lyft vs Uber

How to help Lyft increase market share

-- BY Xufei Li

Background

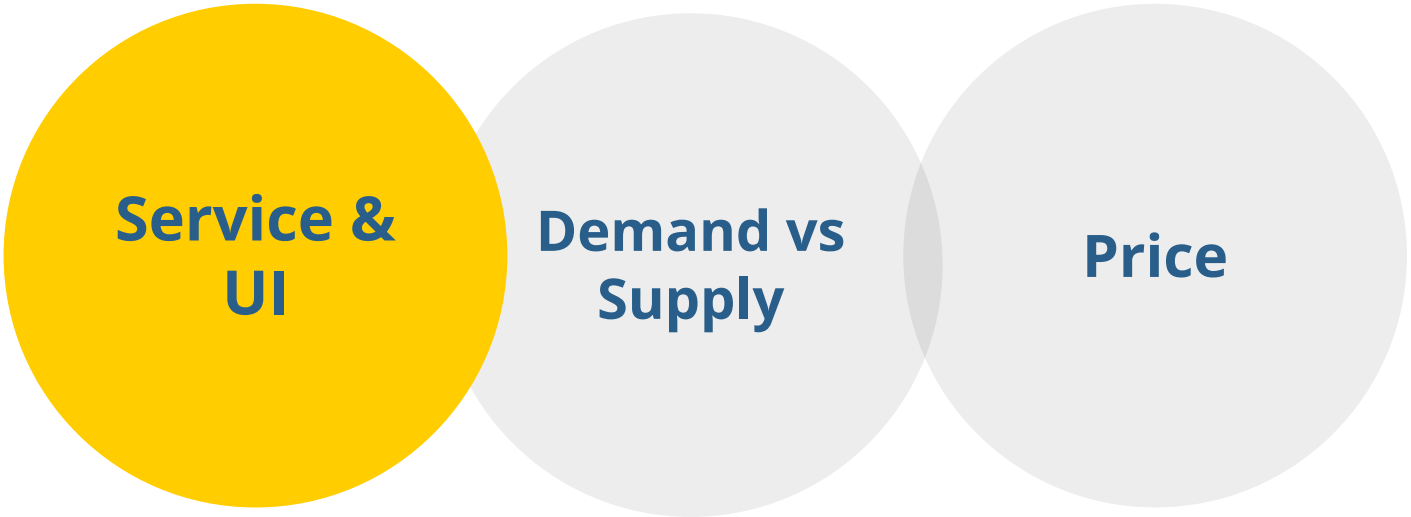
Uber owns 68% market share while Lyft owns 32%

Uber & Lyft overall comparison 2018(nationwide):

	Uber	Lyft	
US rideshare bookings	$22.39 billion **(67.46%)**	$8.97 billion **(32.32%)**	
Annual revenue	$9.29 billion	$2.16 billion	
Trips	5.2 billion	619.4 million	
Customer loyalty	63%(Uber only)	27%(Lyft only)	%10 in between

Data source:
https://backlinko.com/uber-users
https://backlinko.com/lyft-users#lyft-riders

Why does Uber have more market share than Lyft?

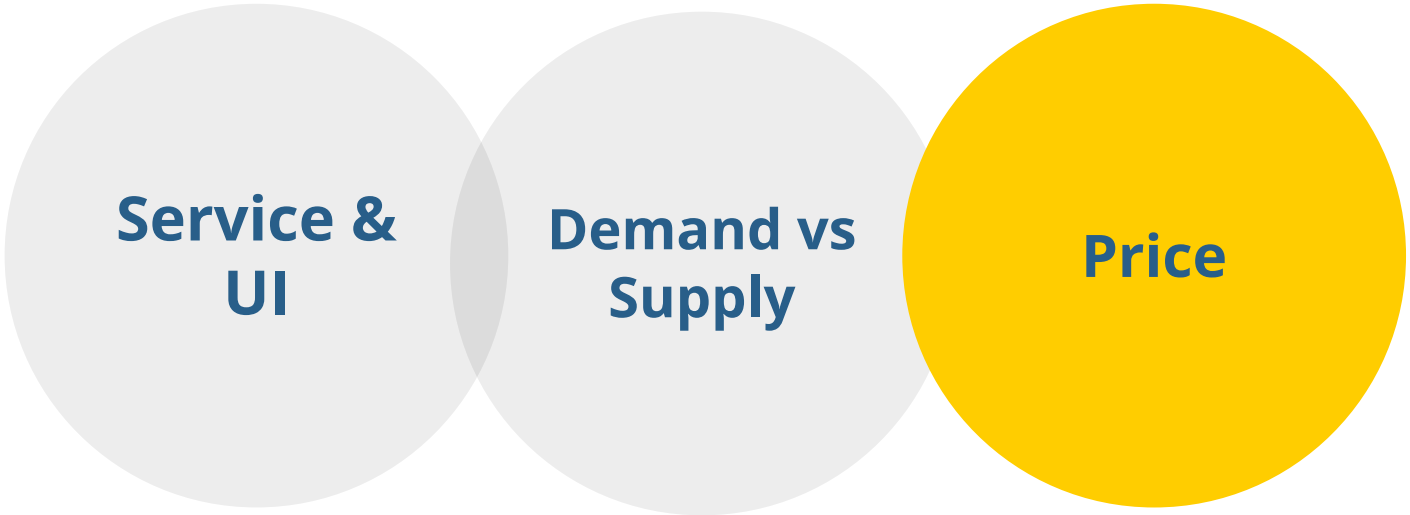


Improve Service & UI

Why does Uber have more market share than Lyft?

Increase driver amount

Why does Uber have more market share than Lyft?



Adjust multiplier

Scope & Design project

01

Business Impact

Help Lyft increase market share

02

DS Solution Path

- 2 regression model
- Identify if lyft overpriced

03

Impact Hypothesis

- Price difference (if overpriced)
- Adjust “surge-multiplier”
- Greater market share

04

Risk

Lower profit → Demotivated drivers

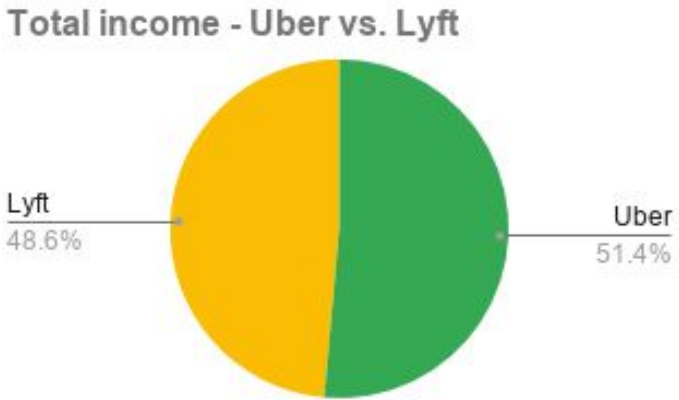
05

Cost

Not as much profit per ride → loss in revenue

Analysis in Excel

Data: Kaggle - Uber & Lyft Cab Price
11/26/2018(Monday) - 31,587 rows

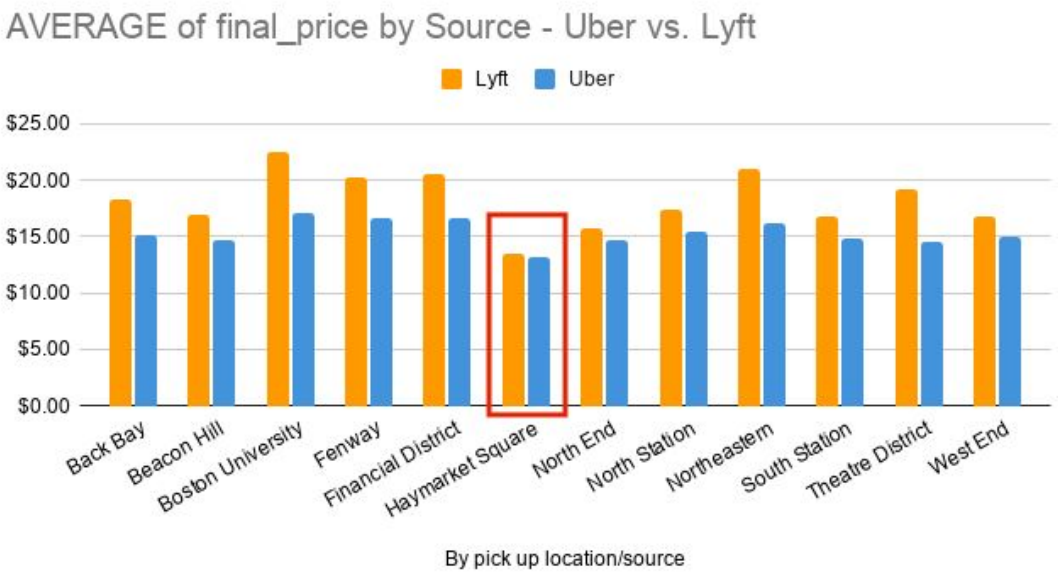


- Average final price: (DIFF: -$2.86)
  Uber $15.33 vs. Lyft $18.19
- Average distance: (DIFF: 0.021 mile)
  2.198 miles vs 2.177 miles
- Average Unit price: (DIFF: -$1.38/mile)
  Uber $6.97 vs Lyft $8.35

Analysis in Excel

Comparison by pick up location

Revenue diff > $3,000 (Uber - Lyft):
"Beacon Hill"
"Haymarket Square"
"South Station"
"West End"



"Haymarket Square"

Uber:
Counts: 1,451
Lyft:
Counts: 1,192

Analysis in Excel

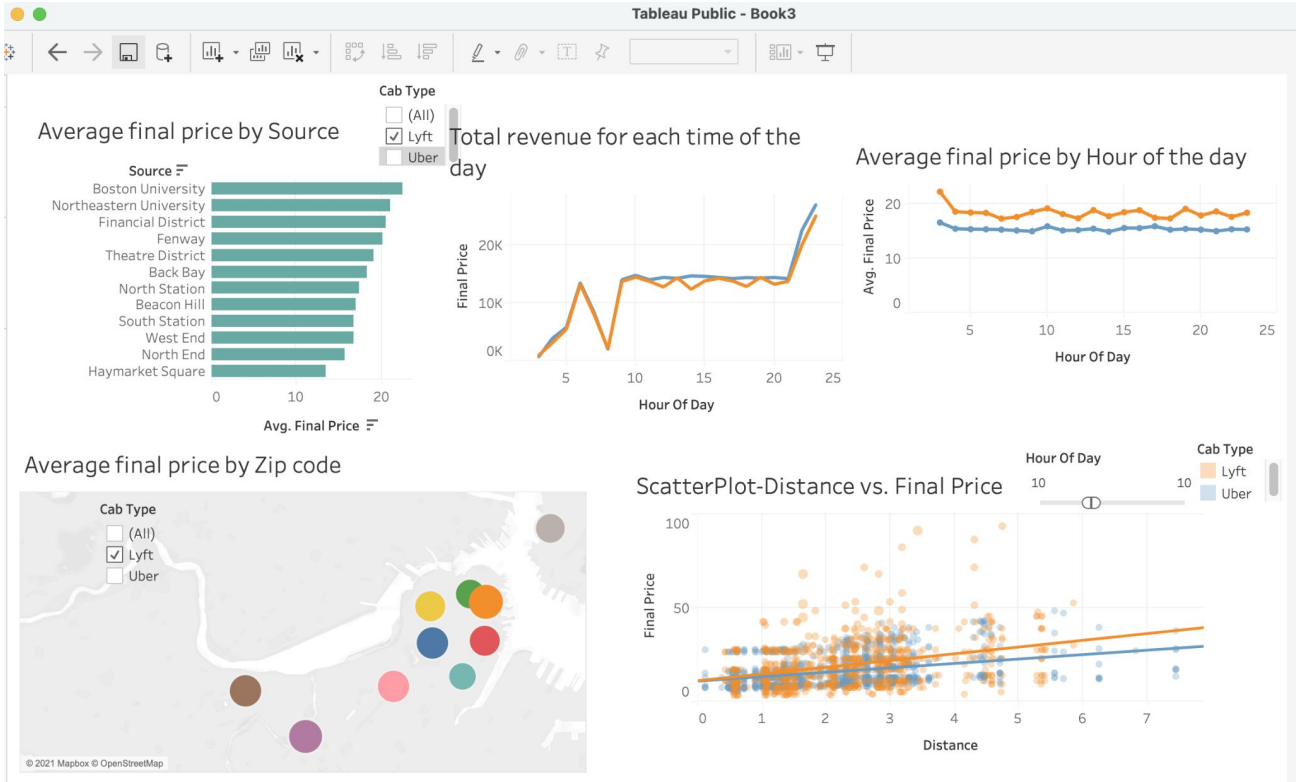
Comparison by time of the day

Revenue diff > $1,500:
12pm, 14 pm, 18pm, 22pm, 23pm

Analysis in Tableau

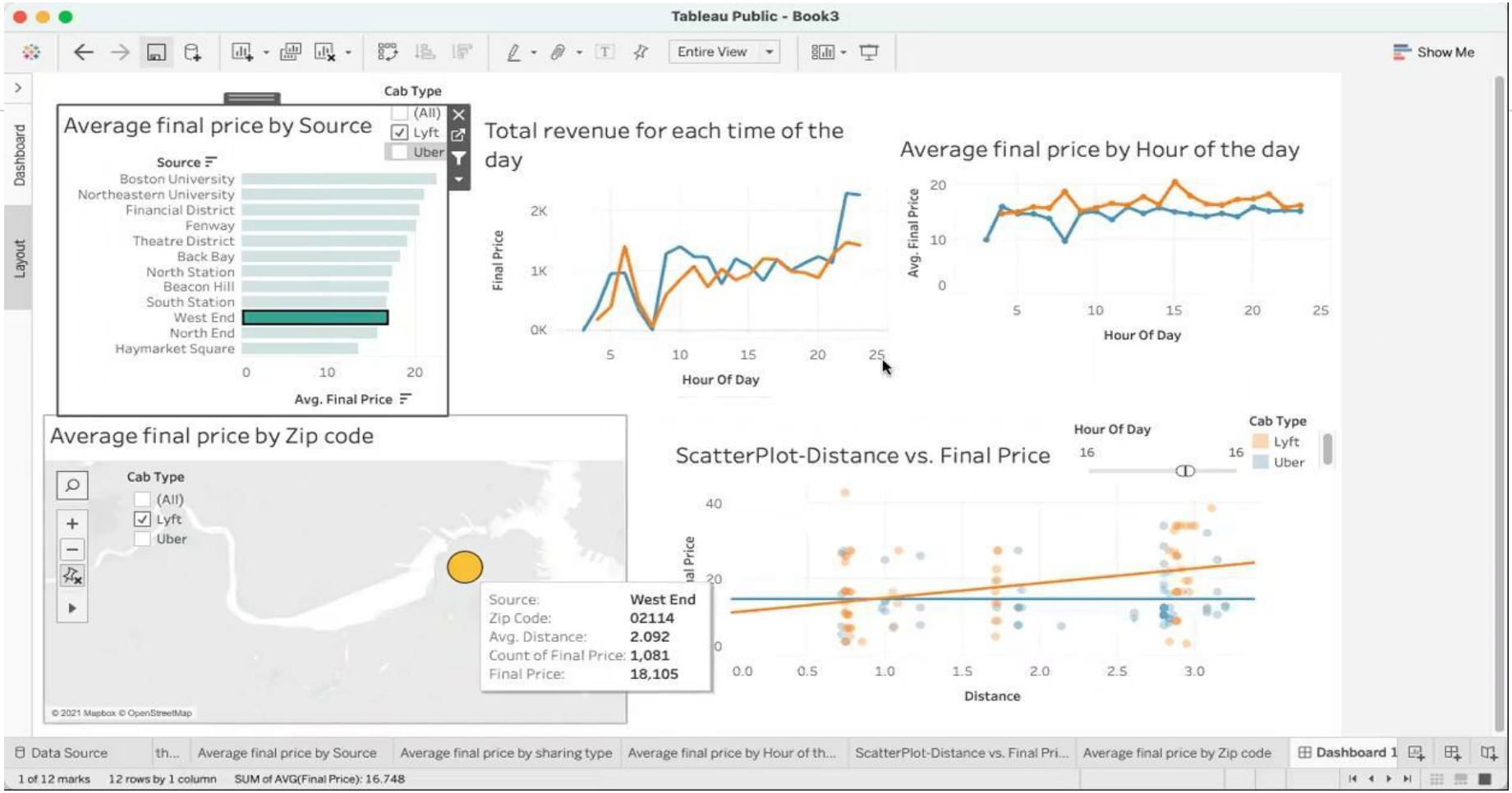
“Beacon Hill”
“Haymarket Square”
“South Station”
“West End”

Analysis in Tableau



Analysis in Tableau

Google Drive Link



Conclusion

- Price isn’t a key factor
- Encourage more drivers to work more at night for some locations
- Attracts new drivers to join

“

Future Work

We only used Monday's data, so for next step, I want to work on the entire dataset to find out if the same pattern happens everyday. If so, we can start to plan out how to bring in more drivers.

Appendix 1 - Assumptions

- **Assumption 1:**
  Lyft UI is good, almost no user complains about it. Demand & Price is main factor for the difference
- **Assumption 2:**

  We are assuming the Uber's missing values is "missing at random", price for Uber is right skewed, so I filled na with median of Uber's price
- **Assumption 3:**

  We are assuming there's no difference on distance between Uber & Lyft user for each locations

Appendix 2 - Pivot Table(by source)

Pivot Table - Comparison by pick up location									
	cab_type	*Values*							
	Lyft			Uber					
source	AVERAGE of final_price	COUNTA of final_price	SUM of final_price	AVERAGE of final_price	COUNTA of final	SUM of final_pri	AVG PRICE DIFF(Uber-Lyft)	COUNTS DIFF(Uber-Lyft)	SUM PRICE DIFF(Uber-Lyft)
Back Bay	$18.31	1,229	$22,503	$15.15	1515	$22,959	-$3.16	286	$455
Beacon Hill	$16.95	1,105	$18,729	$14.72	1496	$22,022	-$2.23	391	$3,293
Boston University	$22.56	991	$22,353	$17.06	1407	$24,007	-$5.49	416	$1,654
Fenway	$20.17	1,143	$23,052	$16.61	1434	$23,819	-$3.56	291	$766
Financial District	$20.53	1,281	$26,302	$16.67	1458	$24,303	-$3.86	177	-$2,000
Haymarket Square	$13.45	1,192	$16,028	$13.22	1451	$19,177	-$0.23	259	$3,149
North End	$15.72	1,210	$19,021	$14.66	1425	$20,893	-$1.06	215	$1,872
North Station	$17.39	1,175	$20,432	$15.37	1424	$21,889	-$2.02	249	$1,457
Northeastern University	$21.02	1,171	$24,617	$16.19	1484	$24,025	-$4.83	313	-$593
South Station	$16.75	1,203	$20,149	$14.86	1577	$23,438	-$1.89	374	$3,289
Theatre District	$19.15	1,219	$23,349	$14.51	1443	$20,945	-$4.64	224	-$2,404
West End	$16.75	1,081	$18,105	$14.97	1473	$22,049	-$1.78	392	$3,945

Appendix 3 - Pivot Table(by time)

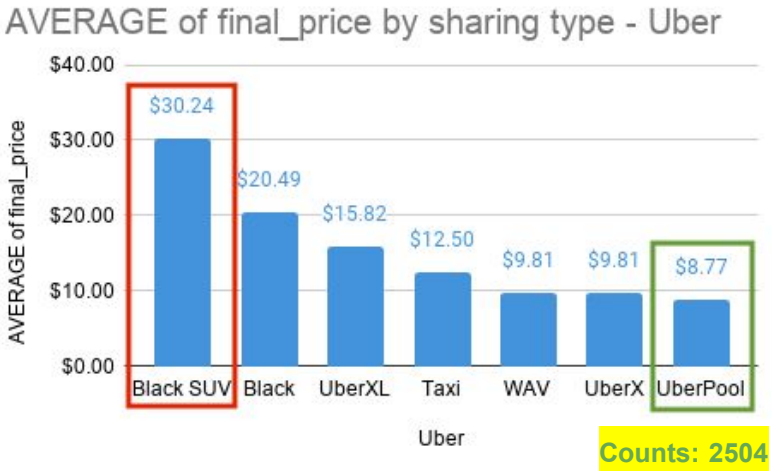
Pivot Table - Comparison by time of the day

	cab_type	Values							
	Lyft			Uber					
hour_of_day	AVERAGE of final_price	COUNTA of final_price	SUM of final_price	AVERAGE of final_price	COUNTA of final	SUM of final_pri	AVGPRICE DIFF(Uber-Lyft)	COUNT DIFF(Uber-Lyft)	SUM PRICE DIFF(Uber-Lyft)
3	$22.21	43	$955	$16.56	41	$679	-$5.65	-2	-$276
4	$18.56	168	$3,117	$15.43	252	$3,889	-$3.12	84	$771
5	$18.39	296	$5,444	$15.34	376	$5,768	-$3.05	80	$323
6	$18.33	719	$13,180	$15.33	877	$13,442	-$3.00	158	$262
7	$17.28	461	$7,966	$15.26	547	$8,346	-$2.02	86	$380
8	$17.58	121	$2,127	$15.11	131	$1,979	-$2.47	10	-$148
9	$18.50	738	$13,650	$14.97	933	$13,969	-$3.52	195	$319
10	$19.14	753	$14,416	$15.88	927	$14,717	-$3.27	174	$301
11	$18.11	756	$13,688	$15.11	924	$13,958	-$3.00	168	$270
12	$17.33	734	$12,719	$15.18	946	$14,358	-$2.15	212	$1,638
13	$18.84	759	$14,298	$15.43	921	$14,210	-$3.41	162	-$88
14	$17.71	697	$12,342	$14.88	983	$14,626	-$2.83	286	$2,284
15	$18.46	746	$13,768	$15.57	934	$14,540	-$2.89	188	$771
16	$18.81	756	$14,219	$15.54	924	$14,364	-$3.26	168	$144
17	$17.44	788	$13,743	$15.89	892	$14,171	-$1.55	104	$428
18	$17.31	740	$12,807	$15.24	940	$14,329	-$2.06	200	$1,522
19	$19.07	754	$14,378	$15.40	926	$14,258	-$3.67	172	-$120
20	$17.86	739	$13,198	$15.25	941	$14,352	-$2.61	202	$1,154
21	$18.59	736	$13,681	$14.99	944	$14,151	-$3.60	208	$471
22	$17.60	1,135	$19,974	$15.33	1469	$22,524	-$2.27	334	$2,550
23	$18.35	1,361	$24,974	$15.29	1759	$26,899	-$3.06	398	$1,925

Appendix 4 -Analysis in Excel

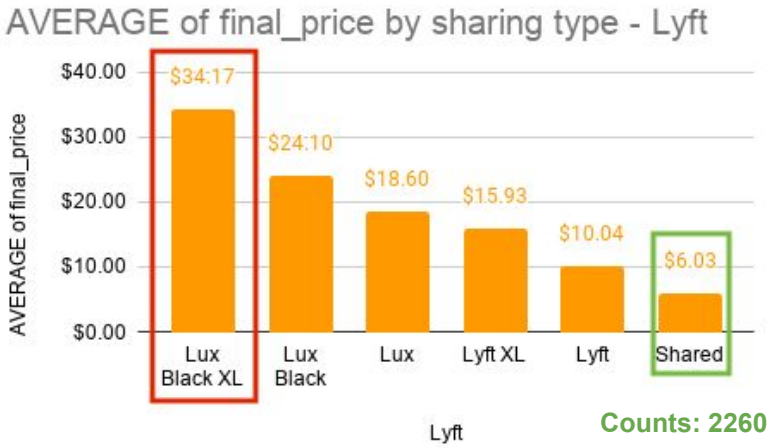
By cab_type & sharing_type:

- Lyft's most expensive sharing type is about $4 more than Uber's most expensive type, Lyft Black XL has fewer rides, but around $4,500 more in revenue.
- Lyft's cheapest sharing type is $2.7 cheaper, UberPool has more rides and around $8,000 more in revenue.



Counts: 2504

Counts: 2487



Counts: 2260

Counts: 2337

Appendix 5 -Learnings From Tableau

Beacon Hill

Lyft may need more drivers between 16:00 to midnight

(16:00 - Uber **102** rides, Lyft **39** rides)

Haymarket Square

Lyft may need more drivers 14:00, 17:00, 19:00, 22:00

(22:00 - Uber **163** rides, Lyft **97** rides)

Lyft may need more drivers around 14:00, 18:00, 22:00

(14:00 - Uber **104** rides, Lyft **63** rides)

South Station

Lyft may need more drivers around 9:00-12:00, 22:00(22:00 - Uber **149** rides, Lyft **93** rides)

West End

Appendix 6 - Lyft Driver Stats

- The vast majority of Lyft drivers (95%) drive for less than 20 hours per week.
- 96% of Lyft drivers work or study alongside their job as a driver.
- 15% of Lyft drivers are business owners. A further 12% are students.
- More than half of Lyft drivers (51%) also use other ride sharing platforms. 38% work on delivery platforms.

Source: Lyft.