

Electric vehicle charging

Potential issues with inequitable access

Distributional inequities tell a bad story

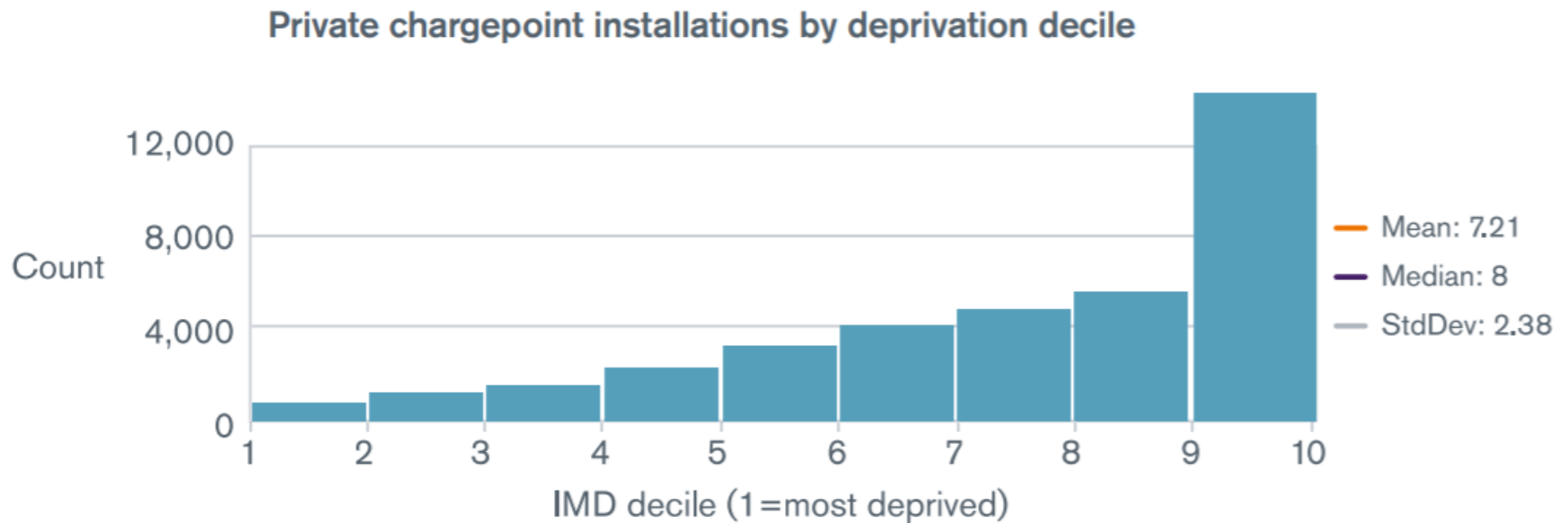
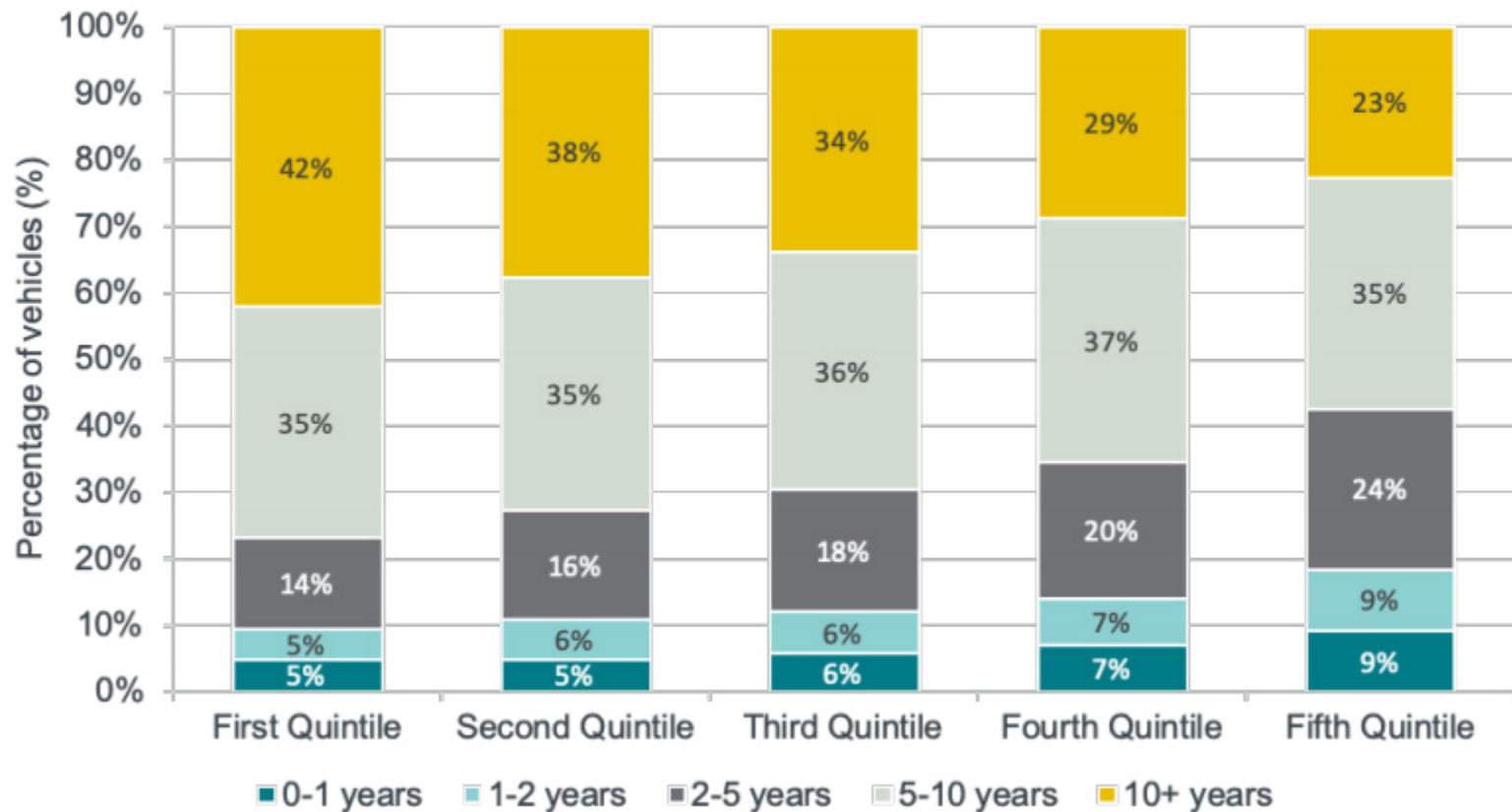


Fig. 13: Relationship between chargepoint uptake and indicators of deprivation⁵⁰

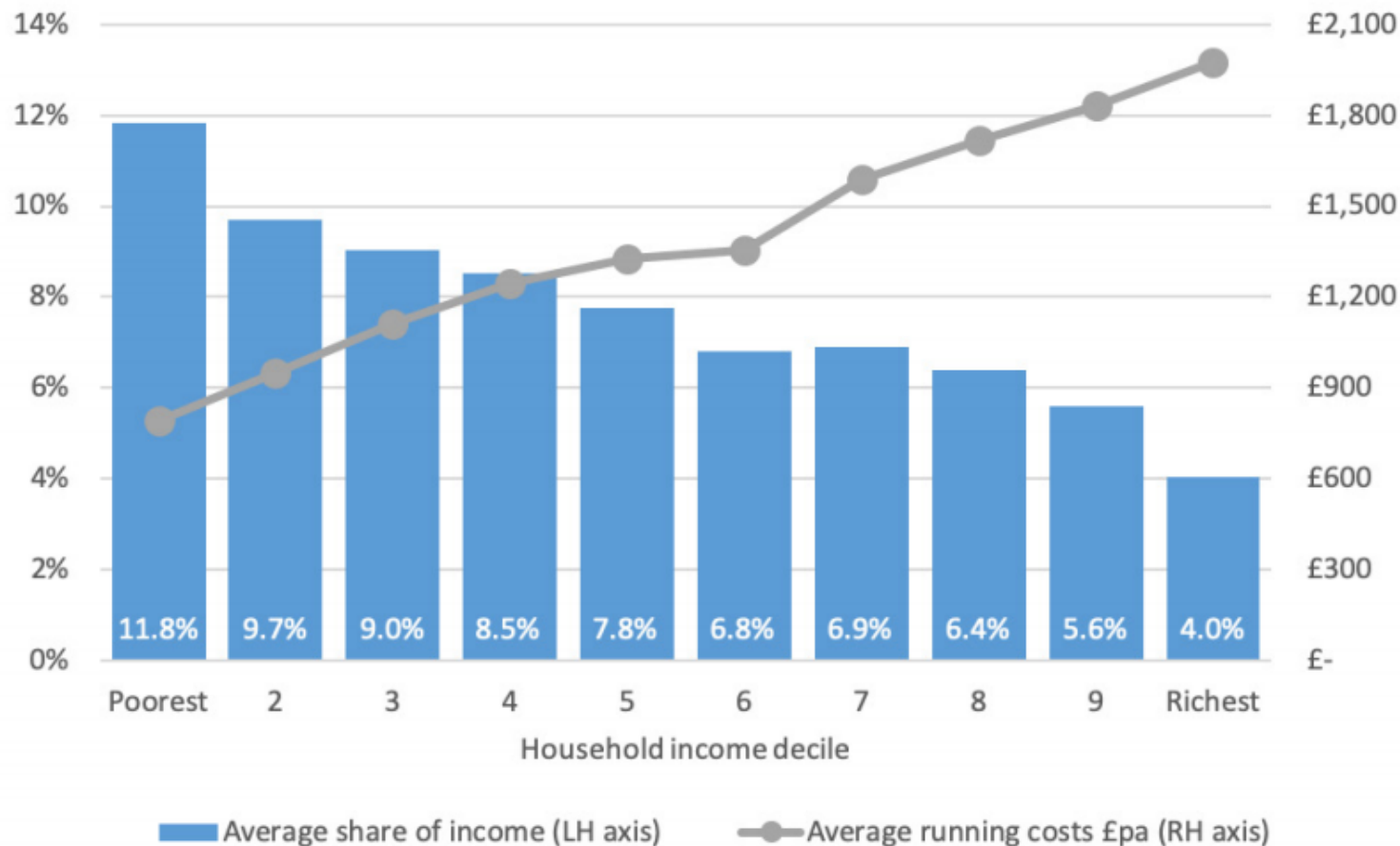
2nd hand cars are the choice for low income households

Age of vehicles owned by income quintile, UK



But they also spend more on running those vehicles

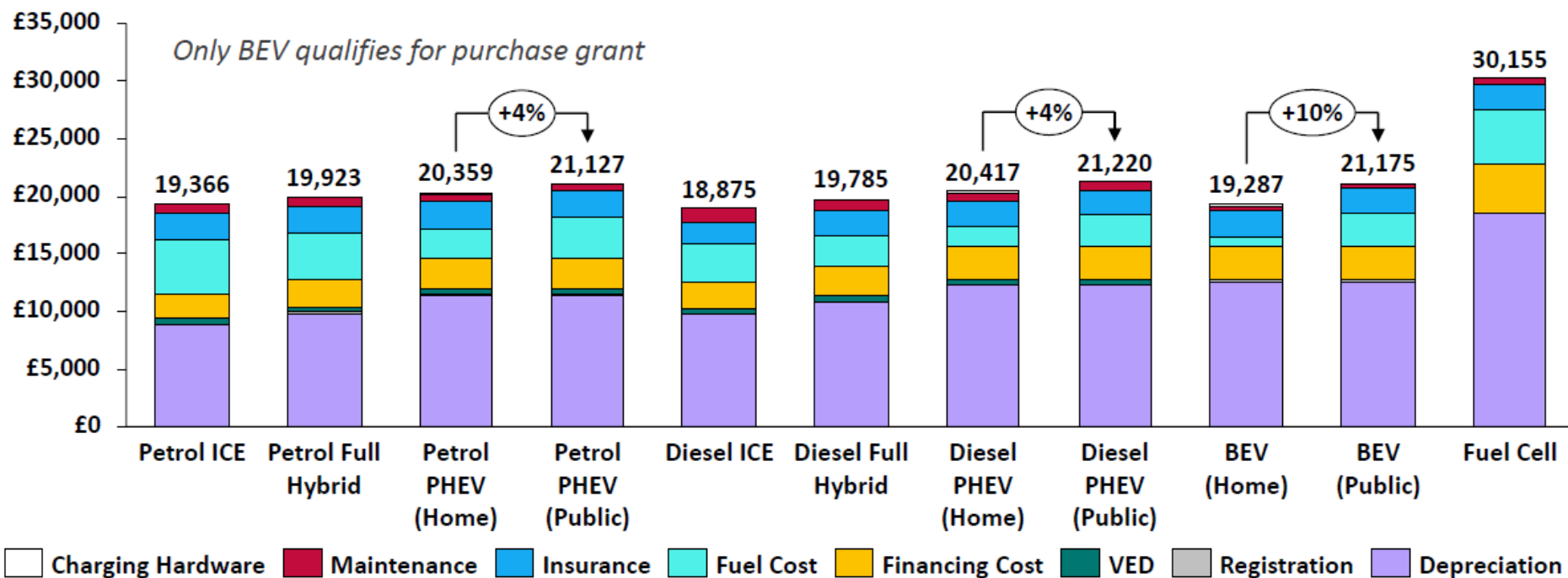
Average spend on vehicle running costs for car-owning households, by decile group



Rapid public charging isn't helping

The effect of using rapid public charging: 4-year TCO for a new B-segment vehicle bought in 2019 (plug-in grant included)

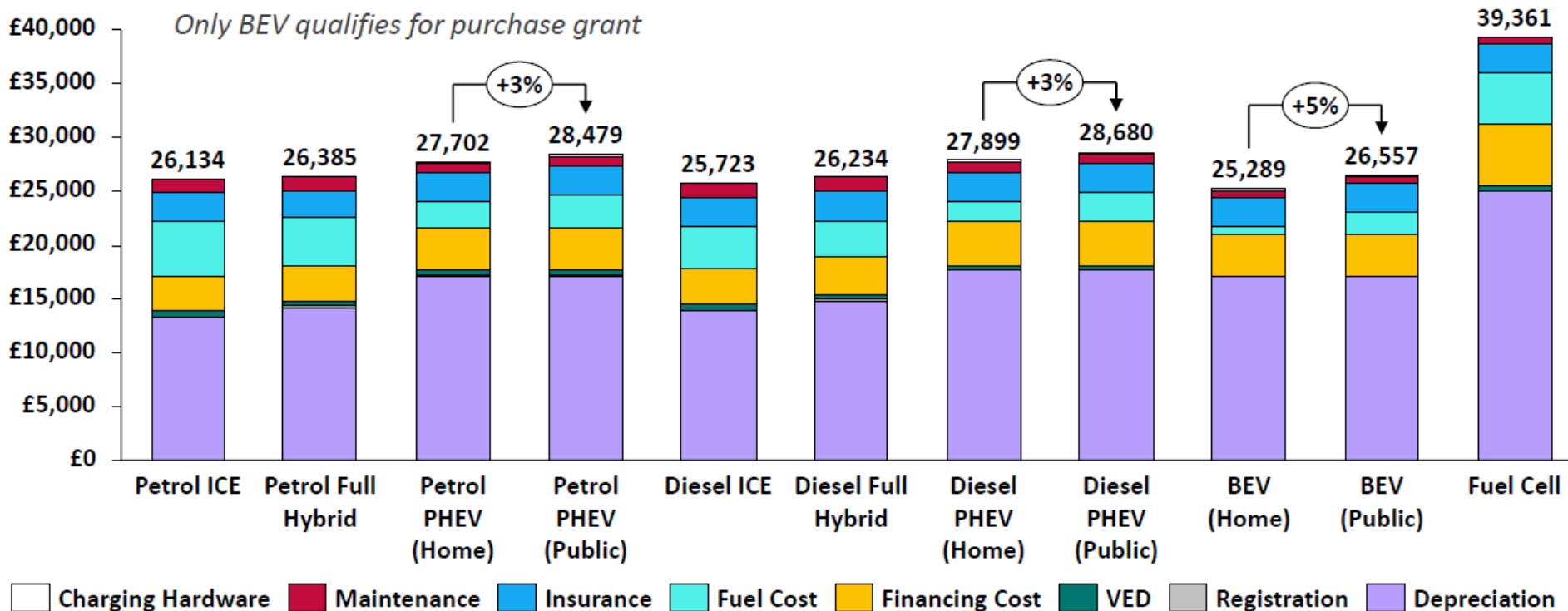
Home charging: 8 p/kWh
Public charging: 29 p/kWh



Slow public charging isn't either

The effect of using slow public charging: 4-year TCO for a new C-segment vehicle bought in 2019 (plug-in grant included)

Home charging: 8 p/kWh
Public charging: 19 p/kWh



Expect regulation to do something about it

The result is a headline in the daily mail or the Sun

“EVs are rich men’s toys”; “Poorer households are subsidising the extravagant choices of the rich”; “Owing an electric vehicle is cheaper if you are already rich”.

- USA example
 - Electric Vehicle for Underserved Communities Act
 - [Maryland sets public charge station rates at 18¢/kWh, 34¢ for DC fast charge](#)

Public charging rates can make or break a proposition for Evs

