The future is Electric

>40%

Of vehicles sold by 2030 are expected to be electric.

Source: Reuters

The need

ElectricNow, an EVs charging stations at home, wants to expand operations to Washington State, doing this by deploying geographically targeted billboards, increasing their reach within key clients, while reducing their marketing costs.

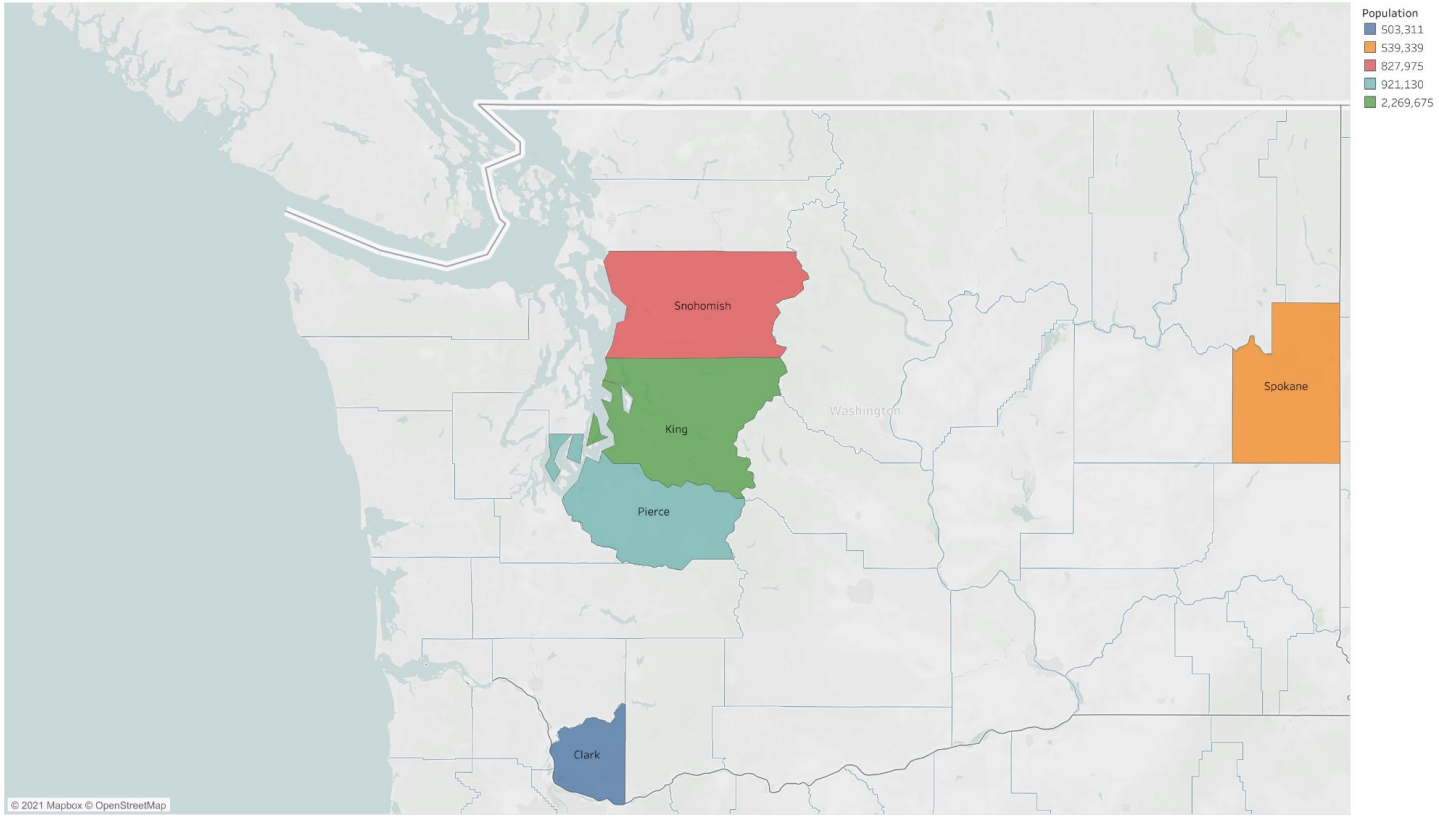
The data

Washington State data on:

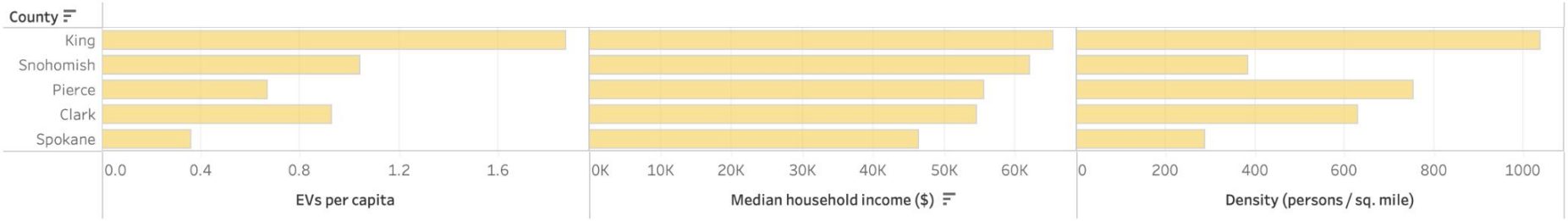
- Economics and population.
- Title registrations of EVs (2020 to September 2021).

Clean Alternative Fuel Vehicle Typ	Model Year	Make	Model	New or Used	DOL Transac	Transaction	County	City	Zip	Electric Ran
Battery Electric Vehicle (BEV)	2017	TESLA	Model X	Used	January 03 2020	2020	Adams	OTHELLO	99344	200
Battery Electric Vehicle (BEV)	2011	NISSAN	Leaf	Used	January 31 2020	2020	Adams	OTHELLO	99344	73
Battery Electric Vehicle (BEV)	2019	CHEVROLET	Bolt EV	Used	February 26 202	2020	Adams	RITZVILLE	99169	238

The approach



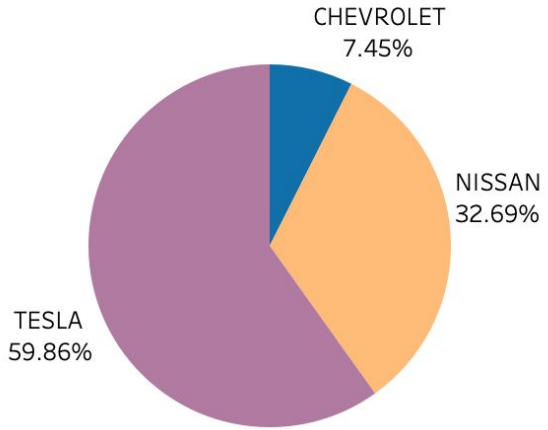
Comparison of the most populous counties.



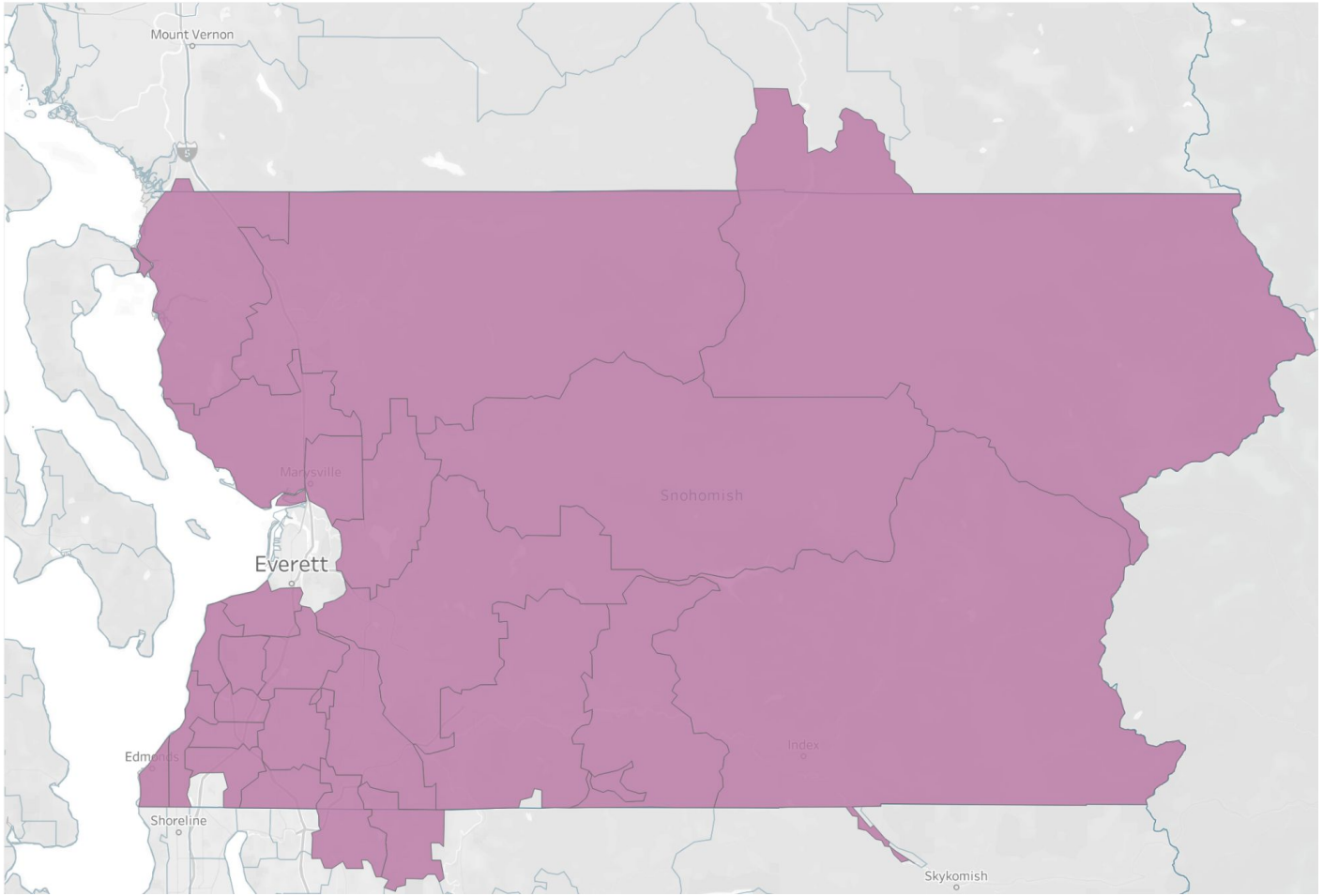
Top 3. Share of registrations between 2020-2021.

County

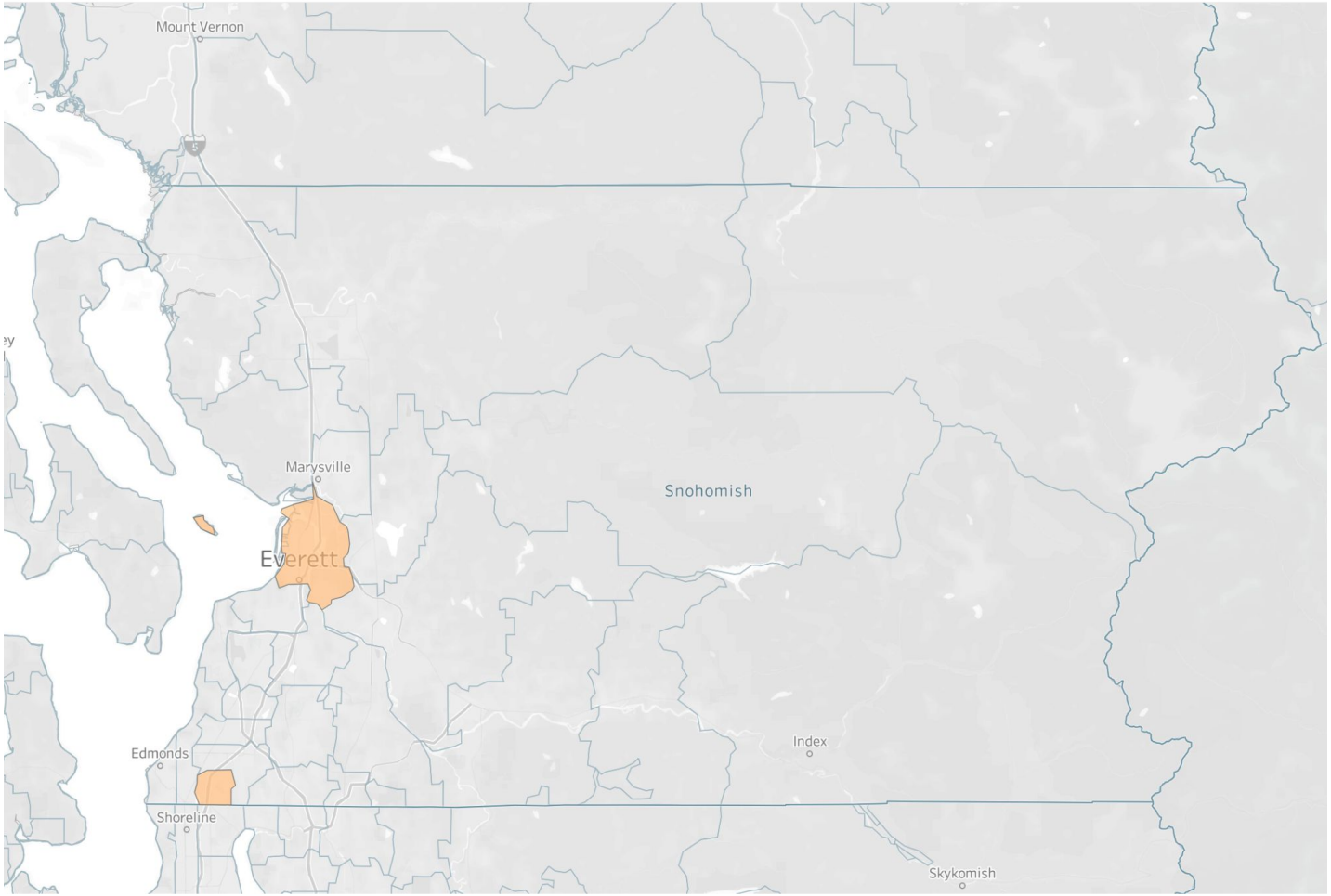
Snohomish



Tesla majority



Nissan majority



Out of 35 zip codes

Tesla has a bigger share in 33

and Nissan dominates in 2

Main recommendations

1. Become a certified installer of Tesla products in Washington State.

2. Billboards mainly tailored for Tesla owners should be place in:
    i. Interstate 405 (entrances and exits from **Bothell -** after passing the North Creek Forest)
    ii. Pacific Highway (stretching across **Lynnwood**)
    iii. State route 9 (stretching across **Snohomish**-city)

3. Billboards mainly tailored for Nissan owners should be place in:
    i. Interstate 5 (across **Everett** - after passing 41st St)
    ii. Interstate 5 (entrances and exits **Mountlake Terrace**).

Future Work and possibilities.

- Create client segments using clustering.
- Allocate resources across warehouses in a smarter way.
- Launching battery recycling/swapping.

By having geographic targets

We could dynamically change ads based on location.

THANK
YOU

Appendix

Sources:

https://data.wa.gov/Transportation/Electric-Vehicle-Title-and-Registration-Activity/rpr4-cgyd

https://ofm.wa.gov

https://en.wikipedia.org/wiki/Interstate_5_in_Washington#/map/0

https://www2.deloitte.com/us/en/insights/focus/future-of-mobility/electric-vehicle-trends-2030.html

https://en.wikipedia.org/wiki/Interstate_405_(Washington)

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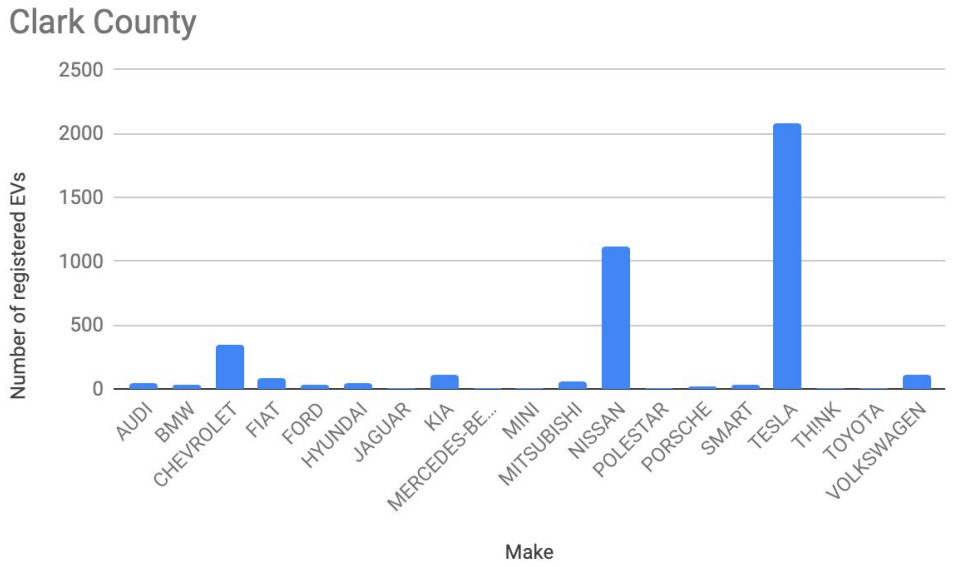
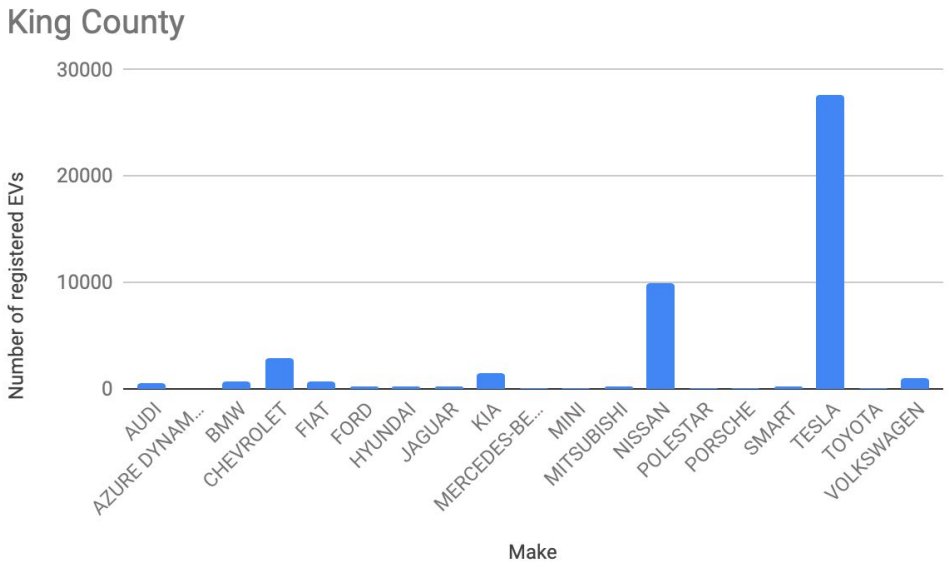
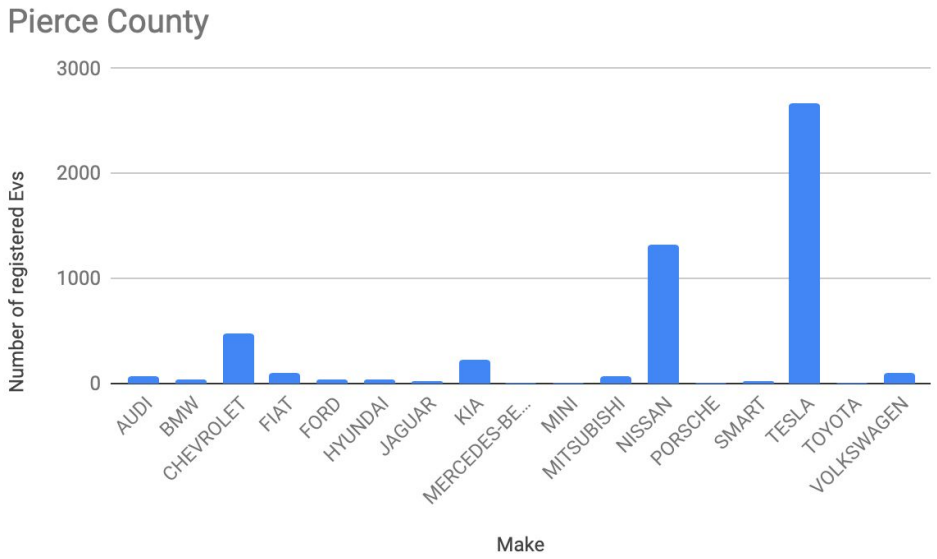
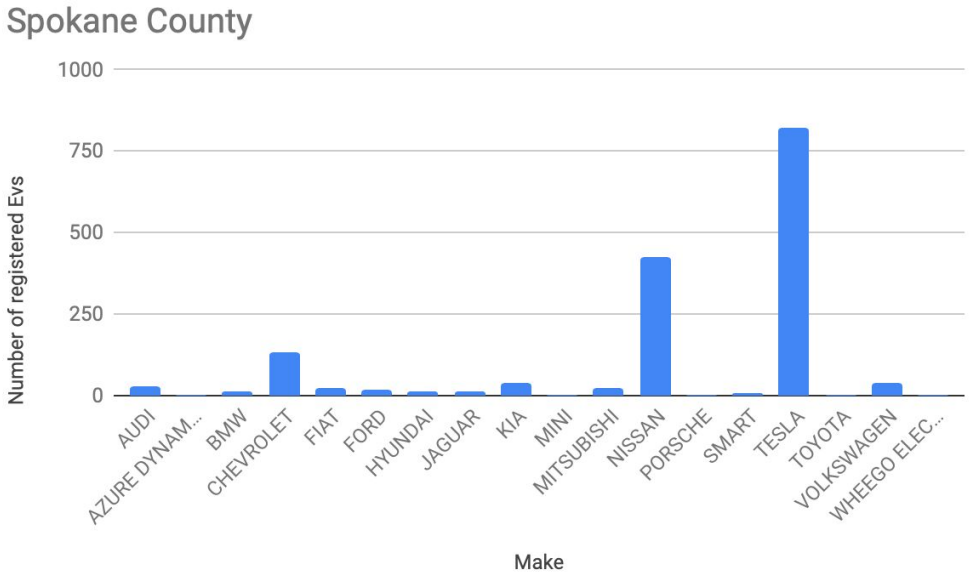
https://towardsdatascience.com/performance-metrics-in-machine-learning-part-3-clustering-d69550662dc6

Market share of other populous counties.




King County
30000
20000
10000
0
Number of registered EVs
AUDI
AZURE DYNAM...
BMW
CHEVROLET
FIAT
FORD
HYUNDAI
JAGUAR
KIA
MERCEDES-BE...
MINI
MITSUBISHI
NISSAN
POLESTAR
PORSCHE
SMART
TESLA
TOYOTA
VOLKSWAGEN
Make


Pierce County
3000
2000
1000
0
Number of registered Evs
AUDI
BMW
CHEVROLET
FIAT
FORD
HYUNDAI
JAGUAR
KIA
MERCEDES-BE...
MINI
MITSUBISHI
NISSAN
PORSCHE
SMART
TESLA
TOYOTA
VOLKSWAGEN
Make


Spokane County
1000
750
500
250
0
Number of registered Evs
AUDI
AZURE DYNAM...
BMW
CHEVROLET
FIAT
FORD
HYUNDAI
JAGUAR
KIA
MINI
MITSUBISHI
NISSAN
PORSCHE
SMART
TESLA
TOYOTA
VOLKSWAGEN
WHEEGO ELEC...
Make