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# Observed Charging Rates in California

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## Observed charging rates in California

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September 30, 2018

As a complement to various modeling efforts around the country, we provide a brief snapshot of charging behavior in the California market based on self-reported data. This is intended to be a resource for researchers to help guide assumptions on the effect that charging access, range, commuting patterns, and housing type have on charging usage. The data are reported charging events over the last 7 days by 2830 survey respondents in June- October 2017 as part of the Advanced Plug-in Travel and Charging Behavior Project funded by the California Air Resources Board, the California Energy Commission, the Alliance of Automobile Manufacturers, and the U.S. Department of Energy.

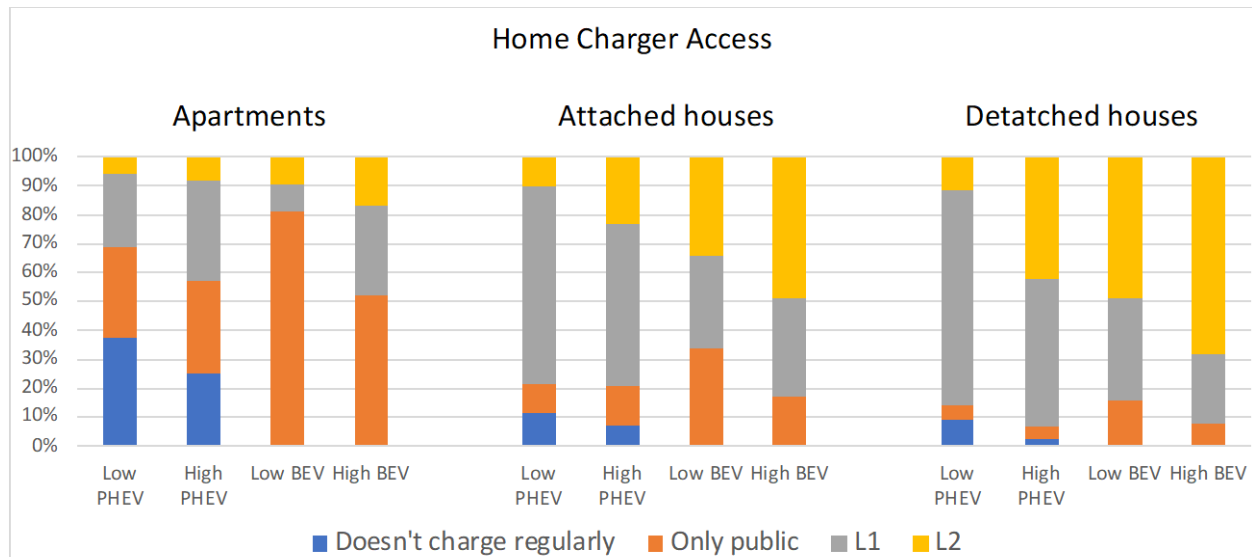
We organize the data into “clusters” defined a priori, which map to many of the attributes that researchers are using to create models of demand for charging. These attributes are: range, technology, home charging access, commuting pattern, work charging access and general usage of public charging. We do not believe that these are the only way to organize the data, but present it as a starting point for discussion and for broader value to the research community. More traditional clustering of these data is provided in other papers (Lee and Tal, TRB 2018).

We break the vehicles into range and technology categories consisting of plug-in hybrid electric vehicles (PHEVs) and battery electric vehicles (BEVs). As charging behavior is related to electric range, we provide charging counts for low range PHEVs including the first-generation Prius Plug-in (PHEV11), Ford C-Max Energi (PHEV20), Ford Fusion (PHEV20), and Prius Prime (PHEV25). High-range PHEVs include the first-generation Volt (PHEV38), and second-generation Volt (PHEV53), Low range BEVs include the first-generation Leaf (BEV84) and the second generation Leaf (BEV107) and the high range BEV consists of just the Chevrolet Bolt (BEV 238). Tesla’s are not included as they have represented a unique group in other analyses and may not be representative of future trends.

The next classification is for commute for employment purposes and whether there is access to charging. We note that access does not equal availability as congestion is a major issue affecting about 43% of all commuters. Further we make no reference to the price paid at work although this can increase the usage at work by up to 4 times. Over the entire sample we note that 50% is free, 10% is mixed free and paid, and 40% of workplace charging is for a fee. It should be noted that 39% of those with access to workplace charging did not use it in the last 7 days. This can be for a variety of reasons from congestion, pricing, vacation or lack of need based on other charging options such as home charging. Finally, workplace charging numbers are shown by activity not by location. We note that 16% charge while working at locations that are available to “company employees and the general public”, 11% are unsure of public access, and 73% charge while working at chargers used by “primarily company employees”. These percentages are important because up to 27% of work chargers may be public chargers.

Next, housing type is thought to affect access to home charging and vehicle choice. There are four classifications, Detached house, attached house up to three units, apartment and mobile home. The next classification is general usage of home and public charging. The first category is those who plug in 4 times or fewer per month denoted as “doesn’t charge regularly”. The second category of charging behavior is those who only use home charging and finally there are those who use public charging

exclusively or in combination with home charging. The breakdown of access to charging by housing type and vehicle type is shown in Figure 1. Mobile home charging access is not shown.



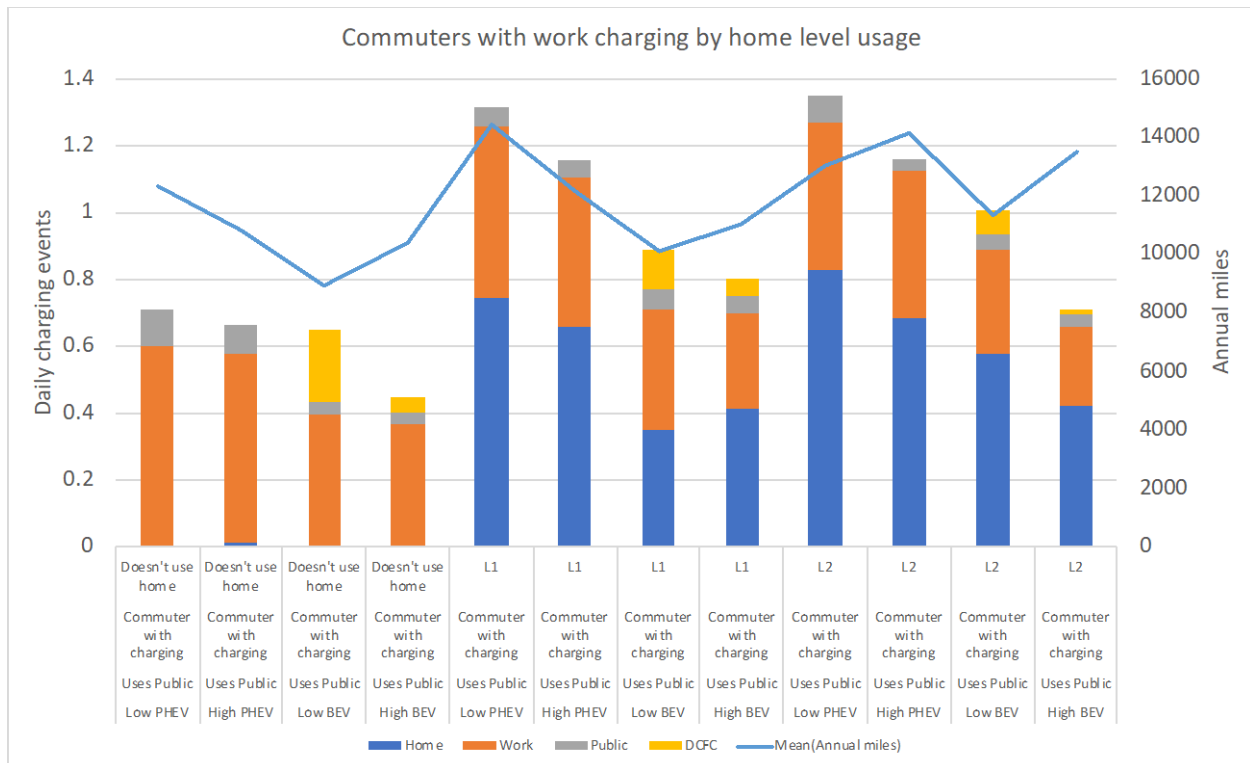
**Figure 1** Home charging access by dwelling type and vehicle type

Finally, we present home charging access/usage as the final factor for charging behavior. They are split into those who have not used home charging in the last 30 days (access to plugs is unknown), Those who use Level 1 charging and those who use Level 2.

The data presented based on these factors are the mean and median commute distance based on work and home location and shortest time path (commutes capped at 70 miles so as not to skew averages), and average yearly miles based on self-reported odometer readings and length of ownership (used vehicles were not included).

Finally, the sample size and the total number of events that cohort completes at home, work, other public and DC fast stations are recorded. To calculate home averages for example, if 39 households had 158 home events, this represents 4 home charges on average per week per household. Sample sizes are given to allow for significance to be determined with different aggregation schemes.

Home charging and vehicle type correlate with different charging and driving behavior. For example, we look at commuters with available workplace charging, including 21% of commuters who have used public charging in the last 30 days and had access to workplace charging, but did not use it). Figure 2 shows three categories of home charging usage – no home charging, level 1 home charging, and level 2 home charging.



**Figure 2** Average daily charger usage over the last 7 days among commuters with access to workplace charging and who have charged outside of home in the last 30 days.

Comparing low electric range vehicles to high electric range vehicles, those with more range charge less. Low range PHEVs are more likely to charge more and drive more. Workplace charging usage is lowest among users with available home level 2 charging. Public charging is a small portion of usage. Figure 1 represents only one subset of drivers. Many more drivers do not use public charging at all, many do not commute. Examining these scenarios is possible with the tables below.

Care must be taken when using these data and drawing conclusions. Charging behavior changes with time and this is merely a snapshot. Some vehicles come with 2 years of free DC fast charging such as with Nissan’s no charge to charge program. Some vehicles have free charging at work as previously mentioned. Some have congestion at chargers and some do not have access to chargers. Nevertheless, this snapshot is a fair representation of where people currently charge across different types of chargers and some of the factors that affect the rates of charging. Research is ongoing into the motivations and factors that drives this charging behavior.

**Abbreviations:**

**Housing:**

- AH 1-3 - Attached housing 1-3 units
- AP - Apartment
- DH - Single-family detached house
- MH - Mobile home

**Public charging usage:**

- OH - Only home

PB - Uses public  
DCR - Doesn't charge regularly

Home charger usage:

DCR -Doesn't charge regularly  
NH -Doesn't use home charging (access unknown) only public  
L1 -Level 1  
L2 -Level 2

Commuter and charging access:

CNC - Commuter with no charging access  
NC - Non-commuter  
CWC - Commuter with charging

Veh category	Housing type	Home charging	Public charging usage	Commute & charging access	Sample Size	Mean annual miles	Median annual miles	Mean commute distance	Median commute distance	Total home events	Total work events	Total public events	Total DCFE events
Low PHEV	AH 1-3	DCR	DCR	CNC	10	16,637	14,129	19	15	0	0	0	0
Low PHEV	AH 1-3	DCR	DCR	CWC	4	11,263	11,880	15	15	0	0	0	0
Low PHEV	AH 1-3	DCR	DCR	NC	1	23,263	23,263	0	0	0	0	0	0
Low PHEV	AH 1-3	L1	OH	CNC	22	13,392	14,476	13	10	142	0	0	0
Low PHEV	AH 1-3	L1	OH	CWC	6	13,683	13,312	13	13	39	0	0	0
Low PHEV	AH 1-3	L1	OH	NC	12	10,468	9,829	0	0	64	0	0	0
Low PHEV	AH 1-3	L1	PB	CNC	8	17,964	16,049	21	18	41	0	12	0
Low PHEV	AH 1-3	L1	PB	CWC	29	16,185	17,012	24	24	145	101	7	0
Low PHEV	AH 1-3	L1	PB	NC	10	11,529	9,562	0	0	53	0	20	0
Low PHEV	AH 1-3	L2	OH	CNC	2	11,709	11,709	32	32	8	0	0	0
Low PHEV	AH 1-3	L2	OH	CWC	1	20,057	20,057	44	44	5	0	0	0
Low PHEV	AH 1-3	L2	PB	CNC	4	16,003	16,400	15	10	28	0	2	0
Low PHEV	AH 1-3	L2	PB	CWC	5	12,085	10,388	13	16	25	16	8	0
Low PHEV	AH 1-3	L2	PB	NC	1	11,996	11,996	0	0	7	0	0	0
Low PHEV	AH 1-3	NH	PB	CNC	1	19,685	19,685	56	56	0	0	3	0
Low PHEV	AH 1-3	NH	PB	CWC	11	12,587	12,546	11	9	0	51	3	0
Low PHEV	AP	DCR	DCR	CNC	26	14,322	13,985	18	17	0	0	0	0
Low PHEV	AP	DCR	DCR	CWC	6	13,424	14,120	24	21	0	0	0	0
Low PHEV	AP	DCR	DCR	NC	5	6,728	4,628	0	0	0	0	0	0
Low PHEV	AP	L1	OH	CNC	6	12,098	10,684	10	11	39	0	0	0
Low PHEV	AP	L1	OH	CWC	2	11,906	11,906	12	12	13	0	0	0
Low PHEV	AP	L1	OH	NC	1	4,358	4,358	0	0	7	0	0	0
Low PHEV	AP	L1	PB	CNC	1	25,685	25,685	0	0	2	0	2	0
Low PHEV	AP	L1	PB	CWC	14	12,715	10,761	16	10	65	46	9	0
Low PHEV	AP	L1	PB	NC	1	7,419	7,419	0	0	6	0	1	0
Low PHEV	AP	L2	OH	CNC	1	8,193	8,193	4	4	7	0	0	0
Low PHEV	AP	L2	PB	CWC	5	12,120	9,218	13	13	14	14	3	0
Low PHEV	AP	NH	PB	CNC	5	11,657	13,060	7	2	0	0	20	0
Low PHEV	AP	NH	PB	CWC	21	12,846	12,180	15	14	0	86	25	0
Low PHEV	AP	NH	PB	NC	5	8,880	7,328	0	0	0	0	20	0
Low PHEV	DH	DCR	DCR	CNC	31	13,462	12,360	17	14	0	0	0	0
Low PHEV	DH	DCR	DCR	CWC	18	17,031	16,058	24	19	0	0	0	0
Low PHEV	DH	DCR	DCR	NC	20	10,992	12,399	0	0	0	0	0	0
Low PHEV	DH	L1	OH	CNC	171	13,045	12,374	17	14	1050	0	0	0
Low PHEV	DH	L1	OH	CWC	46	14,435	13,674	21	16	285	0	0	0
Low PHEV	DH	L1	OH	NC	109	9,986	9,899	0	0	632	0	0	0
Low PHEV	DH	L1	PB	CNC	65	14,090	13,898	15	11	350	0	60	0
Low PHEV	DH	L1	PB	CWC	121	14,235	13,918	23	20	648	441	45	0
Low PHEV	DH	L1	PB	NC	43	11,614	10,776	0	0	214	0	69	0
Low PHEV	DH	L2	OH	CNC	15	11,318	10,722	17	16	96	0	0	0
Low PHEV	DH	L2	OH	CWC	6	17,085	19,197	16	20	42	0	0	0
Low PHEV	DH	L2	OH	NC	20	8,450	7,245	0	0	116	0	0	0
Low PHEV	DH	L2	PB	CNC	13	12,059	10,446	19	14	83	0	10	0
Low PHEV	DH	L2	PB	CWC	23	13,463	13,016	20	17	152	72	8	0
Low PHEV	DH	L2	PB	NC	7	9,614	9,662	0	0	36	0	2	0
Low PHEV	DH	NH	PB	CNC	5	11,479	6,950	15	9	0	0	22	0
Low PHEV	DH	NH	PB	CWC	22	11,725	12,433	17	12	0	90	13	0
Low PHEV	DH	NH	PB	NC	7	8,672	7,784	0	0	0	0	32	0
Low PHEV	MH	L1	OH	CNC	3	8,827	9,674	13	15	20	0	0	0
Low PHEV	MH	L1	OH	NC	1	2,119	2,119	0	0	7	0	0	0
Low PHEV	MH	L1	PB	CNC	1	1,709	1,709	5	5	0	0	5	0
Low PHEV	MH	L1	PB	CWC	1	10,470	10,470	7	7	2	5	0	0

Veh category	Housing type	Home charging	Public charging usage	Commute & charging access	Sample Size	Mean annual miles	Median annual miles	Mean commute distance	Median commute distance	Total home events	Total work events	Total public events	Total DCFC events
High PHEV	AH 1-3	DCR	DCR	CNC	1	8,186	8,186	11	11	0	0	0	0
High PHEV	AH 1-3	DCR	DCR	CWC	3	11,996	13,648	19	10	0	0	0	0
High PHEV	AH 1-3	DCR	DCR	NC	3	11,530	11,807	0	0	0	0	0	0
High PHEV	AH 1-3	L1	OH	CNC	10	9,139	8,521	14	13	54	0	0	0
High PHEV	AH 1-3	L1	OH	CWC	6	8,165	8,197	18	18	35	0	0	0
High PHEV	AH 1-3	L1	OH	NC	4	9,971	9,474	0	0	22	0	0	0
High PHEV	AH 1-3	L1	PB	CNC	12	8,517	7,687	13	8	59	0	9	0
High PHEV	AH 1-3	L1	PB	CWC	19	12,892	13,535	19	14	72	71	5	0
High PHEV	AH 1-3	L1	PB	NC	1	5,398	5,398	0	0	2	0	5	0
High PHEV	AH 1-3	L2	OH	CNC	5	14,523	15,443	14	15	27	0	0	0
High PHEV	AH 1-3	L2	OH	CWC	1	4,116	4,116	10	10	7	0	0	0
High PHEV	AH 1-3	L2	OH	NC	3	8,236	8,236	0	0	18	0	0	0
High PHEV	AH 1-3	L2	PB	CNC	1	14,154	14,154	44	44	7	0	0	0
High PHEV	AH 1-3	L2	PB	CWC	9	12,890	11,659	23	18	47	25	5	0
High PHEV	AH 1-3	L2	PB	NC	2	13,200	13,200	0	0	12	0	1	0
High PHEV	AH 1-3	NH	PB	CWC	12	9,211	9,127	8	8	0	51	6	0
High PHEV	AP	DCR	DCR	CNC	7	13,077	10,493	20	12	0	0	0	0
High PHEV	AP	DCR	DCR	CWC	6	8,715	8,120	8	7	0	0	0	0
High PHEV	AP	DCR	DCR	NC	5	13,544	15,072	0	0	0	0	0	0
High PHEV	AP	L1	OH	CNC	3	6,165	6,229	7	7	9	0	0	0
High PHEV	AP	L1	OH	CWC	3	9,361	6,404	7	7	5	0	0	0
High PHEV	AP	L1	OH	NC	4	7,172	7,392	0	0	24	0	0	0
High PHEV	AP	L1	PB	CNC	3	8,690	10,621	4	3	11	0	3	0
High PHEV	AP	L1	PB	CWC	10	7,438	6,110	9	7	39	14	9	0
High PHEV	AP	L1	PB	NC	2	13,976	13,976	0	0	14	0	4	0
High PHEV	AP	L2	OH	CNC	3	9,141	9,681	7	6	18	0	0	0
High PHEV	AP	L2	PB	CNC	1	15,382	15,382	23	23	6	0	3	0
High PHEV	AP	L2	PB	CWC	2	15,031	15,031	20	20	10	7	0	0
High PHEV	AP	NH	PB	CNC	1	6,972	6,972	3	3	0	0	2	0
High PHEV	AP	NH	PB	CWC	21	11,259	10,286	14	10	0	76	18	0
High PHEV	AP	NH	PB	NC	1	8,546	8,546	0	0	0	0	7	0
High PHEV	DH	DCR	DCR	CNC	4	14,610	15,971	15	16	0	0	0	0
High PHEV	DH	DCR	DCR	CWC	3	13,672	14,085	9	12	0	0	0	0
High PHEV	DH	DCR	DCR	NC	4	6,454	5,083	0	0	0	0	0	0
High PHEV	DH	L1	OH	CNC	84	11,343	9,953	15	14	504	0	0	0
High PHEV	DH	L1	OH	CWC	26	9,485	8,306	16	13	152	0	0	0
High PHEV	DH	L1	OH	NC	42	7,809	7,234	0	0	237	0	0	0
High PHEV	DH	L1	PB	CNC	26	10,386	10,310	12	11	131	0	24	0
High PHEV	DH	L1	PB	CWC	61	12,772	11,403	22	20	307	197	16	0
High PHEV	DH	L1	PB	NC	23	9,617	8,419	0	0	106	0	41	0
High PHEV	DH	L2	OH	CNC	52	12,503	11,257	18	18	314	0	0	0
High PHEV	DH	L2	OH	CWC	21	10,166	9,200	17	13	133	0	0	0
High PHEV	DH	L2	OH	NC	36	9,414	9,143	0	0	216	0	0	0
High PHEV	DH	L2	PB	CNC	30	11,871	11,644	14	12	189	0	22	0
High PHEV	DH	L2	PB	CWC	55	14,272	13,827	21	18	259	171	11	0
High PHEV	DH	L2	PB	NC	20	10,192	8,163	0	0	103	0	32	0
High PHEV	DH	NH	PB	CNC	2	8,946	8,946	15	15	0	0	12	0
High PHEV	DH	NH	PB	CWC	16	11,515	9,646	16	9	0	69	8	0
High PHEV	DH	NH	PB	NC	4	5,619	6,567	0	0	0	0	8	0
High PHEV	MH	L1	OH	CNC	1	28,359	28,359	37	37	7	0	0	0
High PHEV	MH	L1	OH	NC	1	2,767	2,767	0	0	2	0	0	0
High PHEV	MH	L1	PB	CWC	1	9,240	9,240	9	9	2	2	0	0
High PHEV	MH	L2	OH	NC	2	7,666	7,666	0	0	14	0	0	0
High PHEV	MH	L2	PB	NC	1	13,112	13,112	0	0	1	0	6	0



Veh category	Housing type	Home charging	Public charging usage	Commute & charging access	Sample Size	Mean annual miles	Median annual miles	Mean commute distance	Median commute distance	Total home events	Total work events	Total public events	Total DCFC events
Low BEV	AH 1-3	L1	OH	CWC	1	5,733	5,733	0	0	2	0	0	0
Low BEV	AH 1-3	L1	OH	NC	2	5,701	5,701	0	0	9	0	0	0
Low BEV	AH 1-3	L1	PB	CNC	5	10,825	8,419	23	25	16	0	0	14
Low BEV	AH 1-3	L1	PB	CWC	8	11,052	10,699	19	23	17	26	10	1
Low BEV	AH 1-3	L1	PB	NC	1	4,810	4,810	0	0	4	0	0	0
Low BEV	AH 1-3	L2	OH	CNC	2	6,606	6,606	12	12	8	0	0	0
Low BEV	AH 1-3	L2	OH	CWC	5	9,120	6,995	13	13	24	0	0	0
Low BEV	AH 1-3	L2	PB	CNC	1	19,451	19,451	16	16	0	0	0	0
Low BEV	AH 1-3	L2	PB	CWC	9	12,324	13,278	23	21	33	15	7	7
Low BEV	AH 1-3	L2	PB	NC	1	5,014	5,014	0	0	1	0	0	0
Low BEV	AH 1-3	NH	PB	CNC	3	6,837	7,330	21	18	0	0	1	8
Low BEV	AH 1-3	NH	PB	CWC	12	9,079	8,402	12	9	0	31	0	30
Low BEV	AH 1-3	NH	PB	NC	3	12,083	10,422	0	0	0	0	0	9
Low BEV	AP	L1	PB	CWC	3	8,459	9,467	10	11	3	7	1	3
Low BEV	AP	L2	OH	CNC	1	13,157	13,157	9	9	1	0	0	0
Low BEV	AP	L2	PB	CNC	2	11,940	11,940	5	5	8	0	0	4
Low BEV	AP	NH	PB	CNC	2	8,384	8,384	10	10	0	0	5	5
Low BEV	AP	NH	PB	CWC	24	8,767	8,344	13	13	0	65	8	40
Low BEV	DH	L1	OH	CNC	10	7,266	6,828	10	9	56	0	0	0
Low BEV	DH	L1	OH	CWC	6	7,483	7,296	11	11	23	0	0	0
Low BEV	DH	L1	OH	NC	4	7,305	6,996	0	0	20	0	0	0
Low BEV	DH	L1	PB	CNC	30	10,770	11,437	17	16	118	0	8	59
Low BEV	DH	L1	PB	CWC	56	10,084	9,665	18	17	139	138	17	51
Low BEV	DH	L1	PB	NC	11	8,865	9,268	0	0	38	0	10	9
Low BEV	DH	L2	OH	CNC	28	10,190	11,037	17	18	148	0	0	0
Low BEV	DH	L2	OH	CWC	11	8,688	7,270	18	16	50	0	0	0
Low BEV	DH	L2	OH	NC	14	7,518	6,533	0	0	48	0	0	0
Low BEV	DH	L2	PB	CNC	35	10,296	9,943	18	15	160	0	12	42
Low BEV	DH	L2	PB	CWC	60	11,149	10,001	19	16	245	135	16	28
Low BEV	DH	L2	PB	NC	15	9,665	9,768	0	0	55	0	12	5
Low BEV	DH	NH	PB	CNC	13	7,667	6,730	7	8	0	0	6	36
Low BEV	DH	NH	PB	CWC	35	8,918	7,674	15	14	0	102	9	38
Low BEV	DH	NH	PB	NC	5	10,668	10,533	0	0	0	0	16	25
Low BEV	MH	L1	OH	CWC	1	6,297	6,297	12	12	7	0	0	0
Low BEV	MH	L1	PB	CNC	1	5,134	5,134	6	6	5	0	1	0
Low BEV	MH	L1	PB	CWC	2	8,357	8,357	21	21	10	3	0	4
Low BEV	MH	NH	PB	NC	1	4,366	4,366	0	0	0	0	0	2

Veh category	Housing type	Home charging	Public charging usage	Commute & charging access	Sample Size	Mean annual miles	Median annual miles	Mean commute distance	Median commute distance	Total home events	Total work events	Total public events	Total DCFC events
High BEV	AH 1-3	L1	OH	CNC	4	5,647	5,292	4	2	19	0	0	0
High BEV	AH 1-3	L1	OH	CWC	4	10,622	9,446	17	15	24	0	0	0
High BEV	AH 1-3	L1	OH	NC	3	5,911	5,526	0	0	13	0	0	0
High BEV	AH 1-3	L1	PB	CNC	5	12,582	8,900	18	16	18	0	3	4
High BEV	AH 1-3	L1	PB	CWC	9	8,971	8,605	17	17	24	15	2	0
High BEV	AH 1-3	L1	PB	NC	3	7,536	6,579	0	0	17	0	1	0
High BEV	AH 1-3	L2	OH	CNC	8	9,365	9,164	14	14	29	0	0	0
High BEV	AH 1-3	L2	OH	CWC	5	8,323	8,581	9	5	15	0	0	0
High BEV	AH 1-3	L2	OH	NC	7	7,317	7,743	0	0	13	0	0	0
High BEV	AH 1-3	L2	PB	CNC	4	10,760	9,489	23	24	15	0	3	1
High BEV	AH 1-3	L2	PB	CWC	10	11,175	10,323	23	22	33	18	8	1
High BEV	AH 1-3	L2	PB	NC	6	10,284	9,994	0	0	13	0	3	5
High BEV	AH 1-3	NH	PB	CNC	1	5,659	5,659	4	4	0	0	1	0
High BEV	AH 1-3	NH	PB	CWC	13	9,761	9,199	18	19	0	40	3	4
High BEV	AP	L1	OH	CNC	1	6,258	6,258	9	9	7	0	0	0
High BEV	AP	L1	OH	CWC	5	9,650	9,332	15	8	28	0	0	0
High BEV	AP	L1	OH	NC	3	5,427	4,312	0	0	11	0	0	0
High BEV	AP	L1	PB	CNC	5	14,925	11,139	11	12	18	0	7	11
High BEV	AP	L1	PB	CWC	1	9,381	9,381	7	7	5	0	3	0
High BEV	AP	L2	OH	CNC	1	7,557	7,557	5	5	2	0	0	0
High BEV	AP	L2	OH	CWC	1	10,177	10,177	18	18	3	0	0	0
High BEV	AP	L2	OH	NC	1	6,196	6,196	0	0	7	0	0	0
High BEV	AP	L2	PB	CNC	3	12,174	10,816	5	6	6	0	1	1
High BEV	AP	L2	PB	CWC	2	9,758	9,758	16	16	6	3	0	0
High BEV	AP	NH	PB	CNC	6	9,353	8,811	13	12	0	0	9	5
High BEV	AP	NH	PB	CWC	14	9,771	9,047	10	10	0	21	4	7
High BEV	AP	NH	PB	NC	5	6,575	7,105	0	0	0	0	6	2
High BEV	DH	L1	OH	CNC	34	8,140	7,723	12	10	187	0	0	0
High BEV	DH	L1	OH	CWC	5	9,280	9,647	16	11	22	0	0	0
High BEV	DH	L1	OH	NC	27	6,172	6,085	0	0	118	0	0	0
High BEV	DH	L1	PB	CNC	19	10,732	10,434	15	14	85	0	22	6
High BEV	DH	L1	PB	CWC	50	11,432	10,741	18	15	143	107	17	20
High BEV	DH	L1	PB	NC	15	8,012	7,499	0	0	45	0	9	2
High BEV	DH	L2	OH	CNC	95	11,235	10,550	20	17	363	0	0	0
High BEV	DH	L2	OH	CWC	40	13,469	12,493	23	20	137	0	0	0
High BEV	DH	L2	OH	NC	85	7,759	7,110	0	0	264	0	0	0
High BEV	DH	L2	PB	CNC	68	12,057	10,807	18	14	245	0	24	19
High BEV	DH	L2	PB	CWC	84	13,849	13,154	23	22	244	138	16	8
High BEV	DH	L2	PB	NC	47	9,611	9,948	0	0	140	0	27	4
High BEV	DH	NH	PB	CNC	6	8,062	6,488	11	8	0	0	9	3
High BEV	DH	NH	PB	CWC	35	10,741	9,622	19	17	0	94	7	10
High BEV	DH	NH	PB	NC	7	8,079	7,100	0	0	0	0	12	4
High BEV	MH	L1	PB	CWC	1	10,286	10,286	10	10	4	0	0	1
High BEV	MH	L1	PB	NC	1	7,840	7,840	0	0	0	0	1	0
High BEV	MH	L2	OH	CWC	1	5,918	5,918	13	13	1	0	0	0
High BEV	MH	L2	OH	NC	3	11,653	12,304	0	0	16	0	0	0
High BEV	MH	NH	PB	CWC	1	13,905	13,905	18	18	0	7	0	0