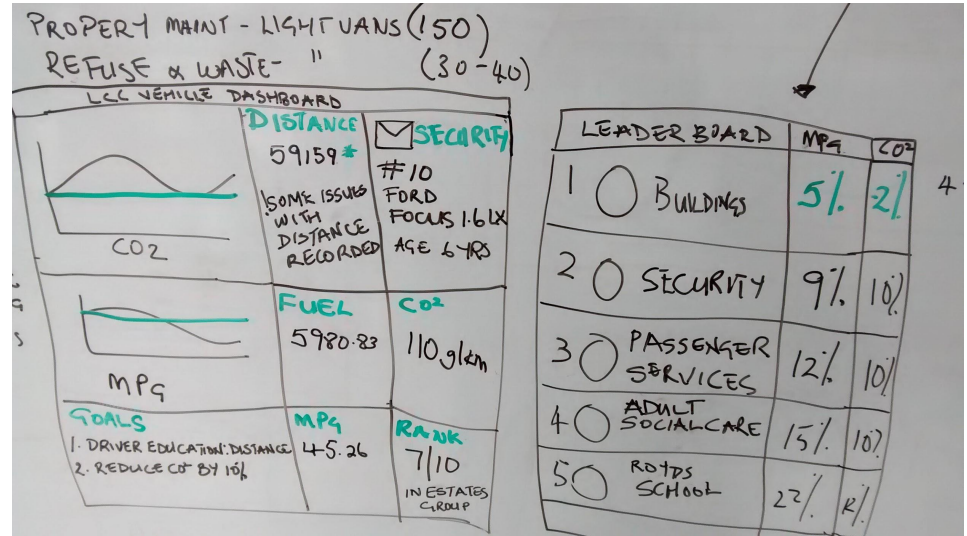

#FuelHack

Saving Fuel & CO2

Proposal: Edafe

How am I doing
with fuel & CO2?

- Dashboard
- Leaderboard
- Compare against:
 - Baseline
 - Other Depts
 - Similar Vehicles



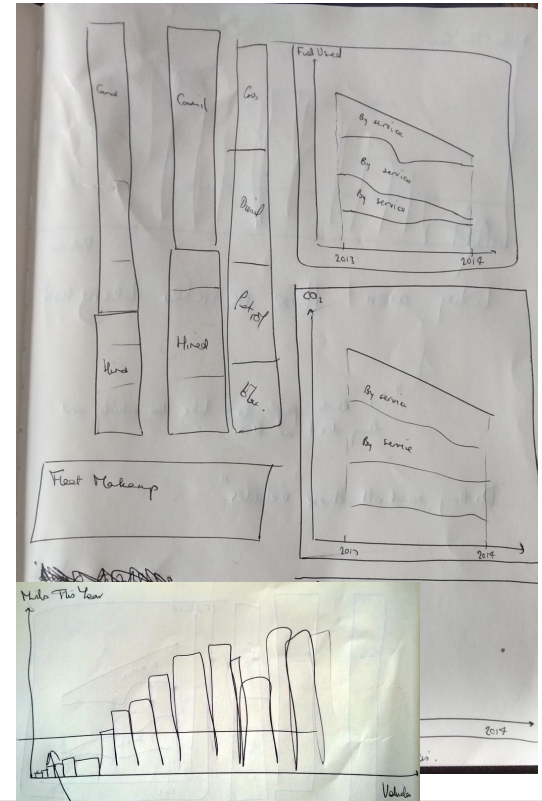
Proposal: Tom

Observe trends in vehicle use.

Observe trends in fuel use.

Observe trends in emissions.

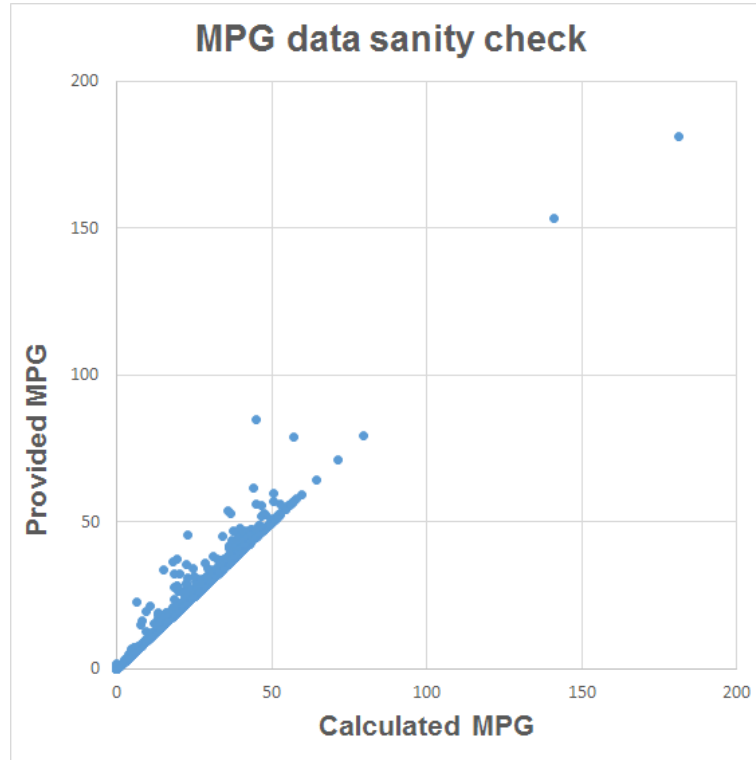
Model effects of changes to fleet.



The Good

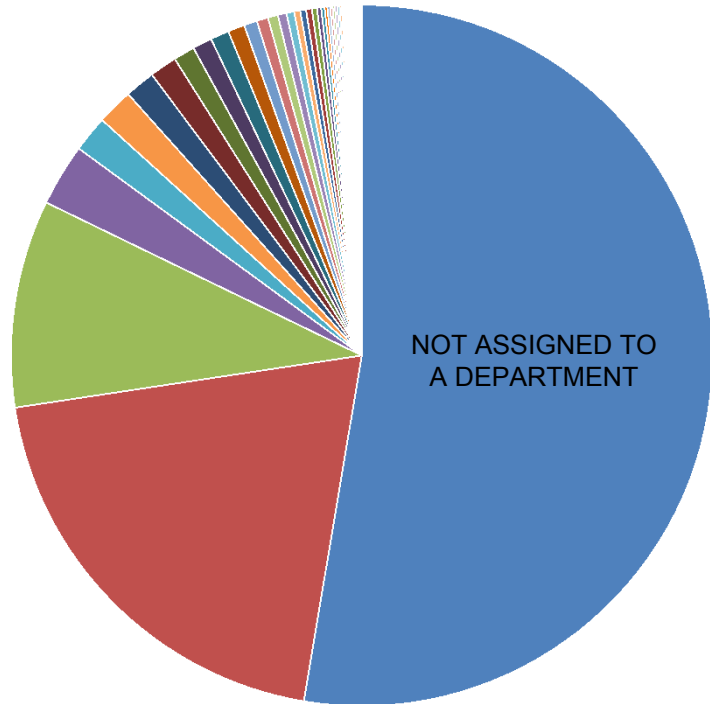
- Good quantity of data provided
 - MPG calculations are largely reproducible
 - Less fuel used in 2014 (3.64MI vs 3.84MI)
 - Improved fuel assignment in 2014 (63% vs 53%)
 - 4 dept MPG better than manufacturers
 - 5 dept MPG within 10% of manufacturers
-

MPG calculations are reproducible

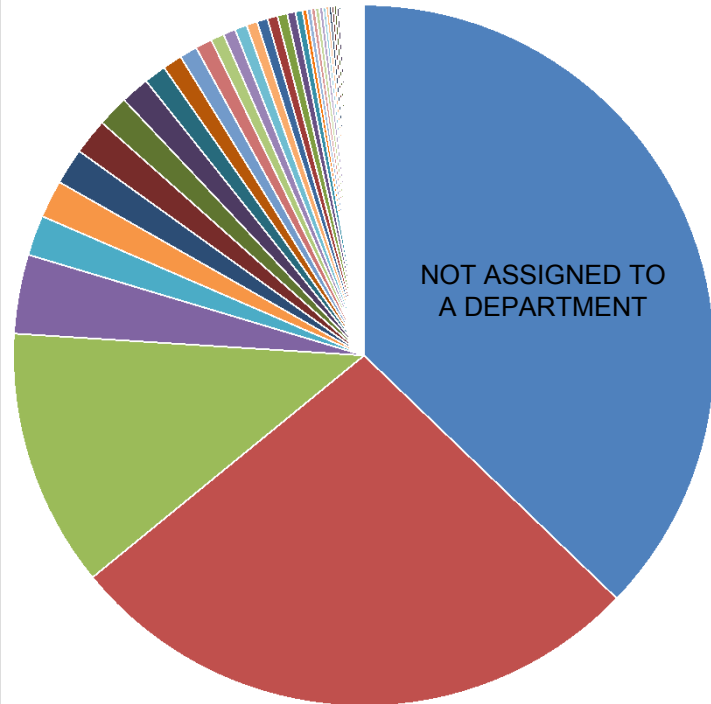


Improved fuel assignment in 2014

2013 fuel use by department

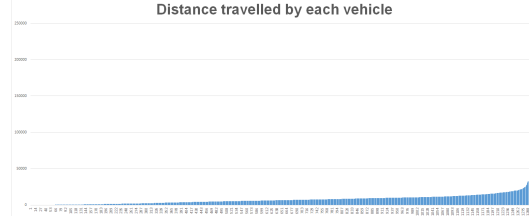


2014 fuel use by department

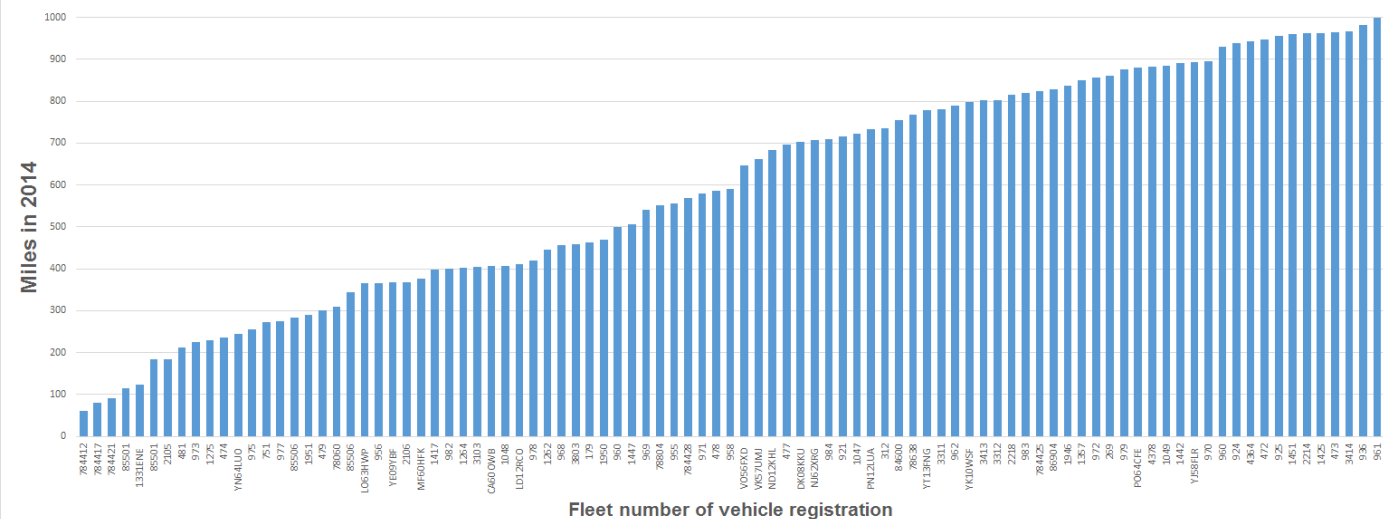


We can see lightly-used vehicles

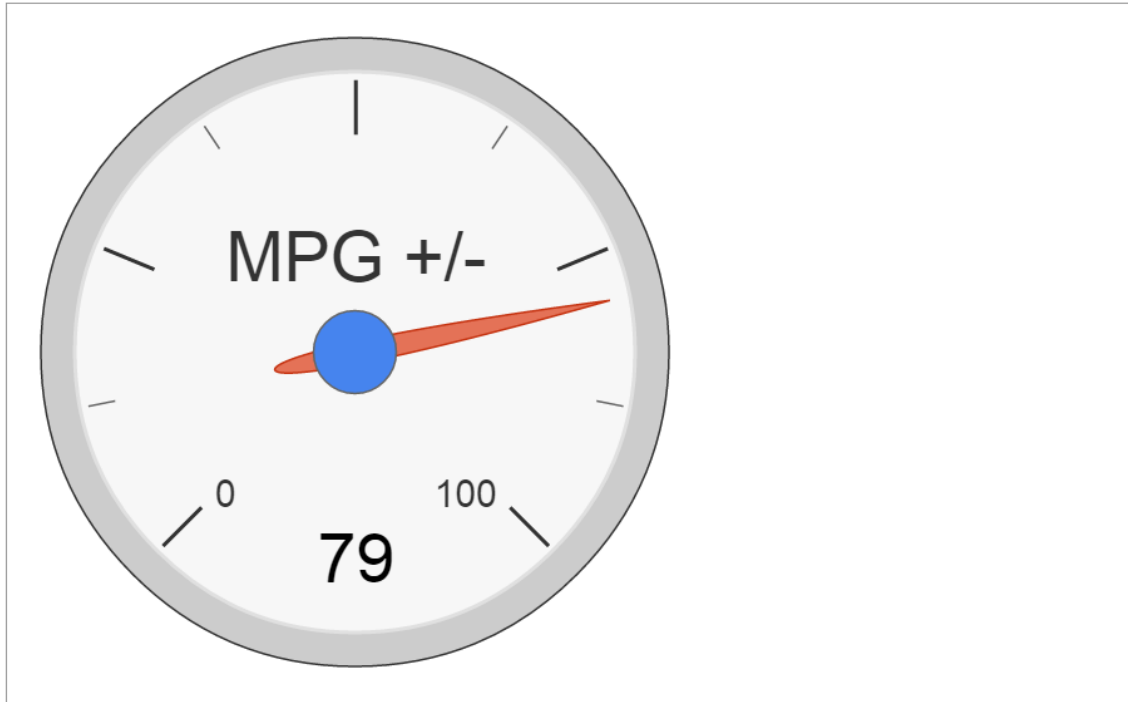
Distance travelled by each vehicle



Vehicles with under 1000 miles recorded in 2014



Great MPG: PM Flooring



Department

PM Flooring Property

MPG

126.83

Baseline

70.8

Difference

56.03

% MPG

79%

More Great MPG: Dept

Rank	Department	MPG	Baseline	Difference	%	MPG +/-
1	PM Flooring Property	126.83	70.8	56.03	79%	79
2	Y S Windmill	59.43	35.4	24.03	68%	68
3	Y S Middleton	63.29	53.1	10.19	19%	19
4	Y S Bramley	79.98	70.8	9.18	13%	13
5	Potternewton ATC	25.97	26.4	-0.43	-2%	-2
6	Transport Services	24.18	24.6	-0.42	-2%	-2
6	Environmental Action	167.57	171.4	-3.83	-2%	-2
7	Transport Pool	149.82	162.3	-12.48	-8%	-8
7	Y S St Gregorys	48.64	53.1	-4.46	-8%	-8
8	Y S Reginald	31.23	35.4	-4.17	-12%	-12
9	Flood Risk Man	109.01	128.4	-19.39	-15%	-15
10	Highways PFI	104.56	128.4	-23.84	-19%	-19
11	Middleton	2188.89	2760.6	-571.71	-21%	-21
12	Env Action Team WNW	99.9	128.4	-28.5	-22%	-22
13	Passenger Services	1746.26	2275.1	-528.84	-23%	-23

The Bad

- No engine size provided
 - Clear need for driver education
 - Recording mileage
 - Meaningfully compare similar vehicles?
-

The Ugly

- Data quality is poor
 - Mixed measurements e.g. KM/Miles
 - Mixed columns e.g. Vehicle Reg and Fleet Number
 - Vehicle names don't match manufacturer's
 - Missing vehicles & missing fuel usage
-

Matching Vehicles: Poor Confidence

Facet / Filter [Undo / Redo](#) ³ Extensions: [Freebase](#) ▾

Refresh Reset All Remove All

Vehicle_Key: best candidate's score [change](#) [reset](#)

0.00 — 0.82

2868 rows Show as: **rows** records Show: **5** 10 25 50 rows « first < previous **1 - 10** next > last »

Type	Vehicle_Key	VehicleID
D	Jaguar XJL Portfolio V6 D <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Fiat Cargo XL 1.6 MultiJet 90 Comfort-Matic (0.258) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Volkswagen 3.2 V6 235 PS (0.255) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Volkswagen 3.2 V6 235 PS (0.255) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Create new topic Search for match	
	Toyota Toyota Prius <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Toyota Panel 1.6 1.2t 5 Manual (0.368) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Toyota Panel 1.6 1.2t 5 Manual (0.368) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Toyota Icon Double Cab (0.364) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Create new topic Search for match	
	N/A Plate Retention <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Land Rover Station Wagon (0.256) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Land Rover Station Wagon (0.256) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Land Rover Station Wagon (0.256) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Create new topic Search for match	
D	Ford Focus Edge <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Ford 1.0 EcoBoost (100PS) (0.27) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Ford Panel Van - 1.25 Petrol (0.211) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Ford Panel Van - 1.25 Petrol (0.211) <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Create new topic Search for match	
D	Ford Focus Edge <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Ford 1.0 EcoBoost (100PS) (0.27)	

Conclusion

- Great start!
 - Better data collection
 - Data cleansing needed
 - Additional information - engine size
 - Meaningful baseline needed
 - Look at research
 - Must be meaningful to the users
-