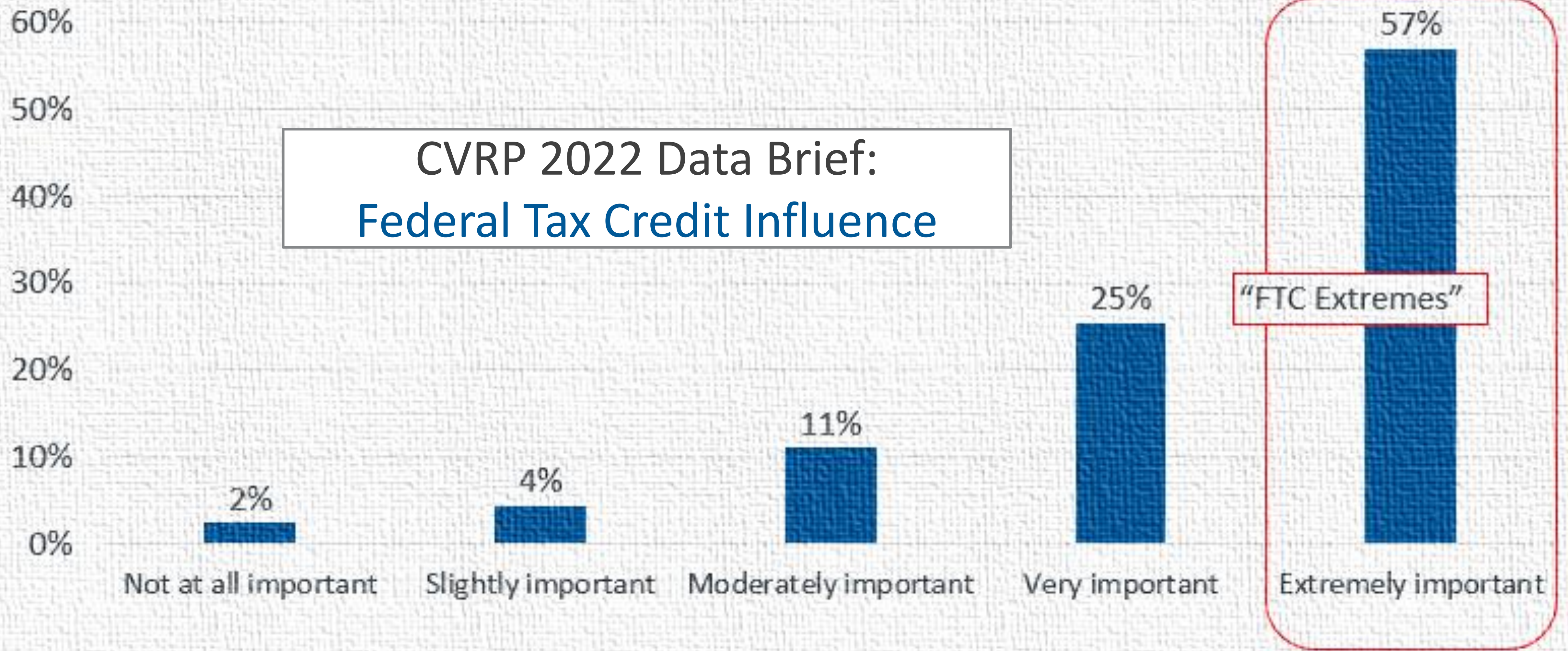


CVRP 2022 Data Brief: Federal Tax Credit Influence



February 2025

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with thanks to L. Puckett, J. Galbiati, J. Bowers and others at the Center for Sustainable Energy (CSE)



Outline: Federal Tax Credit Influence Through 8/16/2022



- Context: Prior Analysis, Program Design, Market Dynamics & Data
- Federal Tax Credit Influence: by Rebate Type, Purchases vs. Leases, Over Time, by MSRP
- Wrap Up: Summary & Select Findings

Appendix: Additional Details

Includes purchases/leases through August 16, 2022, after which eligibility criteria based on final assembly location were implemented.

Context

—

Prior Analysis of Federal Tax Credit Influence: Select Resources



Publications

- ❖ B.D.H. Williams, J.B. Anderson (2022, Jun.), [Lessons Learned About Electric Vehicle Consumers Who Found the U.S. Federal Tax Credit Extremely Important in Enabling Their Purchase](#), Procs. 35th International Electric Vehicle Symposium (EVS35), Session H3, AVERE. [Paper](#). [Slides](#).
- B.D.H. Williams (2022, Jan.), [Brief: PHEV Consumers Most Highly Influenced by the U.S. Federal Tax Credit](#), Clean Vehicle Rebate Project. DOI: 10.13140/RG.2.2.24510.36168
- B.D.H. Williams, J.B. Anderson & A. Lastuka (2020, Sep.). [Characterizing Plug-in Hybrid Electric Vehicle Consumers Who Found the U.S. Federal Tax Credit Extremely Important in Enabling Their Purchase](#). 33rd Electric Vehicle Symposium (EVS33). DOI: 10.5281/ZENODO.4021408
- B.D. Williams, J. Orose, M. Jones, J.B. Anderson (2018, Oct.), [Summary of Disadvantaged Community Responses to the Electric Vehicle Consumer Survey, 2013–2015 Edition](#), Program Reports, Clean Vehicle Rebate Project, Center for Sustainable Energy (CSE), San Diego CA. DOI: 10.13140/RG.2.2.36500.58243

Presentations

- [NY Drive Clean Rebate: Vehicle Replacement & Rebate Influence thru 2022](#) (2024, Mar.).
- ❖ [CVRP 2021 Data Compilation: Incentive Influence and MSRP Considerations](#), (2023, Oct.).
- ❖ [Lessons Learned About Electric Vehicle Consumers Who Rated the U.S. Federal Tax Credit ‘Extremely Important’ in Enabling Their Purchase](#) (2022, Jun.)
- [CVRP 2020 Data Brief: Incentive Influence](#) (2022, May).
- [California Plug-in Hybrid EV Consumers Who Found the U.S. Federal Tax Credit Extremely Important in Enabling Their Purchase](#) (2021, Sep.).
- [Data from Statewide Electric Vehicle Rebate Programs: Vehicles, Consumers, Impacts, and Effectiveness](#) (2021, Jul.).
- [Electric Vehicle Incentives and Policies](#) (2019, Nov.).

Compilations

- [Federal Tax Credit Influence: Select Resources with Related Content](#) (2023, Jan. 5), Clean Vehicle Rebate Project Program Reports Compilation.

Reverse chronological as of 12/2024; key sources marked with a diamond bullet. [Additional related items](#).

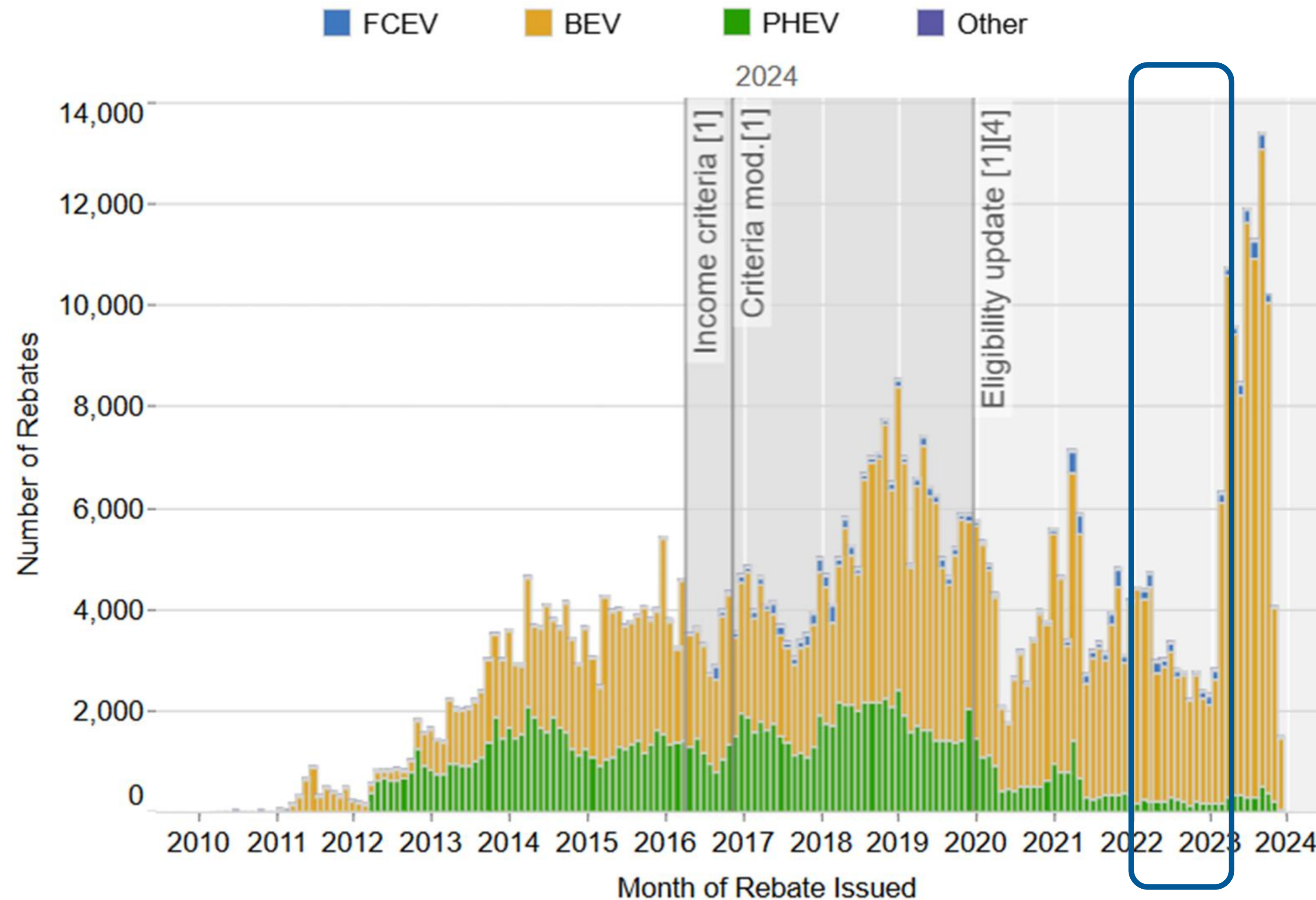
Evolving Program Design Shapes Outcomes

<p>For personal rebates:</p> <p><u>as of Mar. 2010</u></p> <ul style="list-style-type: none">• Incentive stacking permitted• 36-month ownership requirement• Rebates per year limit = 20 <p><u>as of Dec. 2013</u></p> <ul style="list-style-type: none">• Rebates per year limit = 2 <p><u>as of May 2014</u></p> <ul style="list-style-type: none">• 18-month application window <p><u>as of Dec. 2014 / Jan. 2015</u></p> <ul style="list-style-type: none">• 30-month ownership requirement (retroactive)• Total rebate limit = 2 <p><u>as of Mar. 2016</u></p> <ul style="list-style-type: none">• \$250k–\$500k income cap (PEVs)• +\$1,500 for income-qualified households (\leq 300% FPL), excluding ZEMs <p><u>as of Nov. 2016</u></p> <ul style="list-style-type: none">• \$150k–\$300k income cap (PEVs)• \geq 20 UDDS electric miles• +\$2,000 for income-qualified households (\leq 300% FPL), excl. ZEMs <p><u>as of Jan. 2018</u></p> <ul style="list-style-type: none">• \$150k–\$300k income cap on stacking HOV decal (only binding on FCEVs)• Rebate Now San Diego County preapproval pilot with point-of-sale option	<p><u>as of Jan. 2019</u></p> <ul style="list-style-type: none">• Stacking with CVAP grant not permitted (retroactive) <p><u>as of Dec. 2019</u></p> <ul style="list-style-type: none">• Total rebates limit = 1 \S• Base MSRP \leq \$60k (PEVs)• 3-month application window \ddagger• \geq 35 UDDS electric miles• +\$2,500 † for income-qualified households (\leq 300% FPL), excl. ZEMs <p><u>as of Apr. 2020</u></p> <ul style="list-style-type: none">• Stacking with CVAP grant permitted <p><u>as of Jan. 2021</u></p> <ul style="list-style-type: none">• +\$2,500 for income-qualified households, \leq 400% FPL, excl. ZEMs <p><u>as of Apr. 2021</u></p> <ul style="list-style-type: none">• \geq 30 U.S. EPA electric miles (45 UDDS)• Rebate Now preapproval option limited to income-qualified households, expanded to include SJ Valley <p><u>as of Feb. 2022</u></p> <ul style="list-style-type: none">• Base MSRP: \leq \$60k for Large Vehicles*, \leq \$45k for Cars*• \$135k–\$200k income cap (PEVs)• \$135k–\$200k income cap on stacking HOV decal (only binding on FCEVs) <p><u>as of Jul. 2022</u></p> <ul style="list-style-type: none">• \$150k–\$300k income cap on stacking HOV decal (only binding on FCEVs)
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PEVs = plug-in EVs. FPL = Federal Poverty Level. ZEMs = zero-emission motorcycles. UDDS = Urban Dynamometer Driving Schedule. HOV = high-occupancy-vehicle. FCEVs = fuel-cell EVs. CVAP = Clean Vehicle Assistance Program. MSRP = manufacturer suggested retail price.

\S A second rebate can be approved for a FCEV if the first rebate was for a PEV. \ddagger COVID exemptions on application window effectively delayed implementation until 4/15/2021. † Change due to \$500 decrease in standard rebate amounts (previous slide). * Large Vehicles include minivans, pickups, and SUVs; Cars include all other light-duty vehicle classes (e.g., hatchbacks, sedans, wagons, and two-seaters).

2022 Saw a Decline in Applications When Tesla Model 3 & Y Prices Rose Above the MSRP Cap



Rebate applications for calendar year 2022 purchases/leases for individuals spanned 1/1/2022 – 3/30/2023. 6% applied in 2023.

CVRP Consumer Survey Data Used

(shows rebates to individuals for plug-in EVs* only)

	2013–2015 Edition	2015–2016 Edition	2016–2017 Edition	2017–2020 Edition	2018 purchases/ leases subset	2019 purchases/ leases subset	“2020” purchases/ leases subset	2020–2023 Edition (in progress) Interim Datasets	Interim 2021 purchases/ leases subset	Interim 2022 purchases/ leases subset	Total
Vehicle Purchase/ Lease Dates	Sep. 2012 – May 2015	April 2015 – May 2016	May 2016 – May 2017	June 2017 – Nov. 2020	Jan. 2018 – Dec. 2018	Jan. 2019 – Dec. 2019	Jan. 2020 – Nov.** 2020	Dec. 2020 – Dec. 2022	Jan. 2021– Dec. 2021	Jan. 2022 – Dec. 2022	Sep. 2012 – Dec. 2022
Survey Responses (total <i>n</i>)	19,460***	11,611***	8,957***	32,524***	14,757	8,991	4,331***	15,482	7,694***	6,674***	86,920
Program Population (<i>N</i>)****	91,081	45,685	46,839	193,167	78,591 (filtered subset of weighted Edition)	61,277 (filtered subset of weighted Edition)	26,463	86,451	45,261	33,685	455,718

*Plug-in EVs (PEVs) include PHEVs and BEVs.

** ~8k 2020 purchases/leases were invited to respond to the successive survey edition and are not represented in these data.

*** Subsequently weighted to represent the program population, see “CVRP Consumer Survey: Weighting Detail” slide for further detail.

**** Small numbers of vehicles are not represented in the time frames due to application lags. Numbers may not be exactly comparable due to evolving weighting practices.

CVRP Consumer Survey: **Weighting** Detail

- Each survey edition is individually weighted to represent the program population along the dimensions of vehicle category, vehicle model, buy vs. lease, and county.
 - Vehicle model year* was also included in weighting for the 2017–20 Edition.
 - Year of purchase/lease was included in weighting for 2020–22 Interim Dataset.
 - Weighting for the 2021 subset & 2022 Interim Dataset also included rebate type (Standard Rebate vs. Increased Rebate).
- The 2020 and 2021 purchase/lease subsets were also independently weighted
 - This produced only minor differences compared to the filtered approach used for the 2018 & 2019 subsets.
- Summary of weights, 2022 Interim Dataset:

Min	Median	Mean	Max
0.17 (only 3 records below 0.2)	0.986	1	5.51 (only 3 records above 3.0)

**Not acknowledged in previous postings, which mischaracterized the weighting dimension as year of purchase/lease. Initial testing indicates only very minor differences in weights between the two approaches.*

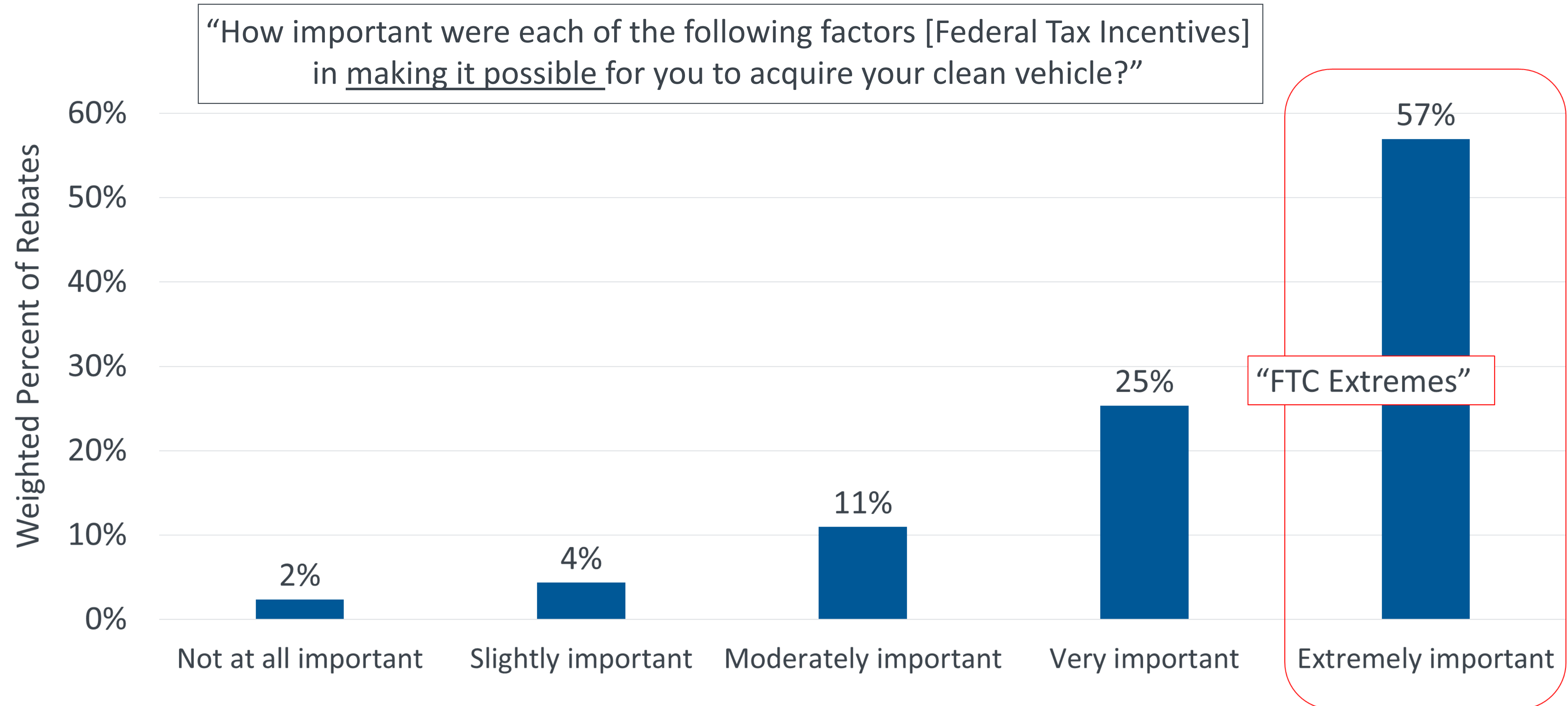
Federal Tax Credit (FTC) Influence



FTC “Importance”

Importance of the Federal Tax Credit (FTC)

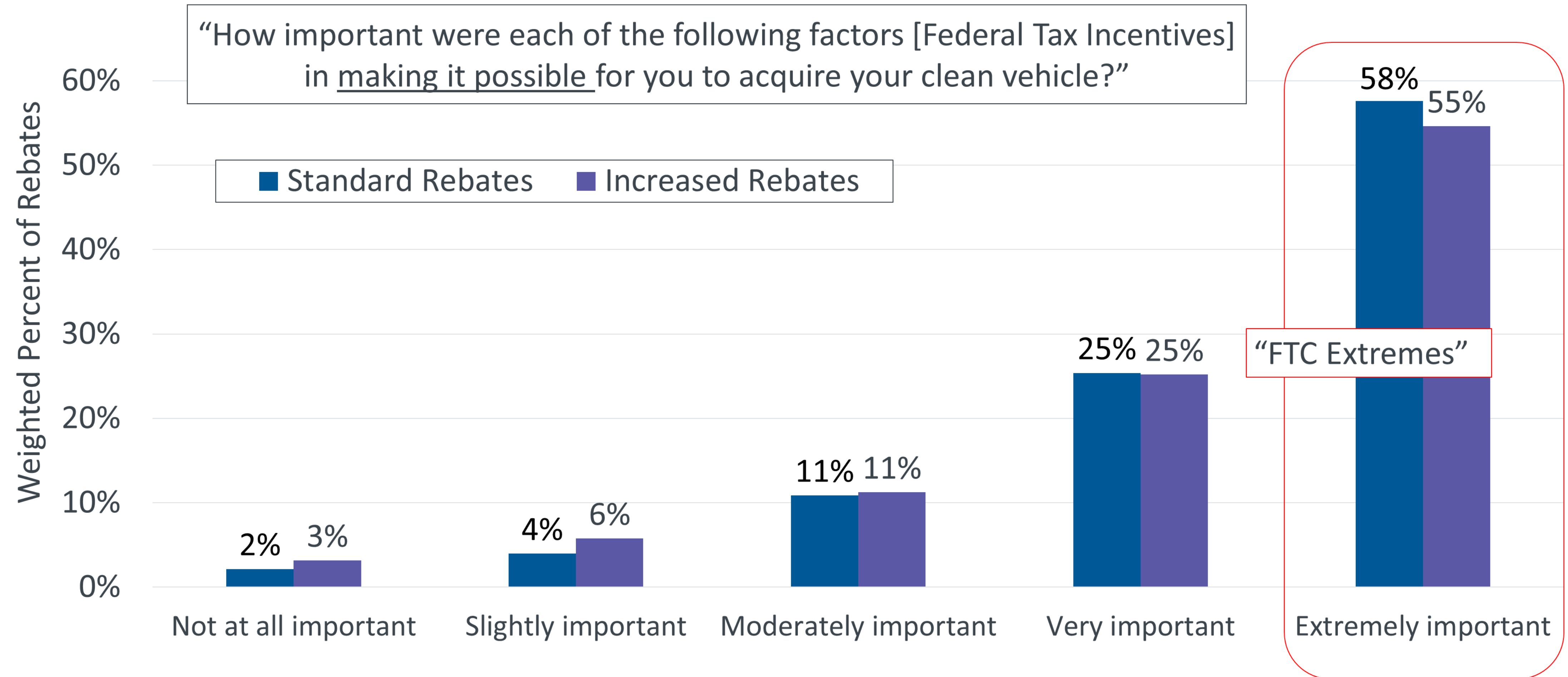
eligible 2022 plug-in EV purchases/leases thru Aug. 16*



* Includes purchases/leases through August 16, 2022, after which eligibility criteria based on final assembly location were implemented. Tesla and GM ineligible. CVRP Consumer Survey, 2022 Interim Dataset. Filtered, question-specific n = 2,010

Importance of Federal Tax Credit **by Rebate Type**

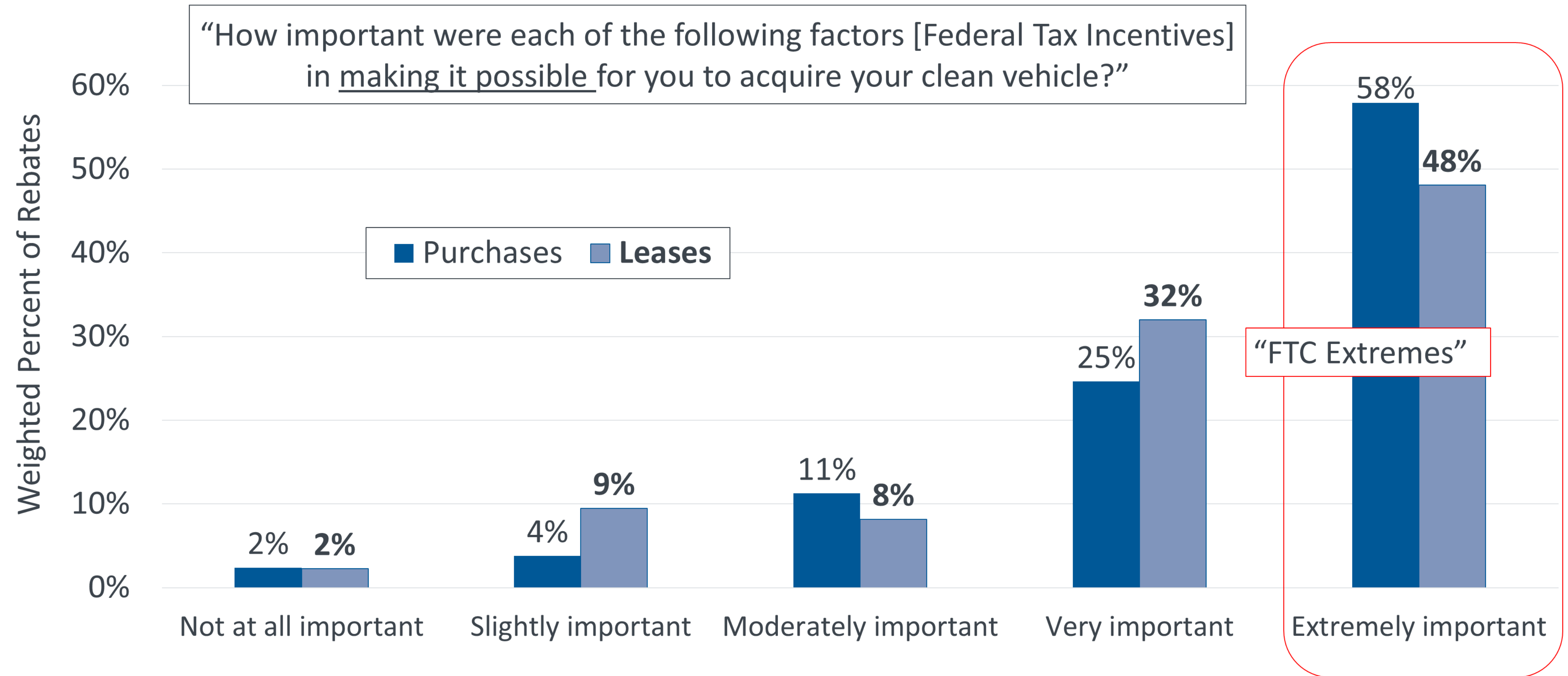
eligible 2022 plug-in EV purchases/leases thru Aug. 16*



* Includes purchases/leases through August 16, 2022, after which eligibility criteria based on final assembly location were implemented. Tesla and GM ineligible. CVRP Consumer Survey, 2022 Interim Dataset. Filtered, question-specific n = 2,010

Importance of Federal Tax Credit: Purchases vs. Leases

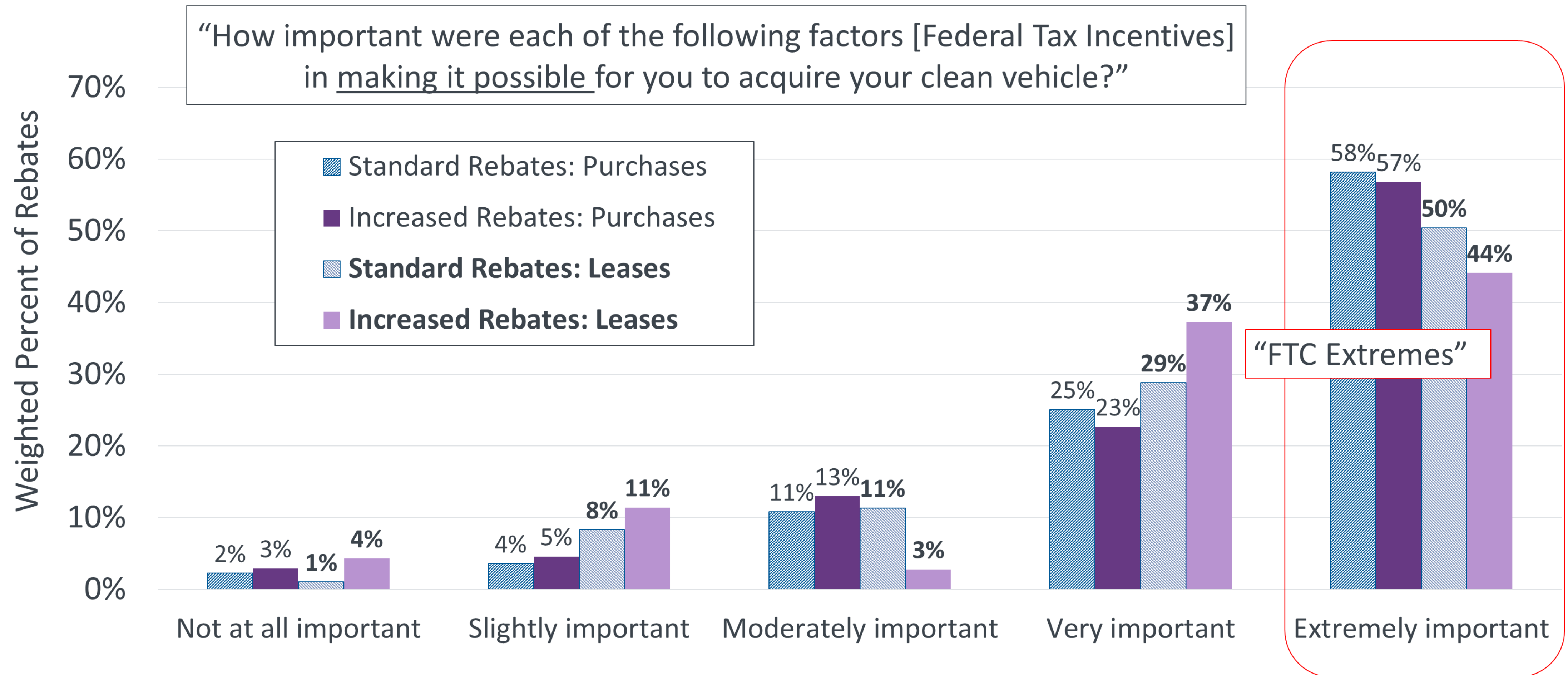
eligible 2022 plug-in EVs thru Aug. 16*



* Includes purchases/leases through August 16, 2022, after which eligibility criteria based on final assembly location were implemented. Tesla and GM ineligible. CVRP Consumer Survey, 2022 Interim Dataset. Filtered, question-specific n = 2,010

FTC Extreme Importance: Higher for Purchases, Standard Rebates

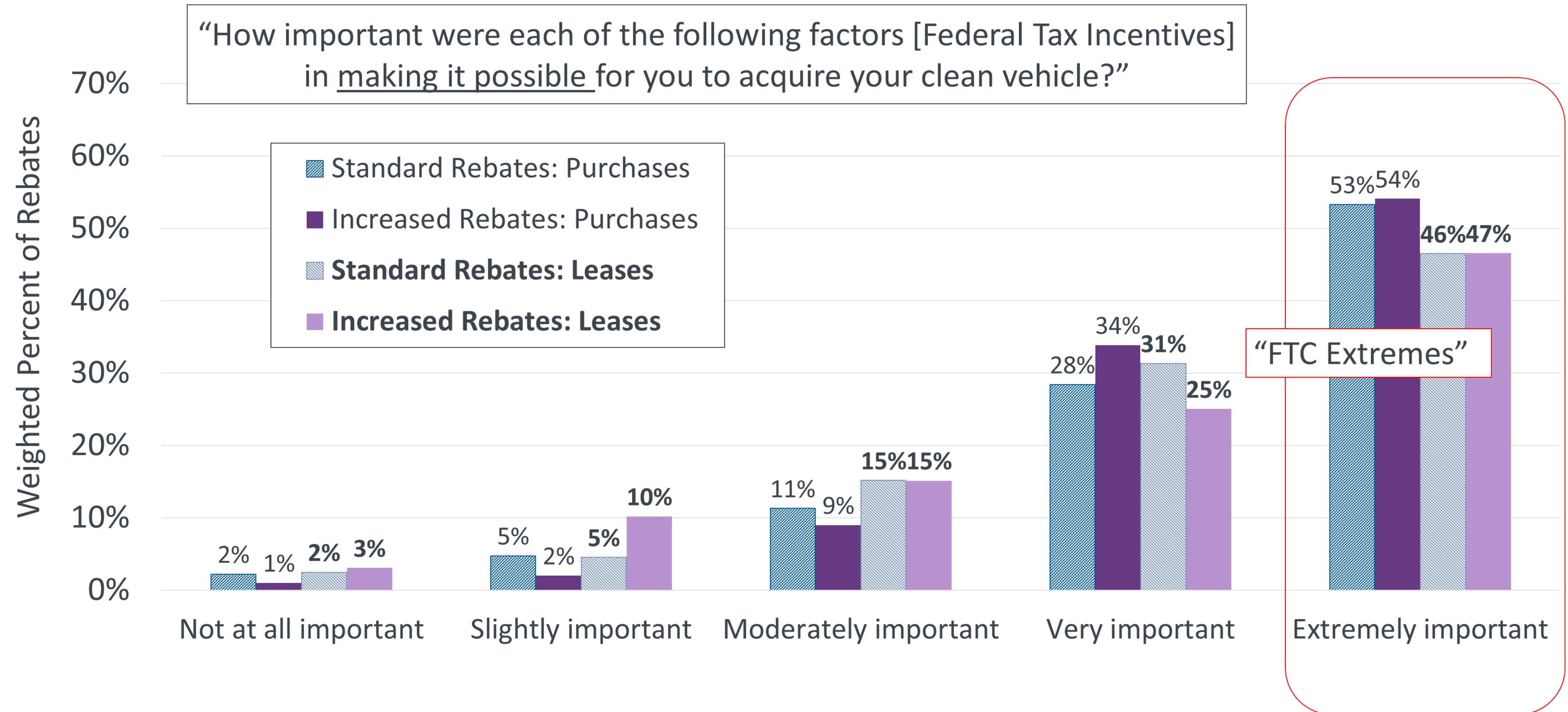
(eligible 2022 plug-in EVs thru Aug. 16*)



* Includes purchases/leases through August 16, 2022, after which eligibility criteria based on final assembly location were implemented. Tesla and GM ineligible. CVRP Consumer Survey, 2022 Interim Dataset. Filtered, question-specific n = 2,010

FTC Extreme Importance was lower in 2021, except for IR Leases

eligible* 2021 plug-in EVs

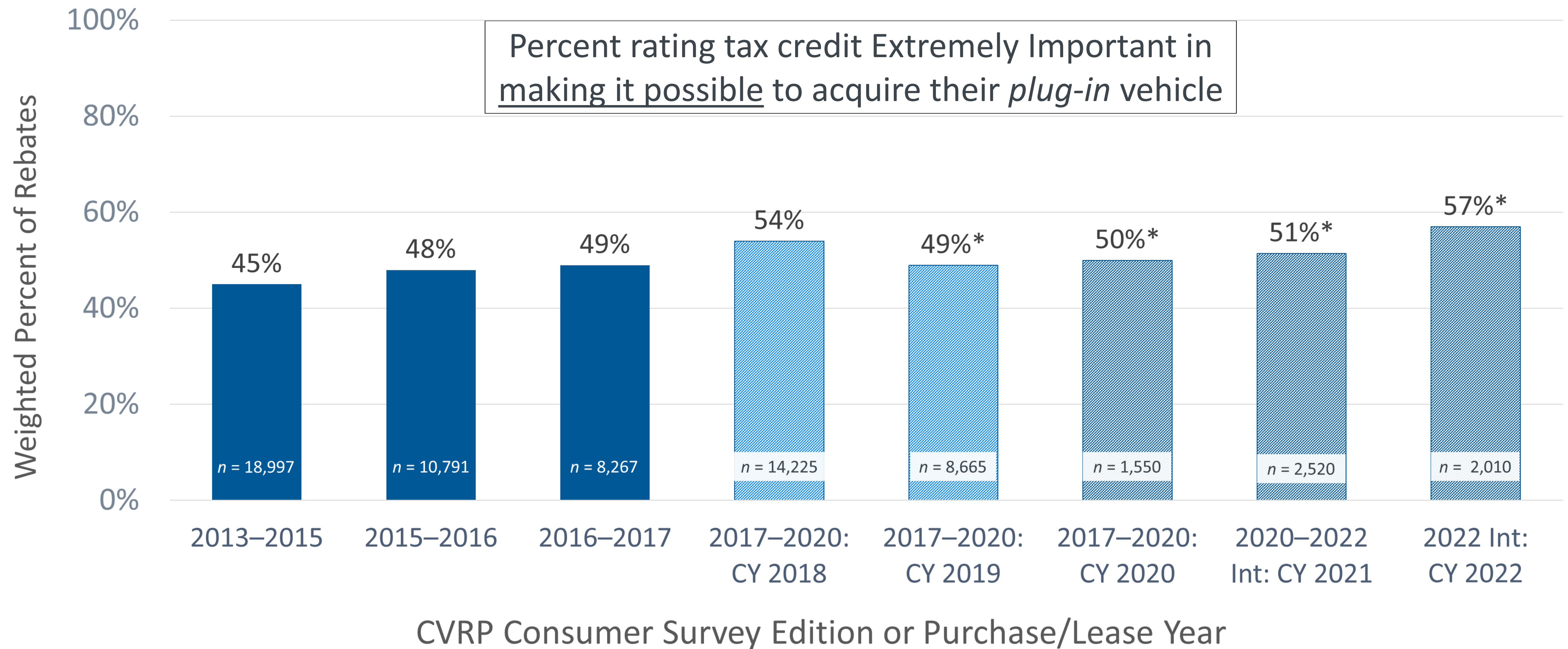


* Note: Tesla and GM ineligible.

CVRP Consumer Survey, 2020–2022 Interim Dataset. Filtered, question-specific $n = 2,520$

Extreme Importance of Federal Tax Credit **At All Time High**

eligible purchases/leases thru Aug. 16, 2022*

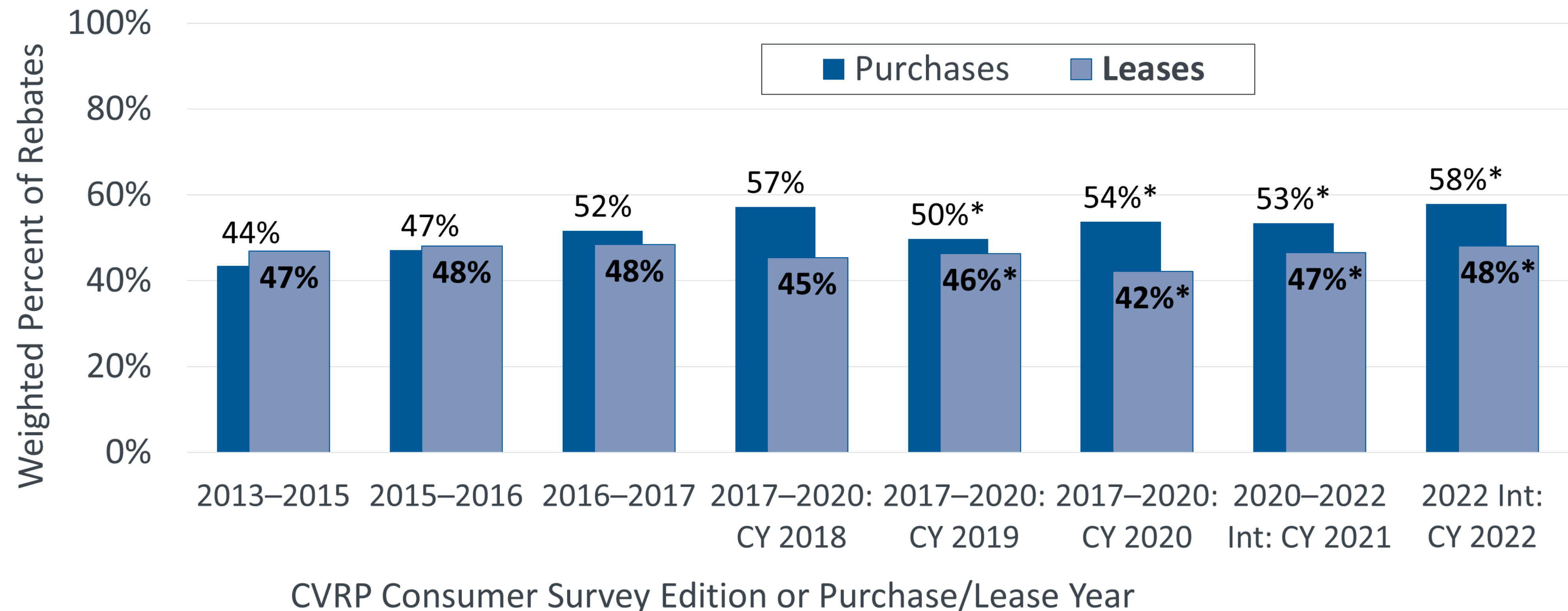


* Note: federal tax credit phase-out for Tesla began 1/1/2019 and concluded 12/31/2019. Phase out for GM began 4/1/2019 and concluded 3/31/2020. CY 2022 includes purchases/leases through August 16, 2022, after which eligibility criteria based on final assembly location were implemented. CY 2018 and 2019 are filtered subsets of the 2017–2020 Edition, which was weighted by vehicle model year. CY 2020, 2021, and 2022 weights specific to 2020, 2021, and 2022 purchases/leases, respectively. n-values are filtered and question-specific.

Extreme Importance of Federal Tax Credit Over Time

eligible **purchases vs. leases** thru Aug. 16, 2022*

Percent rating tax credit Extremely Important in making it possible to acquire their *plug-in* vehicle



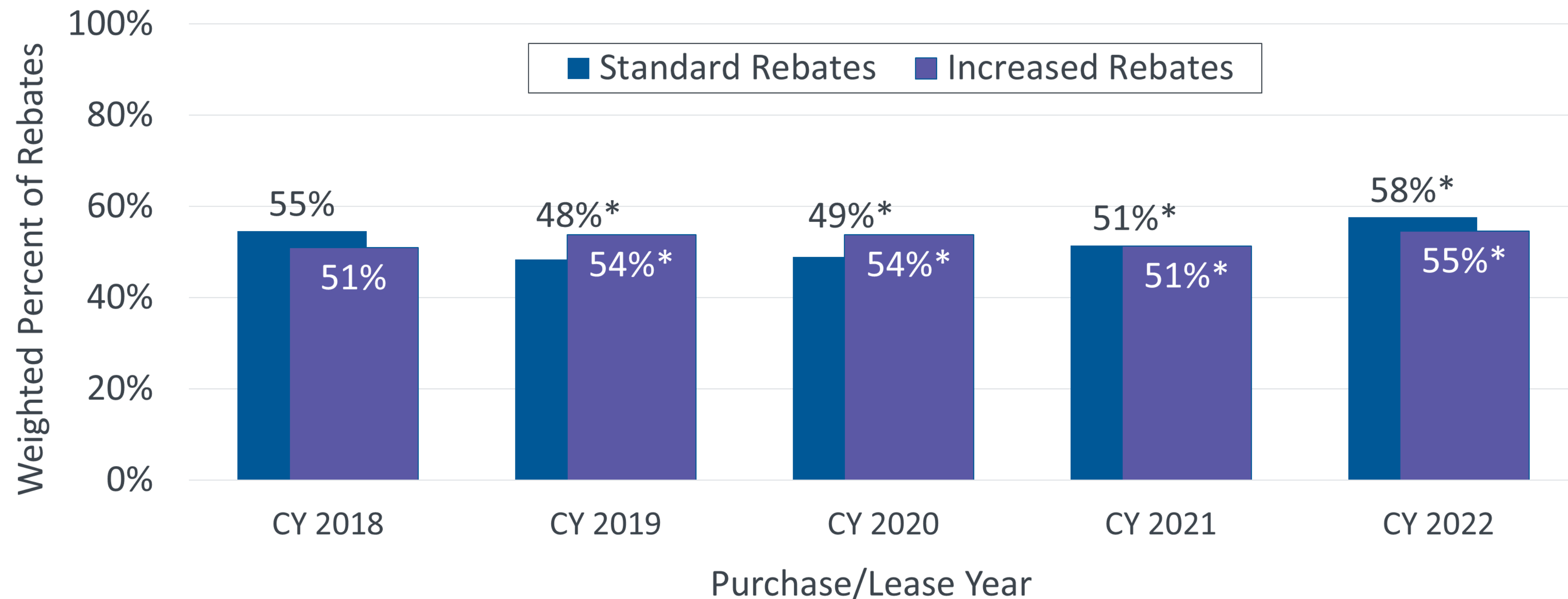
* Note: federal tax credit phase-out for Tesla began 1/1/2019 and concluded 12/31/2019. Phase out for GM began 4/1/2019 and concluded 3/31/2020. CY 2022 includes purchases/leases through August 16, 2022, after which eligibility criteria based on final assembly location were implemented.

CVRP Consumer Survey, 2013–2015 Edition: n = 18,997. 2015–2016 Edition: n = 10,791. 2016–2017 Edition: n = 8,267. 2017–2020 Edition: 2018 n = 14,225; 2019 n = 8,665; 2020 n = 1,550. 2020–2022 Interim Dataset: 2021 n = 2,520. 2022 Interim Dataset: 2022 n = 2,010. n-values are filtered and question-specific.

Extreme Importance of Federal Tax Credit Over Time

eligible **Standard vs. Increased rebates** thru Aug. 16, 2022*

Percent rating tax credit Extremely Important in making it possible to acquire their *plug-in* vehicle

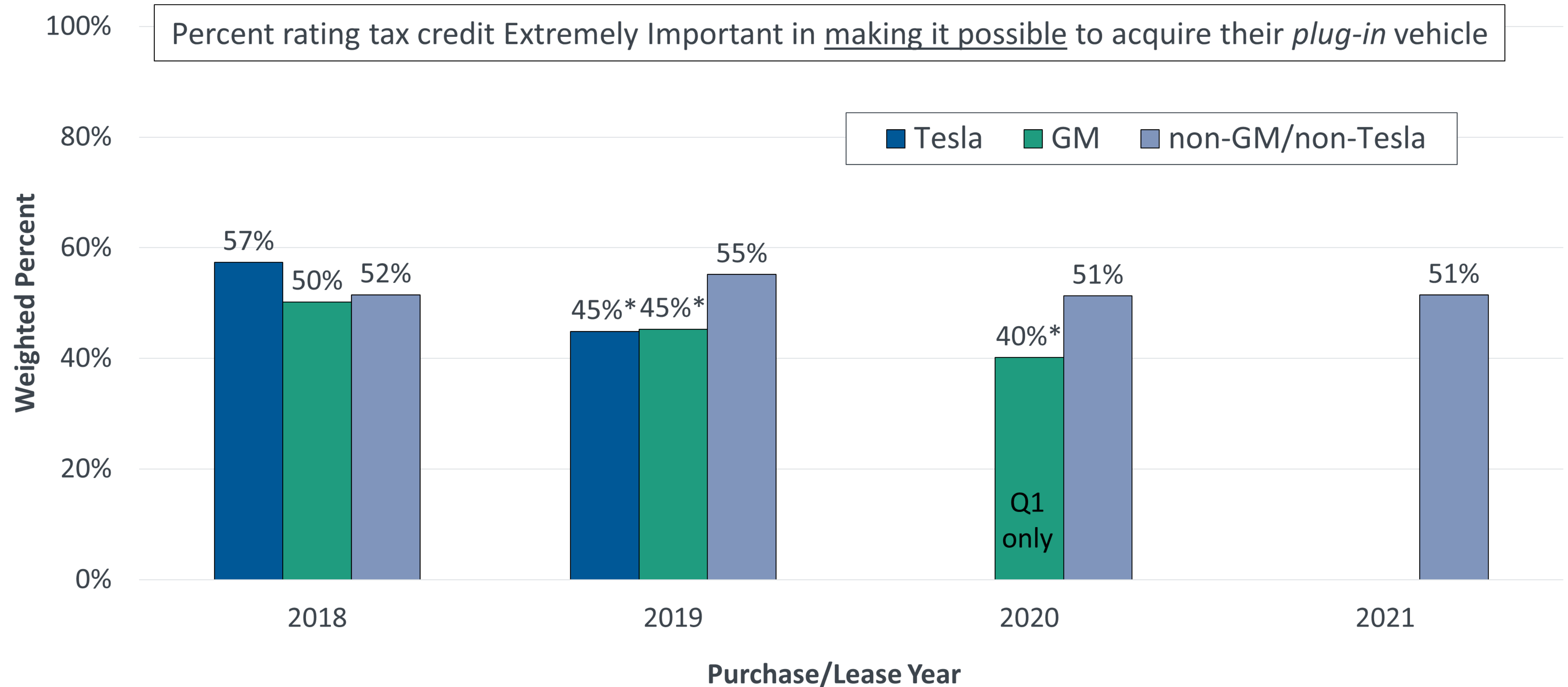


* Note: federal tax credit phase-out for Tesla began 1/1/2019 and concluded 12/31/2019. Phase out for GM began 4/1/2019 and concluded 3/31/2020. CY 2022 includes purchases/leases through August 16, 2022, after which eligibility criteria based on final assembly location were implemented.

CVRP Consumer Survey, 2017–2020 Edition: 2018 n = 14,225; 2019 n = 8,665; 2020 n = 1,550. 2020–2022 Interim Dataset: 2021 n = 2,520. 2022 Interim Dataset: 2022 n = 2,010. n-values are filtered and question-specific.

Extreme Importance of Federal Tax Credit: Phase-Out Years

eligible* purchases/leases



* Note: federal tax credit phase-out for Tesla began 1/1/2019 and concluded 12/31/2019. Phase out for GM began 4/1/2019 and concluded 3/31/2020.

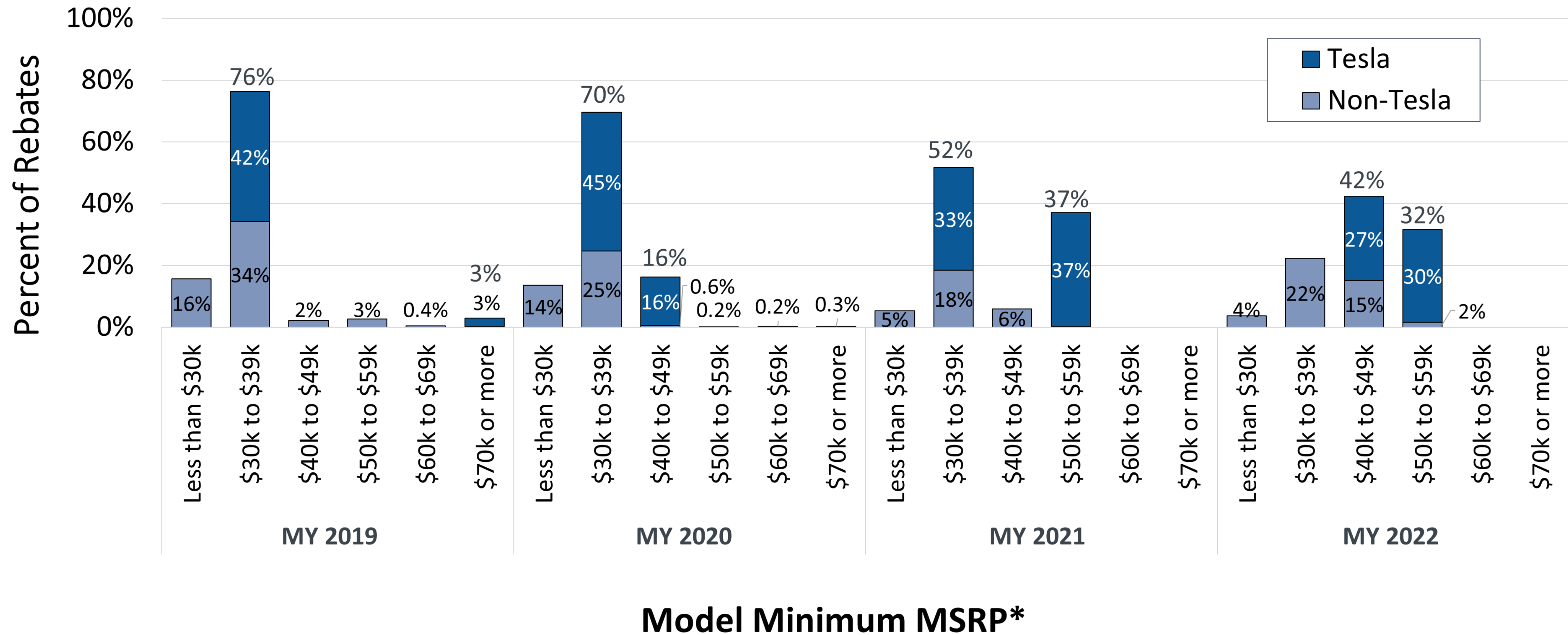
During Q1 2020, GM plug-in EVs were eligible for a reduced tax credit of \$1,875.

CVRP Consumer Survey, 2017–2020 Edition: 2018 n = 14,225. 2019 n = 8,665. 2020 n = 1,550. 2020–2022 Interim Dataset: 2021 n = 2,520.

n-values are filtered and question-specific.

Model-Minimum MSRP by Model Year Increasing

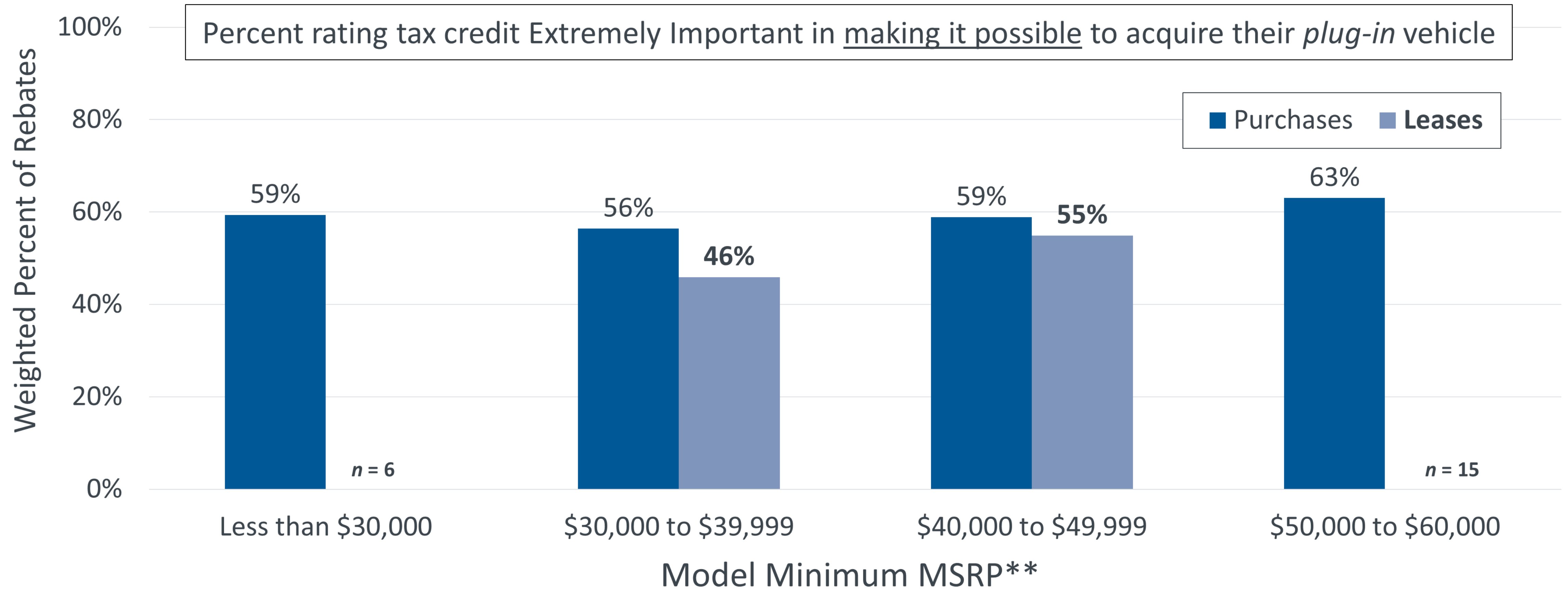
Rebated MY 2019–2022 Plug-in Electric Vehicles (Purchased/Leased 1/2018–5/2023)



*Does not reflect sales price: Each vehicle was assigned the minimum Manufacturer's Suggested Retail Price (MSRP) for that model/MY on fueleconomy.gov. Where MSRPs were unavailable for a given MY, the value for the previous or following MY was used. Tesla MSRPs do change mid-MY: Model 3's assigned \$30k to \$39k for MYs 2019–2021 and \$40k to \$49k for MY 2022; Model Y's assigned \$40k to \$49k for MY 2020 and \$50k to \$59k for MYs 2021–2022. MSRP Cap of \$60,000 introduced Dec. 2019 and modified Feb. 2022 (see "Program Design Shapes Outcomes" slide for further detail). MY 2019 N = 55,105; MY 2020 N = 38,122; MY 2021 N = 44,826; MY 2022 N = 35,736.

Extreme Importance High Across All MSRPs

eligible 2022 purchases/leases thru Aug. 16*

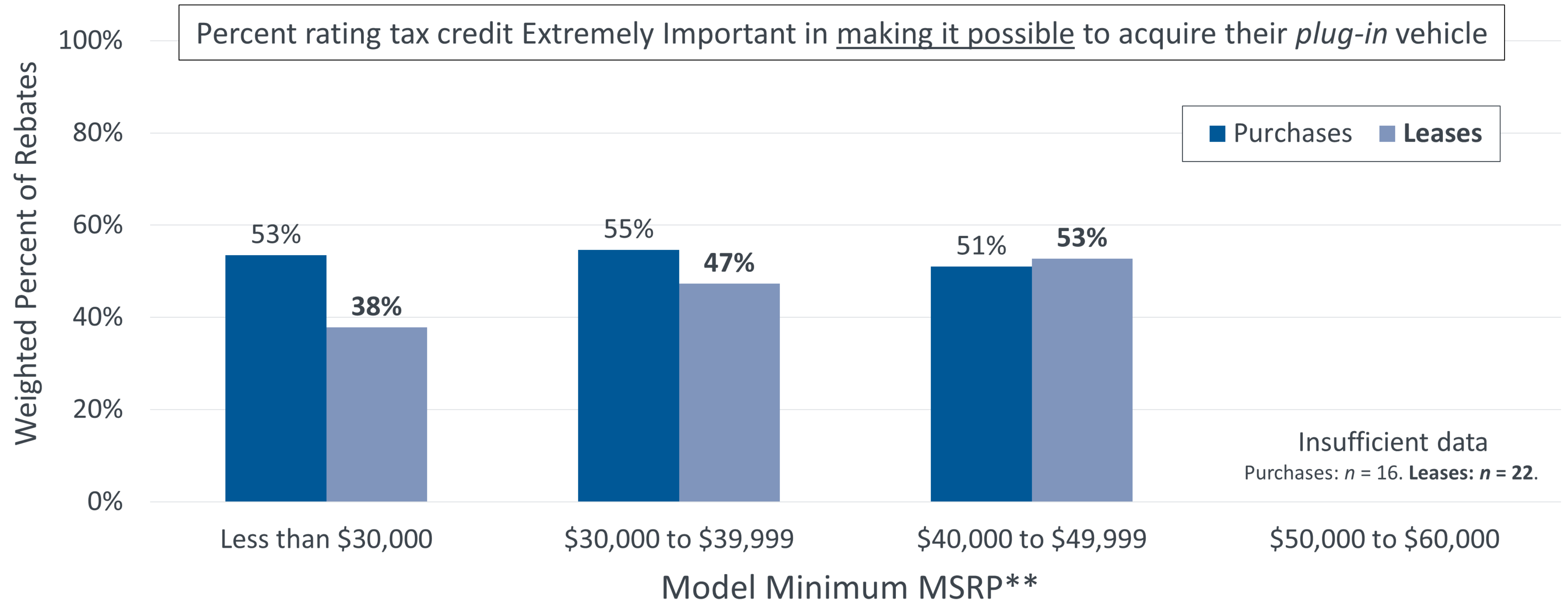


* Includes purchases/leases through August 16, 2022, after which eligibility criteria based on final assembly location were implemented. Tesla and GM ineligible.

** Each vehicle was assigned the minimum Manufacturer's Suggested Retail Price (MSRP) for that model/MY on fueleconomy.gov and does not reflect sale price. See "MSRP Methodology" slide for further detail.

CVRP Consumer Survey, 2022 Interim Dataset. Filtered, question-specific n = 2,010.

Extreme Importance **Lower in 2021** (except \$30–40k leases) eligible* 2021 purchases/leases



* Note: Tesla and GM ineligible.

** Each vehicle was assigned the minimum Manufacturer's Suggested Retail Price (MSRP) for that model/MY on fueleconomy.gov and does not reflect sale price. See "MSRP Methodology" slide for further detail.

CVRP Consumer Survey, 2020–2022 Interim Dataset. Filtered, question-specific n = 2,520.

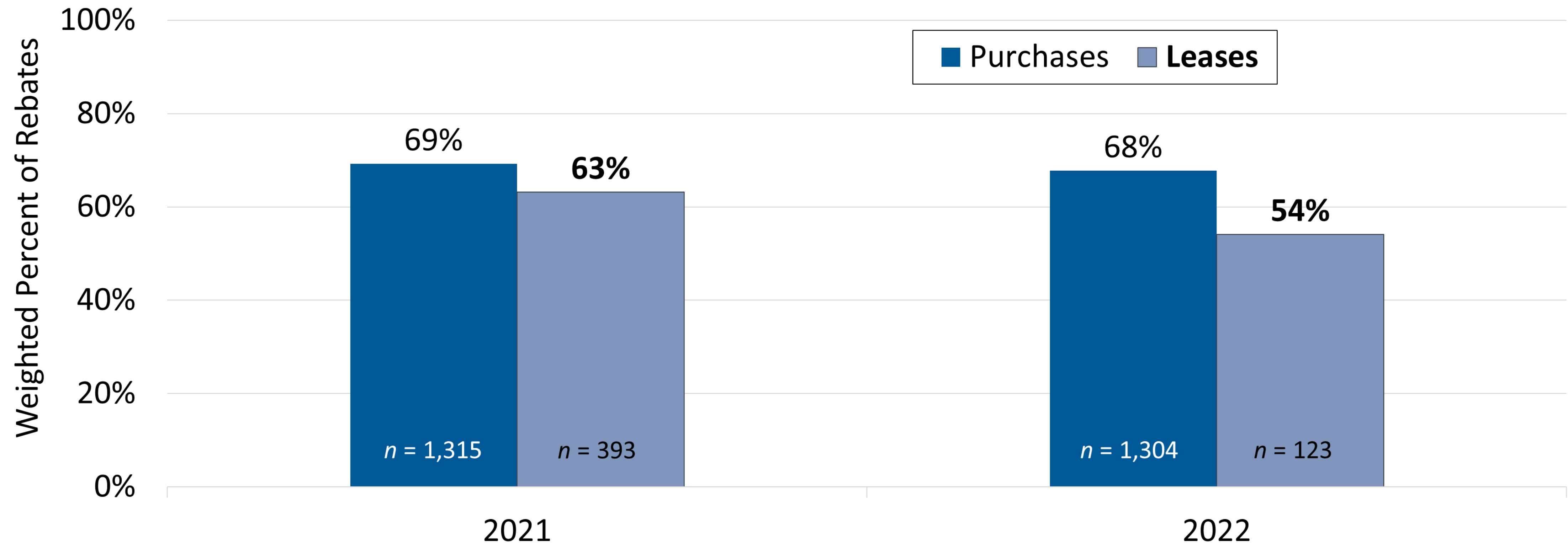


FTC “Essentiality”

Federal Tax Credit Essentiality: Purchases vs. Leases

eligible 2021 & 2022 plug-in EVs thru Aug. 16*

Would not have purchased/leased their plug-in EV if the federal electric vehicle tax credit did not exist



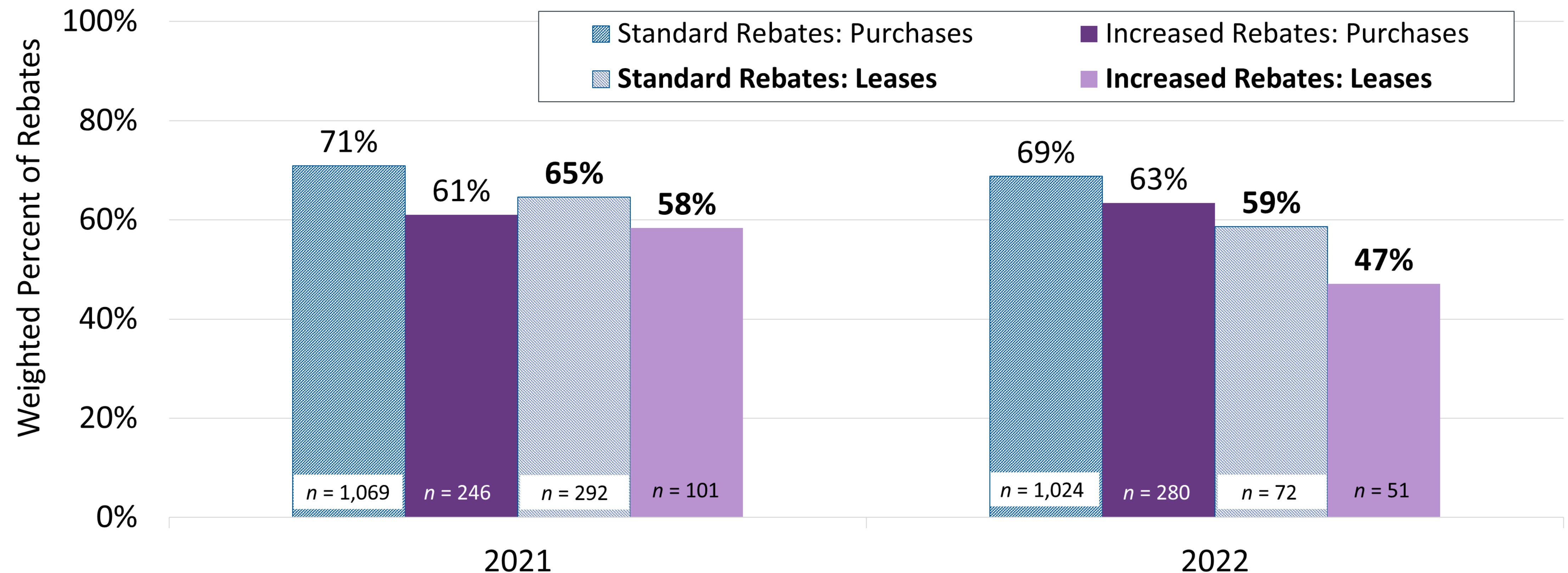
* Tesla and GM ineligible. 2022 includes purchases/leases through August 16, 2022, after which eligibility criteria based on final assembly location were implemented. "Not sure" and "Not applicable" responses are excluded.

CVRP Consumer Survey, 2020–2022 Interim Dataset: 2021 n = 1,708. 2022 Interim Dataset: 2022 n = 1,427. n-values are filtered and question-specific.

FTC Essentiality: Lower for Increased Rebate Recipients, Leases

eligible 2021 & 2022 plug-in EVs thru Aug. 16*

Would not have purchased/leased their plug-in EV if the federal electric vehicle tax credit did not exist



* Tesla and GM ineligible. 2022 includes purchases/leases through August 16, 2022, after which eligibility criteria based on final assembly location were implemented. "Not sure" and "Not applicable" responses are excluded.

CVRP Consumer Survey, 2020–2022 Interim Dataset: 2021 n = 1,708. 2022 Interim Dataset: 2022 n = 1,427. n-values are filtered and question-specific.

Challenges accessing full tax credit at lower income levels (2022)

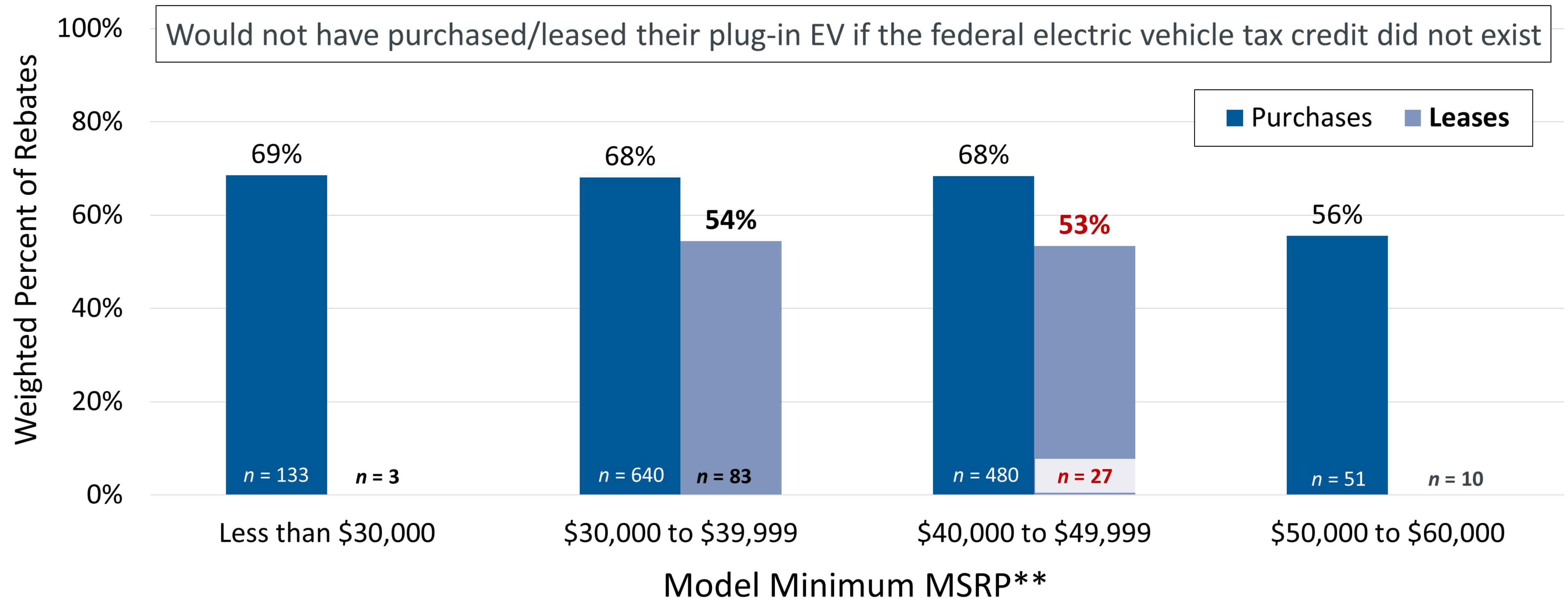
- Households with income 300% FPL or less may be unable to use the entire federal tax credit for a new vehicle.
- Households at the federal poverty level may not be able to access the full used vehicle tax credit

FPL Bin	Average Tax Liability
0 - 100% FPL	\$2,293
100% - 200% FPL	\$4,301
200% - 300% FPL	\$6,214
300% - 400% FPL	\$7,200
400% - 500% FPL	\$7,500
500% - 600% FPL	\$7,500
600% - 700% FPL	\$7,500
700% - 800% FPL	\$7,500
800% - 900% FPL	\$7,500
900% - 1000% FPL	\$7,500
1000% - 1100% FPL	\$7,500
1100% - 1200% FPL	\$7,500
1200% - 1300% FPL	\$7,500
1300% - 1400% FPL	\$7,500
1400% - 1500% FPL	\$7,500
1500% - 1600% FPL	\$7,500
1600% - 1700% FPL	\$7,500

Source: <https://cleanvehiclerebate.org/en/content/vehicle-affordability-and-incentive-amounts-0>

FTC Essentiality High at all MSRPs in Data

eligible 2022 purchases/leases thru Aug. 16*



* Includes purchases/leases through August 16, 2022, after which eligibility criteria based on final assembly location were implemented. Tesla and GM ineligible.

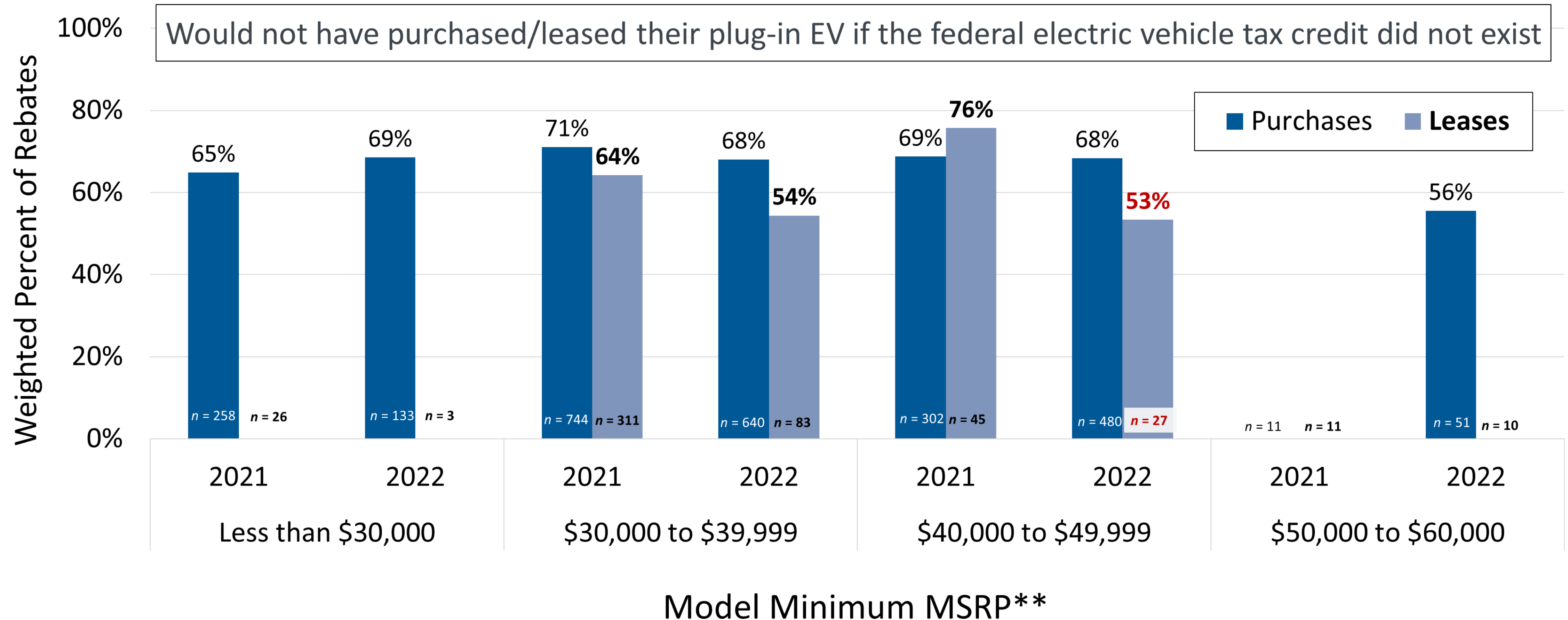
** Each vehicle was assigned the minimum Manufacturer's Suggested Retail Price (MSRP) for that model/MY on fueleconomy.gov and does not reflect sale price. See "MSRP Methodology" slide for further detail.

"Not sure" and "Not applicable" responses are excluded.

CVRP Consumer Survey, 2022 Interim Dataset. Filtered, question-specific n = 1,427.

FTC Essentiality High at all MSRPs in Data (but fell for leases)

eligible 2021 & 2022 purchases/leases thru Aug. 16*



* Tesla and GM ineligible. Includes purchases/leases through August 16, 2022, after which eligibility criteria based on final assembly location were implemented.

** Each vehicle was assigned the minimum Manufacturer's Suggested Retail Price (MSRP) for that model/MY on fueleconomy.gov and does not reflect sale price. See "MSRP Methodology" slide for further detail.

"Not sure" and "Not applicable" responses are excluded.

CVRP Consumer Survey, 2020–2022 Interim Dataset: 2021 n = 1,708 2022 Interim Dataset: 2022 n = 1,427. n-values are filtered and question-specific

Wrap Up

Summary & Select Findings: 2022 (partial) Federal Tax Credit Influence



- Examined 2022 purchases/leases through Aug. 16, after which eligibility criteria based on final assembly location were implemented
- 57% of the 2022 consumers examined rated the federal tax credit (FTC) “extremely important” (i.e., were “FTC Extremes”)
 - All-time high
- FTC Extreme Importance increased in 2022 for most groups (as did state rebate importance)
- Both FTC “Extremes” and “Essentials” (who would not have purchased without the FTC):
 - Relatively steady over time
 - Higher for purchases than leases
 - Counterintuitively lower for lower-income Increased Rebate Recipients
 - While Increased Rebate Recipients have higher state *Rebate Essentiality* than Standard Rebate Recipients, they are less frequently FTC Extremes or Essentials
 - High across all MSRP levels (data capped at \$60k)

Appendix: Additional Details

Base Rebate Amount for Most Individuals **At Lowest Levels**

	as of Mar. 2010	as of Jun. 2011	as of Jul. 2013	as of Jun. 2014	as of Mar. 2016	as of Nov. 2016	as of Dec. 2019
Fuel-Cell EVs 	\$3,000– \$5,000 ‡	\$1,500– \$2,500 ‡	\$2,500	\$5,000	\$5,000 *	\$5,000**	\$4,500***
Battery EVs † 	\$3,000– \$5,000 ‡	\$1,500– \$2,500 ‡	\$2,500	\$2,500	\$2,500 *	\$2,500**	\$2,000***
Plug-in Hybrid EVs 	\$3,000	\$1,500	\$1,500	\$1,500	\$1,500 *	\$1,500**	\$1,000***
Zero-Emission Motorcycles 	\$1,500	\$900	\$900	\$900	\$900	\$900	\$750
Neighborhood EVs	\$1,500	\$900	\$900	\$900	\$900	None eligible	None eligible
Commercial Zero- Emission Vehicles	\$20,000						

† Includes range-extended battery electric vehicles.

‡ Amounts varied by ZEV type. For definitions, see CCR 1962.1.

* Income-qualified consumers eligible for an additional \$1,500.

** Income-qualified consumers eligible for an additional \$2,000.

*** Income-qualified consumers eligible for an additional \$2,500.

Funding Availability Has Been Regularly Disrupted

(as of Dec. 2022)

Table 4: CVRP Waitlists

Waitlist Year	Start Date	End Date	Length in Days
2011*	Jun. 20	Sept. 30	102
2013*	May 1	Jun. 30	60
2014	Mar. 28	Jul. 22	116
2016	Jun. 11	Sept. 28	109
2017**	Jun. 30	Nov. 20	143
2019**	Jun. 5	Sept. 23	110
2021	Apr. 23	Sept. 15	145

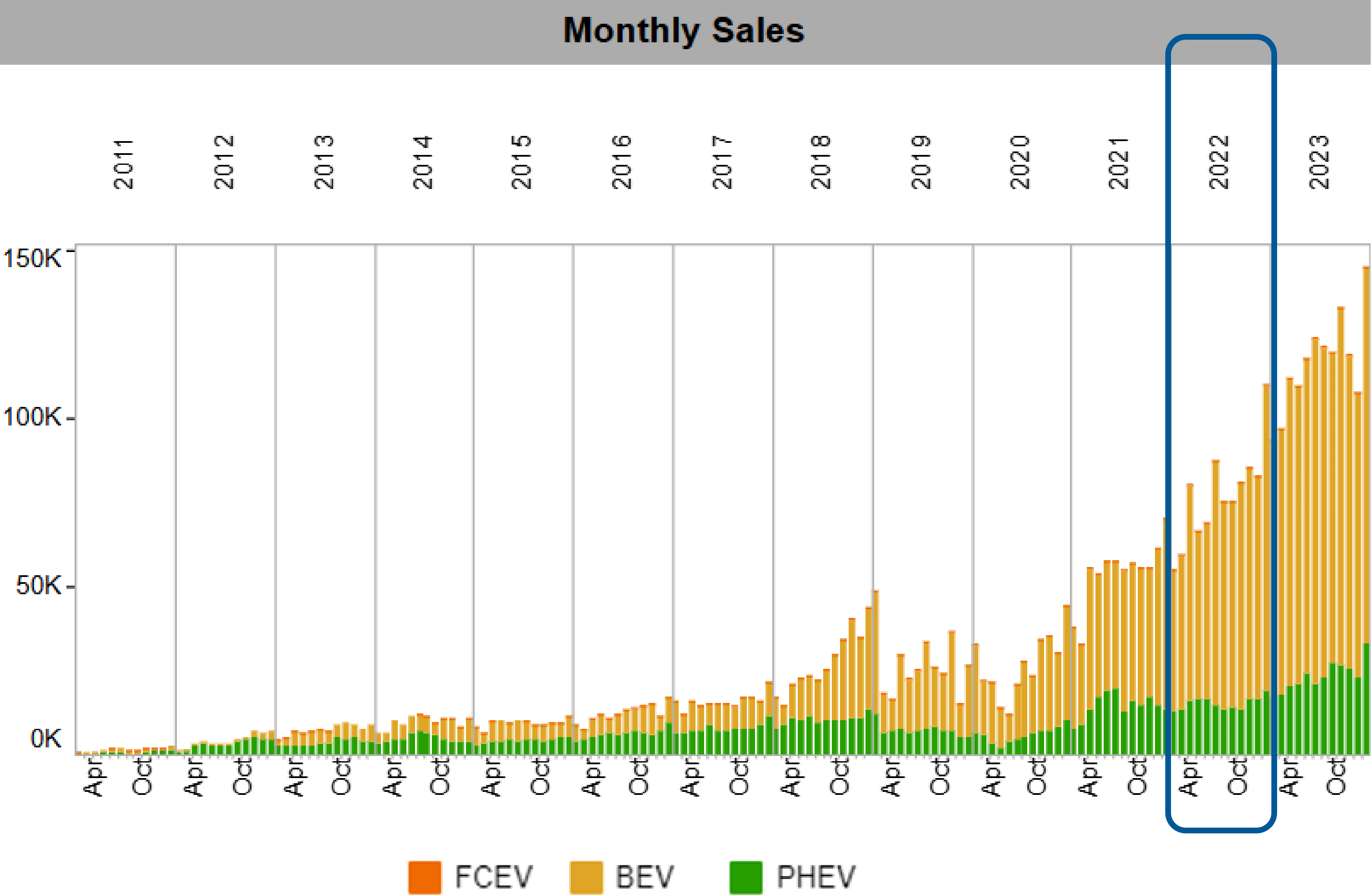
* Dates approximate.

** For standard applications only; no waitlist for income-qualified increased rebates.

Note: Tesla MSRP exceeded cap, became ineligible 3/15/2022.

Total EV Sales in California Continued to Grow

2011–2023



~11% of registered EVs
purchased in 2022
received rebates.

More Broadly, Electric Vehicle Sales in California Increased 2011–2018, Decreased in 2019 and During the Pandemic, and Rebounded in 2021 and Beyond

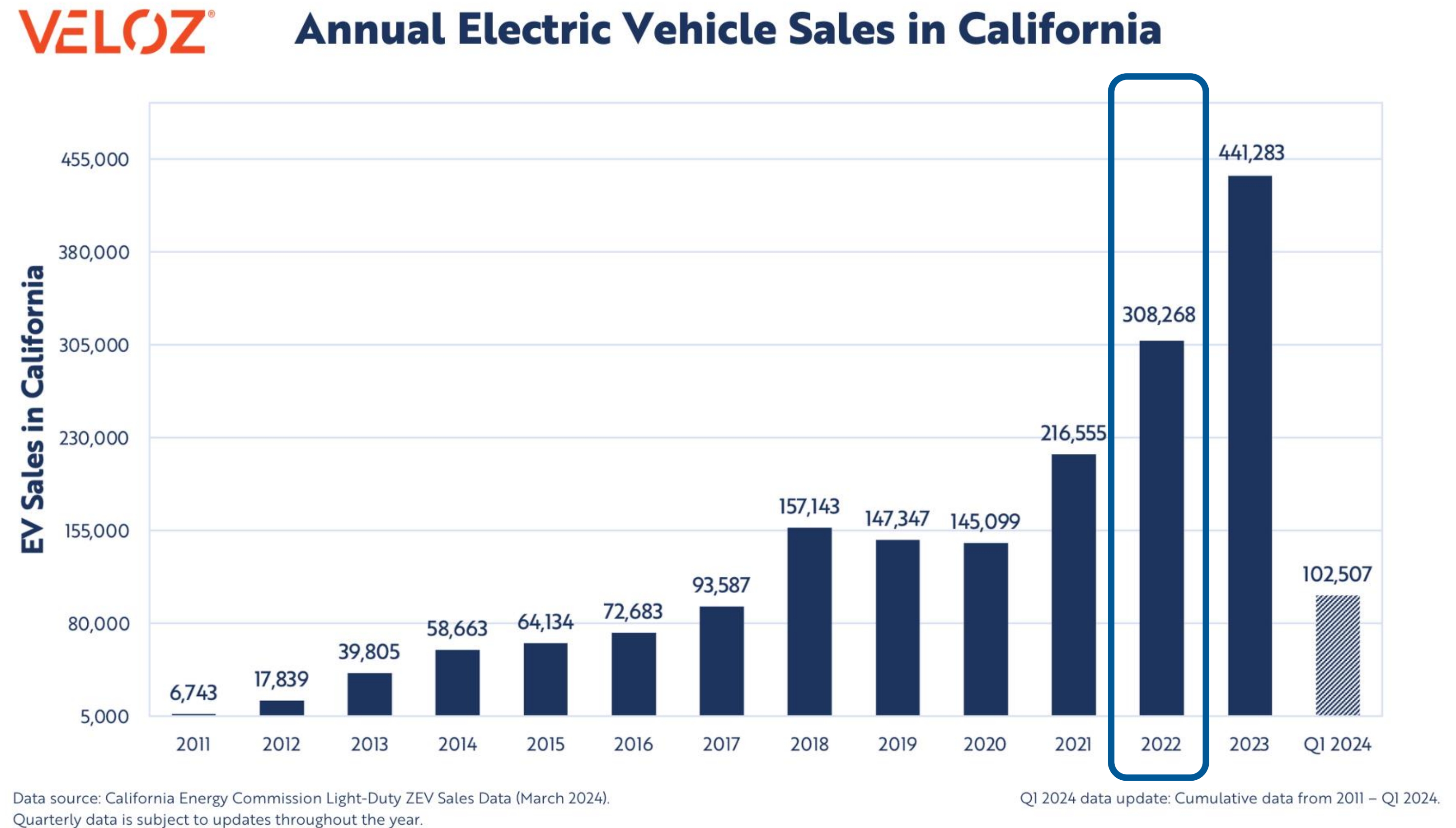
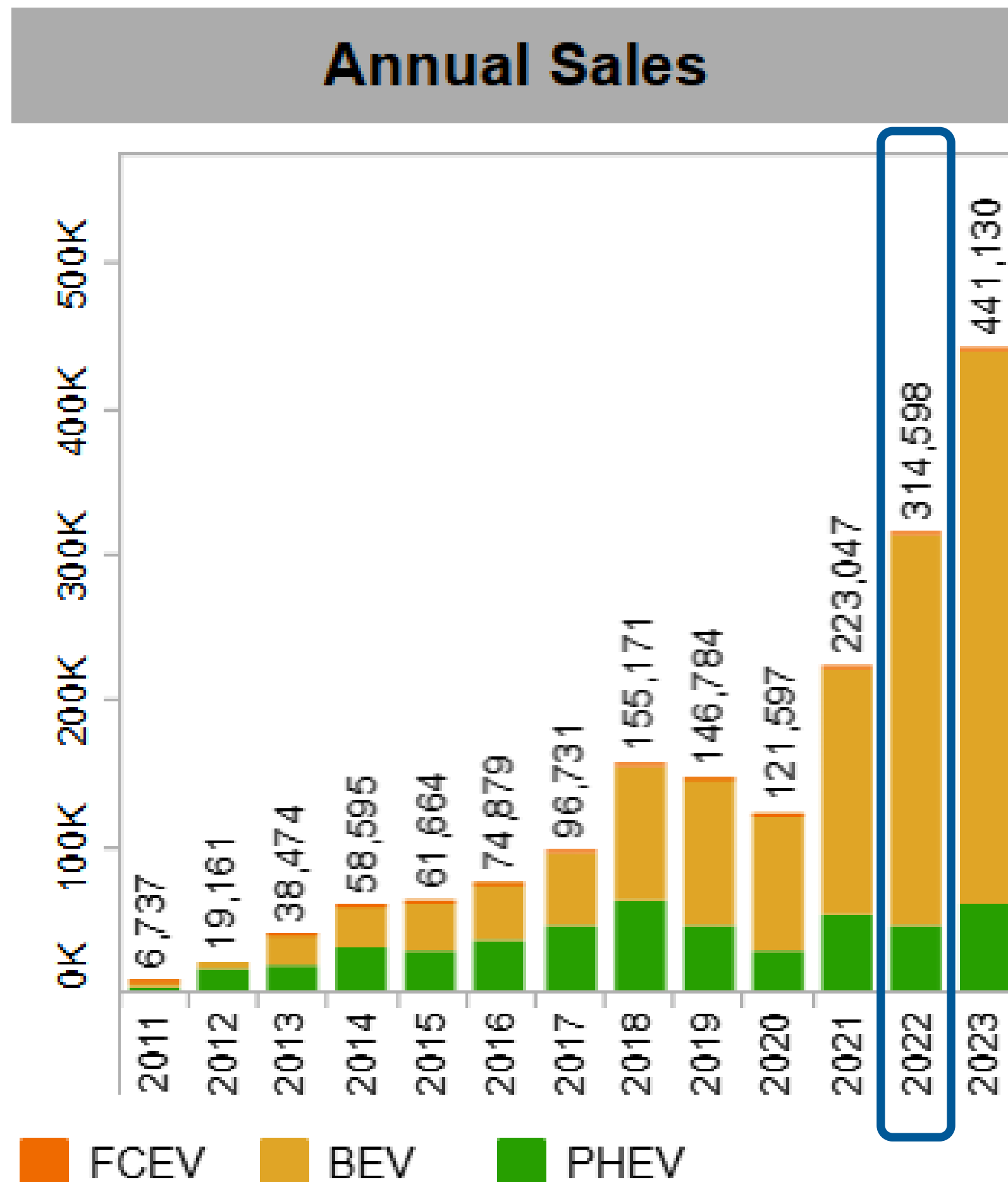


Image 1 from <https://www.autosinnovate.org/EVDashboard> (6/24/24).

Image 2 from [https://www.veloz.org/wp-content/uploads/2024/05/Q1-2024 Annual-EV-Sales-in-CA-1.png](https://www.veloz.org/wp-content/uploads/2024/05/Q1-2024%20Annual-EV-Sales-in-CA-1.png)

CVRP Consumer Survey Editions

(shows rebates to individuals for plug-in EVs* only)

	2013–2015 Edition	2015–2016 Edition	2016–2017 Edition	2017–2020 Edition	2020–2023 Edition (in progress) Interim Datasets	Total
Vehicle Purchase/ Lease Dates	Sep. 2012 – May 2015	April 2015 – May 2016	May 2016 – May 2017	June 2017 – Nov. 2020	Dec. 2020 – Dec. 2022	Sep. 2012 – Dec. 2022
Survey Responses (total <i>n</i>)**	19,460	11,611	8,957	32,524	15,482	88,034
Program Population (<i>N</i>)***	91,081	45,685	46,839	193,167	86,451	463,223

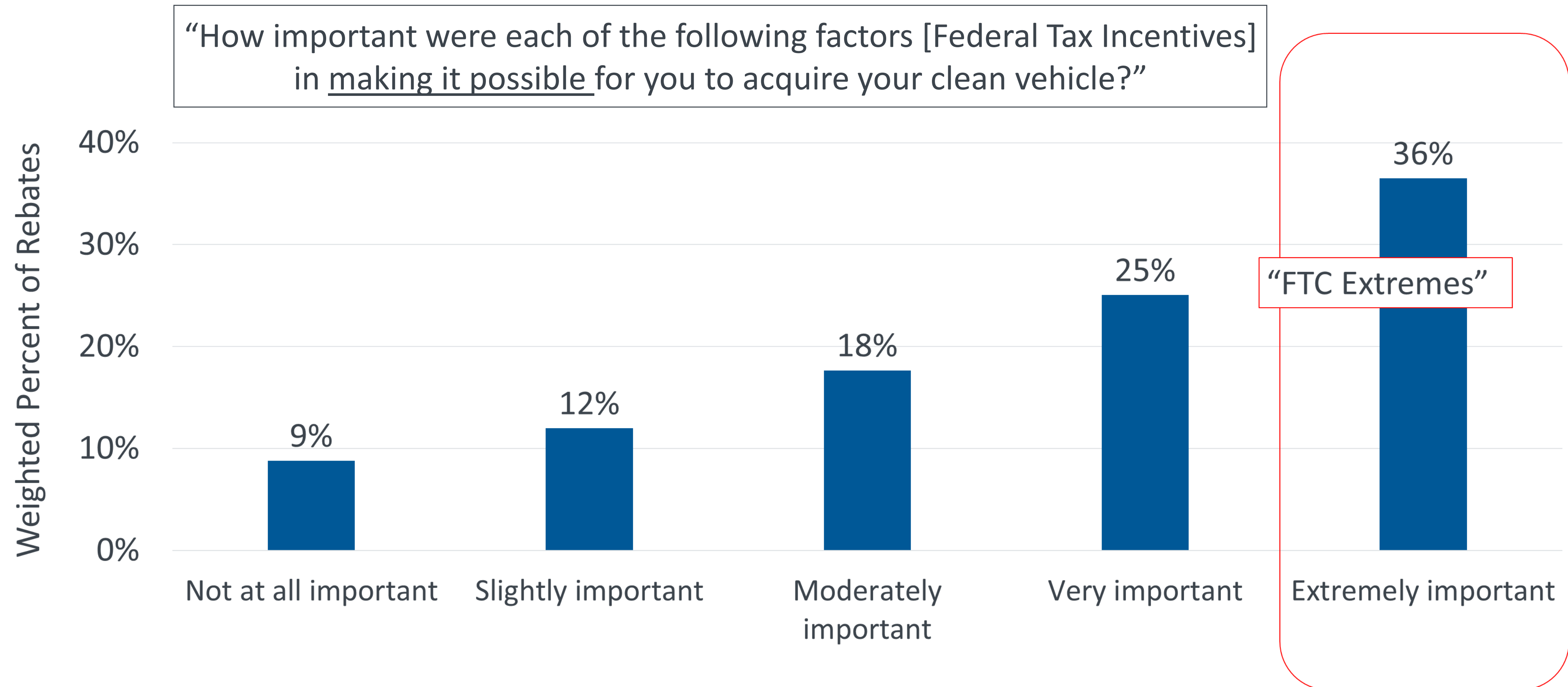
**Plug-in EVs (PEVs) include PHEVs and BEVs.*

*** Subsequently weighted to represent the program population, see “CVRP Consumer Survey: Weighting Detail” slide for further detail.*

**** Small numbers of rebated vehicles are not represented in the time frames due to application lags. Numbers may not be exactly comparable due to evolving weighting practices.*

Importance of Federal Tax Credit

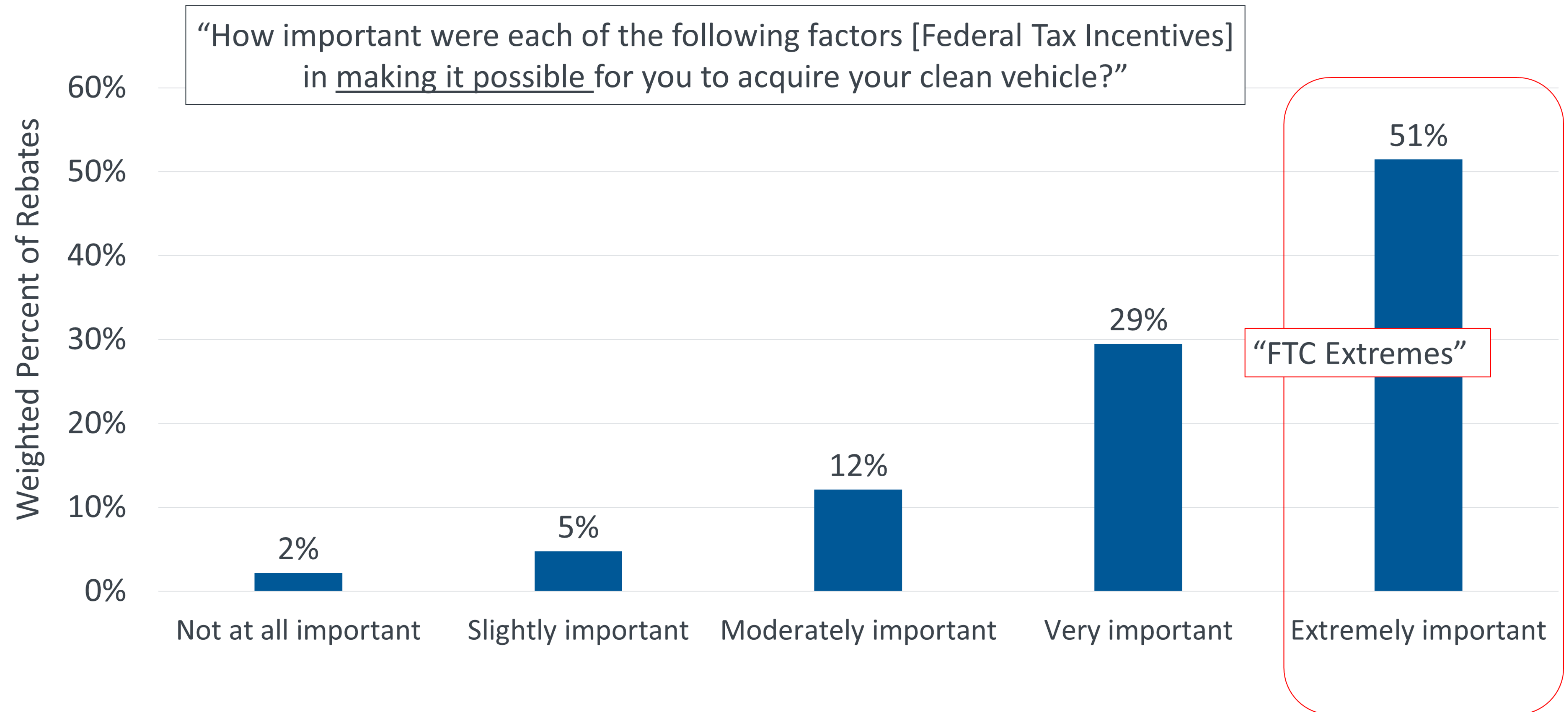
CY 2020 Plug-in EVs*



* Note: federal tax credit began phasing out for Tesla and GM in 2019
CVRP Consumer Survey, 2017–2020 Edition. Filtered, question-specific n = 3,536

Importance of Federal Tax Credit (FTC)

eligible* 2021 plug-in EV purchases/leases

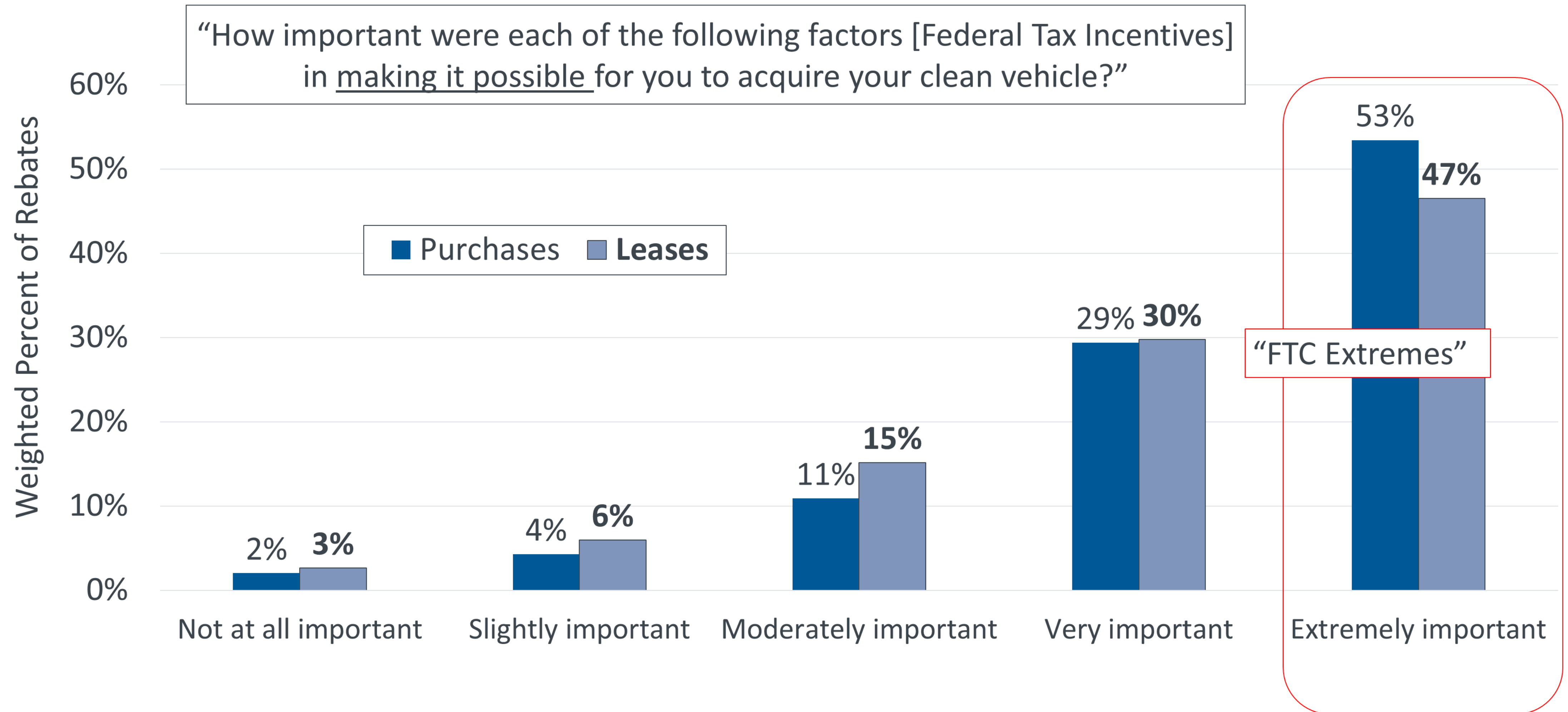


* Note: Tesla and GM ineligible.

CVRP Consumer Survey, 2020–2022 Interim Dataset. Filtered, question-specific n = 2,520

Importance of Federal Tax Credit: Purchases vs. Leases

eligible* 2021 plug-in EVs

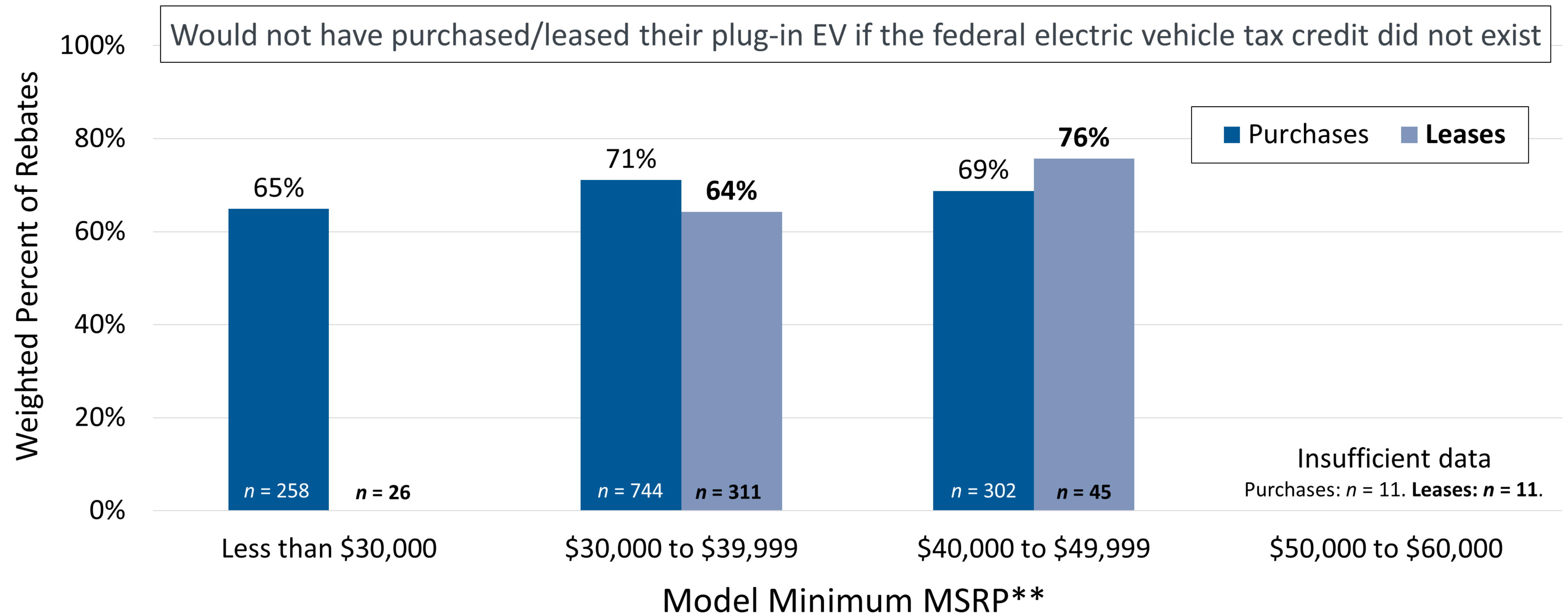


* Note: Tesla and GM ineligible.

CVRP Consumer Survey, 2020–2022 Interim Dataset. Filtered, question-specific n = 2,520

Essentiality of Federal Tax Credit High at all MSRPs in Data

eligible* 2021 purchases/leases



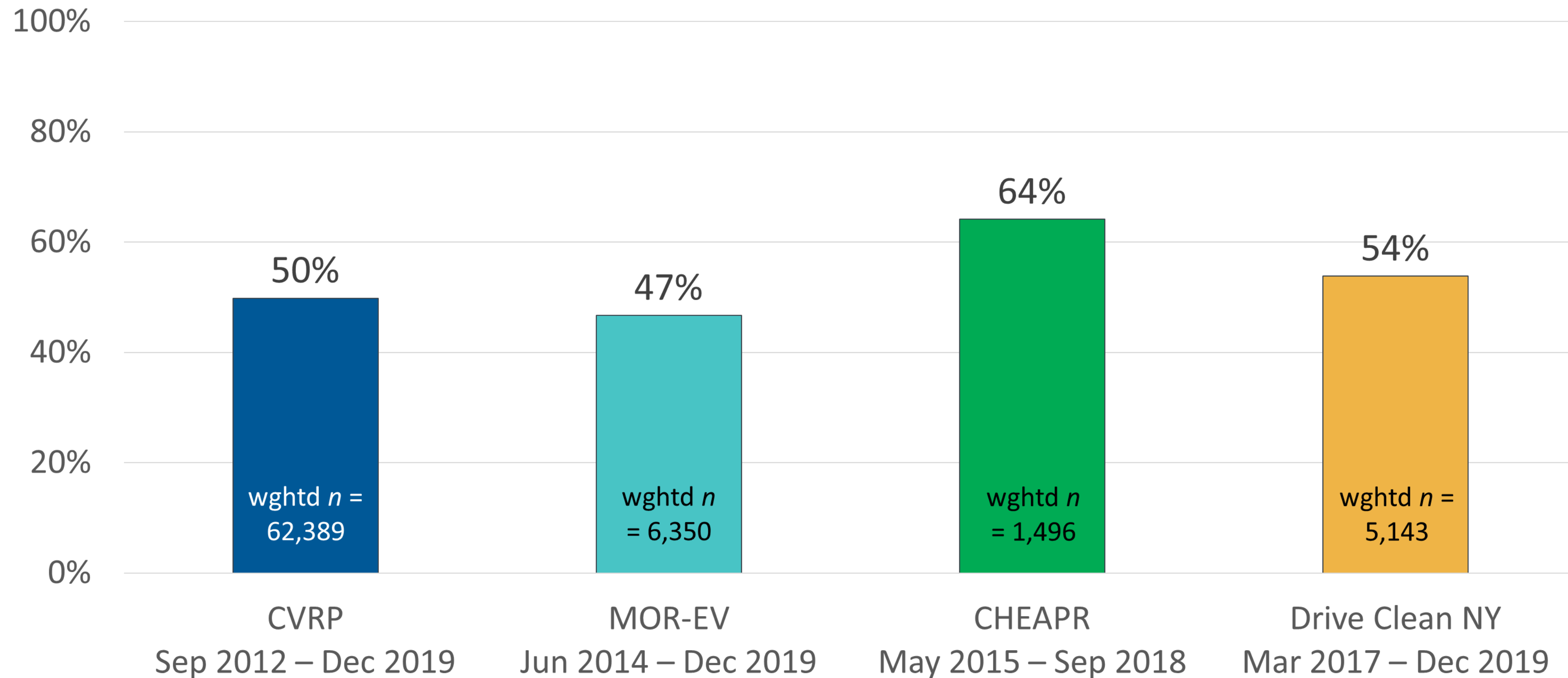
* Note: Tesla and GM ineligible.

** Each vehicle was assigned the minimum Manufacturer's Suggested Retail Price (MSRP) for that model/MY on fueleconomy.gov and does not reflect sale price. See "MSRP Methodology" slide for further detail.

"Not sure" and "Not applicable" responses are excluded.

CVRP Consumer Survey, 2020–2022 Interim Dataset. Filtered, question-specific n = 1,708.

Percent Rating the Federal Tax Credit “Extremely Important” (“...in making it possible” to acquire plug-in EVs)



*Includes fuel-cell EVs (CVRP only). Weighted n values are question-specific.
Overall datasets: 80,557 total survey respondents weighted to represent 380,700 rebate recipients.*

Strong demand in the U.S. is relative

U.S. is falling way behind Europe and China. Even though U.S. car market is 15 million and Europe's is 11 million:

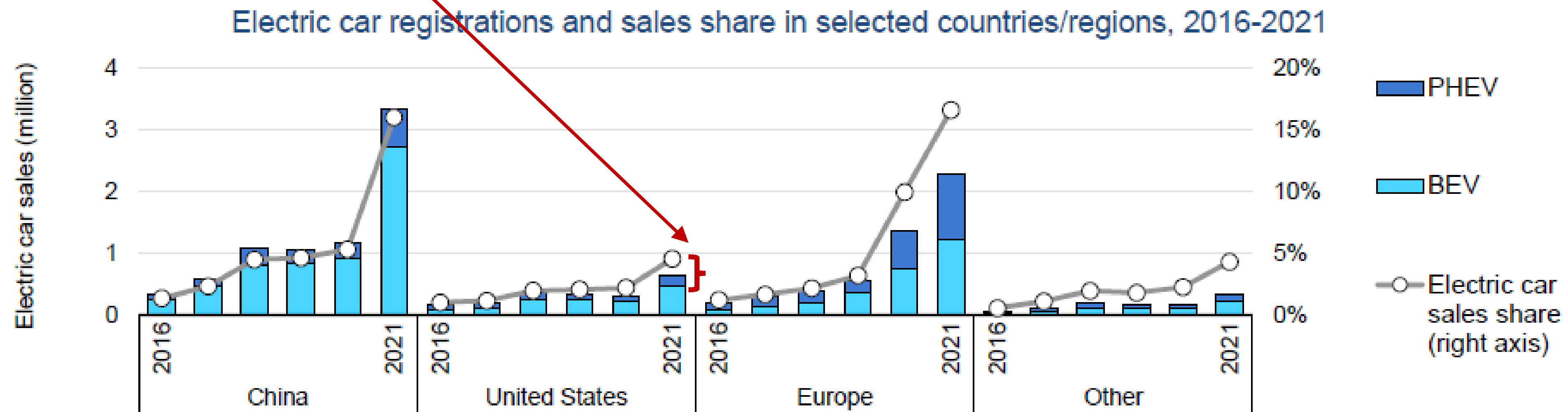


Image from IEA's "Global EV Outlook 2022"

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Center for Sustainable Energy® (CSE) is a national nonprofit that accelerates adoption of clean transportation and distributed energy through effective and equitable program design, administration, and evaluation.

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Our vision is a future with sustainable, equitable and resilient transportation, buildings and communities.



Recommended citation:

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