DASHBOARD ANALYSIS AND VISUALIZATION

LINK TO PUBLIC TABLEAU:

https://public.tableau.com/views/EletricVehiclePopulationCaseStudy2024/Dashboard1?:language=en-US&:sid=&:redirect=auth&:display_count=n&:origin=viz_share_link

PRESENTED BY FRANCISCO FERREIRA

DASHBOARD VISUALIZATION

Eletric Vehicles Dashboard Analysis

(CAFV) Eligibility
Tudo

EV Type
Tudo

Model
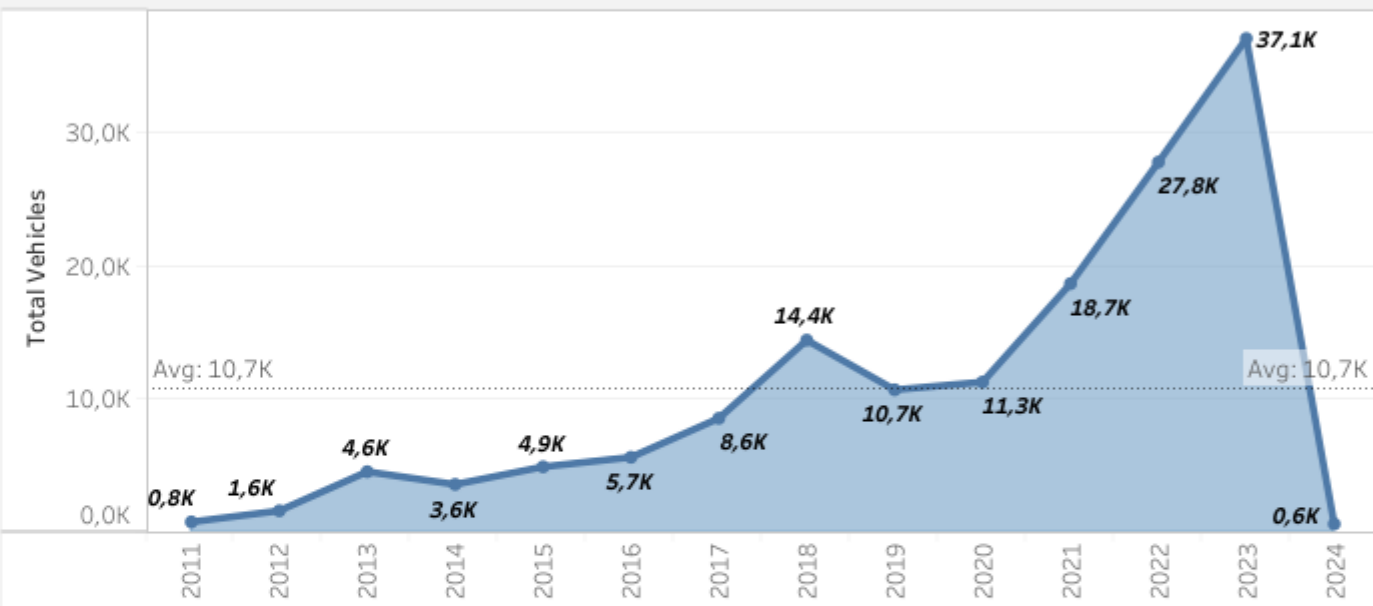Tudo

State
Valores múltiplos
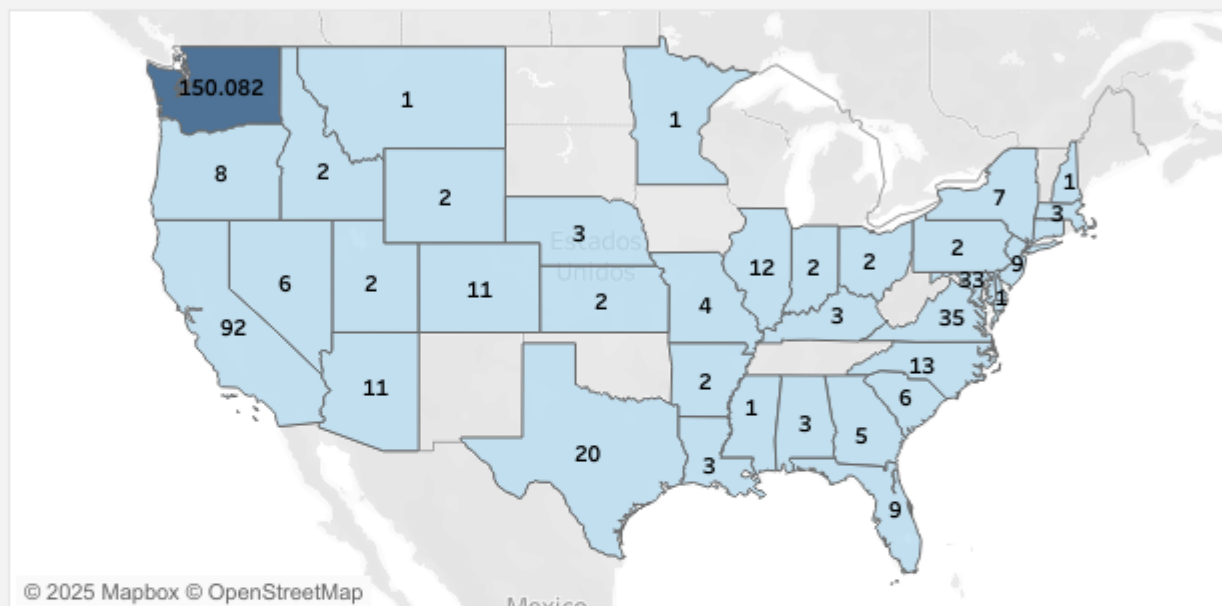
Total Vehicles	Average Eletric Range	Total BEV Vehicles	Total PHEV Vehicles
150.413	**67,83 Miles**	**116.745** % of Total: 77,6%	**33.668** % of Total: 22,4%

Total Vehicles by Model Year

Avg: 10,7K

0,8K — 1,6K — 4,6K — 3,6K — 4,9K — 5,7K — 8,6K — 10,7K — 11,3K — 14,4K — 18,7K — 27,8K — 37,1K — 0,6K

2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024

Total Vehicles By State

150.082

© 2025 Mapbox © OpenStreetMap

Top 10 Total Vehicles By Manufacturer

Manufacturer	
TESLA	68.939 ; 52,70%
NISSAN	13.497 ; 10,32%
CHEVROLET	12.024 ; 9,19%
FORD	7.601 ; 5,81%
BMW	6.439 ; 4,92%
KIA	6.198 ; 4,74%
TOYOTA	5.219 ; 3,99%
VOLKSWAGEN	4.074 ; 3,11%
VOLVO	3.536 ; 2,70%
JEEP	3.289 ; 2,51%

Top N: 10
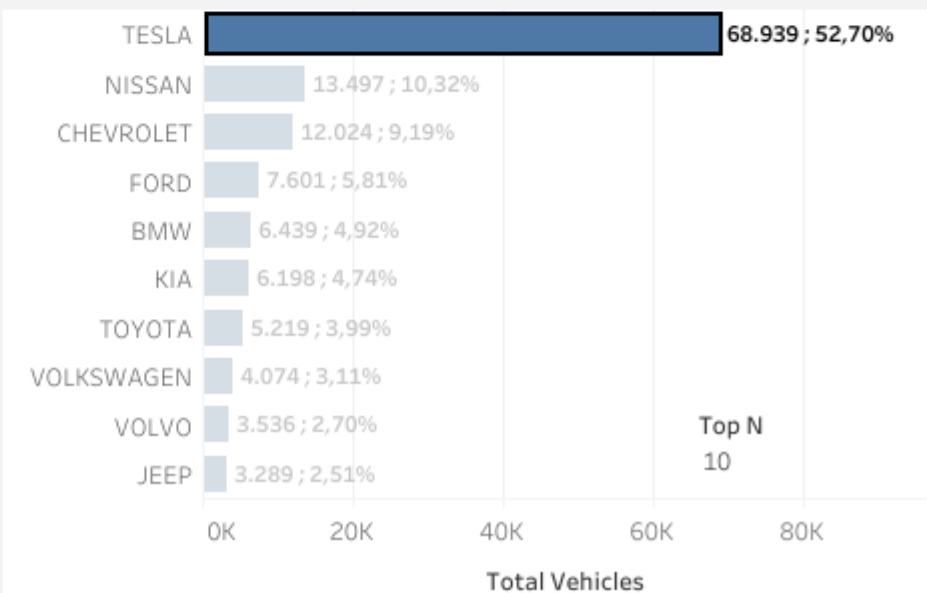
Total Vehicles By CAFV Eligibility

CAFV Unknown 69.697 ; 46,34%
CAFV Eligible 62.887 ; 41,81%
CAFV Not Eligible 17.829 ; 11,85%
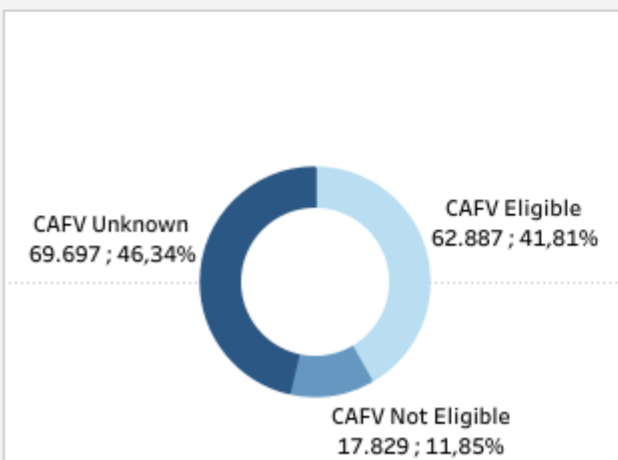
Total Vehicles By Model

Model	Make	EV Type	Total Vehicles	% do total de To..
MODEL Y	TESLA	BEV	28.501	18,95%
MODEL 3	TESLA	BEV	27.708	18,42%
LEAF	NISSAN	BEV	13.187	8,77%
MODEL S	TESLA	BEV	7.609	5,06%
BOLT EV	CHEVROLET	BEV	5.732	3,81%
MODEL X	TESLA	BEV	5.114	3,40%
VOLT	CHEVROLET	PHEV	4.890	3,25%
ID.4	VOLKSWAGEN	BEV	2.999	1,99%
NIRO	KIA	BEV	1.854	1,23%
		PHEV	1.022	0,68%
PACIFICA	CHRYSLER	PHEV	2.642	1,76%
WRANGLER	JEEP	PHEV	2.626	1,75%
MUSTANG MACH-E	FORD	BEV	2.619	1,74%

DASHBOARD ANALYSIS

This dashboard analysis covers over 150,000 electric vehicles in the U.S., revealing key patterns in EV adoption. Battery Electric Vehicles (BEVs) dominate the market, with Tesla leading in both volume and popularity. California accounts for nearly all registrations in the dataset, while policy incentives (CAFV eligibility) play a significant role in driving uptake.

Metric	Insight
Total EVs Analyzed	150,413 vehicles
BEV Share	77.6% – strong shift away from hybrids
Top Manufacturer	Tesla – over 50% market share
Top State	California – highly concentrated EV registrations
Average Electric Range	67.83 miles – reflects mix of old and new tech
CAFV Eligibility	41.8% eligible – incentives appear to drive adoption

TRENDS & INSIGHTS

Market Maturity

The sharp rise in recent years signals rapid market adoption and maturity, likely driven by improving infrastructure and declining costs.

Tesla's Dominance

- Tesla holds over **half the market** and four of the top six most popular models.
- Its dominance makes it a key driver of U.S. EV trends.

BEVs vs. PHEVs

Market shows a clear **pivot toward BEVs**, which now make up over three-quarters of all EVs.

Policy Influence

- Nearly **42%** of vehicles are CAFV-eligible, though lack of data (~46%) limits full analysis.
- Where eligibility is known, incentives appear to have a strong correlation with adoption.

Geographic Concentration

California is the epicenter of EV adoption, signaling potential for expansion across other states if conditions improve (infrastructure, incentives).

RECOMMENDATIONS FOR **STAKEHOLDERS**

For Manufacturers:
- **Expand BEV offerings**, especially in SUV and affordable sedan categories.
- **Benchmark Tesla** to understand consumer priorities: range, performance, and tech integration.

For Policymakers:
- Expand CAFV incentives nationwide and **standardize eligibility tracking**.
- Use California as a model for infrastructure and adoption policies.

For Investors:
Strong market signals for BEVs: would be wise invest in **battery tech**, **charging infrastructure**, and **next-gen EV platforms**.

For Researchers:
- Investigate gaps in states outside California to identify **barriers to adoption**.
- Further analyze **EV performance by model year** to track technological progress.

THANK YOU!

EMAIL

fsemedo2001@hotmail.com

PHONE

+351 962 697 540

LINK TO PUBLIC TABLEAU:

https://public.tableau.com/views/EletricVehiclePopulationCaseStudy2024/Dashboard1?:language=en-US&:sid=&:redirect=auth&:display_count=n&:origin=viz_share_link

PRESENTED BY FRANCISCO FERREIRA