



Real-World Fleet Data: Insights into How EVs Are Driven, Age, and Adopted Across the U.S.

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1. Motivation

- **Big tech** companies already use **data** to their **advantage** in different scenarios e.g.
 - **Address customer requirements**¹⁻³
 - Identifying **product flaws** to improve future products¹⁻³
- Can the same be **achieved** with **fleet data** by OEMs?

2. Objectives

- Identifying **country/continent** differences
- Identifying **usage** differences

3. Data Set

- **ID. fleet** by Volkswagen AG with > **1 mil. Vehicles**^[4-7]
- **Data retrieval** during **workshop visits** gives **anonymized data entries**

4. Results



Fig. 1: The average operating values for the mean of all vehicles

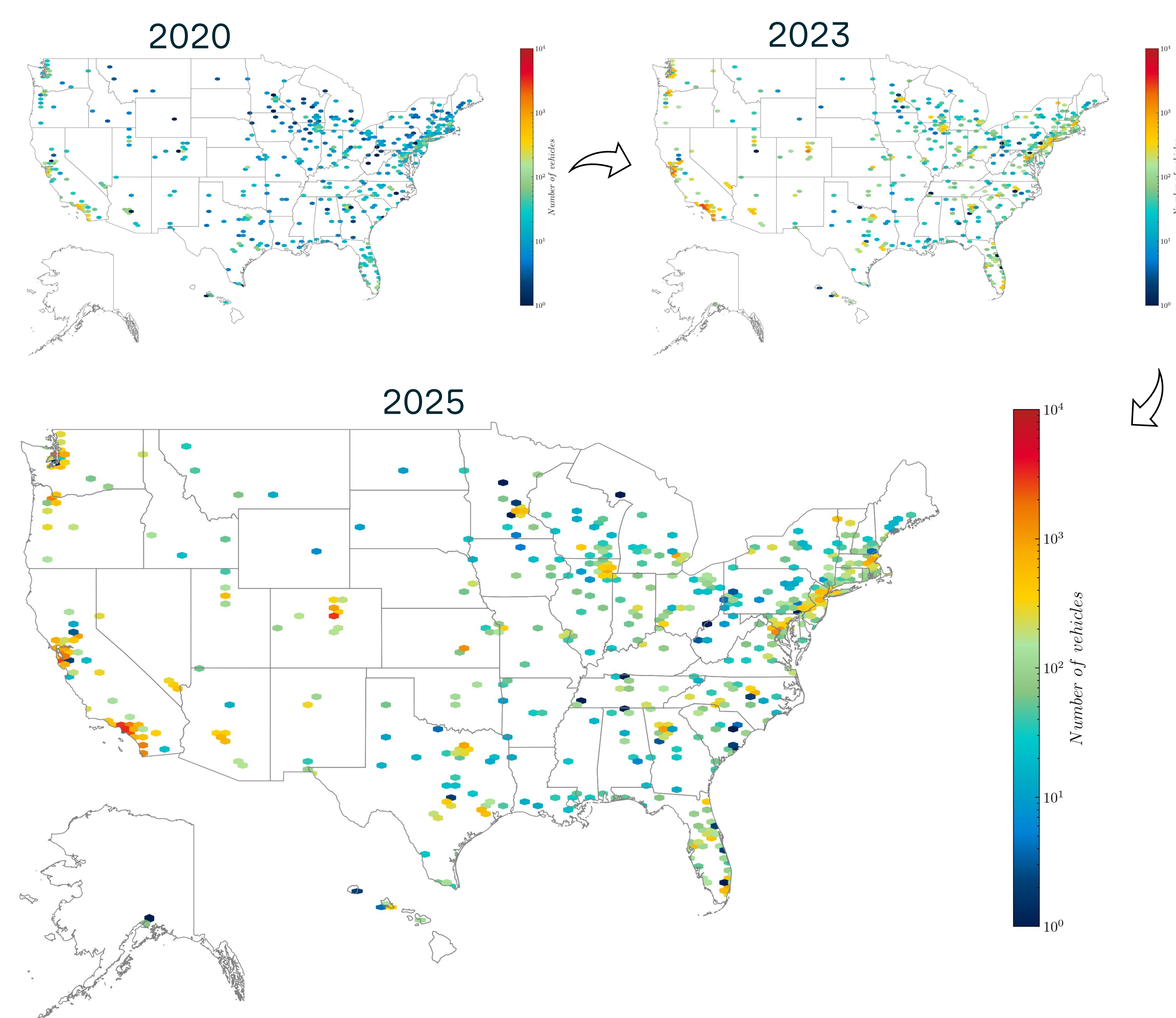


Fig. 3: Vehicle distribution in the USA over the last years

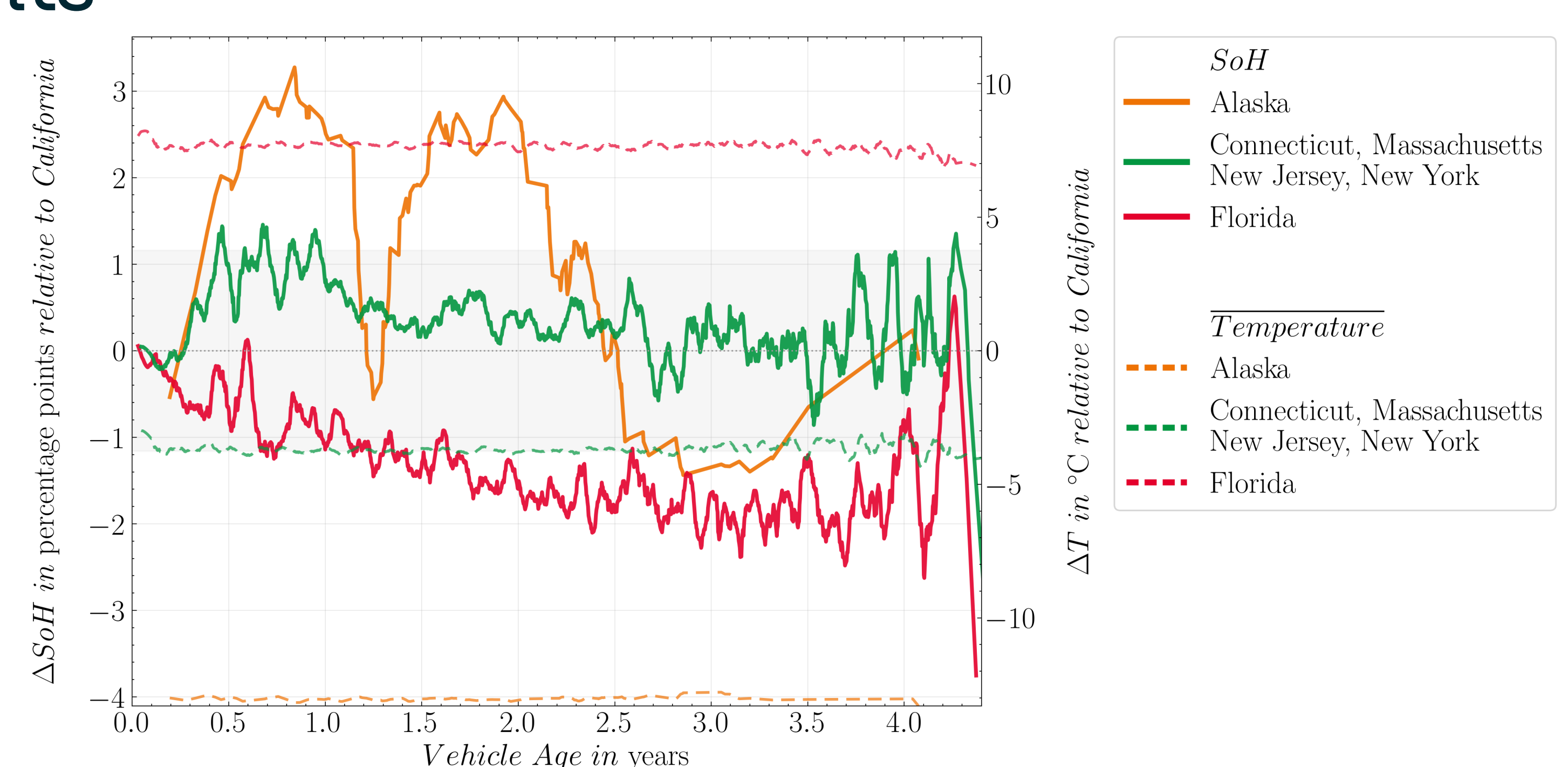


Fig. 2: The average SoH loss over the vehicle age in the different states in comparison to California as the ground truth. Deviation in Alaska is due to a relatively small sample size.

5. Conclusion

- **Usage differences** between different **states** in the USA
→ primarily **temperature** and **charging behavior**
- **Aging difference** due to the impact of **calendric aging** because of the **underlying temperatures** in the states
- Large **BEV concentration** in **densely populated areas**
- Further **efforts required** to achieve a **greater coverage** in **sparsely populated areas**
- Further information on worldwide BEV usage can be found in our preprint at **10.2139/ssrn.5353433**
→ **Fleet Data** can be used to **improve battery electric mobility**. Nevertheless, **further research is necessary** to **identify the limits** of current **datasets** to improve data **collection** in vehicles. Additionally, **caution** is required because **data leaks** can **harm reputation**⁸.

References

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