More charging infrastructure may not mean more people see it

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UCDAVIS
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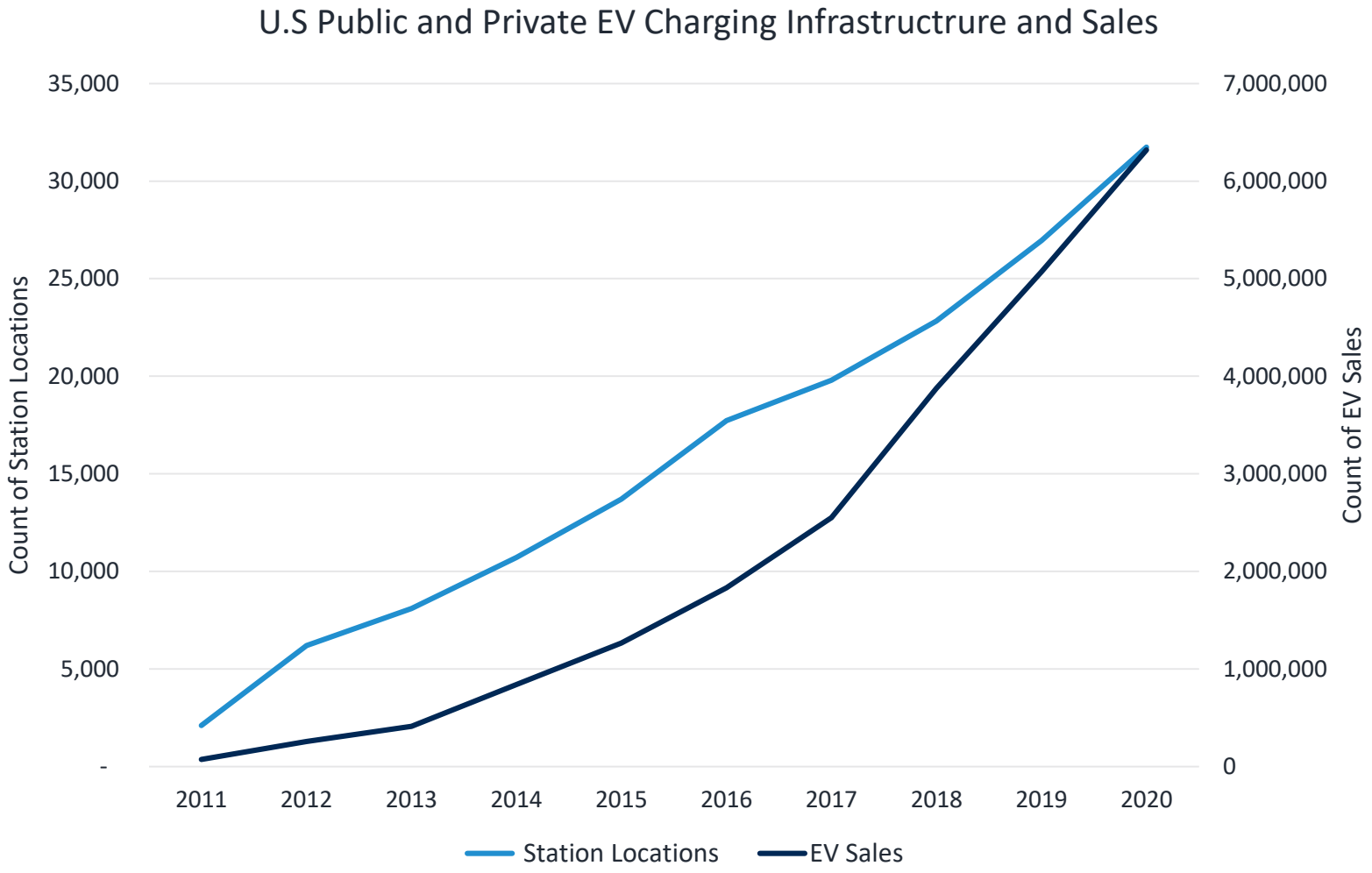
Introduction: Growth of EV charging Infrastructure and Sales



Source: Alternative Fuels Data Center

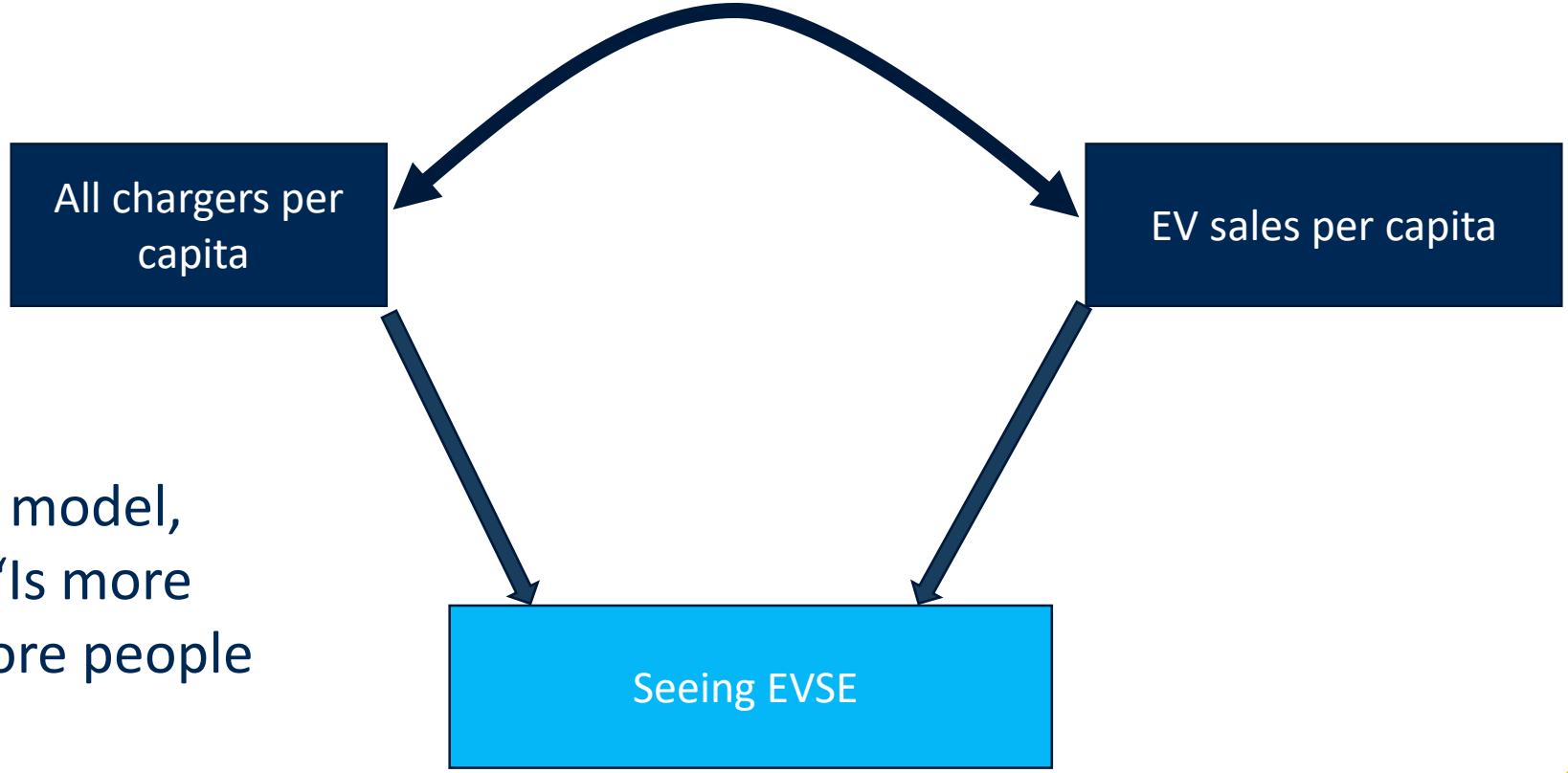
Does charging infrastructure have an impact on EV sales?

In this framework, EV charging infrastructure is a key facilitator for EV market growth

Model Framework

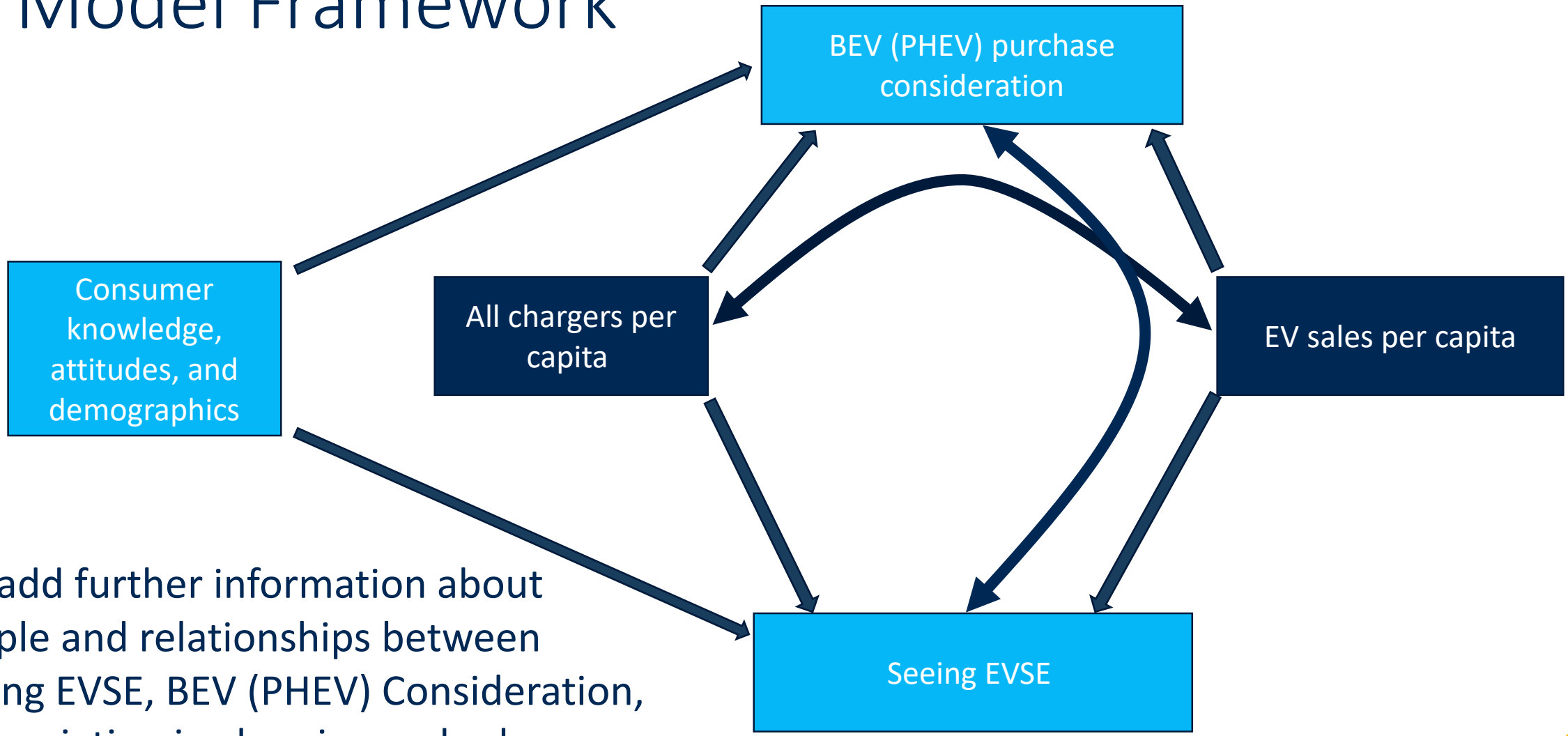
First, we allow for the relationship between infrastructure to covary.

Model Framework



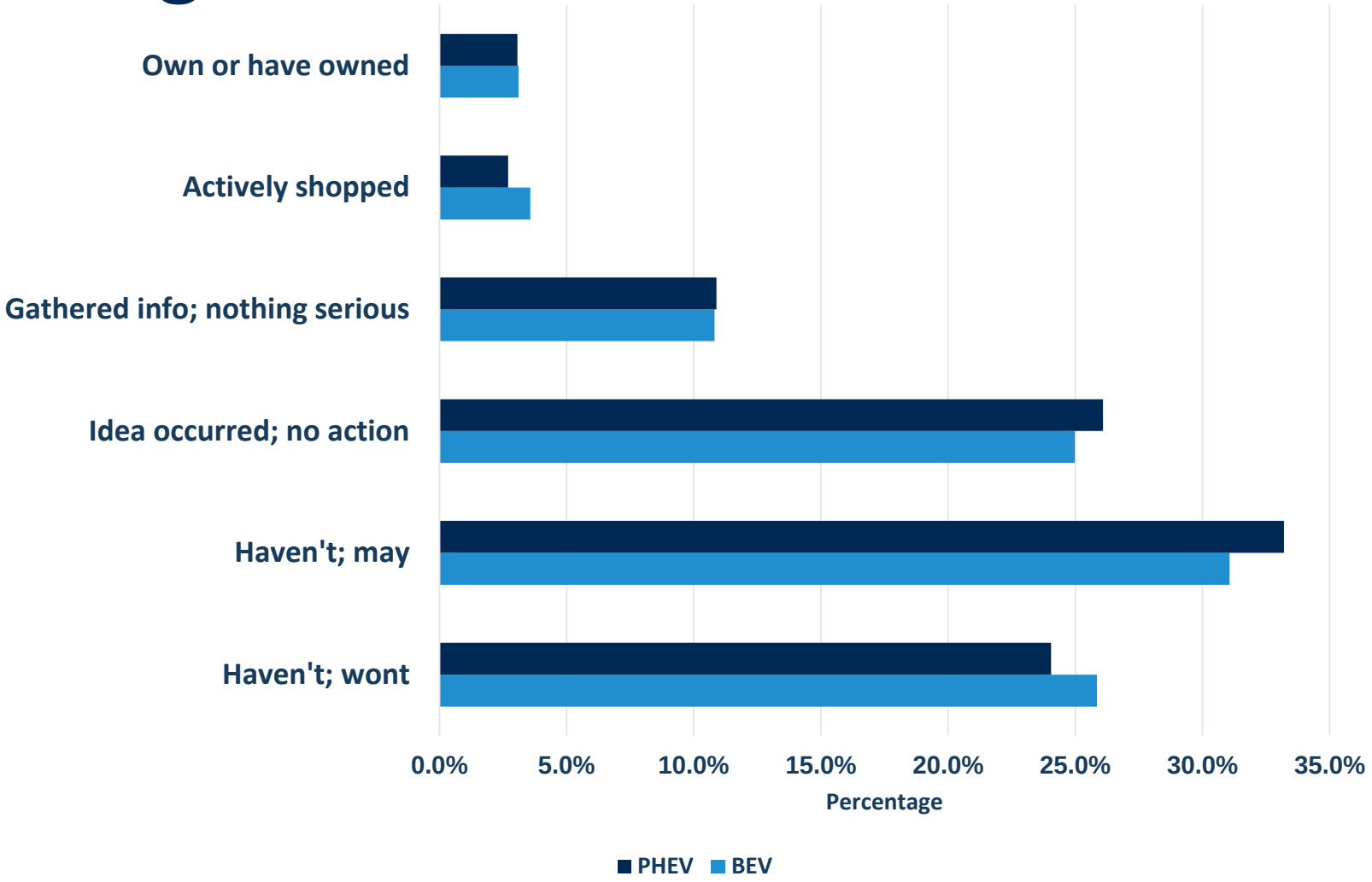
Then, we add people to the model, starting with the question, “Is more charging associated with more people seeing charging?”

Model Framework



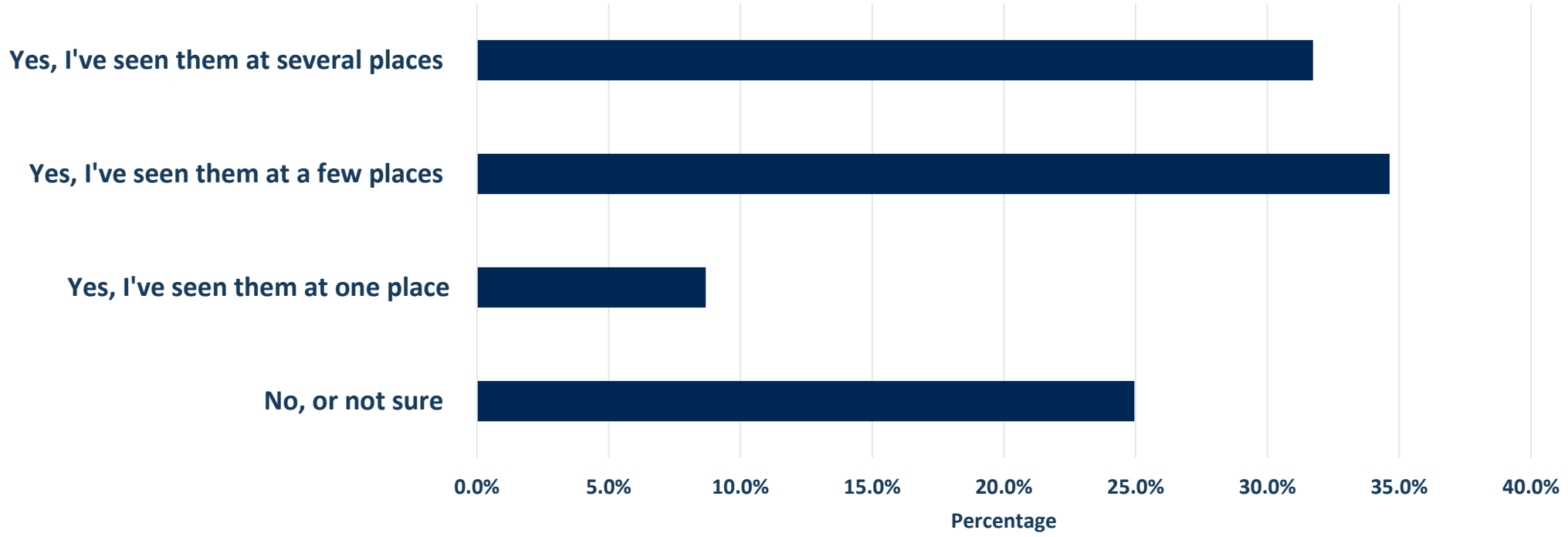
We add further information about people and relationships between Seeing EVSE, BEV (PHEV) Consideration, and variation in charging and sales.

Measuring EV Purchase Consideration

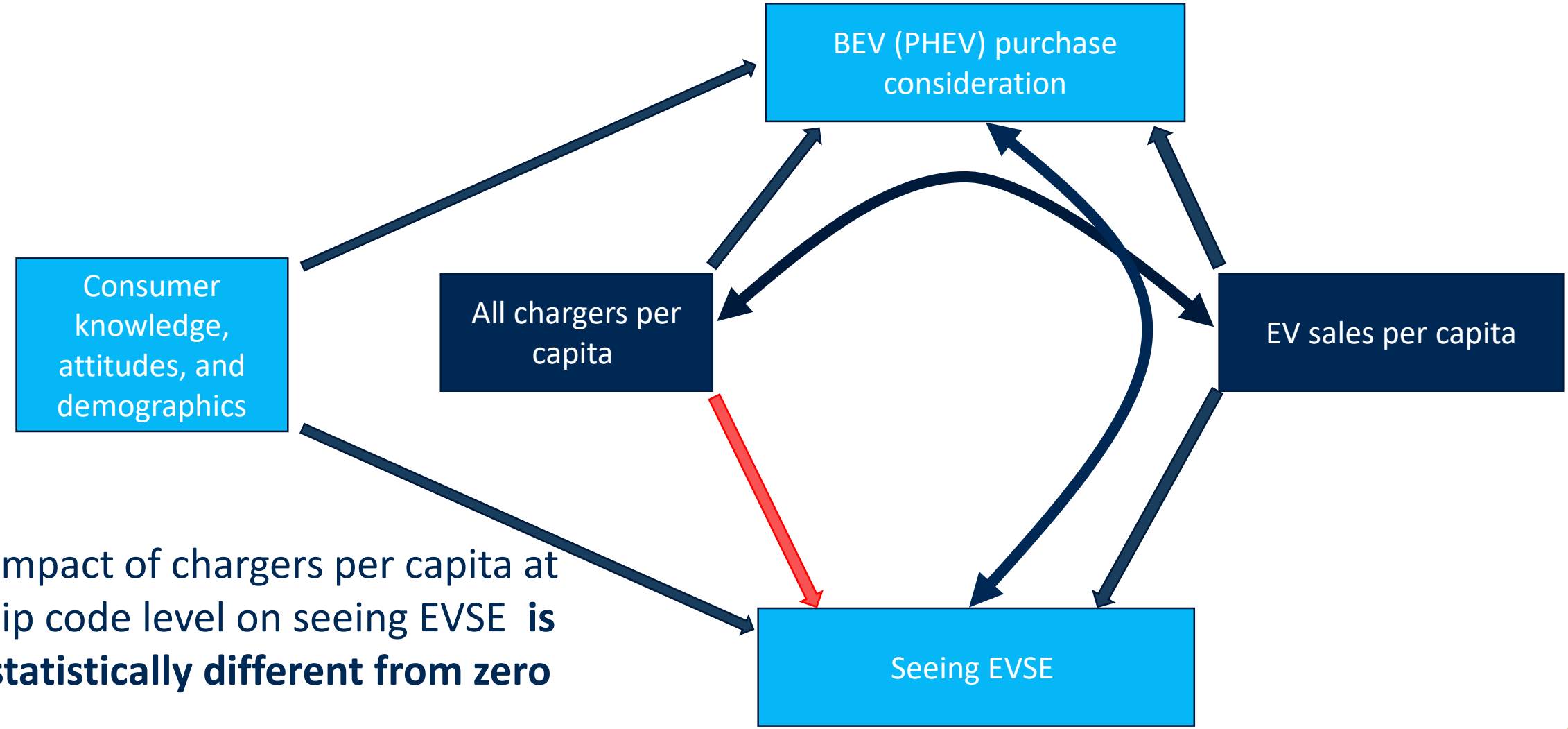


Measuring Seeing EVSE

Do people see electric vehicle charging spots in the parking lots and facilities they use?

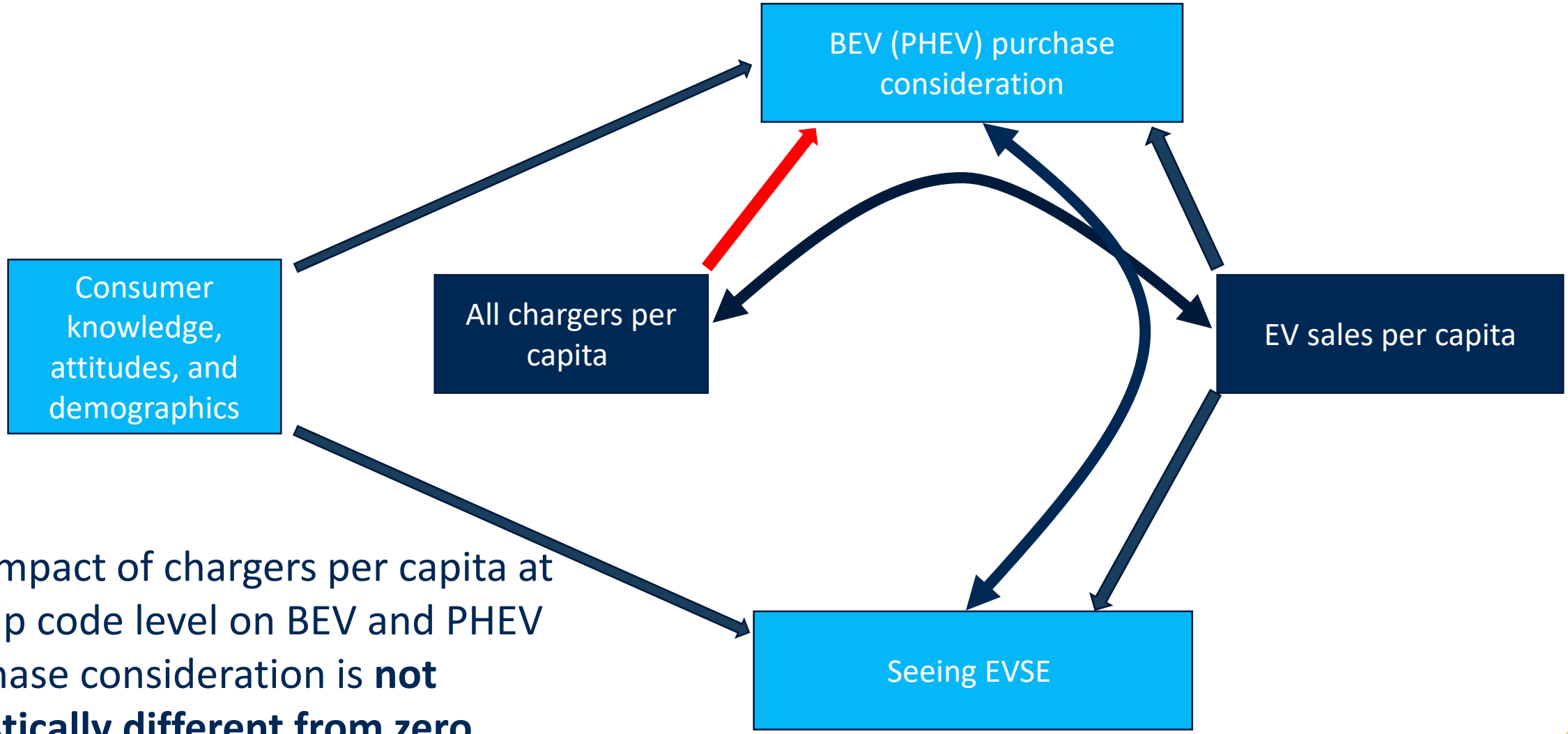


Model Results



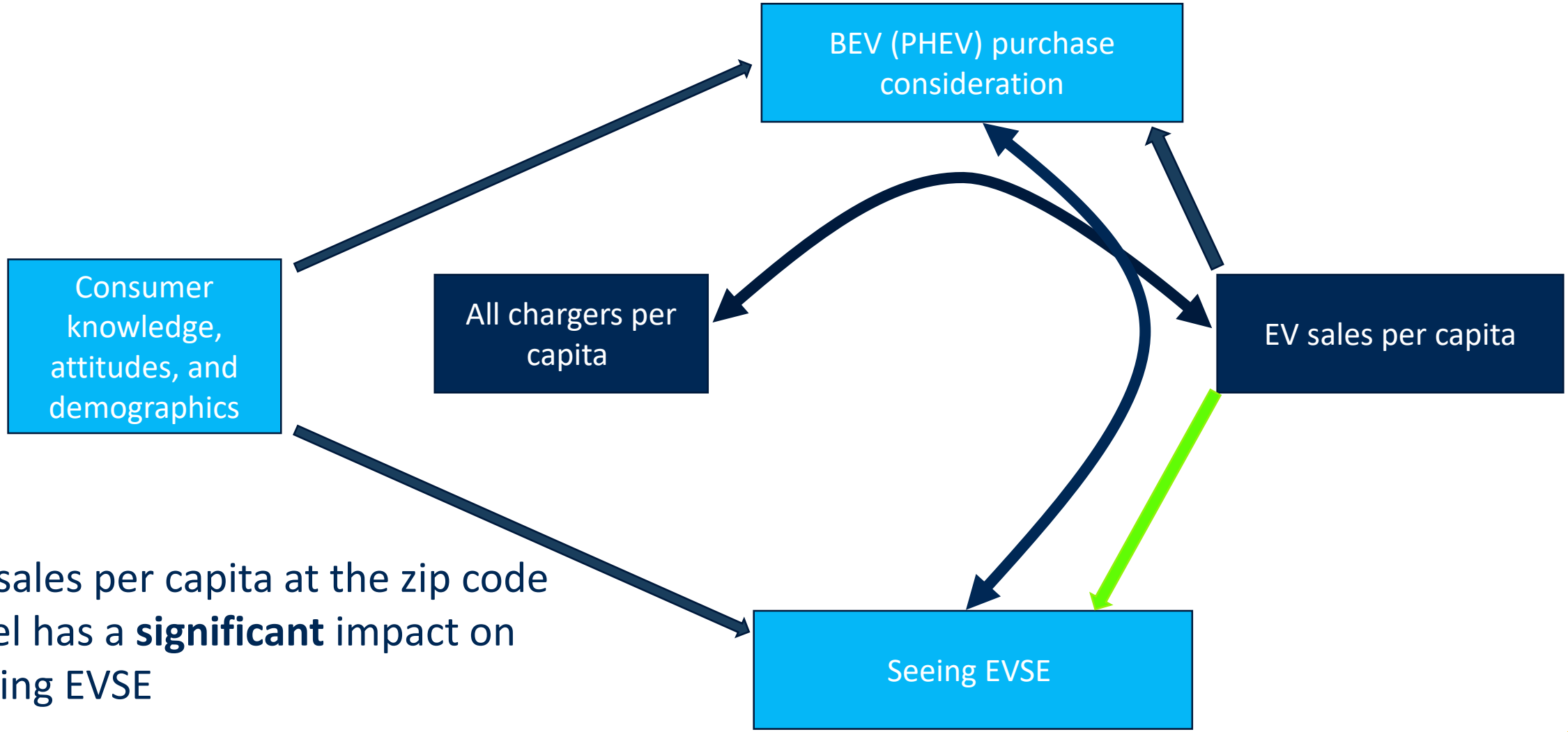
The impact of chargers per capita at the zip code level on seeing EVSE **is not statistically different from zero**

Model Results



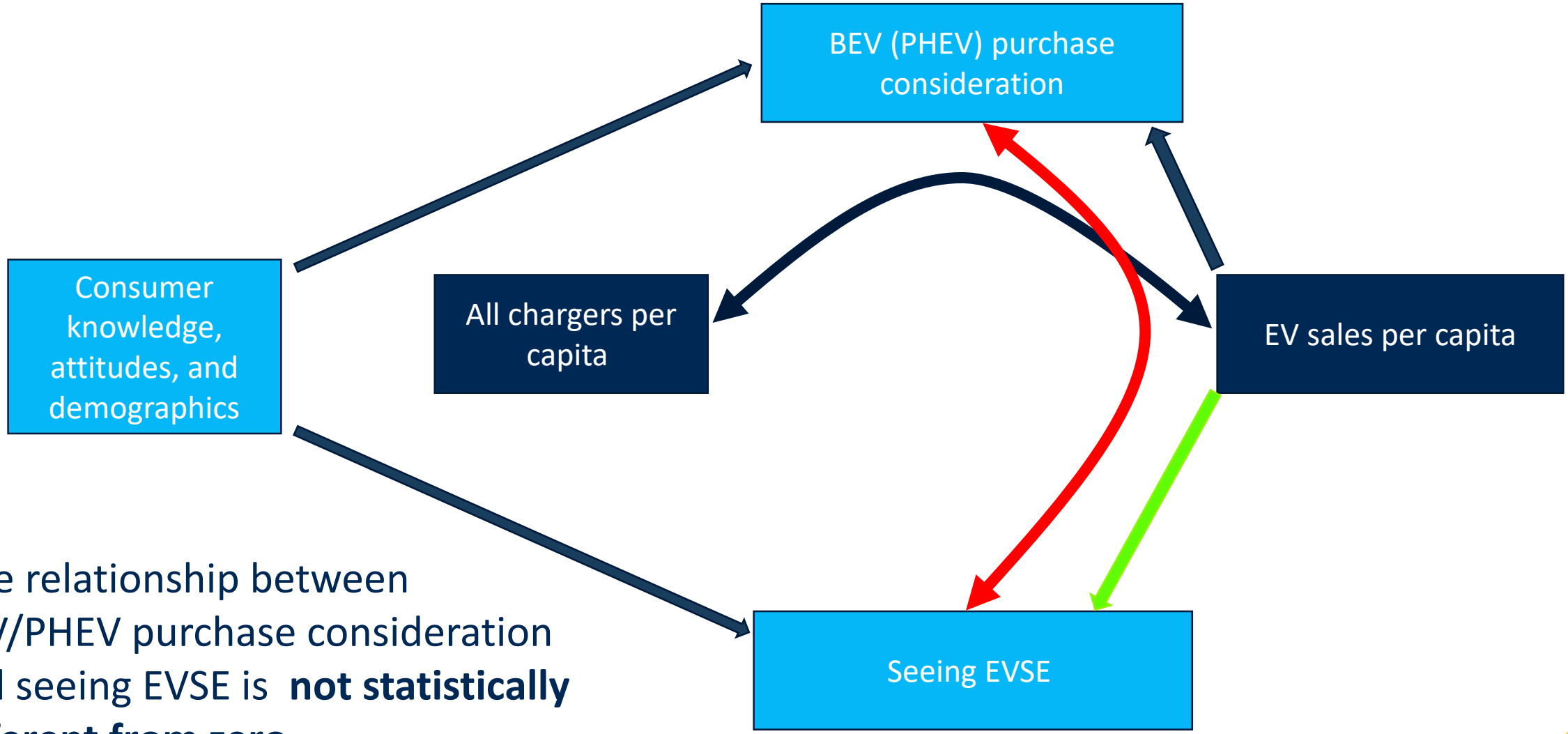
The impact of chargers per capita at the zip code level on BEV and PHEV purchase consideration is **not statistically different from zero**

Model Results



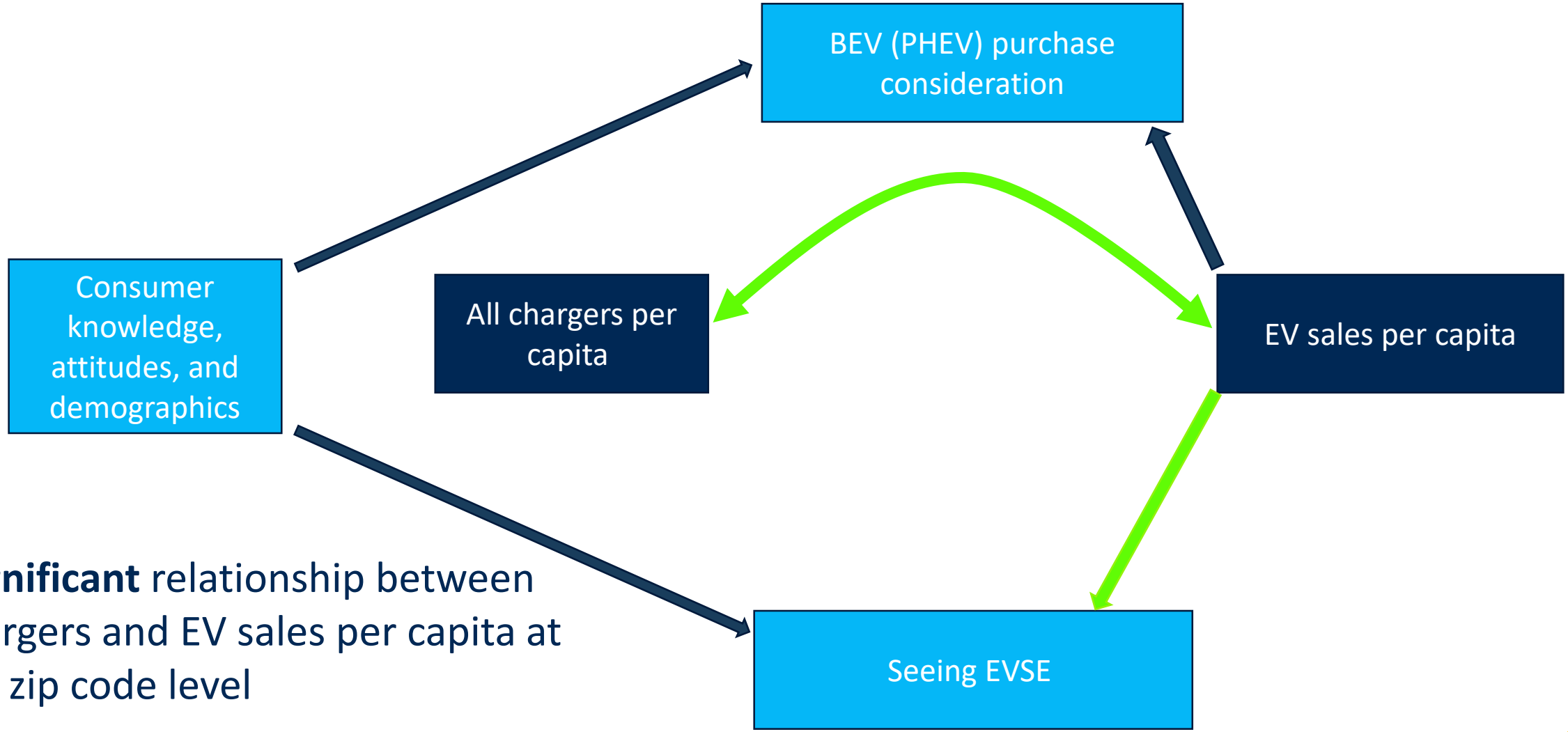
EV sales per capita at the zip code level has a **significant** impact on seeing EVSE

Model Results



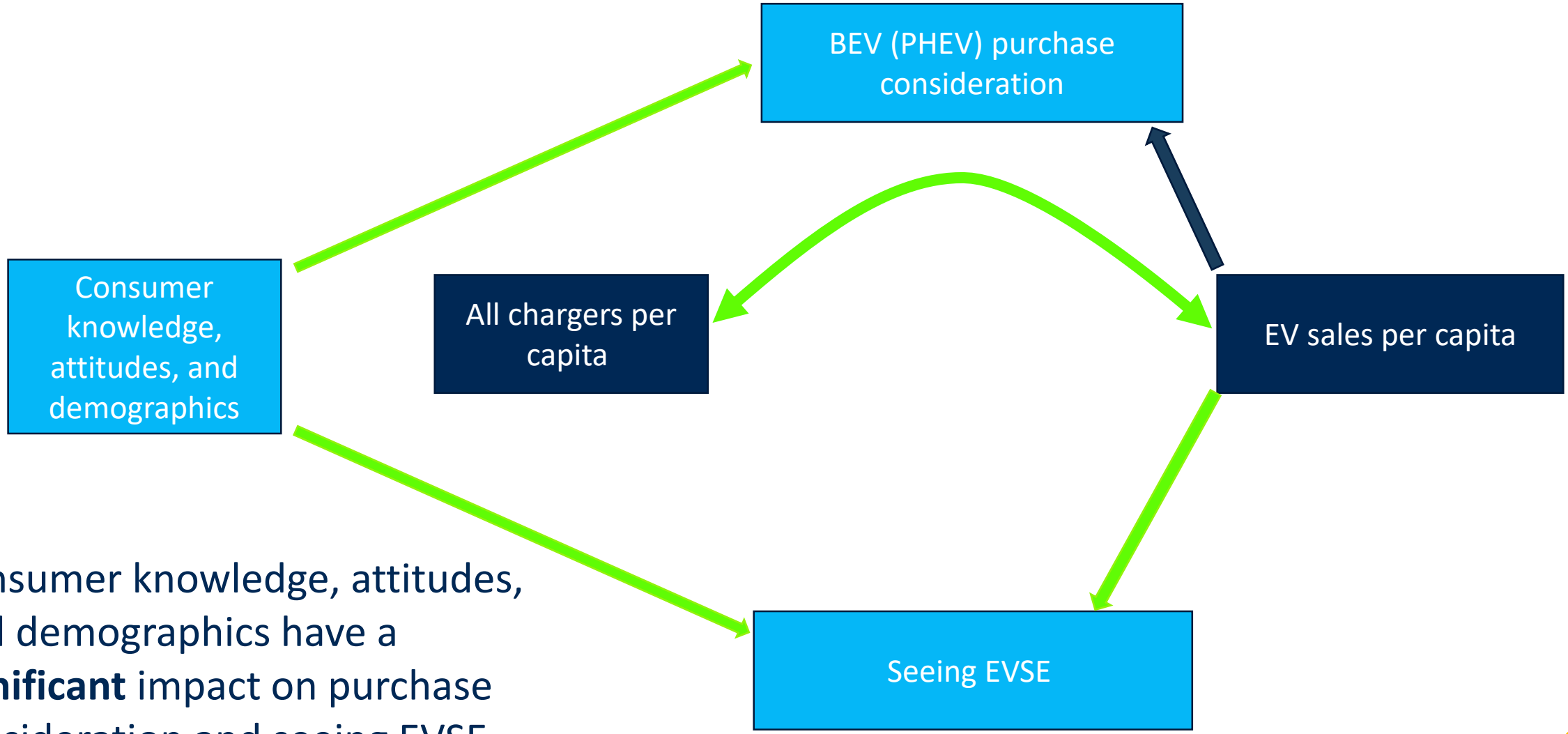
The relationship between BEV/PHEV purchase consideration and seeing EVSE is **not statistically different from zero**

Model Results



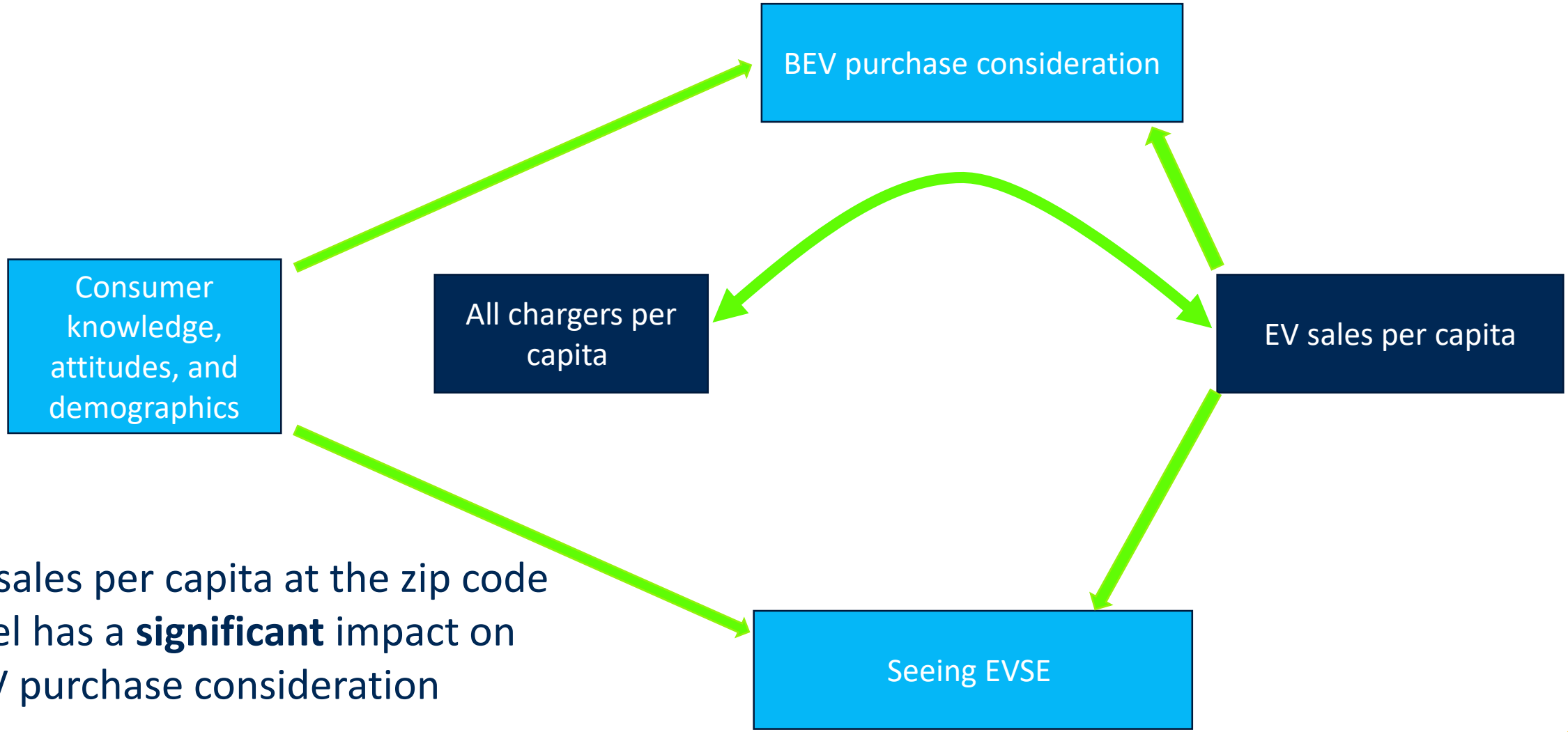
Significant relationship between chargers and EV sales per capita at the zip code level

Model Results



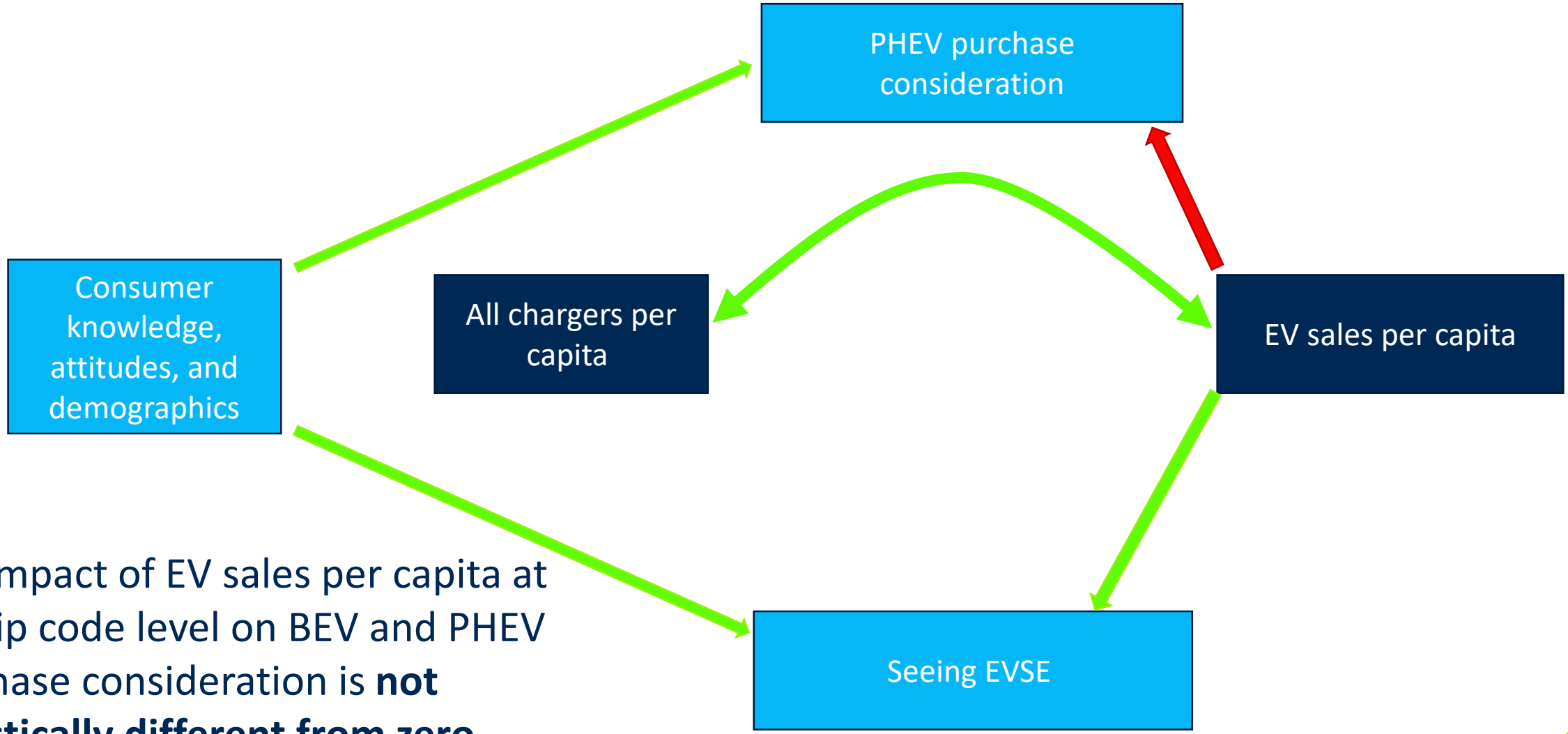
Consumer knowledge, attitudes, and demographics have a **significant** impact on purchase consideration and seeing EVSE

Final **BEV** Model



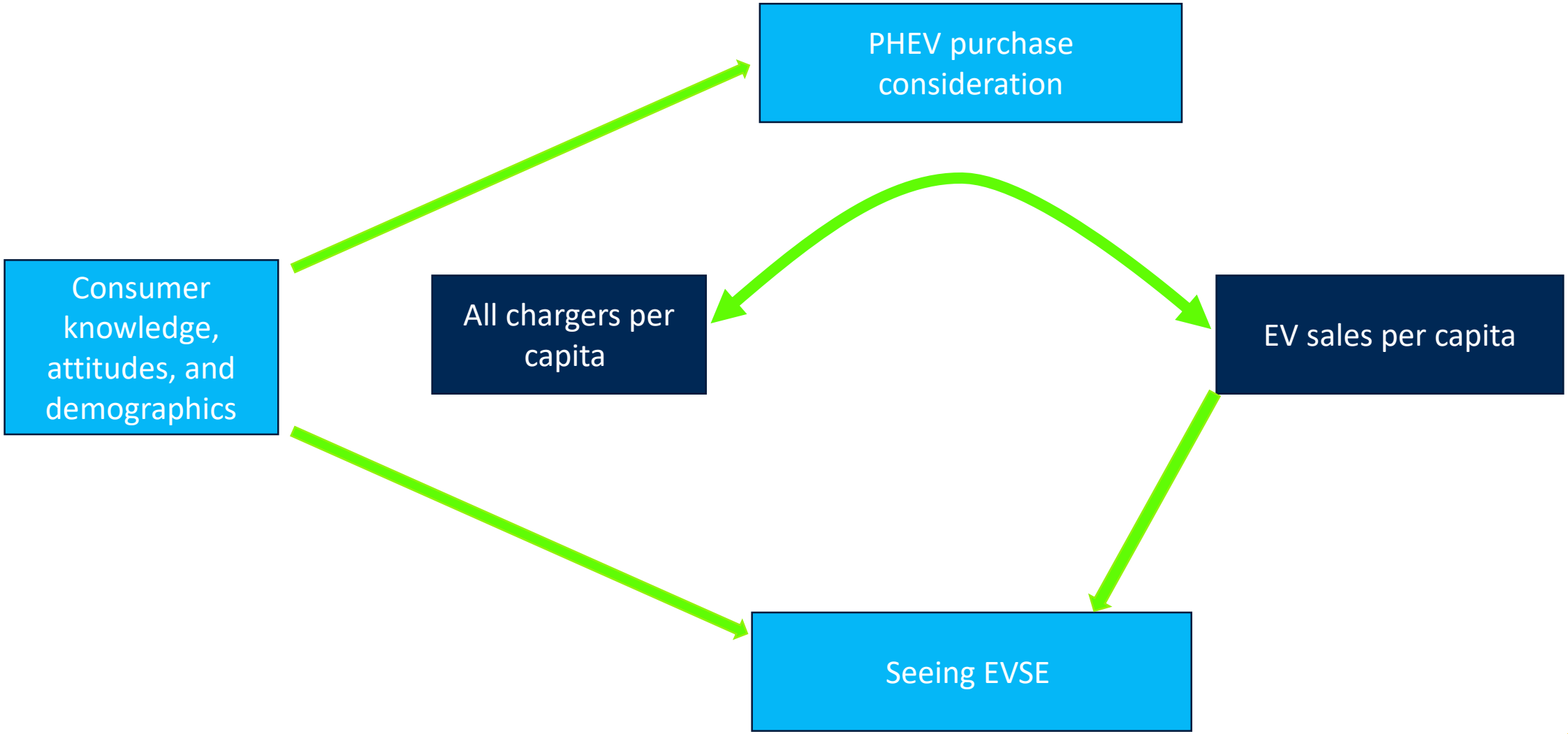
EV sales per capita at the zip code level has a **significant** impact on BEV purchase consideration

Final **PHEV** Model



The impact of EV sales per capita at the zip code level on BEV and PHEV purchase consideration is **not statistically different from zero**

Final **PHEV** Model



Conclusion

- Does living in a region with more chargers per capita positively correlate with people reporting seeing EV charging?
  - **NO**
- Does seeing charging infrastructure positively correlate with purchase consideration?
  - **NO**
- Does living in a region with more chargers per capita positively correlate with purchase consideration?
  - **NO**
- Prior interest in EVs, as well as demographic factors, are significant in determining whether consumers see the charging infrastructure around them

Thanks for listening

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