

2024 Cox Automotive Path to EV Adoption Study – SUMMARY

May 2024

“The Skeptics are Coming”

COX AUTOMOTIVE



A man in a brown suit and white shirt is smiling while plugging a charging cable into a dark blue electric car at a charging station. The background shows a modern, brightly lit charging area with a white charging station and a red and yellow striped safety bollard.

1 EV Skeptics – The Next Wave – Are Likely To Begin the Switch in the Next 3-5 Years

Nearly half of all vehicle shoppers are not considering an EV... that will change

Intenders: Plan to purchase a new or used vehicle within the next 24 months. (100% of market)

Considerers: Considering the purchase of an EV within the next 24 months. (55%)

Skeptics: NOT considering an EV purchase within the next 24 months – ICE-only shoppers. (45%)

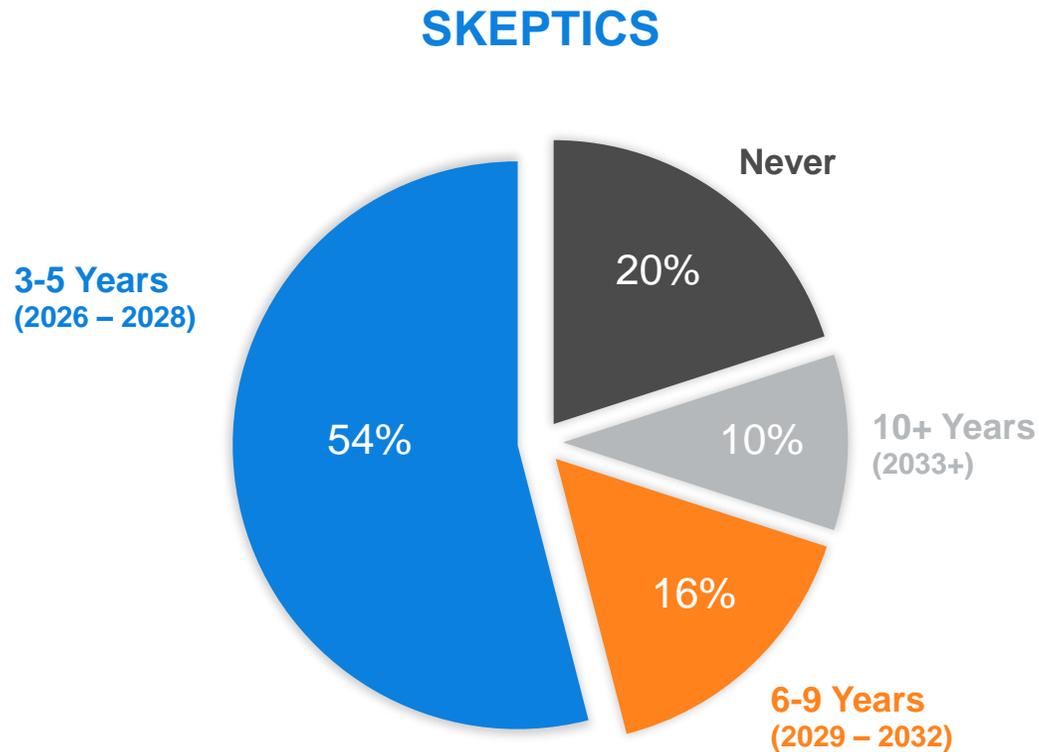
2024 Profile	Intenders	Considerers (B)	Skeptics (C)
Income Under \$50K	47% [↑]	43% [↑]	53% ^B [↑]
Income \$50K - \$99K	34%	36% ^C	32%
Income \$100K+	19% [↓]	21% ^C [↓]	15% [↓]
Average Income	\$66,900 [↓]	\$71,756 ^C [↓]	\$60,625 [↓]
Excellent Credit	23% [↓]	22% [↓]	24% [↓]
Very good/Good Credit	48%	55% ^C	40% [↑]
Fair Credit	17% [↑]	14% [↑]	20% ^B [↑]
Poor Credit	12% [↑]	9% ^A [↑]	16% ^B
Have Children	43%	47% ^C	37%

2024 Profile	Intenders	Considerers (B)	Skeptics (C)
Male	55% [↑]	60% ^C [↑]	50% [↑]
Female	45% [↓]	40% [↓]	50% ^B [↓]
Average Age	44	42 [↑]	46 ^B [↓]
Gen Z	13% [↑]	15% [↑]	12% [↑]
Millennial	34%	36% ^C	31% [↑]
Gen X	34%	36% ^C	32%
Baby Boomer	18% [↓]	13% [↓]	24% ^B [↓]
White/Caucasian	73% [↓]	69% [↓]	77% ^B [↓]
African American or Black	22% [↑]	24% ^C [↑]	20% [↑]
Hispanic	17% [↑]	19% ^C [↑]	15% [↑]
Asian	4% [↓]	4% [↓]	3%
Native American	3% [↑]	3%	4% [↑]
Other	3%	4%	3%

Letters indicate significant difference between groups at the 95% confidence interval.
Arrows indicate significant difference between years at the 95% confidence interval.

A majority of EV Skeptics feel the time to switch is in 3-5 years

80% of Skeptics will shift to Considerers within 10 Years



*Question added in 2024
EV Skeptics: Consumers who are considering a vehicle, but not an EV within 2 years

Top Reason to Wait:

EV Technology Needs to Improve

“To work the bugs out, to increase the **battery longevity** & longer travel miles before having to charge again, to guarantee they'll **work in both HOT & COLD climates** & NOT lose their battery power (which is what's happening now), just **too many IF's & uncertainties** now to go full electric.”

(EV Skeptic, 3-5 years out)

“They need to **work on the technology**, the **recycling issues around the batteries**, and other things such as **driving range and size of vehicles.**”

(EV Skeptic, 3-5 years out)



Cost and charging-related concerns remain common barriers

Skeptics are more likely to see infrastructure issues as a barrier

Rank	Considerers	Skeptics (3-5 years out)
1	Too expensive	Lack of charging stations
2	Lack of charging stations	Too expensive
3 (tie)	Cost of battery replacement	Inability to charge EV at home
3 (tie)	Length of time to charge	Concern about battery losing charge
5	Concern about battery losing charge	Cost of battery replacement
6	Inability to charge EV at home	Length of time to charge



Considerers and Skeptics alike can be swayed by tech enhancements, more education, and better pricing.

Motivator	Considerers	Skeptics
Technology improvement, including faster charging, longer range, and better battery health	77%	65%
Education, including understanding cost of owning and charging, performance capabilities	56%	48%
Price Reduction	38%	36%

Could be persuaded

Drivers of higher consideration – price parity, education and increased awareness

Would Consider Purchasing an EV if Same Price as ICE Alternative

(Definitely/Probably Consider)

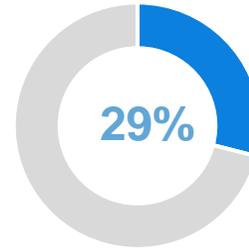


Awareness and Impact of EV Federal Battery Regulations Among Considerers

Guarantees that EV and hybrid batteries will last for at least 8 years or 100,000 miles

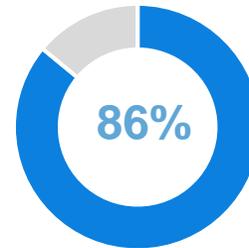
Aware of Federal Battery Regulation

(% Yes)



More Likely to Purchase EV Because of Federal Battery Regulation

(% Much/Somewhat More Likely)



More exposure to EVs opens the door to higher consideration

Knows someone who currently owns an EV

72%

40%

Knows no one who currently owns an EV

17%

49%

■ Considerers
■ Skeptics

Arrows indicate significant difference between years at the 95% confidence interval.

*KBB average transaction price data comparing January 2022 to January 2024

Nearly all shoppers could be enticed to purchase an EV sooner

Current EV Consideration Timeline

1-2 Years

- 98% could be enticed to purchase an EV earlier
- Price is top reason to delay their EV purchase; nearly half aren't familiar with EV tax incentives
- Consideration highly impacted by non-financial incentives (i.e., free charging, free home charger, free maintenance plans)
- More likely to cite 'environmentally friendly' and 'gas prices too high' as reasons for considering an EV

3-5 Years

- 96% could be enticed to consider an EV earlier
- More likely to cite a lack of knowledge about EVs as a barrier
- Would like more information on total cost of ownership & cost of charging
- Consideration highly impacted by non-financial incentives (i.e., free charging, free home charger, free maintenance plans)

5+ Years

- 88% could be enticed to consider an EV earlier
- Most likely to cite technology advancements and better charging infrastructure as reasons to delay EV purchase
- Longer driving range, lower cost, and faster charging time are top motivators
- 'Too expensive' is top barrier



Never 35% of those who said they would *never consider an EV could be enticed*

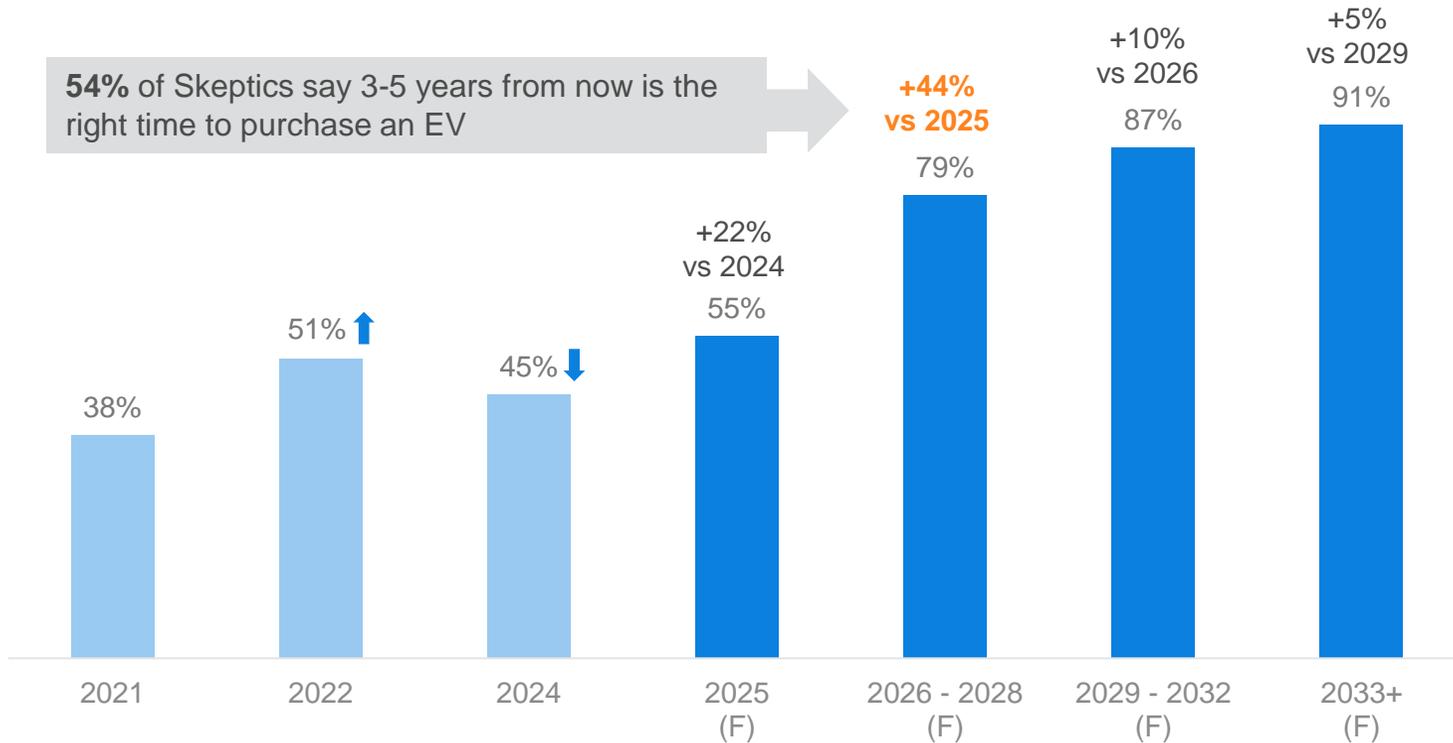
More likely than others to cite:

- Fear of battery catching on fire
- EVs not good for the environment
- Lack of trust in information on EVs
- Poor performance & safety ratings
- Charging stations do not work
- Higher depreciation than an ICE vehicle

EV consideration expected to surge in second half of decade

Second Wave, as Skeptics become Considerers | Current & Forecast

54% of Skeptics say 3-5 years from now is the right time to purchase an EV



Considering New or Used EV within 12 months



Arrows indicate significant difference between years at the 95% confidence interval.

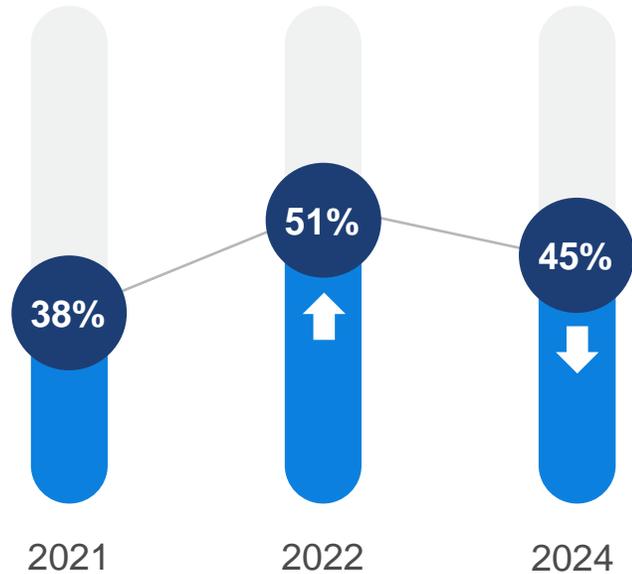
A family consisting of a young boy, a woman, and a man are walking through a modern car dealership. The boy is in the foreground, smiling and looking to the side. He is wearing a light blue shirt, a dark jacket, and brown pants. Behind him, a woman in a grey blazer and a man in a dark suit are walking. They are surrounded by several cars, including a silver car on the left and a dark SUV on the right. The background features large windows and a bright, clean interior.

2 EV Consideration Dips, Even as EV Demographics Shift to Become More Mainstream

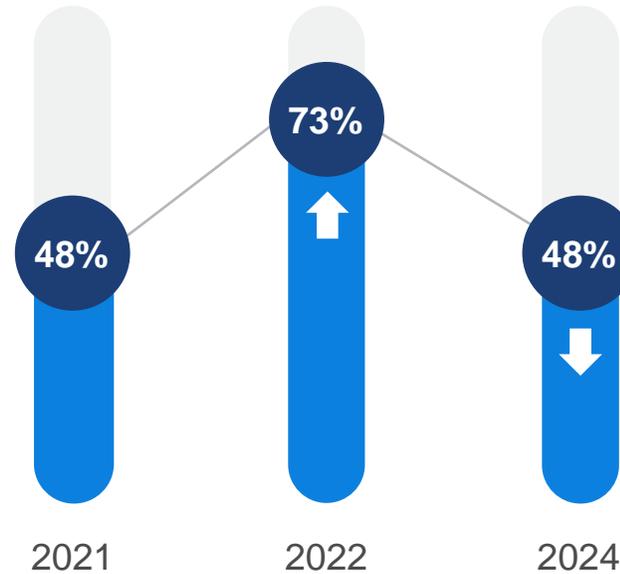
EV consideration growth has slowed in the short term...

Intending to Purchase New or Used EV Within 12 Months

EV Consideration



% Considerers who are >50% certain next purchase is EV



Arrows indicate significant difference between years at the 95% confidence interval.

The EV market is casting a wider net with more Gen Z, multicultural, and lower income shoppers

EV Considerer & Buyer Profile (New and Used)

	EV Considerers		EV Buyer*
	2021	2024	2023
Average Age:	40	42 ↑	41
Gen Z (Age 18-28):	12%	15% ↑	13%
Male:	55%	60% ↑	64%
Average HH Income:	\$87K	\$72K ↓	\$139K
Excellent/Very Good Credit:	66%	53% ↓	84%
Multicultural:	36%	47% ↑	38%
Single/Never Married:	29%	40% ↑	12% ↓
Married/Living with Partner:	63%	47% ↓	84% ↑
Luxury Vehicle Owner:	27%	16% ↓	74%
Consider Used EV:	62%	77% ↑	39%

Arrows indicate significant difference vs. 2021 at the 95% confidence interval.

*Source: Cox Automotive Car Buyer Journey - 2023



Gen Z and Millennials are less likely to cite too expensive as a barrier (compared to older generations)

Multicultural consumers are less likely to cite lack of charging stations and concern about battery holding charge as barriers.

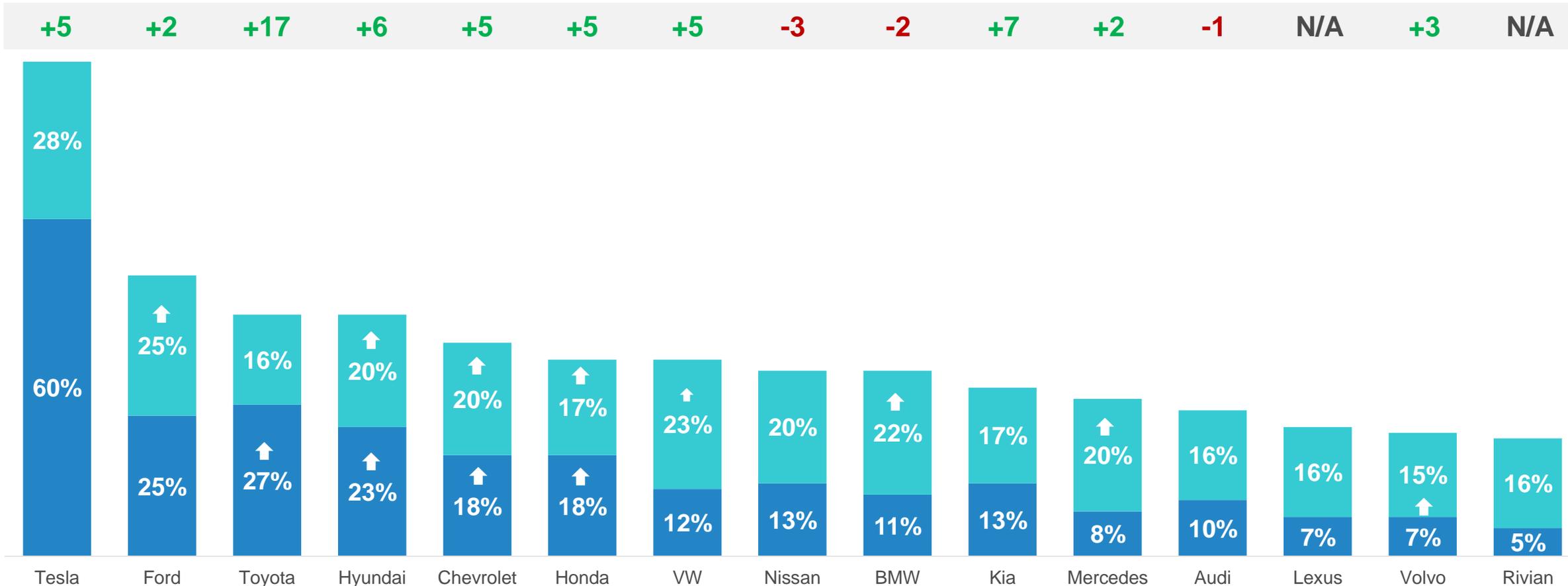
Consideration increased in the Midwest and West but declined slightly in the Northeast and South. (2021 vs 2024)

Consideration remains highest in the West.

New EV consideration grows, particularly among mainstream brands; Tesla still leads by a wide margin

Hyundai and Kia Brands Gain Most

Consideration Change Since 2021



Arrows indicate significant difference between years at the 95% confidence interval. Trending not available for Rivian and Lexus, not included in 2021 questionnaire

■ Aware not considering ■ Aware & considering

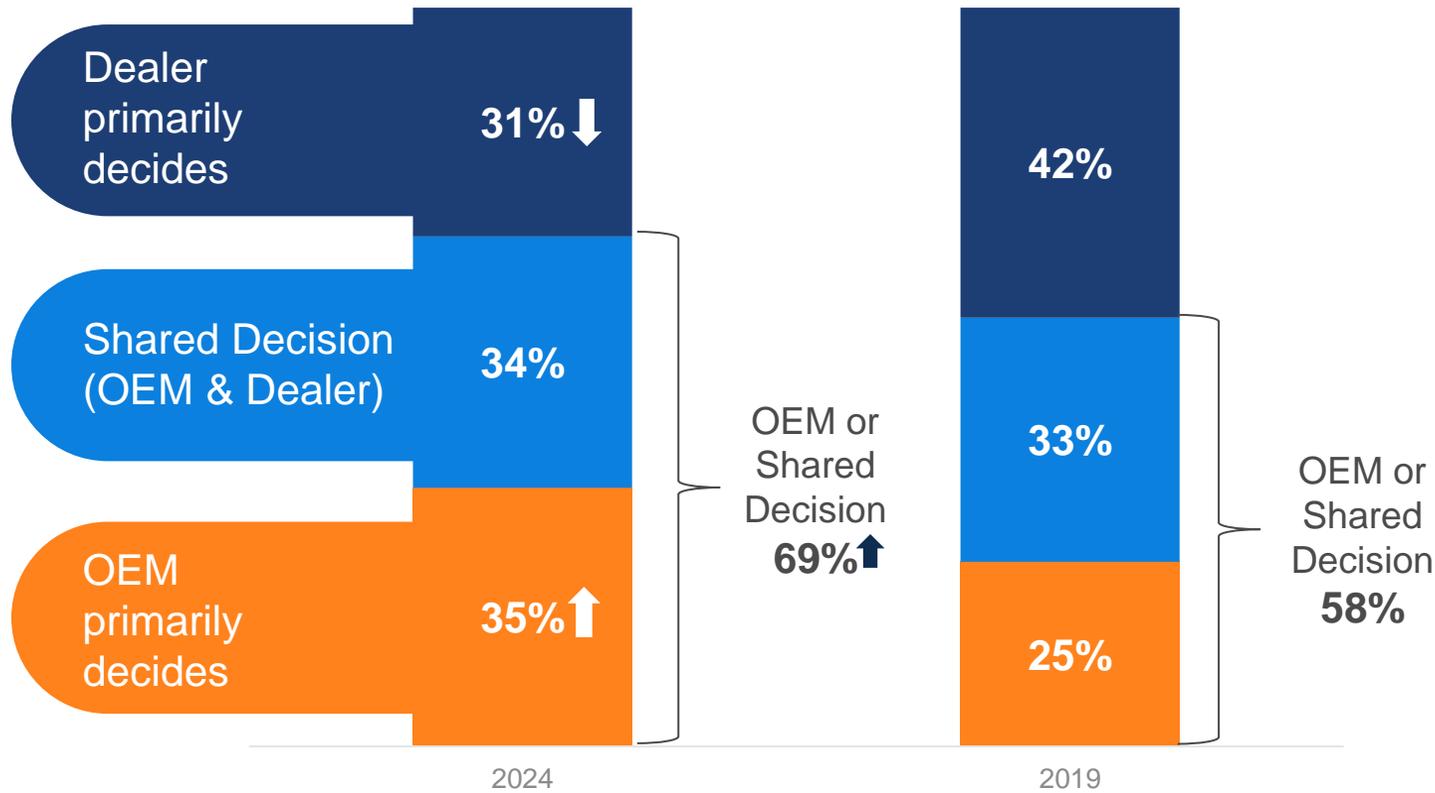
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Dealers and Automakers are Fostering a More Balanced, Strategic Relationship to Accelerate EV Adoption



The strategic partnership is more balanced, with more automaker involvement since 2019

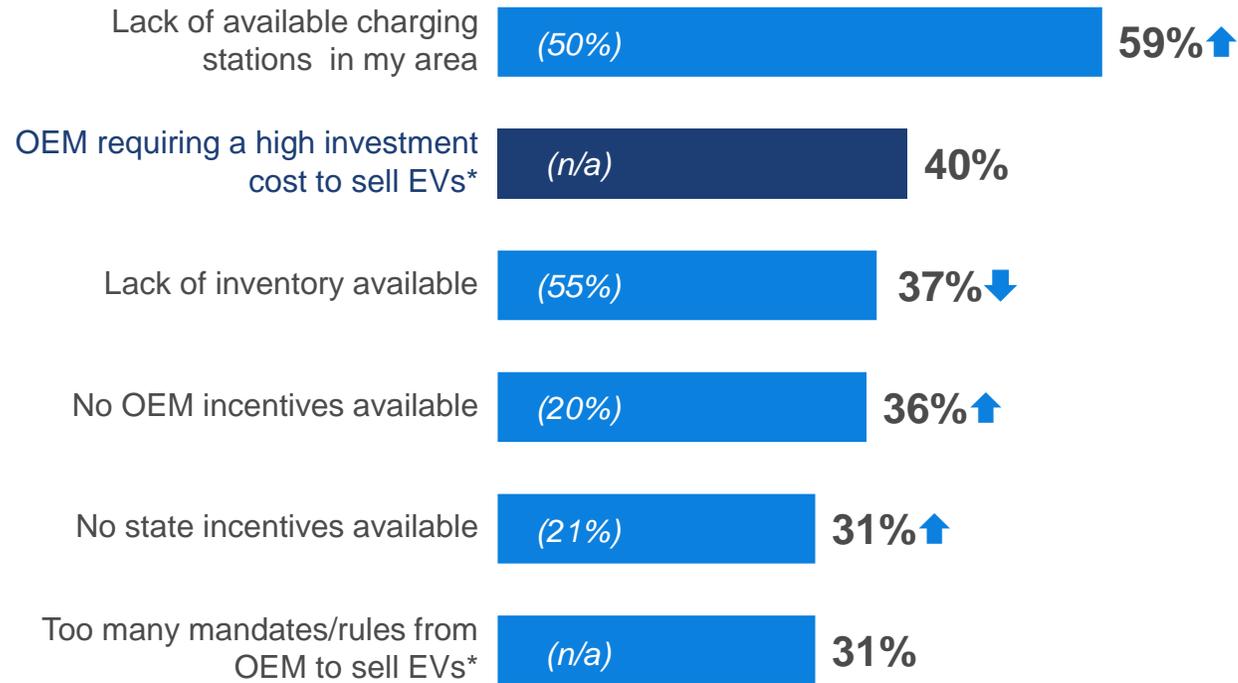
OEM Involvement in Strategic Decisions About Dealership



Arrows indicate significant difference between years at the 95% confidence interval.

OEM-mandated EV investment is substantial

Top Barriers to Selling More EVs | Among Franchised Dealers



*Option added in 2024
 () = 2019
 Arrows indicate significant difference vs. 2019 at the 95% confidence interval.

Despite Feeling Pressure, Most Dealers are All-In with Automaker-Mandated Investments

Level of Pressure From Automakers to Hit EV Sales Targets

(%High/Some Pressure)
 Luxury dealers more likely to feel high pressure.

65%↑
 (2019: 39%)

Likelihood to Continue Automakers' Required Investments*

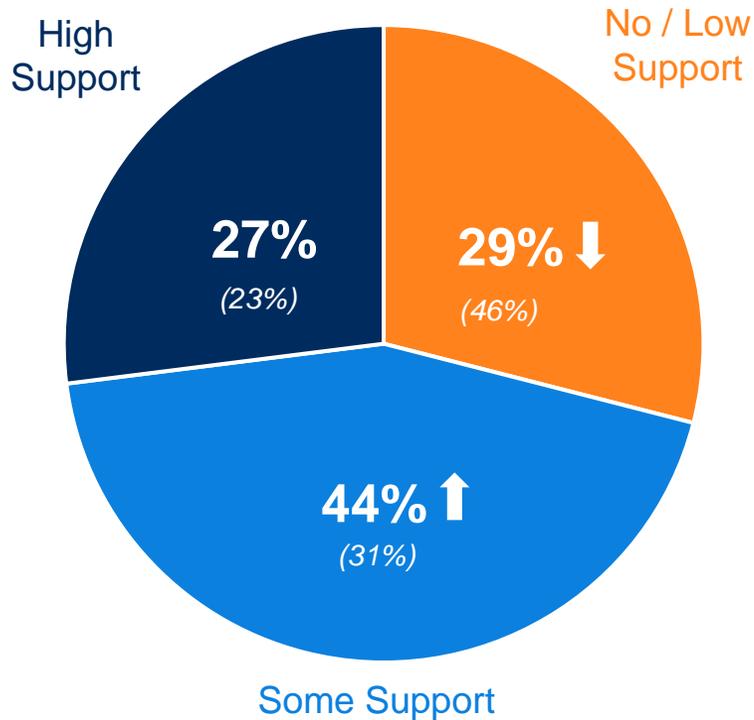
(%Likely/Somewhat Likely)
 Higher among dealers who receive EV support from their OEM.

86%

Average Mandated EV Investment **\$258K**

Most dealers gained marketing and sales support from OEMs

Higher Incentives, Educational Materials, Advertising | Among Franchise Dealers



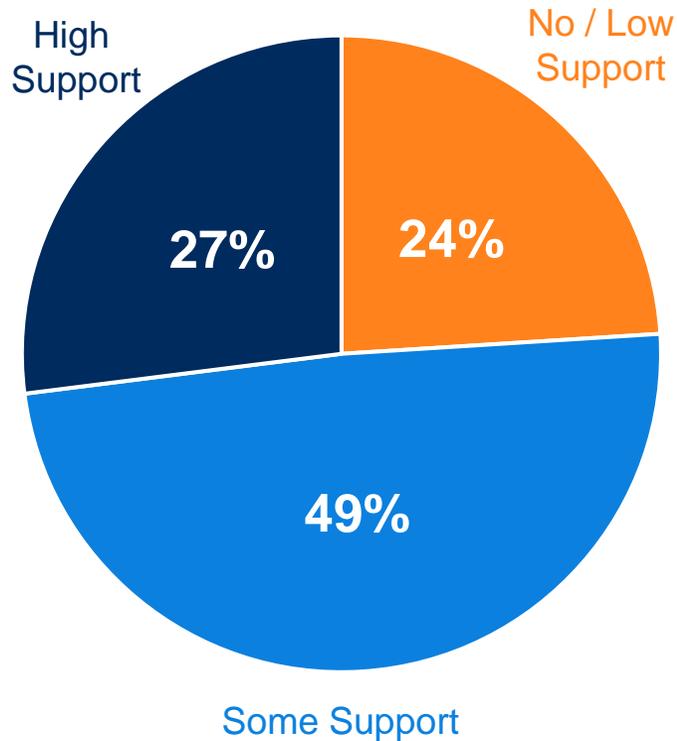
Dealers with extremely/very helpful support more likely to receive:

1. Sales incentives
2. Cost comparison - EVs vs. ICE
3. Funds for digital/radio advertising
4. Offers for free maintenance

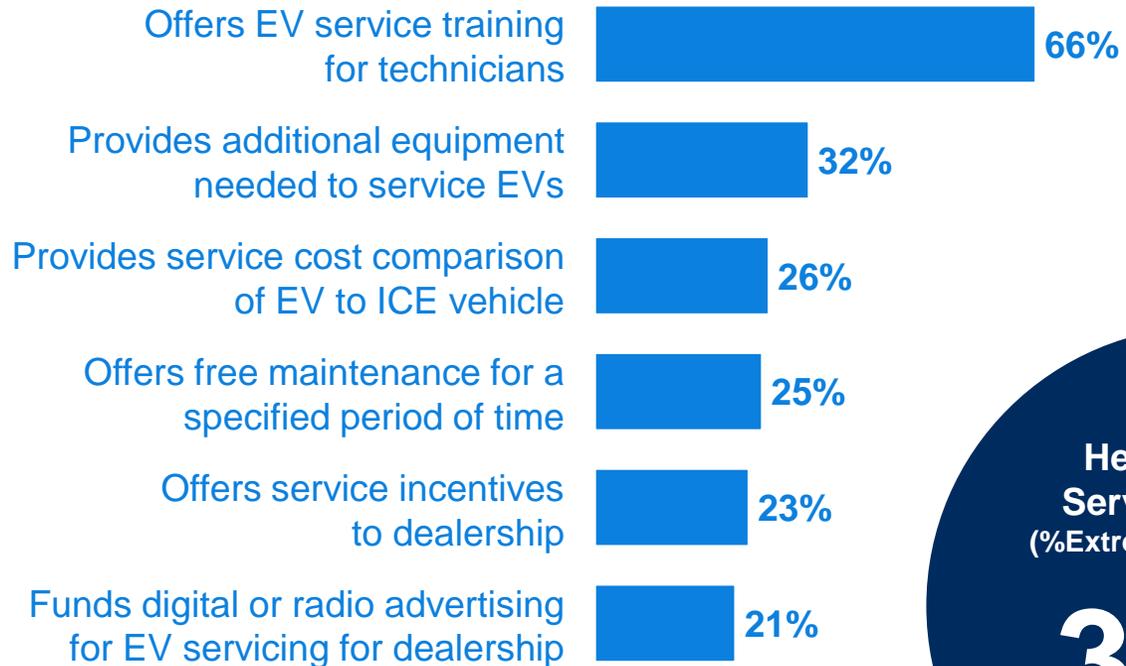


() = 2019
Arrows indicate significant difference between years at the 95% confidence interval.

Beyond EV service training, automakers have the opportunity to provide more support including service cost comparisons, more equipment



Type of Service Support* (Among those receiving some support)



*Option added in 2024.

Key takeaways

The Switch is Coming: Many EV Skeptics will Become Considerers in the Next 3-5 Years

- In today's market, roughly half of shoppers don't even consider an EV. That will change in the coming years, as Skeptics become Considerers.
- Skeptics are likely to convert in the 2026 to 2028 timeframe, thanks to technology improvements – better range, longer battery life, improved reliability, and more infrastructure.
- Despite a slowdown in EV consideration growth, many brands have improved substantially in awareness and consideration.
- Higher consideration can be driven by leveraging higher incentives, more education and awareness.

Consideration Dips, even as EV Demographics Shift and Become More Mainstream

- The EV market is casting a wider net, catching younger, less affluent, multicultural shoppers.
- Used EVs are being considered more often compared to 2021, as the used-EV market expands.
- Mainstream brands are enjoying higher consideration. Tesla remains the market leader, but Ford, Toyota, Hyundai and Kia are gaining.

Dealers and Automakers Are Fostering a More Balanced, Strategic Relationship to Accelerate EV Adoption

- Most dealers believe key steps in the EV purchase journey should be shared with automakers, while they take the lead on lower-funnel type of activities.
- Dealers have gained marketing/sales and service support since 2019, as partnerships grow. However, dealers need more support beyond training and different resources for service.
- A vast majority of dealers will continue investing in EV infrastructure – and in automaker-mandated requirements.

Background and methodology

The 2024 Cox Automotive Path to EV Adoption Study tracks EV consideration/consumer sentiments, dives deep into ways to influence EV purchase decisions, and monitors the synergy of dealers and OEMs in preparing for the EV future. The most recent survey work was undertaken in January 2024



1,052 **EV Considerers:** Considering to purchase an EV within 2 years

1,001 **EV Skeptics:** Considering to purchase a vehicle, but NOT an EV, within 2 years

504 **EV Owners:** Currently owns/drives an EV



310 **Franchise** dealers selling EVs and/or PHEVs

216 **Independent** dealers selling EVs and/or PHEVs

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