Life in New York City as Told by Taxis

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Introduction

Introduction

What is it like to live in New York City? Often one turns to social media data:

- Blog Posts
- Facebook
- Twitter
- Yelp

Obtain an alternative perspective by considering data on taxi pickups and dropoffs from 2015.



Each data point from the TLC contains the following information

pickup_datetime	dropoff_datetime	passengers	distance	pickup_longitude	pickup_latitude	dropoff_longitude	dropoff_latitude	tip_amount
2015-01-15 19:05:39	2015-01-15 19:23:42	1	1.59	-73.993896	40.750111	-73.974785	40.750618	3.25
2015-01-10 20:33:38	2015-01-10 20:53:28	1	3.30	-74.001648	40.724243	-73.994415	40.759109	2.00
2015-01-10 20:33:38	2015-01-10 20:43:41	1	1.80	-73.963341	40.802788	-73.951820	40.824413	0.00
2015-01-10 20:33:39	2015-01-10 20:35:31	1	0.50	-74.009087	40.713818	-74.004326	40.719986	0.00
2015-01-10 20:33:39	2015-01-10 20:52:58	1	3.00	-73.971176	40.762428	-74.004181	40.742653	0.00

A Snapshot of NYC

Plotting Pickups



Figure 1: All pickups from 2015

Getting Around New York City

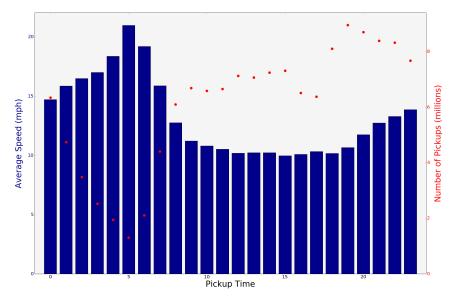


Figure 2 : Average speed and number of pickups based on time of day

Getting Around New York City

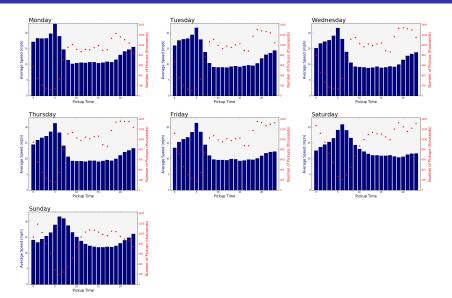


Figure 3 : Average speed and number of pickups split by weekday

Driving to/from the Airport

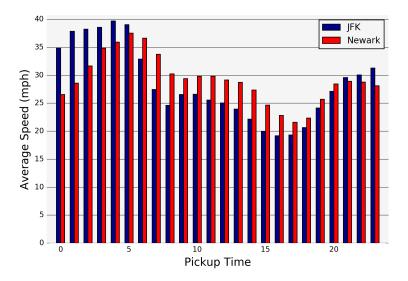


Figure 4 : Average speed to/from JFK and Newark

Driving to the Airport

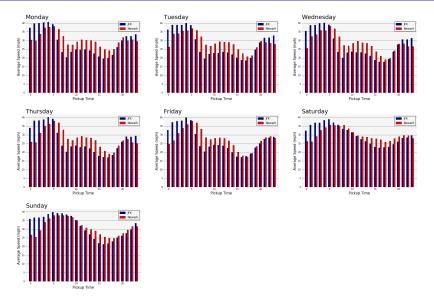


Figure 5: Average speed split by weekday

Trips To and From Airport

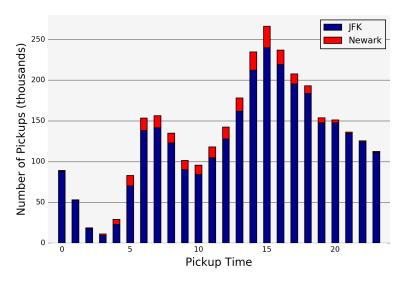


Figure 6: Number of trips to/from JFK and Newark

Trips to and From Airport

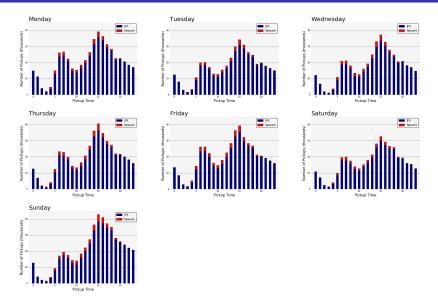


Figure 7: Number of trips split by weekday

What are New Yorkers Like?

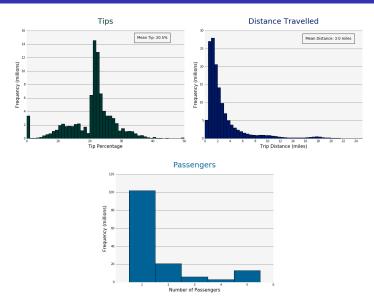


Figure 8 : Distribution of tips, distance travelled, and number of passengers

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Popularity of Restaurants and Nightlife Venues

Restaurants

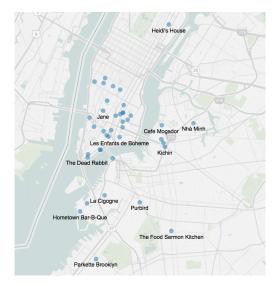


Figure 9: Top 40 Restaurants based on Yelp search

Restaurants

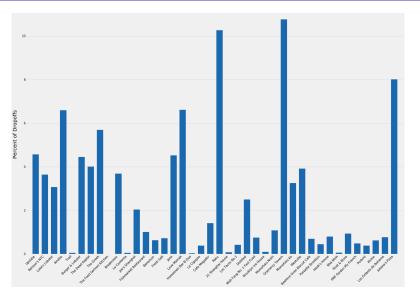


Figure 10 : Popularity of each restaurant based on number of dropoffs

Restaurants

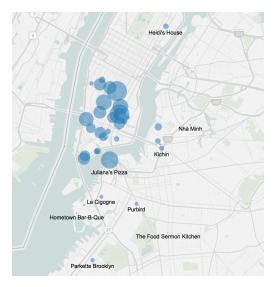


Figure 11: Size of circle indicates percent of dropoffs

New York Night Life

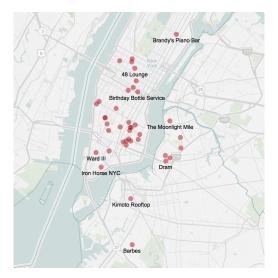


Figure 12 : Top 40 Nightlife locations based on Yelp rating

New York Night Life

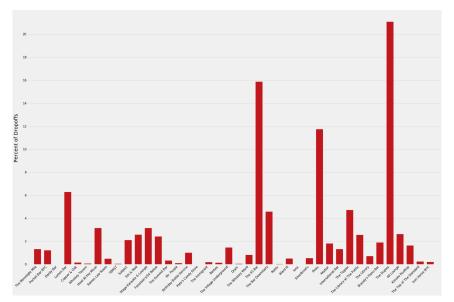


Figure 13: Popularity of each venue based on number of dropoffs

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New York Night Life

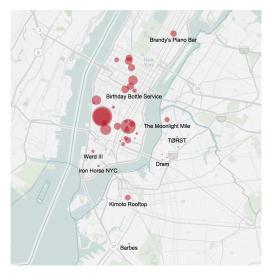


Figure 14: Size of circle indicates percent of dropoffs

Future Directions

Future Directions

- Examine correlations with other data sets
 - Weather
 - Crime rates
- A more sophisticated analysis of pickup and dropoff locations
 - Cluster locations and see which restaurants, tourist attracts etc. fall into popular areas.
 - Filter based on time of day and day of week.
 - Correlation between number of dropoffs in area and future success of business
- Examine all six years worth of data to see trends over time