

Evaluating the Connecticut Dealer Incentive for Electric Vehicle Sales

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Sustainable Energy™

Outline

- Program Introduction
- Evaluation Objectives
- Methodology
- Preliminary Survey Results
- Takeaways

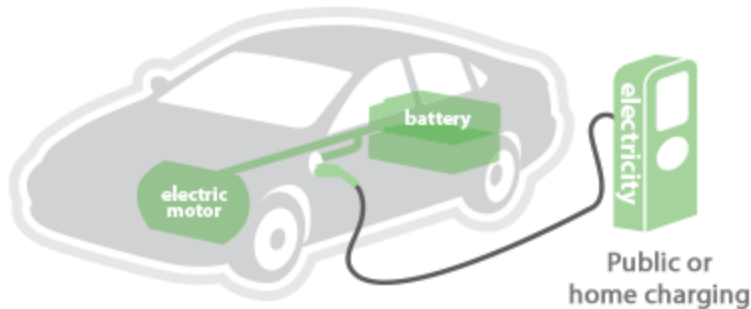


Program Introduction

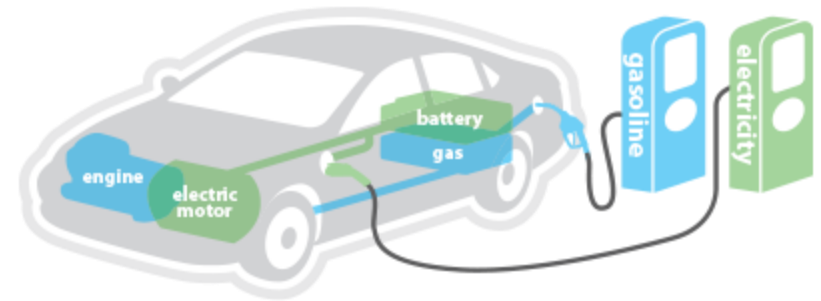


Electric Vehicles 101

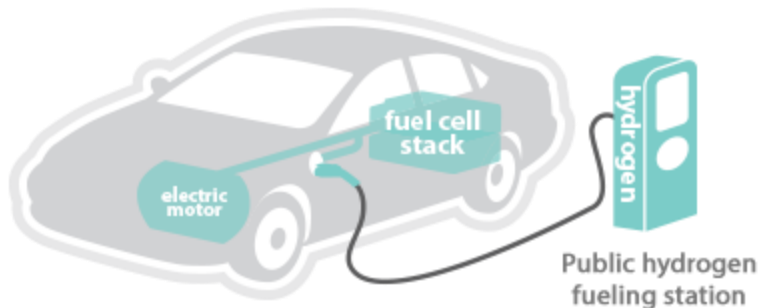
Zero-emission vehicles



All-battery electric vehicle (BEV)



Plug-in hybrid electric vehicle (PHEV)



Fuel-cell electric vehicle (FCEV)

(Center for Sustainable Energy, 2016)

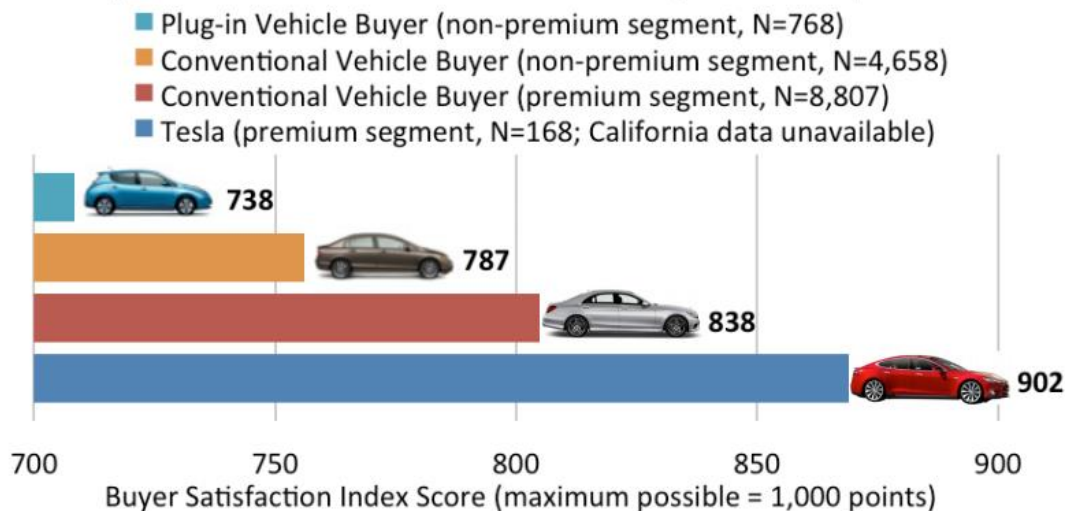
The Role of Dealerships in EV Market Development



Of the visits to dealerships with at least one EV on the lot, volunteers indicated that only **about 50% of the salespeople they spoke with provided information on how to fuel the EV while traveling.**

(Sierra Club, 2016)

Buyer satisfaction with the new vehicle purchase experience



(Cahill & Davies, 2014)

Many who work at dealerships may not have much experience in dealing with EVs.

(Kress, 2015)

What is CHEAPR?



- The Connecticut Hydrogen and Electric Automobile Purchase Rebate (CHEAPR) program offers rebates for new, eligible electric vehicles purchased since May 2015
- The CHEAPR program includes two types of incentives for each eligible vehicle:
 - Vehicle Rebate (up to \$5,000)
 - Dealer Incentive (\$300)



EVERSOURCE



Dealership Role

Dealerships play a crucial role in the CHEAPR program to:

- **Guide consumers through the online application process**
- **Collect and submit all supporting documentation**
- **Support EV adoption in the state of Connecticut**



Evaluation Objectives

Initial Evaluation Question

Does the dealer incentive work?

Evaluation Objective

To develop an understanding of how the CHEAPR dealer incentive is distributed and used by dealerships, and whether it is an effective method for promoting the development of the EV market

Evaluation Questions

1. How is the dealer incentive being distributed within dealerships?
2. How and to what extent does the incentive motivate dealership employees to increase EV sales?
3. What behaviors do dealership employees change in response to the dealer incentive? How strong is the effect?
4. To what extent does the dealer incentive affect EV sales?
5. At what level should the dealer incentive be set to balance cost and effectiveness?

Evaluation Questions

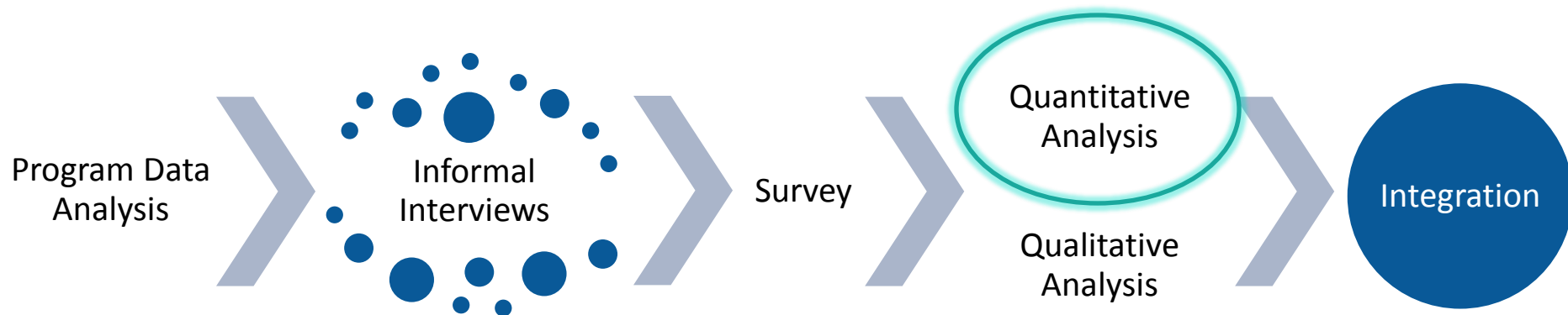
1. How is the dealer incentive being distributed within dealerships?
2. How and to what extent does the incentive motivate dealership employees to increase EV sales?
- 3.
- 4.
5. At what level should the dealer incentive be set to balance cost and effectiveness?



Methodology



Evaluation Design – Mixed Methods



Survey Data

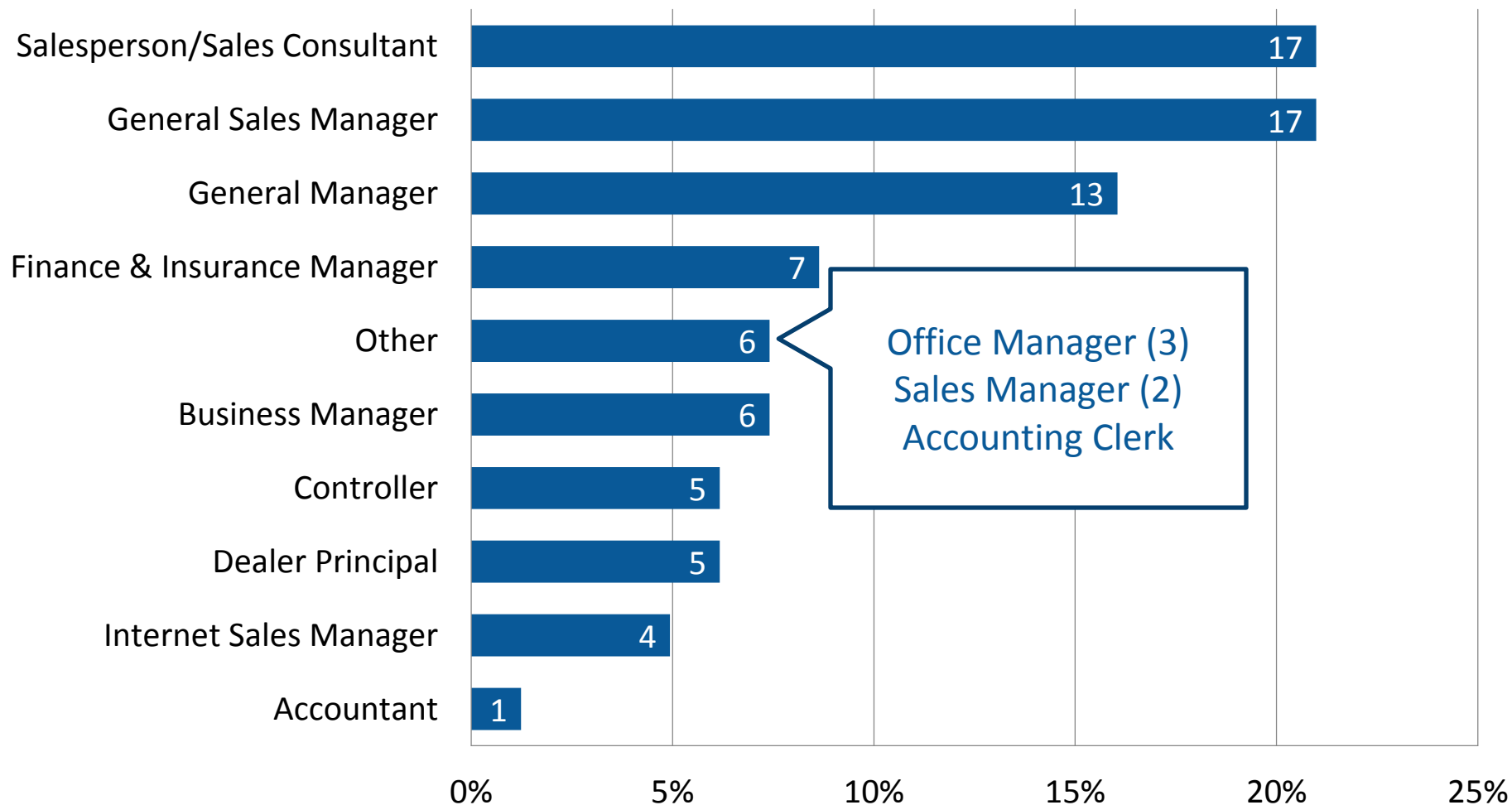
- Individuals represented
 - Survey distributed to all dealership email addresses on file from CHEAPR applications ($N=269$)
 - Emails represent variety of positions at dealerships
 - Response rate of 30% ($n=81$)
- Dealerships represented
 - Invitations distributed among 88 dealerships
 - Responses received from 56 dealerships (64%)
 - 1–3 respondents per dealership



Preliminary Survey Results

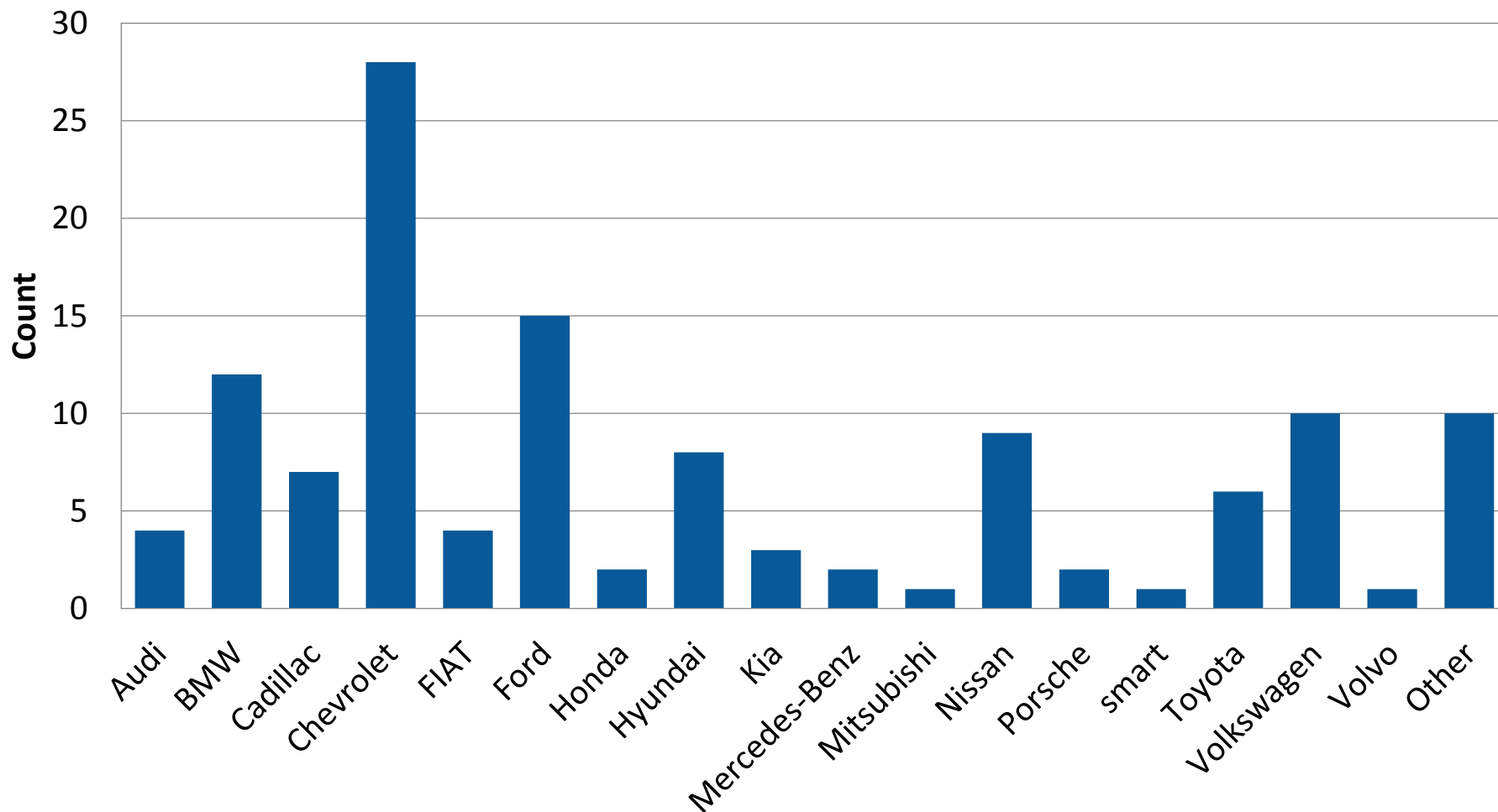
Survey Respondents

Which of the following most closely matches your job title?



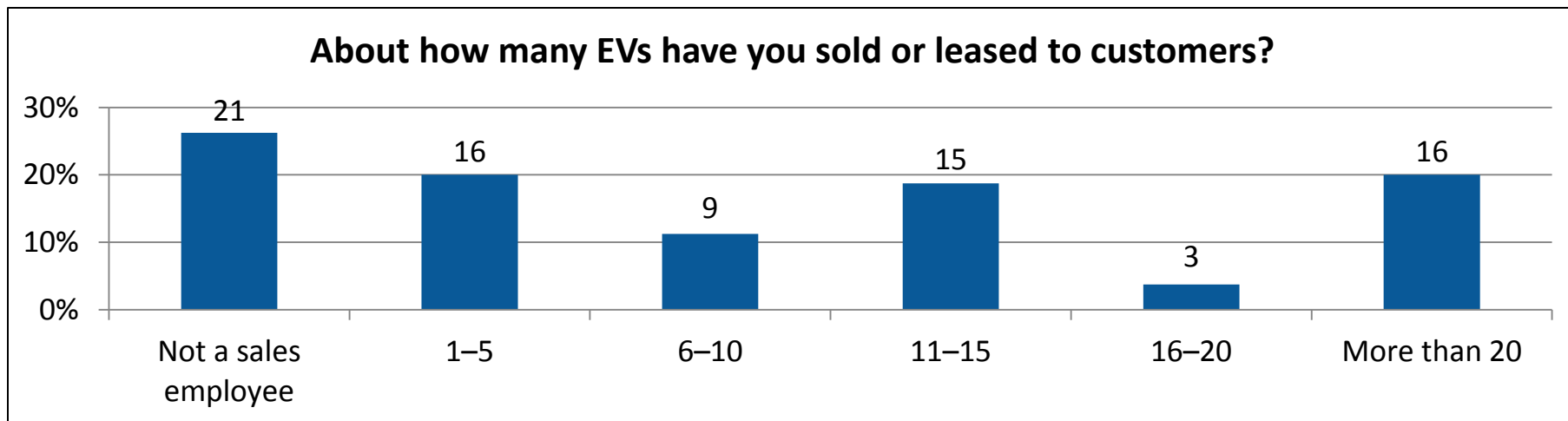
Survey Respondents

What makes are sold at your dealership?



Survey Respondents

- **74% are directly involved in selling vehicles to customers → “Sales employees”**
- 65% are responsible for supervising or managing sales employees
- 23% have owned/leased an EV personally

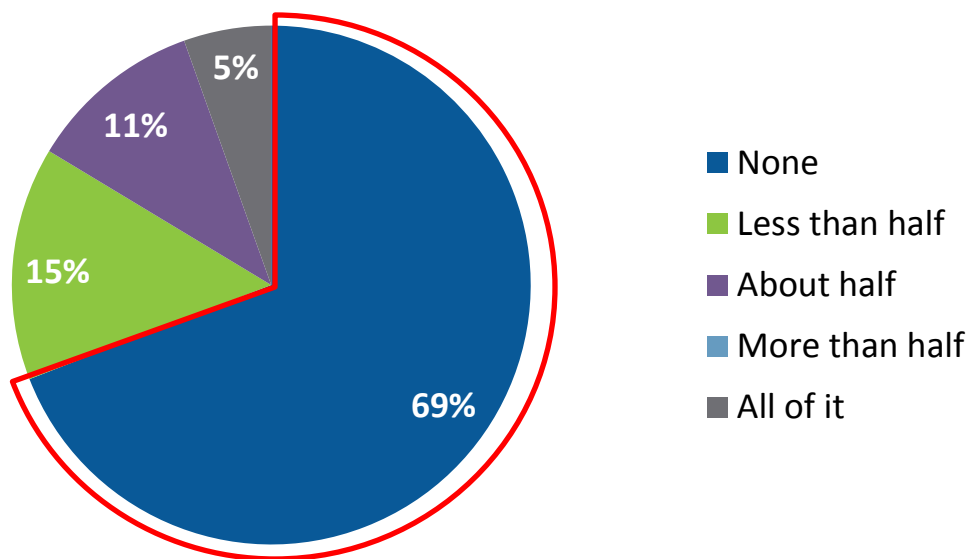




How is the dealer incentive being distributed within dealerships?

How is the dealer incentive being distributed within dealerships?

At your dealership, how much of the dealer incentive does the salesperson responsible for the sale receive?†



†Respondents=55

Question only asked of respondents who said they were aware of the dealer incentive

"I don't know" responses excluded

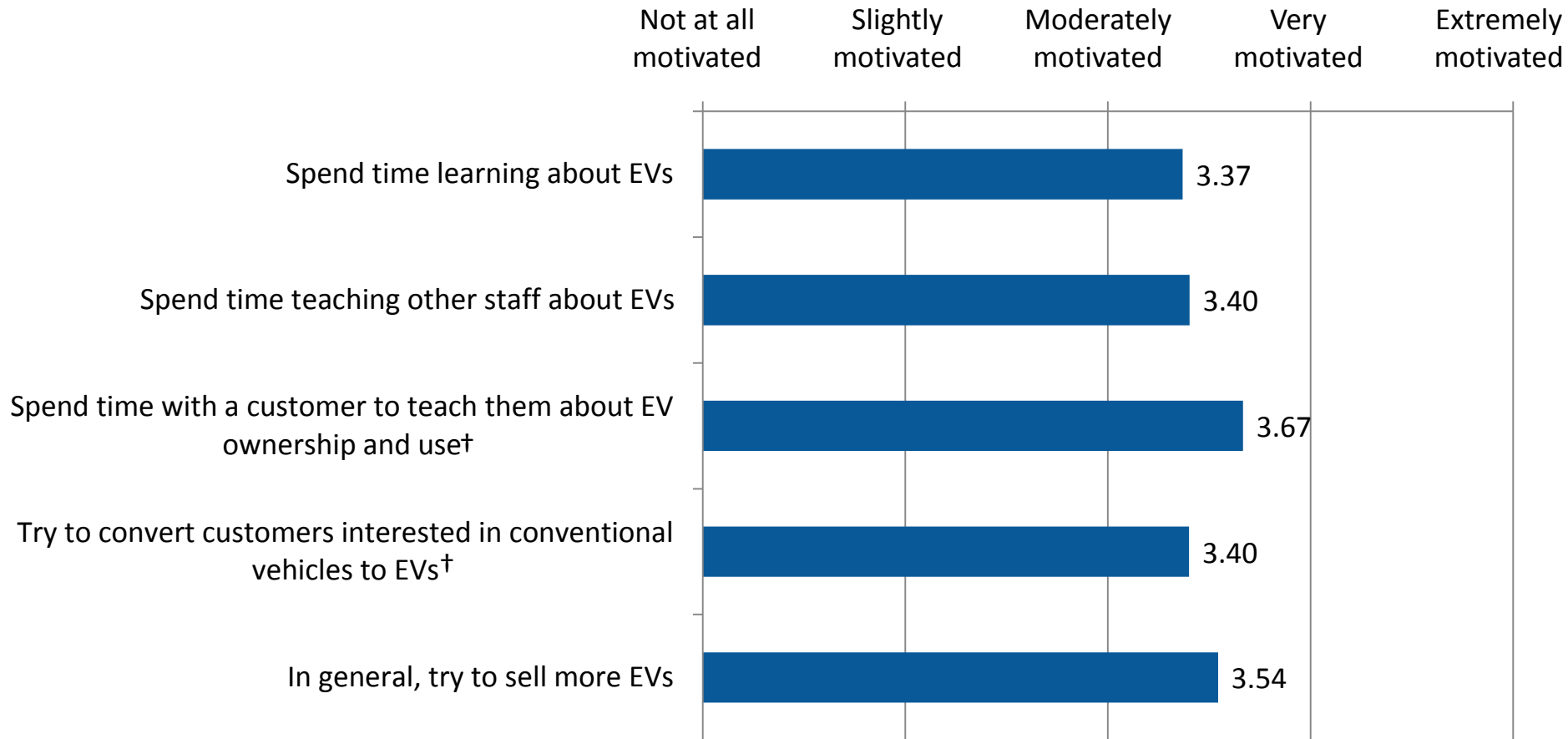
Though **95%** of respondents said they were **at least moderately familiar** with CHEAPR, **27%** of all respondents and **31%** of sales employees were **not aware of the dealer incentive** at the time of the survey.



How and to what extent does the incentive motivate dealership employees to increase EV sales?

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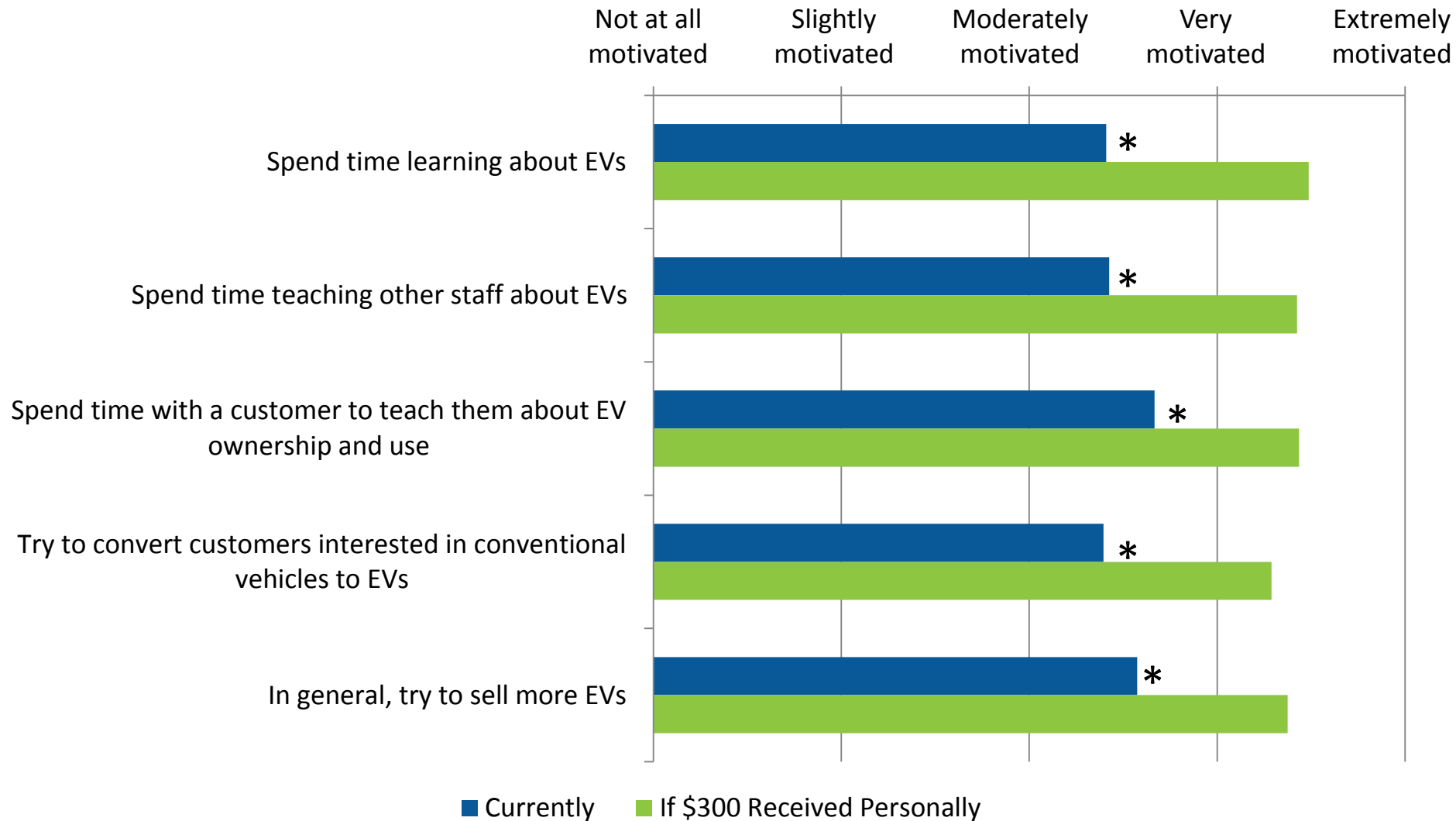
To what extent are you motivated by the current dealer incentive to do each of the following?



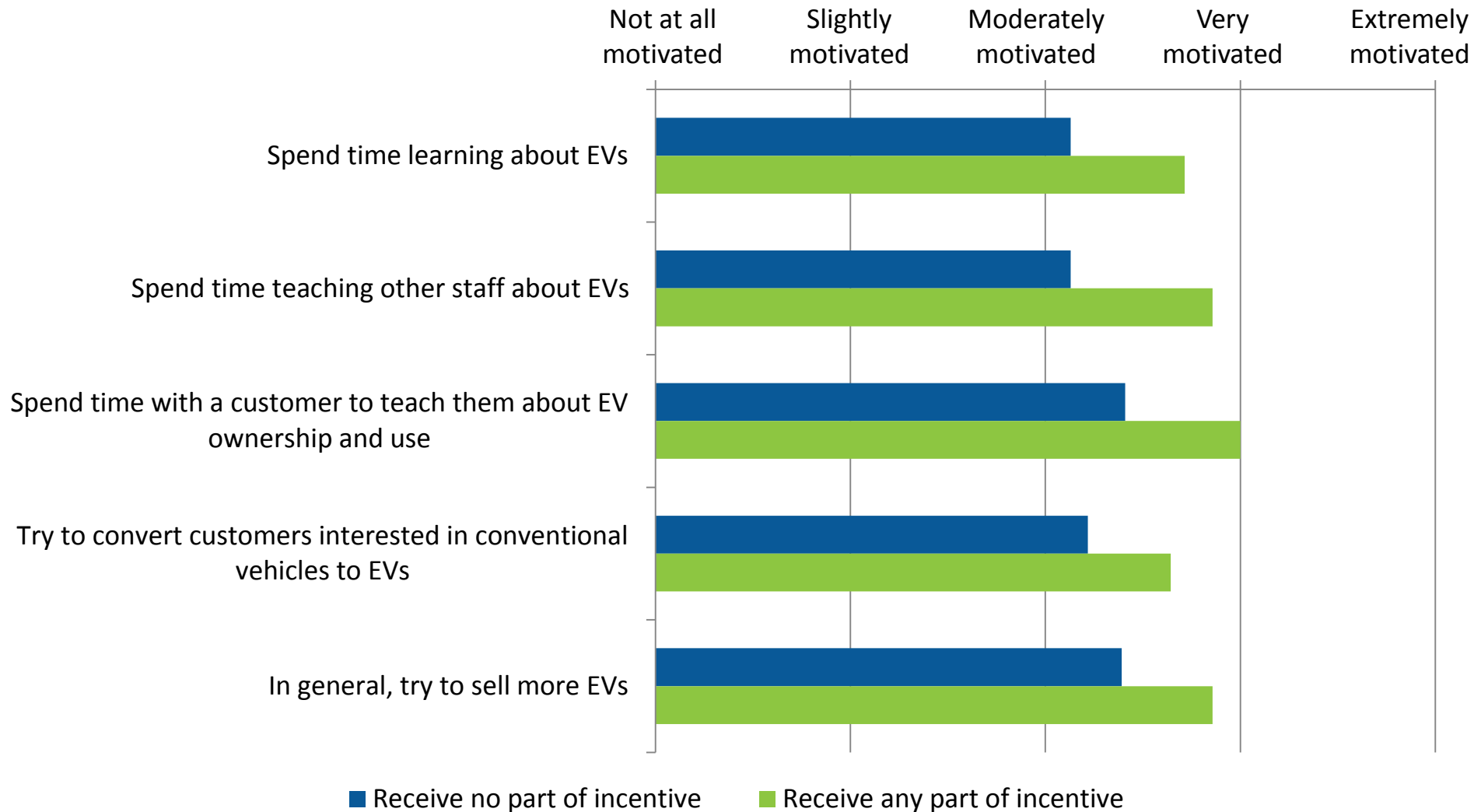
Respondents=57

†Sales employees only; respondents=40
Only those who were aware of dealer incentive

To what extent are you motivated to do each of the following? –Sales Employees



To what extent are you motivated to do each of the following? –Sales Employees





At what level should the dealer incentive be set to balance cost and effectiveness?

Minimum Dealer Incentive Recommendations

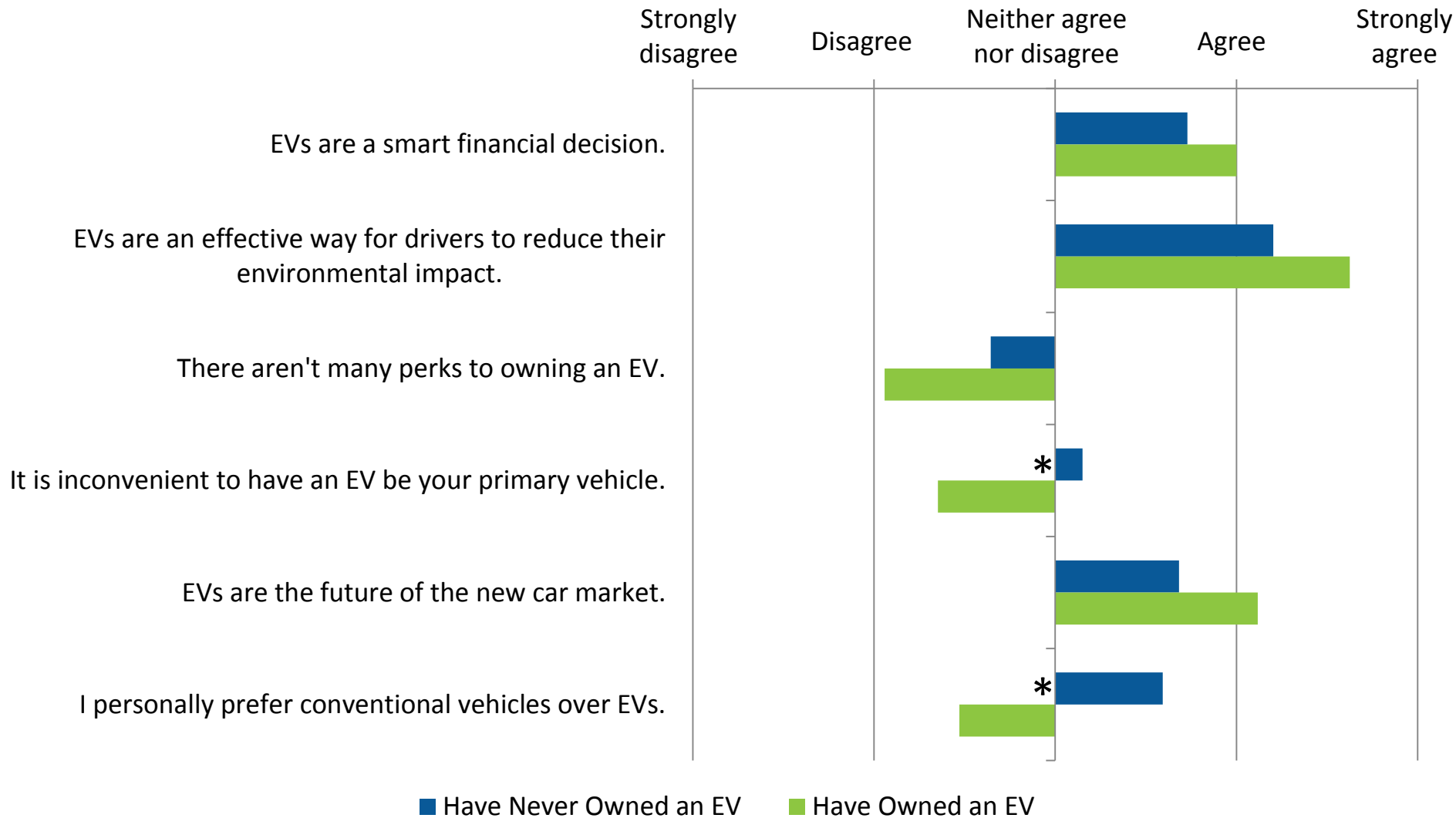
	Mean	Minimum	Maximum	Median
What is the minimum dealer incentive amount salespeople would need to receive personally to motivate them to increase their EV sales? (<i>n</i> =76)	\$233	\$0	\$500	\$200
What is the minimum dealer incentive amount salespeople would need to receive personally to motivate them to increase their EV sales? — Sales employees (<i>n</i> =56)	\$236	\$0	\$500	\$200
Additionally, what is the minimum dealer incentive amount that would motivate your dealership to increase your EV sales? (<i>n</i> =73)	\$565	\$0	\$5,000	\$500
Additionally, what is the minimum dealer incentive amount that would motivate your dealership to increase your EV sales? — Dealer principals, (vice) presidents, controllers, and general managers (<i>n</i> =20)	\$623	\$0	\$5,000	\$500



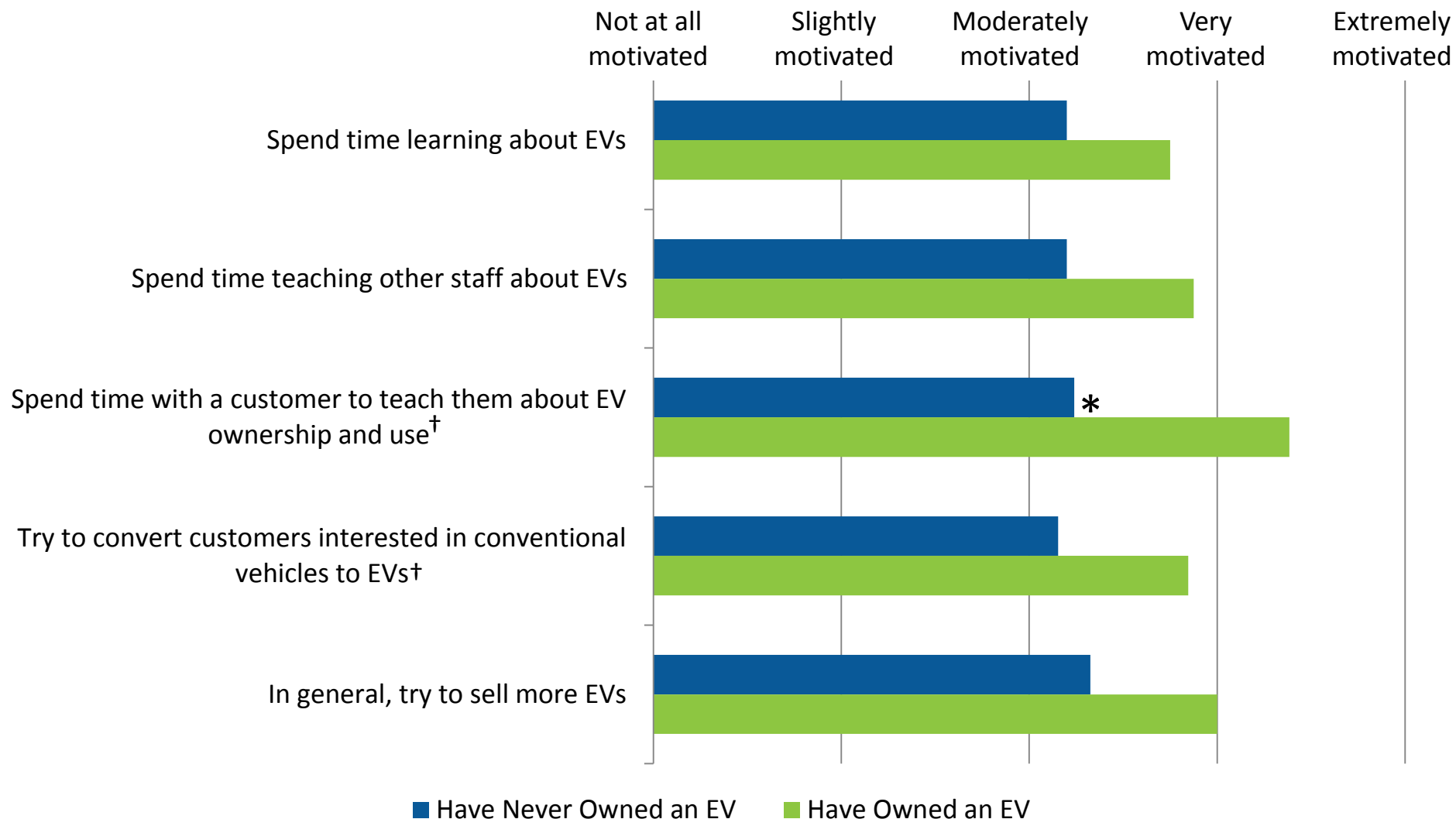
Additional Learnings

How much do you disagree or agree with the following?

–All Employees



To what extent are you motivated by the current dealer incentive to do each of the following? –All Employees



Respondents=57; only those who were aware of dealer incentive

[†]Sales employees only; respondents=39

*Statistically significant difference ($p < 0.05$)



Takeaways



Lessons Learned for Program and Evaluation Design

- Program design broadly
 - Development of program theory critical during the early stages of program design
 - Stakeholder input can help optimize program design
- Program design for incentivizing dealerships to sell EVs
 - Need to explicitly identify target population for incentive to optimize design and delivery
 - Opportunities around EV use and experience
- Evaluation design
 - To inform design, process/implementation evaluation is essential
 - Process/implementation evaluation is no less essential for internal evaluations

Next Steps

- “By dealership” analysis
- Qualitative data analysis and integration
- Making meaning with staff and stakeholders
- Sharing results

Citations

Cahill, E., & Davies, J. (2014). New car dealers and retail innovation in California's plug-in vehicle market (Policy brief 2014-12). Retrieved from http://policyinstitute.ucdavis.edu/files/Policy-Brief_Cahill-Davies_2014-12.pdf

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Kress, R. (2015). Why car dealerships struggle with selling electric vehicles. *The Fuse*. Retrieved from <http://energyfuse.org/why-car-dealerships-struggle-with-selling-electric-vehicles/>

Sierra Club. (2016). *Multi-state study of the electric vehicle shopping experience*. Retrieved from <http://www.sierraclub.org/>