on file
d	Phone #	Data on file
e	Email address	Data on file

Thank you for sharing your opinions! Enjoy your test drive!

POST-DRIVE SURVEY

MTC – Experience Electric Campaign POST-Test Drive Survey

November 2014

	14	Smart ED		16%					
	15	Tesla Model S		1%					
	16	Toyota Prius Plug-in Hybrid		0%					
	17	Toyota Rav4 EV		4%					
	18	Kia Soul EV		3%					
	19	Renault		0%					
	20	Porsche		0%					
	21	Other		1%					
	99	Prefer not to answer		0%					
Q4	Overall, how would you rate your test drive experience?								
	1	Excellent		59%					
	2	Good		35%					
	3	Fair		4%					
	4	Poor		1%					
	5	Very Poor		0%					
	99	Prefer not to answer		1%					
Q5	Now that you've had a chance to test drive an electric vehicle, is your overall opinion of electric vehicles better, worse, or about the same?								
	1	Much better		42%					
	2	Somewhat better		37%					
	3	About the same		19%					
	4	Somewhat worse		1%					
	5	Much worse		0%					
	99	Prefer not to answer		1%					
Q6	Now that you've had a chance to test drive an electric vehicle, let us ask you again: When compared to a similar gas-powered vehicle, do you perceive electric vehicles (EVs) to be better, worse, or about the same on the following criteria? If you don't have an opinion, select the 'not sure' button.								
			EV is much better	EV is somewhat better	About the same	EV is somewhat worse	EV is much worse	Not Sure	Prefer not to answer
A	Overall quality		24%	34%	32%	3%	0%	4%	3%
B	Driving performance/handling		26%	28%	33%	7%	1%	3%	3%
C	Power		24%	27%	29%	10%	2%	5%	2%
D	Appearance		22%	24%	38%	9%	2%	3%	3%

True North Research, Inc. © 2014

Page 2

E	Cost of purchase	13%	16%	22%	29%	10%	6%	3%
F	Cost of operating	34%	33%	15%	6%	2%	7%	3%
G	Driving range	14%	16%	18%	28%	17%	4%	3%
H	Overall value	23%	36%	23%	8%	1%	6%	2%
I	Being fun to own	34%	35%	20%	3%	1%	4%	2%
J	Availability of tax rebates for purchase	55%	26%	8%	1%	0%	7%	3%
K	Ability to use carpool lanes as a single driver	61%	20%	10%	1%	0%	6%	3%
Q7	At this point, are any of the following factors a barrier to you purchasing an electric vehicle?							
		No, not a barrier	Yes, small barrier	Yes, medium barrier	Yes, big barrier	Not sure	Refused	
A	Difficulty finding a charging station on the road	15%	32%	24%	20%	7%	2%	
B	Difficulty charging a vehicle at my home	39%	25%	15%	13%	6%	1%	
C	Concern that the vehicle will run out of electricity while on the road	20%	28%	24%	21%	6%	1%	
D	Limited driving range	16%	27%	27%	22%	6%	2%	
E	Cost of purchase	19%	27%	25%	21%	7%	2%	
F	Time it takes to recharge vehicle	20%	32%	24%	15%	8%	1%	

Section 4: Purchase Expectations

Q8	Now that you've had a chance to test drive an electric vehicle, are you more likely to purchase an electric vehicle, less likely to purchase an electric vehicle, or has your likelihood of purchasing an electric vehicle stayed about the same ?	
1	Much more likely	26%
2	Somewhat more likely	42%
3	About the same	27%
4	Somewhat less likely	1%
5	Much less likely	1%
99	Prefer not to answer	2%

Q9	If you were to purchase/lease a new vehicle in the next two years, what would you say are the chances it will be an electric vehicle?		
	1	100% - Definitely will be an electric vehicle	16%
	2	90% to 99%	12%
	3	80% to 89%	16%
	4	70% to 79%	17%
	5	60% to 69%	11%
	6	50% to 59%	13%
	7	40% to 49%	5%
	8	30% to 39%	3%
	9	20% to 29%	3%
	10	1% to 19%	2%
	11	0% - Definitely will NOT be an electric vehicle	1%
	99	Prefer not to answer	2%

Section 5: Extended Post Survey Opt-In

Q10 We would like to do a short, follow-up survey with you in about three months. As a show of appreciation for sharing your opinions with us, you will be entered into a sweepstakes to win one of five \$100 prizes for participating in the follow-up survey.

Can we contact you by email or telephone in three months for the follow-up survey?

	1	Yes	47%
	2	No	41%
	99	Prefer not to answer	12%

Thank you for sharing your opinions!

Sample/Database Items

S1 Pre-Test Drive Version (Matching on Passcode entered by respondent)

	1	Google	28%
	2	Non-Google	35%
	3	Neither	35%
	4	Both	2%

S2 What is your age? (collected during Pre-Test Drive Survey)		
1	16 to 24	2%
2	25 to 34	7%
3	35 to 44	7%
4	45 to 54	7%
5	55 to 64	8%
6	65 or older	3%
99	Prefer not to answer	1%
0	No info on file	65%
S3 What is your gender (collected during Pre-Test Drive Survey)		
1	Male	24%
2	Female	11%
99	Prefer not to answer	1%
0	No info on file	65%
S4 Do you have a private parking space that has an electrical outlet where you could charge a vehicle? (collected during Pre-Test Drive Survey)		
1	Yes	31%
2	No	27%
3	Not sure	4%
99	Prefer not to answer	1%
0	No info on file	37%
S5 Which of the following categories best represents your household's total annual income before taxes? (collected during Pre-Test Drive Survey)		
1	Less than \$50,000	5%
2	\$50,000 to \$74,999	5%
3	\$75,000 to \$99,999	4%
4	\$100,000 to \$149,999	7%
5	\$150,000 to \$199,999	3%
6	\$200,000 to \$249,999	2%
7	\$250,000 to \$300,000	1%
8	\$300,000 or more	1%
99	Prefer not to answer	6%
0	No info on file	65%

S6	Prior to today, had you personally driven an electric vehicle? (collected during Pre-Test Drive Survey)		
	1	Yes	22%
	2	No	40%
	99	Prefer not to answer	1%
	0	No info on file	37%
S7	Are you considering purchasing/leasing a new vehicle in the next two years? (collected during Pre-Test Drive Survey)		
	1	Yes	40%
	2	No	16%
	99	Prefer not to answer	7%
	0	No info on file	37%

FOLLOW-UP SURVEY

MTC – Experience Electric Campaign Follow-Up Survey

December 2014

Section 3: Subsequent Behaviors

Q2	Since you participated in the Experience Electric Ride & Drive Event, have you: _____?				
	<i>Show in Order</i>	Yes	No	Not sure	Prefer not to answer
A	Purchased an electric vehicle	6%	92%	2%	0%
B	Leased an electric vehicle	6%	92%	1%	0%
C	Visited an electric vehicle dealership in person	34%	65%	2%	0%
D	Driven an electric vehicle	52%	48%	0%	0%
E	Looked online for information about electric vehicles	74%	26%	0%	0%
F	Spoken with family or associates about electric vehicles	85%	15%	0%	0%

Section 4: Purchase Information*Only Ask Q3 & Q4 if Q2a=1 OR Q2b=1*

Q3	Did the experience of test driving a vehicle at the Experience Electric Ride & Drive Event positively impact your decision to purchase/lease an electric vehicle?		
	1	Yes	76%
	2	No	21%
	99	Prefer not to answer	3%
Q4	What is the make and model of the electric vehicle you purchased/leased? Make shown below, model on file.		
	Nissan		28%
	Chevrolet		24%
	Ford		14%
	Toyota		10%
	Other		10%
	BMW		7%
	Honda		3%
	Prefer not to answer		3%

True North Research, Inc. © 2014

Page 2

Section 5: Barriers & Future Intentions							
Only Ask Q5 & Q6 if (Q2a=2 AND Q2b=2)							
Q5	Is _____ a barrier to you purchasing an electric vehicle? If yes, ask: Would that be a big, medium or small barrier?						
	<i>Randomize</i>	No, not a barrier	Yes, small barrier	Yes, medium barrier	Yes, big barrier	Not sure	Refused
A	Difficulty finding a charging station on the road	14%	21%	28%	33%	4%	0%
B	Difficulty charging a vehicle at my home	43%	21%	14%	20%	2%	0%
C	Concern that the vehicle will run out of electricity while on the road	19%	27%	21%	31%	2%	0%
D	Limited driving range	14%	18%	28%	38%	3%	0%
E	Cost of purchase	16%	21%	32%	27%	3%	0%
F	Time it takes to recharge vehicle	22%	27%	25%	20%	6%	0%
Q6	If you were to purchase/lease a new vehicle in the next two years, what would you say are the chances it will be an electric vehicle?						
	1	100% - Definitely will be an electric vehicle			15%		
	2	90% to 99%			9%		
	3	80% to 89%			8%		
	4	70% to 79%			10%		
	5	60% to 69%			11%		
	6	50% to 59%			18%		
	7	40% to 49%			7%		
	8	30% to 39%			6%		
	9	20% to 29%			5%		
	10	1% to 19%			6%		
	11	0% - Definitely will NOT be an electric vehicle			4%		
	99	Prefer not to answer			1%		
Thank you for sharing your opinions!							

Sample/Database Items			
S1	Pre-Test Drive Version (Matching on Passcode entered by respondent)		
	1	Google	16%
	2	Non-Google	83%
	3	Neither	0%
	4	Both	1%
S2	What is your age? (collected during Pre-Test Drive Survey)		
	1	16 to 24	4%
	2	25 to 34	17%
	3	35 to 44	13%
	4	45 to 54	17%
	5	55 to 64	20%
	6	65 or older	10%
	99	Prefer not to answer	2%
	0	No info on file	17%
S3	What is your gender (collected during Pre-Test Drive Survey)		
	1	Male	55%
	2	Female	28%
	99	Prefer not to answer	0%
	0	No info on file	17%
S4	Do you have a private parking space that has an electrical outlet where you could charge a vehicle? (collected during Pre-Test Drive Survey)		
	1	Yes	46%
	2	No	30%
	3	Not sure	6%
	99	Prefer not to answer	1%
	0	No info on file	17%

S5	Which of the following categories best represents your household's total annual income before taxes? (collected during Pre-Test Drive Survey)		
	1	Less than \$50,000	11%
	2	\$50,000 to \$74,999	11%
	3	\$75,000 to \$99,999	10%
	4	\$100,000 to \$149,999	18%
	5	\$150,000 to \$199,999	11%
	6	\$200,000 to \$249,999	5%
	7	\$250,000 to \$300,000	2%
	8	\$300,000 or more	3%
	99	Prefer not to answer	12%
	0	No info on file	17%
S6	Prior to today, had you personally driven an electric vehicle? (collected during Pre-Test Drive Survey)		
	1	Yes	31%
	2	No	51%
	99	Prefer not to answer	1%
	0	No info on file	17%
S7	Are you considering purchasing/leasing a new vehicle in the next two years? (collected during Pre-Test Drive Survey)		
	1	Yes	53%
	2	No	21%
	99	Prefer not to answer	8%
	0	No info on file	17%