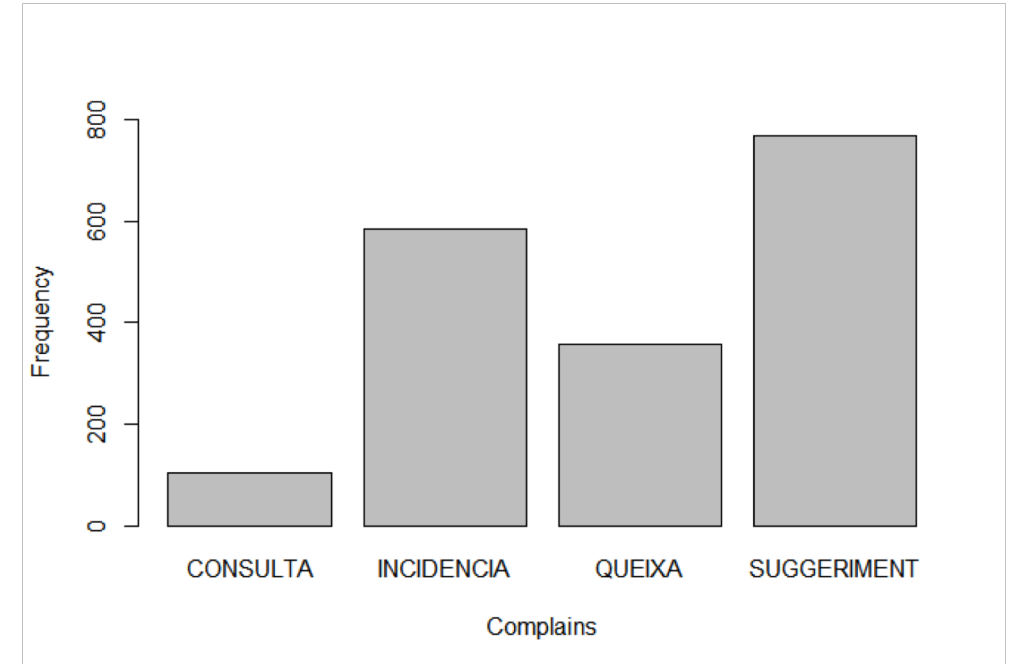


Identifying Problem Areas in Barcelona's Bike Lanes

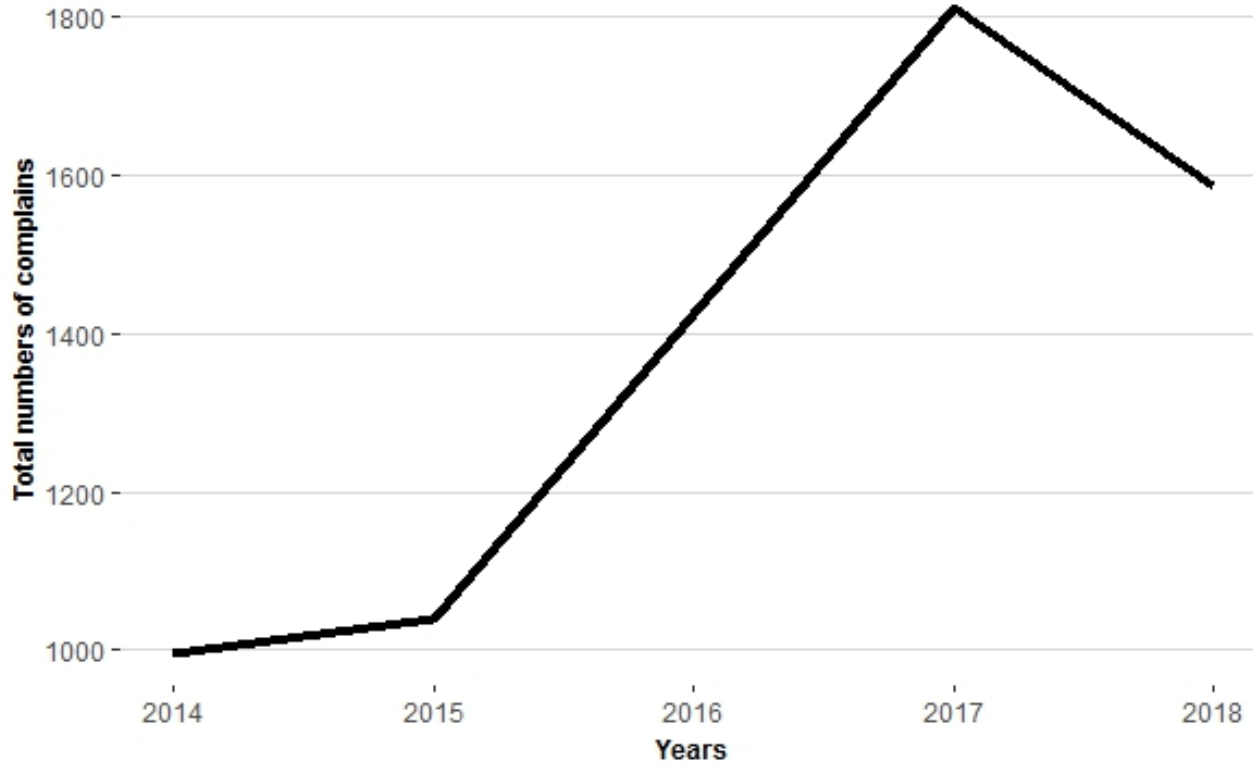
Josep Espasa, Claire Kelley, Paolo Chevalier, Amos Chinomona

Data Sources

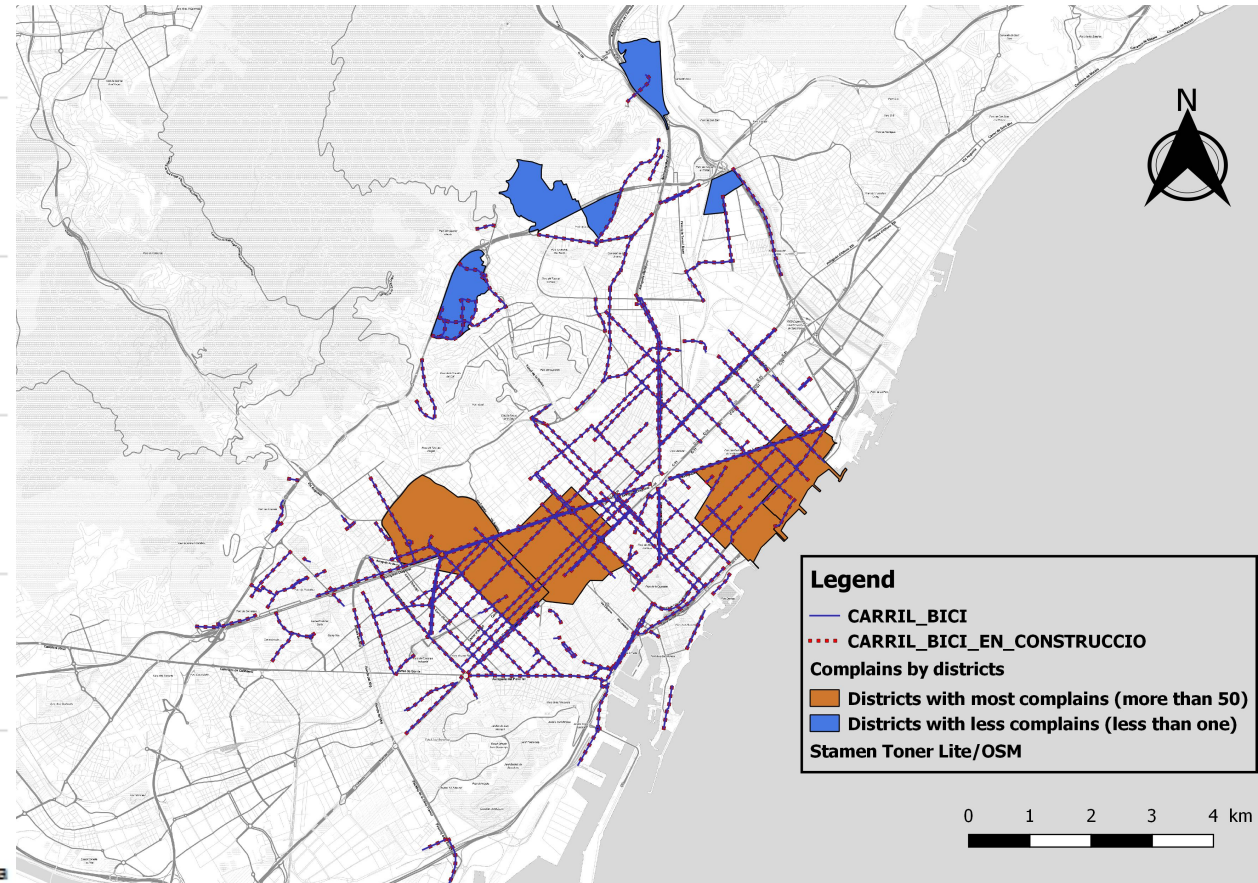
- Bike Accidents (2017)
- Complaints (2018)
- Bike Paths
- Neighborhood Age and Income (2016)
- Bike usage omnibus (2015-2017)



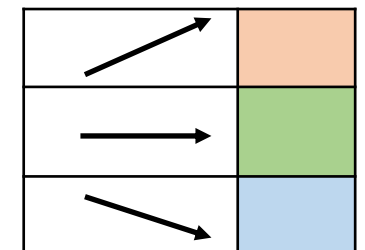
Evolution of complains from 2014 to 2018



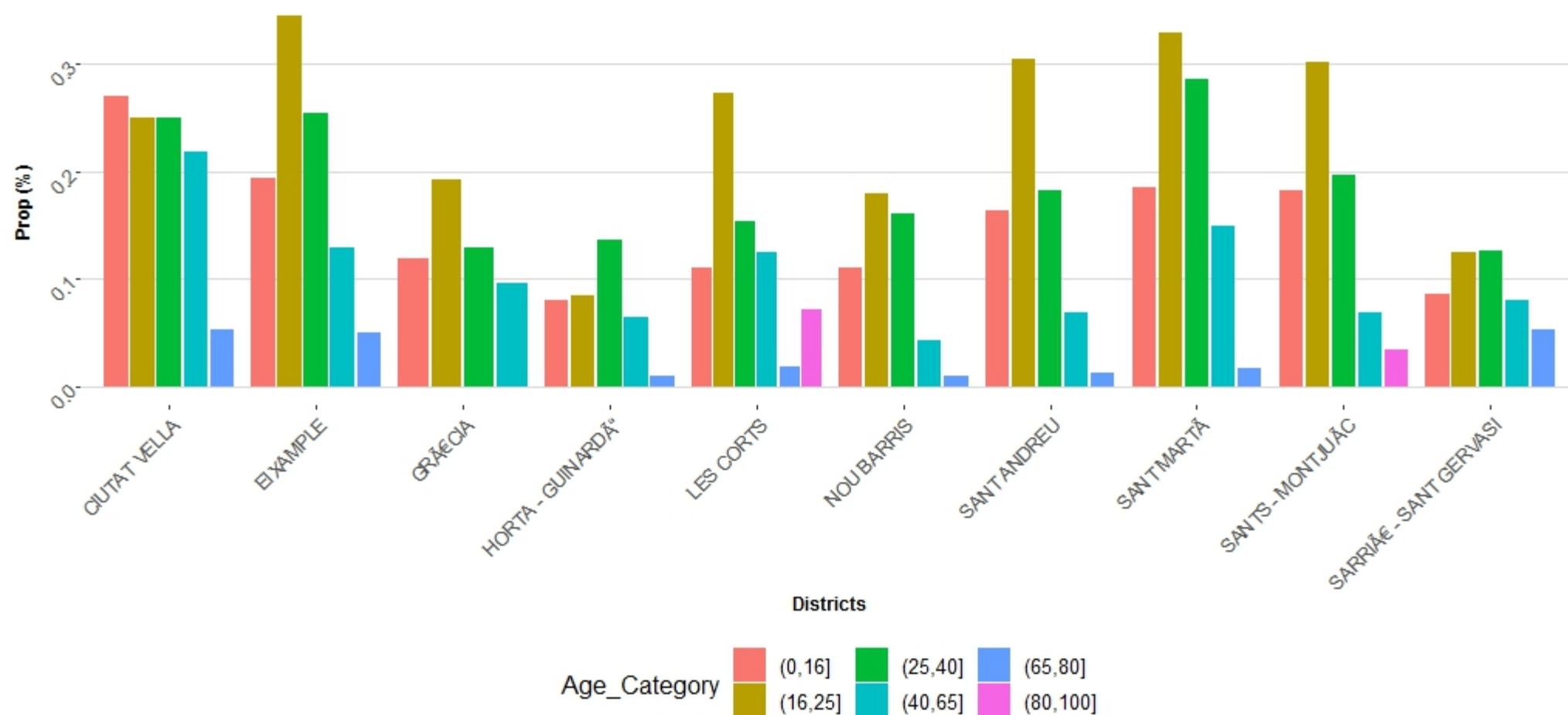
Open Data BCN, Dataset 'Incidencias, quejas, sugerencias, consultas y agradecimientos gestionados por el Ayuntamiento de Barcelona'. Source: City Council of Barcelona



	2014	2015	2017	2018
New bicycle lane (change of location)	10%	11%	21%	24%
New bicycle parking (change of location)	21%	23%	19%	22%
Discipline problems with bikes	21%	17%	20%	21%
Abandoned Bicycles	20%	16%	14%	13%
Incidents in Bicing services	8%	7%	7%	5%
Marking Bicycle lane	NA	NA	1%	4%
Incidents Bibycle lane	12%	13%	3%	2%

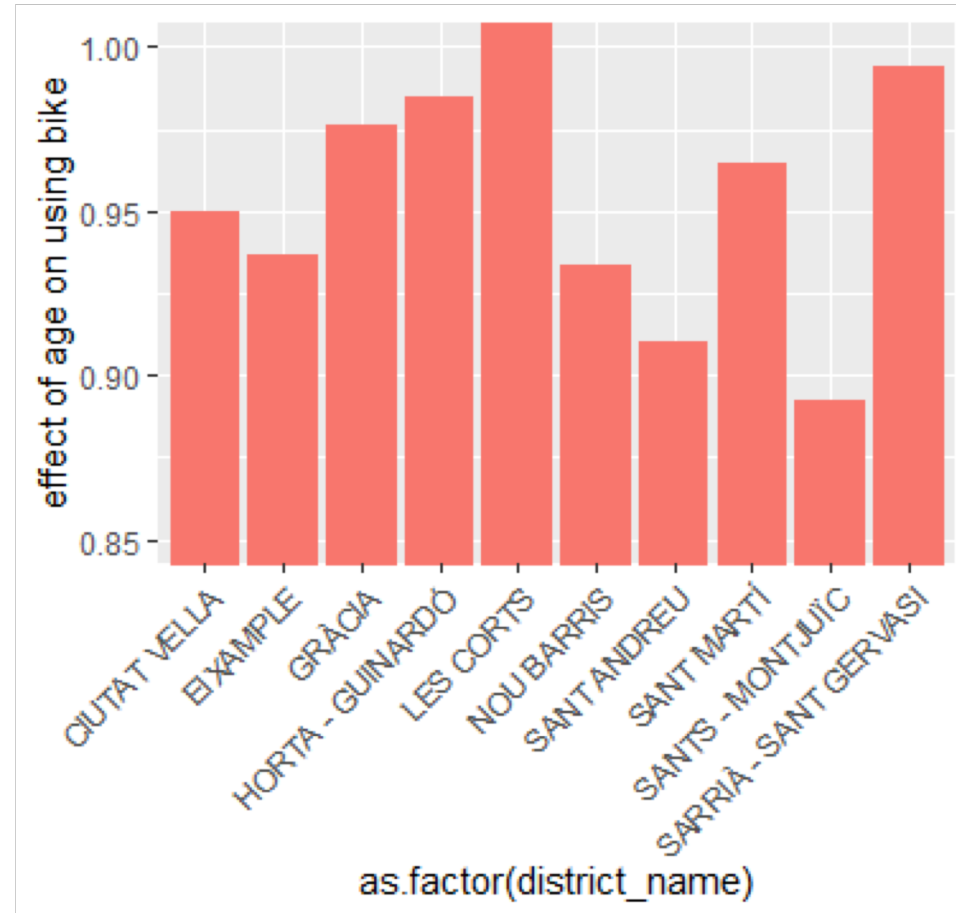


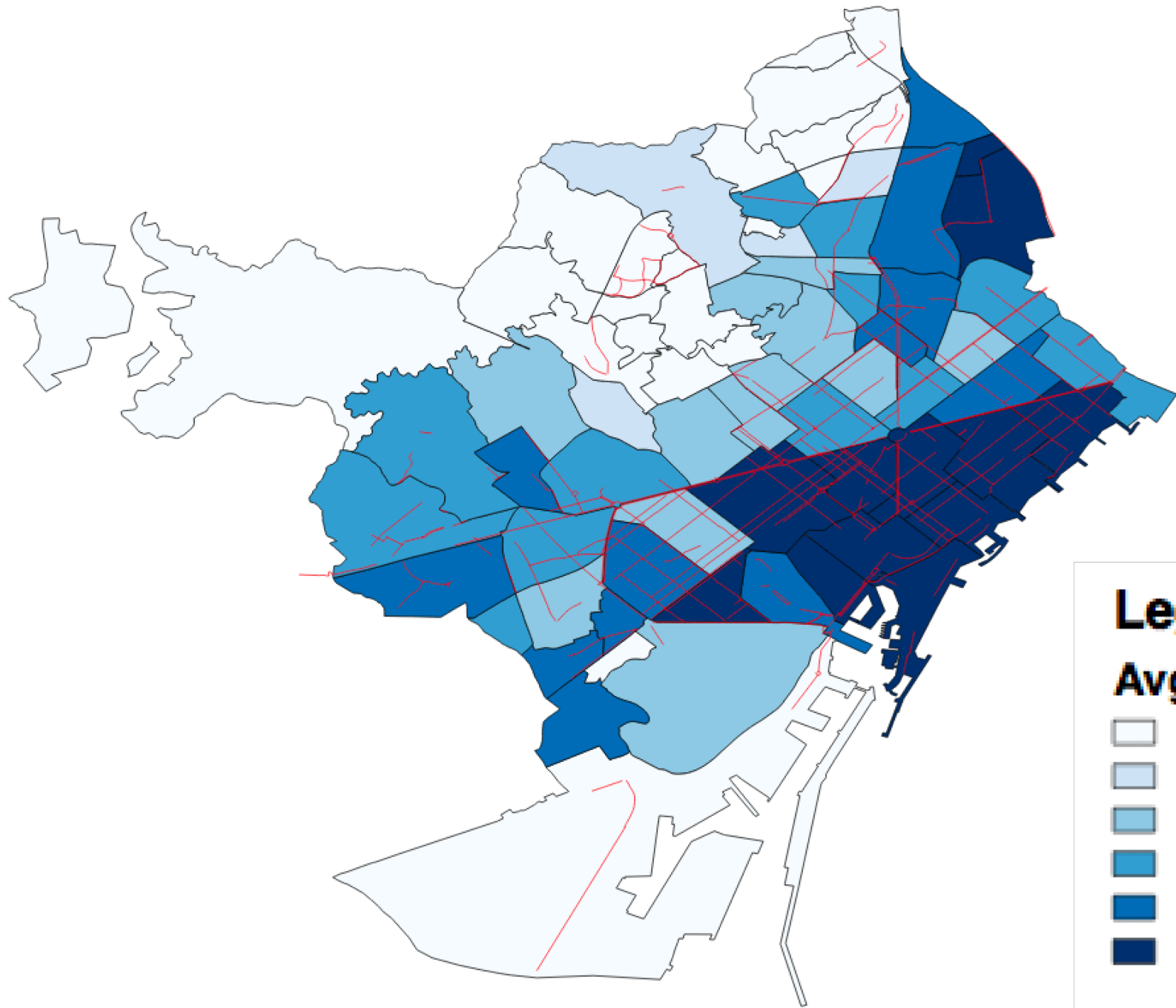
Bike Usage in Barcelona



Source: City Council of Barcelona
Open Data BCN, Dataset 'Omnibus 2015 to 2017'.

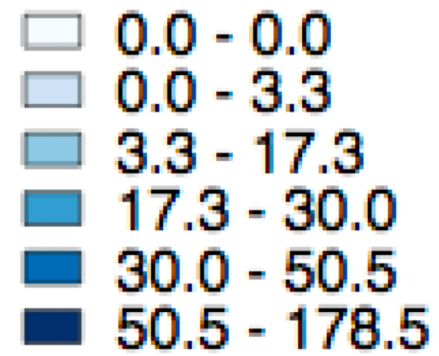
Negative effect of Age





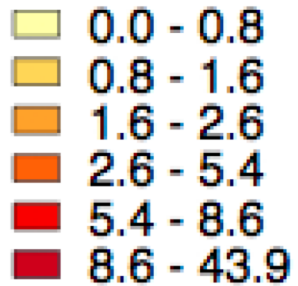
Legend

Avg Bikes Per 10k Residents



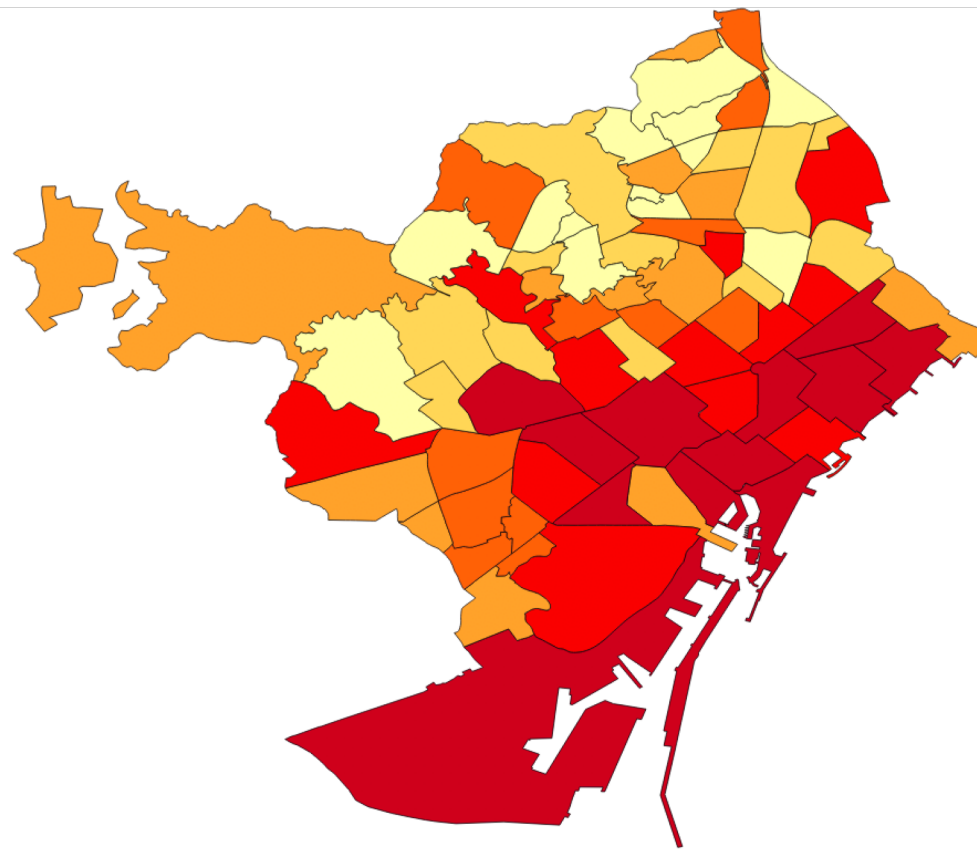
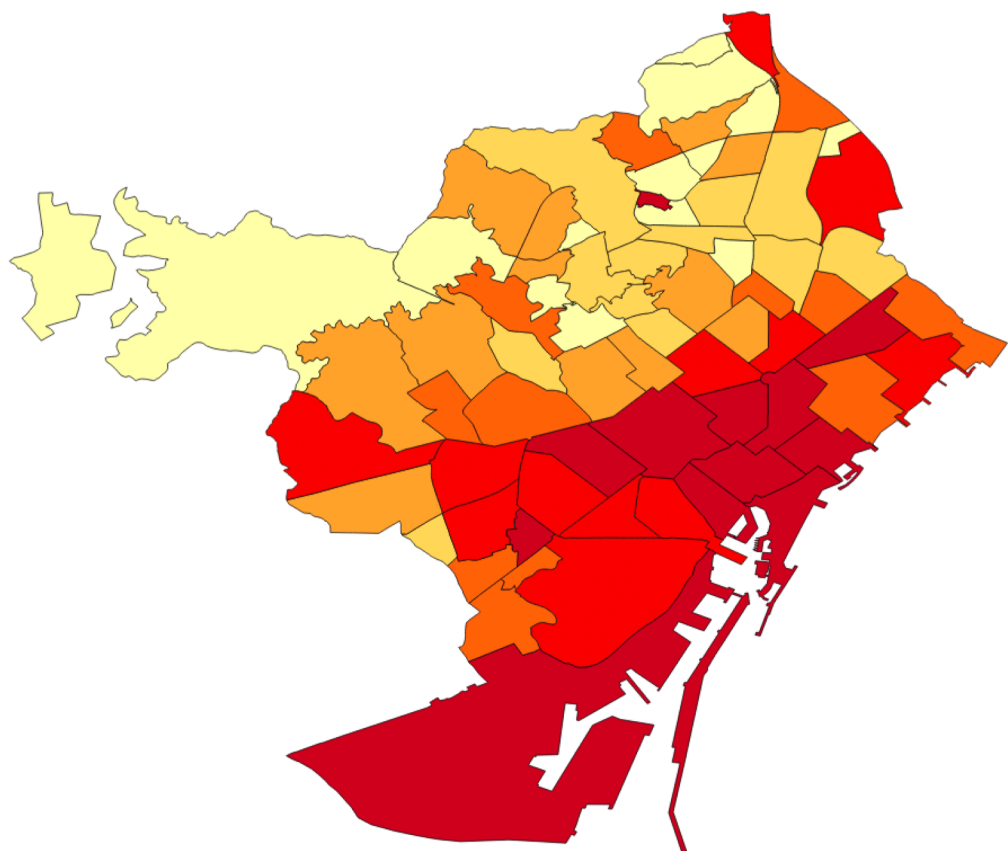
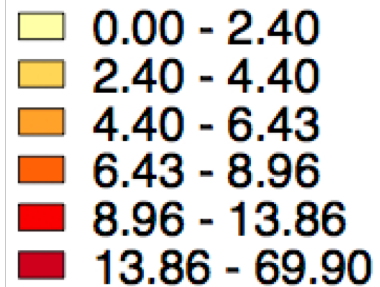
Legend

Accidents Per 10k Residents (2017)



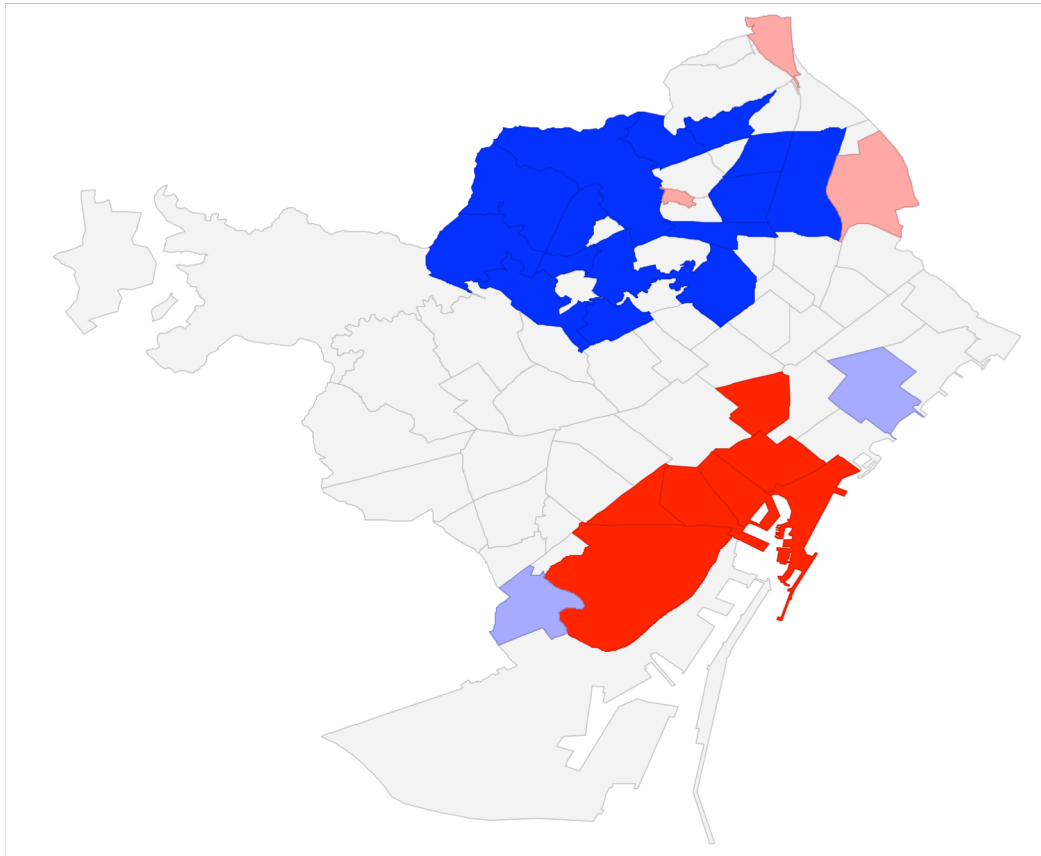
Legend

Complaints Per 10k Residents (2018)

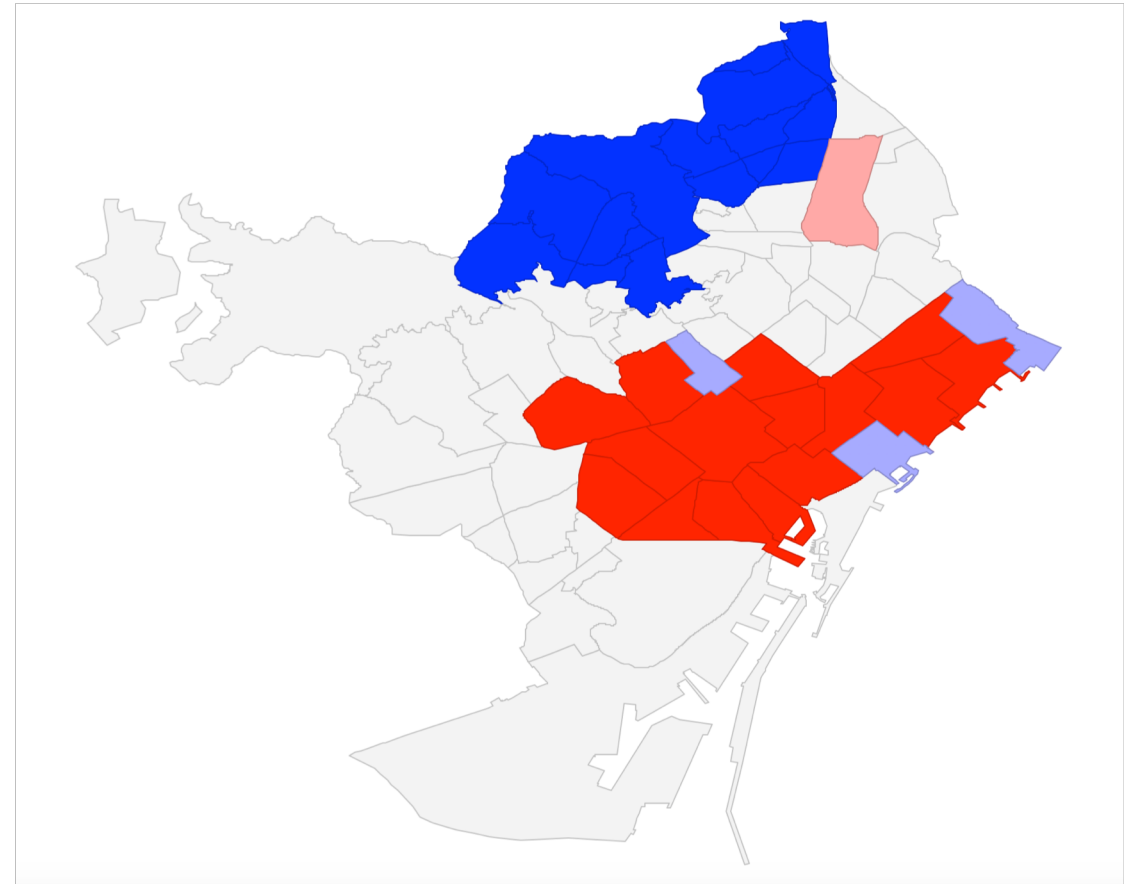


“Hot Spots”

Accidents



Complaints



Further Directions

- Prioritize expansion of bike lanes based on customer suggestions
- Prioritize repair/improvement of signage based on intersections with high accidents rates
- Predict Spending on future bike lines based on changes in demand
- Further review of equitable access to biking- are certain populations not being served correctly (perhaps parents with children, or older adults)
- Analyze Text of Complaints to discover patterns and more specific details