

## Purchase Preferences of LMI Focus Groups

Supplemental Report to Analysis of LMI CVRP Participation

May 2022







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### **Executive Summary**

The Clean Vehicle Rebate Project (CVRP), administered by the Center for Sustainable Energy (CSE) for the California Air Resources Board (CARB), provides rebates to California residents who purchase qualifying Zero Emissions Vehicles (ZEV). The CVRP Increased Rebate provides an additional rebate incentive to CVRP participants who are of low to moderate-income (LMI) status.<sup>1</sup> LMI participation in the CVRP has accounted for 15.6% of all CVRP funding since November 1<sup>st</sup>, 2016, and CARB is interested in increasing the participation of LMI individuals.

This report serves as a supplement to CSE's two reports: Analysis of LMI CVRP Participation<sup>2</sup> and Demographic Analysis of LMI Focus Groups: Supplemental Report to Analysis of LMI CVRP Participation.<sup>3</sup> This report analyzes these same focus group discussions to complement and build off this previous work, with the goal of increasing CVRP participation among LMI individuals and ensuring equity across the program. More specifically, this report discerns preferences among the following:

This report supplements CSE's prior research: *Analysis of LMI CVRP Participation*<sup>4</sup> and *Demographic Analysis of LMI Focus Groups: Supplemental Report to Analysis of LMI CVRP Participation.*<sup>5</sup> This report analyzes preferences for the following among demographic groups.

- **Preference to Purchase or Lease Vehicles:** Most participants prefer to purchase rather than lease vehicles, citing freedom from worry about mileage and condition of the car as primary reasons. Participants also prefer to spend money on an asset they own rather than lease.
- **Preference to Acquire New or Used Cars:** The majority of participants preferred to acquire new cars. Participants associated used cars with unanticipated maintenance costs; new cars were considered more reliable in this context. Despite a strong desire to acquire new cars, participants expressed that used cars are much more feasible due to limitations of finances.
- **Preference to Utilize Public or Private Transportation:** Most participants preferred private transportation but expressed interest in well-executed public transportation. Most noted that public transportation is not reliable or present in desired areas.

As a result of CSE's research on this topic, we have identified various barriers and preferences among several demographics of LMI individuals. Barriers and communication preferences may be specific to different demographics. Creating solutions and messaging to address LMI barriers (e.g., costs and charging) in the means by which LMI individuals prefer to hear them (e.g., online resources and experiential learning) may yield higher participation among this population. Similarly, tailoring programs to enhance purchasing preferences may increase interest as well; this report finds LMI individuals have a preference for purchasing used vehicles rather than leasing or seeking new vehicles. This research, combined with CSE's prior work, provides insight into the nuances among LMI individuals' considerations of EVs and related programs; focus on this may enhance equity within these programs.

<sup>&</sup>lt;sup>5</sup> McCormack, R., Stafford, M., Good, C., Gartner, J. & Henkin, Z. (2022). Demographic Analysis of LMI Focus Groups. Supplemental Report to Analysis of LMI CVRP Participation.



<sup>&</sup>lt;sup>1</sup> LMI is defined as 400% of the Federal Poverty Line or below

<sup>&</sup>lt;sup>2</sup> Gartner, J., Cain, N. J., MacNeille, B., & McCormack, R. (2021). Analysis of LMI CVRP Participation.

<sup>&</sup>lt;sup>3</sup> McCormack, R., Stafford, M., Good, C., Gartner, J. & Henkin, Z. (2022). Demographic Analysis of LMI Focus Groups. Supplemental Report to Analysis of LMI CVRP Participation.

<sup>&</sup>lt;sup>4</sup> Gartner, J., Cain, N. J., MacNeille, B., & McCormack, R. (2021). Analysis of LMI CVRP Participation.

## Background

Prior analyses, Analysis of LMI CVRP Participation<sup>6</sup> and Demographic Analysis of LMI Focus Groups: Supplemental Report to Analysis of LMI CVRP Participation,<sup>7</sup> evaluated the representation and perspectives of LMI individuals within CVRP. CSE conducted focus groups of LMI individuals to understand (1) LMI barriers to adopting electric vehicles (EVs) and (2) how adapting marketing efforts may better serve the LMI population.<sup>8</sup> The main conclusions of the aforementioned studies are summarized in the following.

#### The top five barriers show a predominance of costs and charging concerns among LMI individuals.<sup>9</sup>

- **Costs** (e.g., EVs, charging, maintenance): 27%<sup>10</sup>
- Charging (e.g., lack of charging stations, charging takes too long): 25%
- Range (e.g., fear of being stranded, the range is too short): 10%
- Information (e.g., lack of comprehensive EV sources, uninformative ads): 9%
- **Dealerships** (e.g., dealers pressure customers, salespeople are not knowledgeable about EVs): 8%

## The top five preferred information sources for learning about cars show online research is preferred among LMI individuals.<sup>11</sup>

- Online (e.g., doing online research, YouTube videos, reviews of vehicles): 34%
- **Experience** (e.g., test drives in non-pressured environments, seeing EVs on display, informational events): 17%
- Social Media (e.g., campaigns and ads on Facebook, Instagram, Twitter, TikTok): 13%
- Personal Contacts (e.g., talking to people and mechanics the customer already knows): 12%
- Dealer (e.g., test drives at dealerships and talking with dealers): 11%

**Cost and charging vary as primary concerns among underrepresented LMI groups, but both are important across groups.** Focus group discussions from members of underrepresented groups were analyzed. Underrepresented groups include those of Hispanic, Latino, Latina and Latinx ethnicity, Black or African American individuals, White or Caucasian individuals, those aged 39 and below, those who identify as women, those who have less than a college degree, and those who rent their homes.<sup>12</sup>

<sup>10</sup> Note the percentages reflect the number of mentions within the focus groups.

<sup>&</sup>lt;sup>12</sup> Note household size nor residence type were considered the underrepresentation analysis. Most focus group participants were in households of 2 to 4 people, and costs were most predominant. Dwellers of attached houses or townhomes are most concerned about charging issues. People who live in detached houses are most concerned about costs. Note also that whether or not individuals rent was not considered as criterial for focus group



<sup>&</sup>lt;sup>6</sup> Gartner, J., Cain, N. J., MacNeille, B., & McCormack, R. (2021). Analysis of LMI CVRP Participation.

<sup>&</sup>lt;sup>7</sup> McCormack, R., Stafford, M., Good, C., Gartner, J. & Henkin, Z. (2022). Demographic Analysis of LMI Focus Groups. Supplemental Report to Analysis of LMI CVRP Participation.

<sup>&</sup>lt;sup>8</sup> LMI individuals within the focus groups were those with incomes at or below the 400% Federal Poverty Level, the threshold for the Increased Rebate as of January 27, 2021. Six groups of 5-6 people each were held in March and April 2021.

<sup>&</sup>lt;sup>9</sup> Gartner, J., Cain, N. J., MacNeille, B., & McCormack, R. (2021). Analysis of LMI CVRP Participation.

<sup>&</sup>lt;sup>11</sup> Gartner, J., Cain, N. J., MacNeille, B., & McCormack, R. (2021). Analysis of LMI CVRP Participation.

- Ethnicity: Costs are more prevalent concerns among individuals of Hispanic, Latino, Latina and Latinx ethnicity, while those not of this ethnicity are more concerned about charging issues. Specifically, Hispanic, Latino, Latina and Latinx individuals are concerned about the costs of EVs and the costs of charging.<sup>13</sup>
- **Race:** Charging issues are the predominant barriers among Black or African American and White or Caucasian individuals. Black or African Americans were also less concerned about costs than White or Caucasian individuals.<sup>14</sup>
- Age: Ages up to 39 are most concerned about costs. Within ages 30-39, cost concerns are on par with charging concerns.<sup>15</sup>
- **Gender:** Concerns about costs were most frequently mentioned among both men and women. Charging remained a close second, and women tended to be more concerned about the range of EVs than men.<sup>16</sup>
- Education: Charging concerns are more influential among those with college educations. Individuals with less education have more concerns about costs.<sup>17</sup>

## All underrepresented LMI groups prefer online outreach but also value in-person educational opportunities. Whether online or in-person, participants prefer impartial, unbiased sources.<sup>18</sup>

- Participants preferred online sources (e.g., detailed online reviews by consumers, online dealer information, YouTubers comparing various models) to other traditional outreach methods.
- Experiential learning, such as test drives and informational events where people can experience EVs first-hand, are highly valued; participants expressed events would demystify EVs and provide more comfort for individuals to consider EVs.
- Personal testimony, whether from personal contacts or online reviewers, is also important to this group. Participants spoke of the value they find in talking with trusted mechanics and engaging in consumer reviews online.

 <sup>&</sup>lt;sup>17</sup> Gartner, J., Cain, N. J., MacNeille, B., & McCormack, R. (2021). Analysis of LMI CVRP Participation.
<sup>18</sup> McCormack, R., Stafford, M., Good, C., Gartner, J. & Henkin, Z. (2022). Demographic Analysis of LMI Focus Groups. Supplemental Report to Analysis of LMI CVRP Participation.



participation. For more information see McCormack, R., Stafford, M., Good, C., Gartner, J. & Henkin, Z. (2022). Demographic Analysis of LMI Focus Groups. Supplemental Report to Analysis of LMI CVRP Participation. <sup>13</sup> McCormack, R., Stafford, M., Good, C., Gartner, J. & Henkin, Z. (2022). Demographic Analysis of LMI Focus Groups. Supplemental Report to Analysis of LMI CVRP Participation.

<sup>14</sup> Ibid.

<sup>&</sup>lt;sup>15</sup> Ibid.

<sup>&</sup>lt;sup>16</sup> Ibid.

### Findings

#### Preference for Purchasing or Leasing Vehicles

When asked about preference for purchasing or leasing vehicles, all demographic groups displayed an overall preference for purchasing vehicles. Common reasons discussed behind why participants preferred to purchase a vehicle were not having to worry about going over mileage allowances, the condition the vehicle had to be returned in and having their payments apply toward something that they own and have equity stored. Those that did prefer to lease their vehicles cited lower monthly payments and more desirable rebates or financial outcomes by choosing to lease the vehicle.

- Mileage allowance on leases was frequently listed as a negative aspect. Mileage allowances were viewed as limiting and undesirable by participants who travel with their car and valued having a flexible schedule. Additionally, participants were concerned that in the event that participants were to go over their allowance, they would owe a large sum of money at the end of the lease. The mileage allowances on the lease were also seen as a hindrance to spontaneity or activities requiring driving. Purchasing a vehicle negates the mileage allowance issue and allows participants to use and drive their vehicle as they please.
- Condition the vehicle needs to be returned in was mentioned as a hindrance to leasing. Participants noted that transporting children around in their car could often lead to it becoming very messy.
- Payments not being applied toward something they own were also discussed as a negative aspect of leasing. Participants overall preferred to have their payments going toward something where they have equity accrued.

In general, purchasing a vehicle allows participants to feel more at ease with their vehicle and require less planning. Participants stated that they liked being able to use their car and drive as they saw fit without having to worry about the mileage. Participants listed that leasing could be a good option for those with very consistent driving routines, but most of the time, that would not work for them. Owning their vehicle was also listed as important because they are making payments toward something they own.

When broken down by demographic, there are some groups that showed greater interest and preference in leasing or buying. Ages 20-29 and 30-39 only preferred purchasing their vehicles. Ages 40-49 and 50-59 had at least one participant that preferred to lease. See Table 1. When considering education level, the only participants who preferred to lease were college graduates or above. See Table 2. When looking at race, the only groups that had participants who preferred to lease were Other races or White or Caucasian. See Table 5. Participants in a detached house residence were the only group to have any members prefer to lease their vehicles. See Table 6. The following are quotes illustrative of the abovementioned sentiments about purchasing and leasing.

• Quoted by a focus group participant with the following characteristics: Age 48; County: Imperial; Education: College graduate and above; Ethnicity: Hispanic, Latino, Latina or Latinx; Gender: Male; Race: Other race; Residence: A detached house

"I'd rather buy a car than lease, simply because- at least driving distance to work, for my wife, it's about 30 miles, round-trip. And she goes to work every- five days a week. And it makes it



impossible for us to have a lease without a paying a penalty for mileage. I would love to be able to pay less, but I usually end up buying the cars. So, it's better for our family to be able to buy them. I'm over that time where my kids would make a mess in my car. So, my cars are actually looking a lot better nowadays than the messy dad car."

• Quoted by a focus group participant with the following characteristics: Age: 49; County: Riverside; Education: College graduate and above, Ethnicity: Not Hispanic, Latino, Latina or Latinx; Gender: Female; Race: Southeast Asian; Housing: A detached house

"When I was younger, I didn't understand the difference either between leasing and buying. But it really is like what your life and employment situation is, if you are, let's say, an independent consultant, and you can write things off, it would make much better sense to lease a vehicle because then it would be one of your write-offs for your business, your consulting work. And you don't then you have to worry about maintenance, you don't, every couple of years, or when the lease runs out, you're driving a brand new vehicle. So I mean, at the end of the day, you kind of have to figure out what financially makes more sense for you and your financial situation. But as a mother, driving around kids who dump food and drinks all over their vehicle, I wouldn't get a leased vehicle because, but who would want it back? It'd be a mess."

• Quoted by a focus group participant with the following characteristics: Age: 28; County: San Diego; Education: College graduate and above; Ethnicity: Not Hispanic, Latino, Latina or Latinx; Gender: Male; Race: South Asian, Residence: A detached house

"One of the reasons why I don't lease is, typically the same reason [others] gave; you need to have a full-time job or you need to have a consistent daily schedule, dropping off your kid, or going to full-time job every day. You just need to have one routine to stay with the lease, because you can't go anywhere with it, you have 10,000 miles per year or 12,000 miles based on the package. So, it's limited for some people. These days, a lot of people are working on gig economy as well, so they like to have the car in hand to drive as much as they can, because that's one way of making money these days."

• Quoted by a focus group participant with the following characteristics: Age 53, County: Sacramento; Education: College graduate and above, Ethnicity: Not Hispanic, Latino, Latina or Latinx; Gender: Female; Race: White or Caucasian; Residence: A detached house

"Actually, the last three cars that I've had I have leased. This last time I bought out the lease, because you want to own something. And I think you get more equity in it. It's painful to put all the money in, and then turn the car back in. Even though the monthly rates are typically lower on a lease. When I've leased, it's typically because I've known the amount of money that I want to put down. And if you look at the difference between leasing the car and buying the car, it brings the monthly payments way down."



### Table 1. Frequency of mentions of preference to purchase or lease by age.

Age Ranges	Prefer to Lease (n=3)	Prefer to Purchase (n=29)
Age up to 29	0	6
Age 30 to 39	0	6
Age 40-49	1	9
Age 50 to 59	2	8

# Table 2. Frequency of mentions of preference to purchase or lease by educationlevel.

Education Level	Prefer to Lease (n=3)	Prefer to Purchase (n=29)	
College Graduate and Above	3	16	
Some College Education and High School Graduate	0	13	

### Table 3. Frequency of mentions of preference to purchase or lease by gender.

Gender	Prefer to Lease (n=3)	Prefer to Purchase (n=28)	
Female	3	16	
Male	1	13	

### Table 4. Frequency of mentions of preference to purchase or lease by ethnicity.

Ethnicity	Prefer to Lease (n=4)	Prefer to Purchase (n=28)	
Hispanic, Latino, Latina or Latinx	2	12	
Not Hispanic, Latino, Latina or Latinx	2	17	

#### Table 5. Frequency of mentions of preference to purchase or lease by race.

Race	Prefer to Lease (n=4)	Prefer to Purchase (n=28)
Bi-Racial or Multi-Racial	0	0
Black or African American	0	6
Other Race	2	13
South Asian	0	4
Southeast Asian	0	2
White or Caucasian	2	4



### Table 6. Frequency of mentions of preference to purchase or lease by residence.

Residence Type	Prefer to Lease (n=3)	Prefer to Purchase (n=29)
A detached house	3	16
An apartment or condo	0	7
An attached house, a townhome, or similar	0	6



#### Preference for New or Used Vehicles

When asked about their preferences for purchasing or leasing a new or used vehicle, the majority of participants preferred new, especially if someone could afford it. However, many participants did prefer used vehicles also. Participants noted that it depends on their financial status, and while they may prefer a new car if they had unlimited means, their realistic preference would be a used car. The main reasons and explanations behind participants' preferences for new or used vehicles involved initial costs, vehicle maintenance and reliability, and vehicle depreciation.

- Initial costs for new vehicles were listed as a major reason why participants preferred to buy used vehicles. Participants expressed that the benefits of a used vehicle did not always make up for the higher initial cost.
- Vehicle maintenance and reliability were discussed as a reason for preferring both new and used vehicles by participants. Those who preferred buying new believed that new vehicles have less risk of breaking down, reducing costly unforeseen repairs. Those who preferred new cars explained that you do not always know the state of a used vehicle, and while you may save money initially, you cannot be sure of the vehicle's integrity and could face costly repairs. For those that preferred buying used, this leaves time for the vehicle to be driven and see if the car was made well. By allowing time for the car to be used, driven and reviewed by others, that could help eliminate buying cars that are not as reliable or tend to need more repairs.
- Vehicle depreciation was a primary reason for buying used. Participants cited how quickly a car depreciates when a vehicle leaves the lot. Many participants reasoned that it is not worth buying new because of how quickly a new car loses its value, and buying certified preowned or lower milage used cars was viewed as a more viable option.

The demographic groups that only preferred new vehicles were those aged 50-59, south Asian, Bi-Racial or Multi-Racial, Black or African American, and those residing in an apartment or condo. Those with a college education or higher had a much higher ratio of referencing used vehicles as their preference than those with some college education and high school graduates. See Table 7 through Table 12. Also, see the following quotes from participants describing their reasoning behind their preferences.

• Quoted by a focus group participant with the following characteristics: Age: 37; County: San Jose; Education: Some College Education and High School Graduate; Ethnicity: Hispanic, Latino, Latina or Latinx; Gender: Female; Race: Other race; Residence: An attached house, a townhome, or similar

"I'd like to buy a new car, zero miles ... So you don't have to struggle with buying parts or something like that. In fact, the company also gives you plans for them to check it every year, I don't know."

• Quoted by a focus group participant with the following characteristics: Age 47; County: Los Angeles; Education: Some College Education and High School Graduate; Ethnicity: Hispanic, Latino, Latina or Latinx; Gender: Male; Race: Other race; Residence: A detached house

*"I've always bought new cars. I don't like to struggle at all. A brand new one won't give you any trouble for at least eight or ten years. When it's new. Zero miles."* 



• Quoted by a focus group participant with the following characteristics: Age: 23; County: Fresno; Education: College Graduate and Above; Ethnicity: Not Hispanic, Latino, Latina or Latinx; Gender: Female; Race: Black or African American; Residence: An attached house, a townhome, or similar

"It's easier to be able to have that reliability and the confidence in the vehicle than like, yes, it's paid off but then one month down the line, you're hit with paying \$500 for a new part and then after that you're paying \$300 for a new part. And so even though you may have paid \$5,000 for a car, now you're one month in and all the maintenance you're putting into it, there's an additional \$2,000-3,000. That's \$8,000 now so for me, a new car is just easier"

• Quoted by a focus group participant with the following characteristics: Age: 41; County: San Diego; Education: Some College Education and High School Graduate, Ethnicity: Not Hispanic, Latino, Latina or Latinx; Gender: Male; Race: Bi-racial or Multi-racial, Residence: A detached house

" I don't wanna inherit someone else's problems that they're not gonna tell me about. I want somebody with money to hold accountable if my car ends up being a piece of crap. That's basically it. Yeah, other than that, I don't have a problem with the idea of a used car, but nobody here is honest when they're selling them."

• Quoted by a focus group participant with the following characteristics: Age: 39; County: Riverside; Education: Some College Education and High School Graduate; Ethnicity: Hispanic, Latino, Latina or Latinx; Gender: Female; Race: Other race; Residence: A detached house

"For me, it wouldn't be something I'd be interested in even though they offered those incentives. I feel like, for me in particular, I drive a lot. I my car new, and then, I put miles on it quickly. I don't know what the electric car will be like. I don't know if they need an oil change or what a regular car uses to maintain them. I don't know if the cost would be for me. I don't know if it would help me."

• Quoted by a focus group participant with the following characteristics: Age: 42; County: Fresno; Education: Some College Education and High School Graduate; Ethnicity: Not Hispanic, Latino, Latina or Latinx; Gender: Male; Race: White or Caucasian; Residence: A detached house

"I wanted to say something about the preference between new and used. The reason I prefer used cars is because anything can roll off the assembly line and have an issue with it. So for me, I prefer somebody else to have to go through that issue and get it fixed and then let it be sold somewhere else so I don't have to fix it."

• Quoted by a focus group participant with the following characteristics: Age: 26; County: Shasta; Education: College Graduate and Above, Ethnicity: Not Hispanic, Latino, Latina or Latinx, Gender: Female; Race: White or Caucasian; Residence: A detached house



" My issue with new cars is that as soon as you drive off of the lot, it depreciates immensely. It's almost like owning a used car. So trying to get any value out of it, even if you take just great care of it, is just completely pointless because it will never be anywhere near what you purchased it for. And then trying to get rid of it, unless you pay it outright in cash, trying to get rid of it is just, you're stuck in a payment for just years. And if you can't make it, then it's bad on your credit, it gets taken away."

• Quoted by a focus group participant with the following characteristics: Age: 49, County: Riverside; Education: College Graduate and Above; Ethnicity: Not Hispanic, Latino, Latina or Latinx; Gender: Female; Race: Southeast Asian; Residence: A detached house

"Yes. I am, in my younger days, when, I've never leased a vehicle I've always purchased. And I started off purchasing brand new vehicles, but then I, as the internet came into normal usage and you do your research online, you find out that there's really no point in buying a brand-new vehicle, soon as you drive it off the lot, it loses almost half its value. So just like for some of the financial reasons, so I've always purchased. But I lean now towards purchasing used or at least pre-owned certified. And I mean, they're sometimes the car has 100, 200, 300 miles on it, maybe 1000 miles, it's used, but it's essentially new to me. And so I, and also when I am in the market to buy, after I've done my research online, I mean, I try to do everything, so that by the time I hit the dealership, it is, the stress of being in that room with the finance person, it's down to an hour or two. And for some odd reason, they always try to stretch that."

• Quoted by a focus group participant with the following characteristics: Age: 48; County: Shasta; Education: Some College Education and High School Graduate; Ethnicity: Hispanic, Latino, Latina or Latinx; Gender: Female; Race: Other race; Residence: A detached house

" I think it depends on what you're looking for. I've bought used, and I've had good cars. My Kia, I bought brand new, too. I didn't have any problems. Because also, the type of car that you want to buy and the money you want to spend, all that factors into what you're going to buy. I'd like to buy a new 2021 GMC Denali, but who has \$54,000? I don't have \$54,000. I also don't want to pay \$1,500 monthly payment. It depends on the time. If you're doing well with your finances, OK. Then, of course. If you can't, the most natural thing would be to buy something that's going to cost me less and last for a while. That way, we save. It just depends on the situation. I've gotten good, used cars as well as new ones because no one has driven them. At least, I don't think so. I've seen both sides."

• Quoted by a focus group participant with the following characteristics: Age: 48; County: Shasta; Education: Some College Education and High School Graduate; Ethnicity: Latino, Latina or Latinx; Gender: Female; Race: Other race; Residence: A detached house

"I think it depends on what you're looking for. I've bought used, and I've had good cars. My Kia, I bought brand new, too. I didn't have any problems. Because also, the type of car that you want to buy and the money you want to spend, all that factors into what you're going to buy. I'd like to buy a new 2021 GMC Denali, but who has \$54,000? I don't have \$54,000. I also don't want to pay \$1,500 monthly payment. It depends on the time. If you're doing well with your finances, OK. Then, of course. If you can't, the most natural thing would be to buy something that's going to



cost me less and last for a while. That way, we save. It just depends on the situation. I've gotten good, used cars as well as new ones because no one has driven them. At least, I don't think so. I've seen both sides."

Table 7. Frequency of mentions of	of preference for new	or used vehicles by age.
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Age Ranges	Prefer New (n=19)	Prefer Either New or Used (n=2)	Prefer Used (n=7)
Age up to 29	5	1	2
Age 30 to 39	4	0	3
Age 40-49	7	1	2
Age 50 to 59	3	0	0

# Table 8. Frequency of mentions of preference for new or used vehicles byeducation.

Education Level	Prefer New (n=19)	Prefer Either New or Used (n=2)	Prefer Used (n=7)
College Graduate and Above	5	1	4
Some College Education and High School Graduate	14	1	3

#### Table 9. Frequency of mentions of preference for new or used vehicles by gender.

Gender	Prefer New (n=19)	Prefer Either New or Used (n=2)	Prefer used (n=7)
Female	10	1	4
Male	9	1	3

# Table 10. Frequency of mentions of preference for new or used vehicles byethnicity.

Ethnicity	Prefer New (n=19)	Prefer Either New or Used (n=2)	Prefer Used (n=7)
Hispanic, Latino, Latina or Latinx	11	1	3
Not Hispanic, Latino, Latina or Latinx	8	1	4



Race	Prefer New (n=19)	Prefer Either New or Used (n=2)	Prefer Used (n=7)
Bi-Racial or Multi-Racial	1	0	0
Black or African American	5	0	0
Other Race	11	1	3
South Asian	1	1	0
Southeast Asian	0	0	1
White or Caucasian	1	0	3

### Table 11. Frequency of mentions of preference for new or used vehicles by race.

# Table 12. Frequency of mentions of preference for new or used vehicles byresidence.

Residence Type	Prefer New (n=19)	Prefer Either New or Used (n=2)	Prefer Used (n=7)
A detached house	11	2	5
An apartment or condo	3	0	0
An attached house, a townhome, or similar	5	0	2



#### Preference for Public or Private Transportation

The majority of respondents expressed a preference for private transportation and expressed interest in public transportation if there were more options available or a more robust public transportation system. The main reasons and explanations behind participants' preferences for public or private transportation involved convenience, flexibility and lack of options.

- Counterintuitively, convenience was identified as a benefit by both parties those who prefer private transportation and those who prefer public transportation. For those that prefer private transportation, this option was much more convenient when running multiple errands and shopping. Participants did not want to have to haul a lot of grocery items or other goods around longer than they had to, and private transportation was best for this. Those that preferred public transportation listed convenience as a factor also, assuming that it was a route/option that got them where they needed to go in a timely manner. Public transportation was deemed more convenient by some because it often removes the worry about parking, allows participants to do other things while using it since they are not driving, and allows participants less responsibility.
- Flexibility was seen as a positive aspect for private transportation by those that preferred it. Participants listed this as a more flexible option because they are not reliant on a prescheduled set of times and routes. While driving, if participants see a place they want to go unplanned, they could stop freely.
- Lack of options and feasibility regarding public transportation was a cause for concern for many participants. Many participants were interested and had positive attitudes toward public transportation when discussing it in cities and countries (mainly European) with robust options. However, the lack of options, routes, times and types of public transportation available to them where they lived was not good enough to warrant reliance on public transportation.

Participants that were college graduates or above expressed more of a preference for public transportation than those who had some college education and a high school graduate. See Table 14. Those who were male, not Hispanic, and living in an apartment or condo expressed more relative preferences toward public transportation than other groups in that demographic. See Table 13 through Table 18. The following quotes describe participants' preferences for public or private transportation.

• Quoted by a focus group participant with the following characteristics: Age: 49; County: Riverside; Education: College Graduate and Above; Ethnicity: Not Hispanic, Latino, Latina or Latinx; Gender: Female; Race: Southeast Asian; Residence: A detached house

" I would prefer as an individual to take public transportation however, I rarely do that because the infrastructure in this country, where I live in Southern California, is sadly not even comparable to some of the other Asian countries that I've visited and stayed in. So really it's environmental and situational here in this country and I have three boys and I transport them everywhere. It would be lovely if they could take public transportation but that just isn't an option right now living in the suburbs so when I was younger I rode a motorcycle. I enjoyed that but then after having children, you can't really do that. It's irresponsible because it's an insured death so now I drive an SUV but my go-to car when I'm just driving myself, I drive a little Volkswagen convertible.""



• Quoted by a focus group participant with the following characteristics: Age: 41; County: San Diego; Education: Some College Education and High School Graduate; Ethnicity: Not Hispanic, Latino, Latina or Latinx; Gender: Male; Race: Bi-racial or Multi-racial; Residence: A detached house.

"Yeah, not just the driving part. I mean, driving's OK, but there's something nice about sitting on the subway reading a book, listening to some music, and watching the world just go by. It's nice, you know?"

• Quoted by a focus group participant with the following characteristics: Age: 34; County: San Joaquin; Education: College Graduate and Above; Ethnicity: Hispanic, Latino, Latina or Latinx; Gender: Female; Race: Other race; Residence: A detached house

" I was just going to say, if those options, I don't think it's feasible, like 3-1 said, but when I was in San Diego, that was my main transportation, was the trolley system, and then my bike. And I mean, if that was if that was something that was available over here, I think I would definitely use that because that was the only thing that I ever used when I was over there. I mean, I even went grocery shopping on it with like, \$160 worth of food on my bike."

• Quoted by a focus group participant with the following characteristics: Age: 45, County: San Joaquin; Education: College Graduate and Above; Ethnicity: Hispanic, Latino, Latina or Latinx; Gender: Male; Race: Other race; Residence: A detached house.

"Well, for the most part, I use my car on occasion, it depends what it is. If it's a short trip, or I don't feel like driving, I'll call an Uber or Lyft. If it's a long distance, I'm going sometimes I just don't feel like driving so I'd like to take the train, if possible and I'll do that. It takes longer by train but if it's convenient, comfortable, relaxing. So if I go a distance to visit a friend or something like that, and on occasion, once in a while, I like to ride a bus just because of the various amount of interesting people that can be on the bus and that's just kind of fun sometimes. So I do that for enjoyment once in a while. So that's, yes, my take."

• Quoted by a focus group participant with the following characteristics: Age: 41; County: San Diego; Education: Some College Education and High School Graduate; Ethnicity: Not Hispanic, Latino, Latina or Latinx; Gender: Male; Race: Bi-racial or Multi-racial; Residence: A detached house

"I mean, if I've got a car I'll drive it. Going to the grocery store, I'm not going to go wait at the bus stop and then go to the grocery store, haul my stuff back. No. I'd prefer to use the car. But I'm OK either way, really. I don't like San Diego for the public transportation, but Shanghai was good, LA's good sometimes. If they've got public transportation that's decent I prefer it to owning the car, to the hassle"



• Quoted by a focus group participant with the following characteristics: Age: 26; County: Shasta; Education: College Graduate and Above; Ethnicity: Not Hispanic, Latino, Latina or Latinx; Gender: Female; Race: White or Caucasian; Residence: A detached house

" I agree with her, because when we had went to travel- Well, I mean, and this is a different country, but we had gone to Italy and it was, we had to either walk or ride the train or the bus, and it was actually so cool. And nobody really drove a car, unless you were going to the airport and stuff like that. Everyone gets around walking, and it's- I can see her point when she was talking about how when you're somewhere else that you're not used to being, you just see more when you're not in a car because you're not driving. I mean, I guess it's different if you're driving through the desert because there's not much to see. But if there's- I like walking through- We went to Georgia another time, and walking through there and seeing everything that Georgia has to offer was just really cool. It was a really beautiful experience."

• Quoted by a focus group participant with the following characteristics: Age: 28; County: San Diego; Education: College Graduate and Above; Ethnicity: Not Hispanic, Latino, Latina or Latinx; Gender: Male; Race: South Asian; Residence: A detached house

"Sure. My frequent type of transportation is- I live in San Diego, so we have a lot of different public transportation options. Of course, I mostly travel in a car, but my second top, probably, is the train, and also buses. So, we have a lot of public transportation which I frequently use to cut down the traffic."

• Quoted by a focus group participant with the following characteristics: Age: 23; County: Fresno; Education: College Graduate and Above; Ethnicity: Not Hispanic, Latino, Latina or Latinx; Gender: Female; Race: Black or African American; Residence: An attached house, a townhome, or similar

"I can. I primarily just use my vehicle. I feel like public transportation is not really efficient where I'm at; you wait a lot of time. You have to go in between this bus and that bus, and there's not really trains out here. So, my car is the quickest and easiest thing to get around in."

• Quoted by a focus group participant with the following characteristics: Age: 48; County: San Joaquin; Education: College Graduate and Above; Ethnicity: Not Hispanic, Latino, Latina or Latinx; Gender: Female; Race: Black or African American; Residence: A detached house

"Yes, I agree that I prefer my car as well. But if I'm going to San Francisco, I definitely prefer the BART because the parking is terrible, and I hate the hills. So it's easier to take BART to San Francisco. I lived in the suburbs, and it's Just a huge pain to drive all the way out there but once I'm there, then I Uber and I take the bus and I take all of the transportation, but if I'm going just to Santa Cruz or something like that, first of all, there's no bus that goes there that I know of. And secondly, I like to stop, at all the little fruit stands and things like that. So it's better to take that to drive my own car."



• Quoted by a focus group participant with the following characteristics: Age: 38; Education: Some College Education and High School Graduate; Gender: Male; Race: Black or African American; Residence: An apartment or condo

"Everything sounds good to reference I forgot who said it but you're just more in control of your own destination. You don't have to worry about anybody else driving. I drive kind of fast so I get to my destination fast so that's why I would prefer my own car. Like I say, when I'm out of town and sometimes within the city, a short little destinations where I have time. I'll do the Uber. Mostly because you're in control of your own destination."

• Quoted by a focus group participant with the following characteristics: Age: 53; County: Sacrament; Education: College Graduate and Above; Ethnicity: Not Hispanic, Latino, Latina or Latinx; Gender: Female; Race: White or Caucasian; Residence: A detached house

"My preference is definitely my car. I like to be in control and I have two boys that I have to take to all kinds of sporting events and we go camping and traveling. The safety features are really why I love that car. I would say just like 23-5, I do use Uber when I'm out and down. Or if my husband and I are going to an event we'll take Uber just so we don't have to worry about parking and that kind of thing. I also love that the car has GPS on it. Whenever I'm traveling I'm not lost."

• Quoted by a focus group participant with the following characteristics: Age: 34; County: San Joaquin; Education: College Graduate and Above; Ethnicity: Hispanic, Latino, Latina or Latinx; Gender: Female; Race: Other race; Residence: A detached house

"Yes, because there's like little stores, like, thrift stores on the way or maybe dropping by particular off the road. Like, there's like this pie town place that I want to visit. You can't do that when it's off and, on a bus, and train. And I just want that freedom, which is why I like the car."

• Quoted by a focus group participant with the following characteristics: Age: 32; County: Shasta; Education: Some College Education and High School Graduate; Ethnicity: Hispanic, Latino, Latina or Latinx; Gender: Male; Race: Other race; Residence: An attached house, a townhome, or similar

"Yeah. For me, I'm self-employed, and primarily what I do is, I shoot a lot of real estate photos, real estate video. And we're not very densely populated like Southern California is, we're a little bit more spread out. So, for me, I have a primary car which I have for my family, my kids and stuff. And then a separate car for work, which is really good on gas and stuff, because I'm driving anywhere from- sometimes I'll to go to Chico, Sacramento, which is an hour, maybe sometimes hour and a half away from me. So, for the economic sense of it, to pay less on gas, I'll take the Honda Accord stuff. So, for me, I do drive, primarily, because it serves as a function for work."

• Quoted by a focus group participant with the following characteristics: Age: 42; County: Fresno; Education: Some College Education and High School Graduate; Ethnicity: Not Hispanic, Latino, Latina or Latinx; Gender: Male; Race: White or Caucasian; Residence: A detached house



"Well, I'm disabled, mobility-wise, so I can't really walk to bus stops. Because we have the Fresno FAX here, and now it's free, but I still- I wouldn't be able to make it to the stop. So it's- My car is also my lifeline."

Table 13. Frequency of mentions of preference for public or private transportation	
by age.	

Age Range	Prefer Car (n=30)	Prefer Public Transportation (n=11)	Prefers both Car and Public Transportation (n=6)	
Age up to 29	4	2		2
Age 30 to 39	10	2	-	1
Age 40-49	9	5		2
Age 50 to 59	7	2		1

# Table 14. Frequency of mentions of preference for public or private transportationby education.

Education Level	Prefer Car (n=30)	Prefer Public Transportation (n=11)	Prefers both Car and Public Transportation (n=6)
College Graduate and Above	10	9	3
Some College Education or High School	20	2	3
Graduate			

Table 15. Frequency of mentions of preference for public or private transportation	
by gender.	

Gender	Prefer Car (n=30)	Prefer Public Transportation (n=11)	Prefers both Car and Public Transportation (n=6)
Female	21	6	2
Male	9	5	4

# Table 16. Frequency of mentions of preference for public or private transportationby ethnicity.

Ethnicity	Prefer	Prefer Public	Prefers both Car
	Car	Transportation	and Public
	(n=30)	(n=11)	



			Transportation (n=6)
Hispanic, Latino, Latina or Latinx	17	3	2
Not Hispanic, Latino, Latina or Latinx	13	8	4

# Table 17. Frequency of mentions of preference for public or private transportationby race.

Race	Prefer Car (n=30)	Prefer Public Transportation (n=11)	Prefers both Car and Public Transportation (n=6)
Bi-Racial or Multi-Racial	0	1	2
Black or African American	8	2	1
Other Race	17	3	1
South Asian	1	2	1
Southeast Asian	1	2	0
White or Caucasian	3	1	1

# Table 18. Frequency of mentions of preference for public or private transportationby residence.

Residence Type	Prefer Car (n=30)	Prefer Public Transportation (n=11)	Prefers both Car and Public Transportation (n=6)
A detached house	20	7	2
An apartment or condo	5	4	2
An attached house, a townhome, or similar	5	0	1



## Conclusion

This report supplements CSE's prior research: Analysis of LMI CVRP Participation<sup>19</sup> and Demographic Analysis of LMI Focus Groups: Supplemental Report to Analysis of LMI CVRP Participation.<sup>20</sup> This report analyzes preferences for the following among demographic groups.

#### Preference to Purchase or Lease Vehicles

Most participants preferred to purchase rather than lease vehicles. Participants argued that freedom and ownership were strong reasons for choosing to purchase. Examples of benefits discussed were not worrying about going over mileage allowances and not worrying about the condition of the vehicle at the end of the lease. Participants preferred to have their money go toward something they own and have accrued equity toward.

#### Preference to Acquire New or Used Cars

The majority of participants preferred to acquire new cars. Most wanted to avoid unanticipated mechanical issues often associated with buying used. However, many participants expressed that while new cars are ideal, they are not practical due to finances. With unlimited means, most would prefer a new car. Participants discussed vehicle depreciation as a great reason for buying used. Several expressed interest in buying certified preowned or lower mileage used cars.

#### Preference to Utilize Public or Private Transportation

While many participants overall preferred private transportation, public transportation was of interest and remained the preference for some. Lack of public transportation was a large factor in why participants did not prefer it. Many participants cited that they had a positive experience when using public transportation in large cities or other countries where public transportation is more developed. However, almost all the participants acknowledged that a private vehicle was needed for work, travel, or getting to places not offered on a convenient public transportation route.

#### Recommendations

As a result of CSE's prior research and this supplemental report, we have determined that some demographics are underrepresented within CVRP and that barriers and preferences identified by various demographics differ. Prior research indicates that we communicate with demographics regarding their specific concerns in the ways they want to hear about them. Tailoring messages to include solutions to the barriers stated by these focus groups is ideal. In addition to these recommendations, as a result of this report, we recommend the following.

• Understand that freedom and spontaneity are strong reasons LMI individuals prefer to use personal vehicles and purchase vehicles rather than leasing them. Ensure that programs enhance these values.

 <sup>&</sup>lt;sup>19</sup> Gartner, J., Cain, N. J., MacNeille, B., & McCormack, R. (2021). Analysis of LMI CVRP Participation.
<sup>20</sup> McCormack, R., Stafford, M., Good, C., Gartner, J. & Henkin, Z. (2022). Demographic Analysis of LMI Focus Groups. Supplemental Report to Analysis of LMI CVRP Participation.



• Support the inclusion of used cars into incentive or infrastructure programs. It is easier for LMI individuals to acquire used EVs because LMI individuals prefer used cars due to associated expenses. New cars, while desired, are not readily feasible.

In summary, LMI demographics have varying thoughts on barriers, information sources and purchasing preferences. Costs, charging, freedom and ease of use are important among all participants. Online resources and experiential learning are preferred; LMI individuals seek to be well informed ahead of purchasing or leasing. LMI participants expressed a higher interest in purchasing used cars as opposed to leasing or acquiring new cars. These insights will help inform marketing, program decisions and future research. We suggest considering these findings and CSE's prior research when reevaluating program components.





As a mission-driven nonprofit organization, CSE works with energy policymakers, regulators, public agencies and businesses as an expert implementation partner and trusted information resource. Together, we are the catalysts for sustainable energy market development and transformation.