



Chicago Taxi Trips Analysis

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Agenda

01. Introduction

We're the Data Analysis Team at Flash Cab, the overall #2 Taxi Service in Chicago since 2013.

03. Pickup and Dropoff Trends

A peek into the data we've gathered and analysed.

02. Taxi Industry Performance

The industry's overall revenue has been decreasing over the years but we're looking to turn that around.

04. How can taxi drivers earn more?

Utilising the data to help our drivers earn more and in turn generate more revenue for our organisation.

05. Conclusion

A summary of key points.



Introduction

Flash Cab has been the overall **#2** taxi service company from 2013 to 2021.

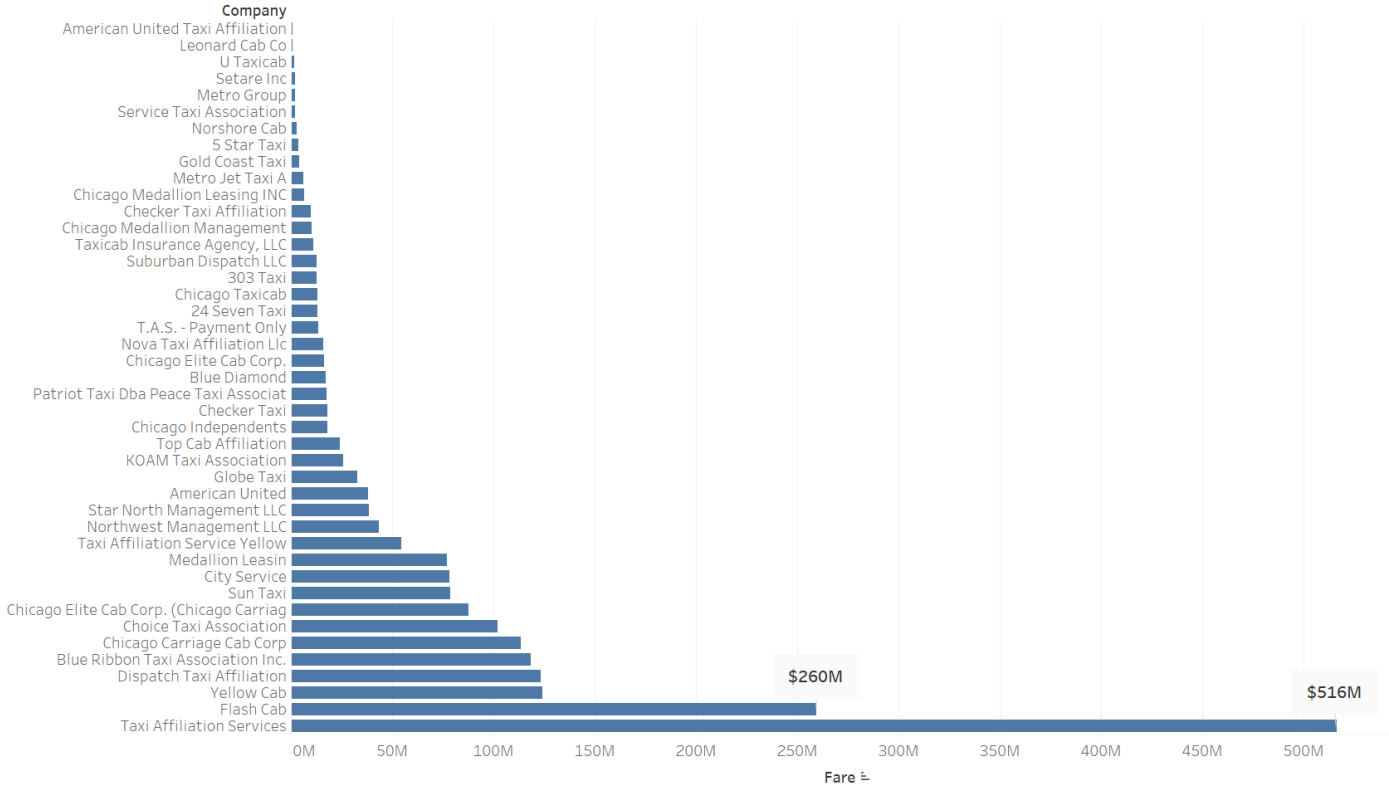
This year, we're on course to generate more revenue than our main competitor Taxi Affiliation Services for the first time, so we'll be analysing taxi trips data to see how we can maintain our course and seek ways to improve over time to become top dog in Chicago's taxi services industry.

The data that we're using for our analysis was obtained from BigQuery's public dataset `chicago_taxi_trips`.



Taxi Industry Performance (2013 – 2021)

Total Fare by Taxi Companies (2013-2021)



Sum of Fare for each Company. The data is filtered on count of taxi_trips, which includes values greater than or equal to 50,000. The view is filtered on Company, which keeps 170 members.

\$516M

Total fare for Taxi Affiliation Services

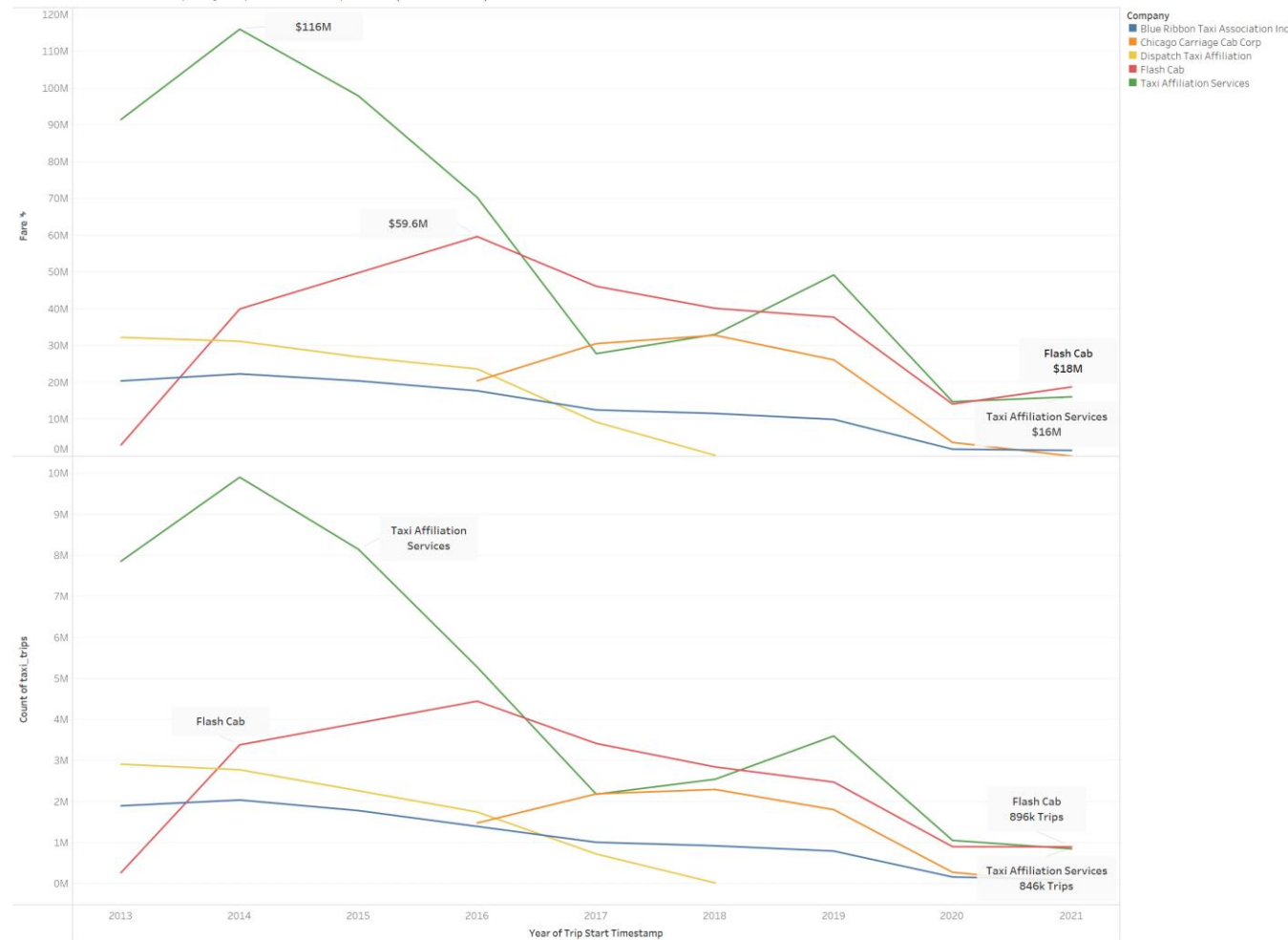
(Just under double!)

\$260M

Total fare for Flash Cab

Top 5 Taxi Companies' Performance (2013 – 2021)

Total Fare & No. of Trips by Top 5 Taxi Companies (2013-2021)



The trends of sum of Fare and count of taxi_trips for Trip Start Timestamp Year. Colour shows details about Company. The view is filtered on Company, which keeps Blue Ribbon Taxi Association Inc., Chicago Carriage Cab Corp, Dispatch Taxi Affiliation, Flash Cab and Taxi Affiliation Services.

\$116M

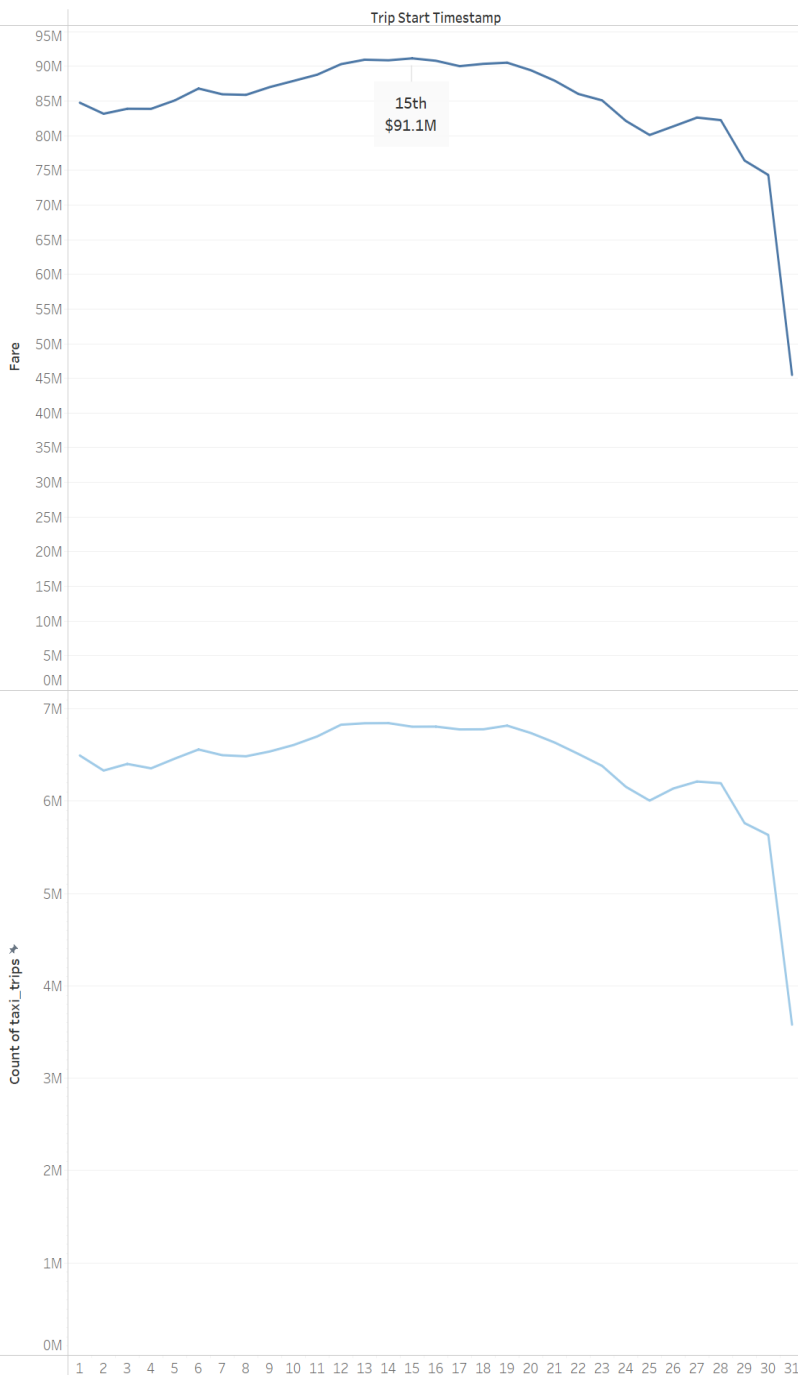
Highest annual total fare for Taxi Affiliation Services in 2014

\$59.6M

Highest annual total fare for Flash Cab in 2016

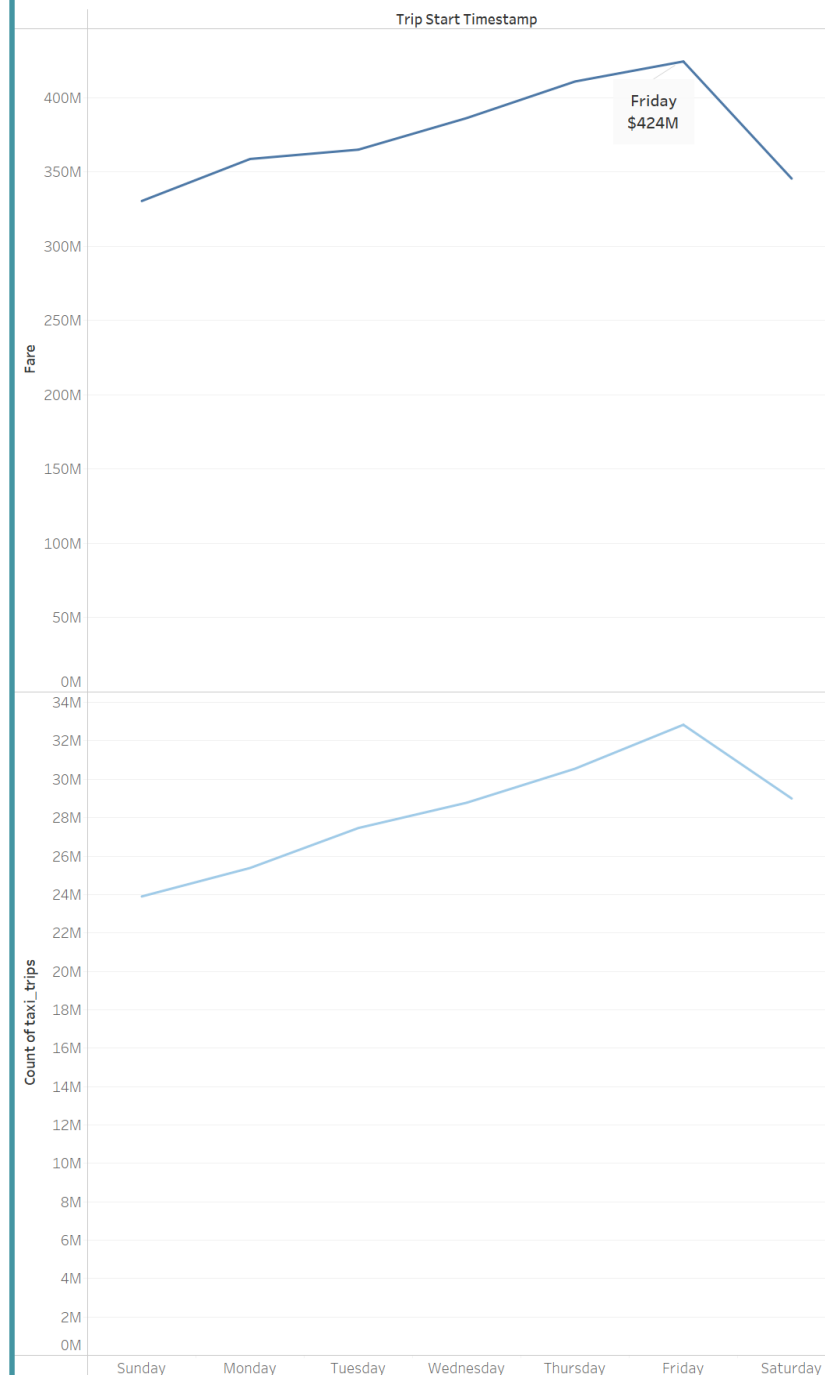
Flash Cab's **\$18M** currently higher than Taxi Affiliation Services' \$16M in 2021

Total Fare & No. of Trips throughout a Month



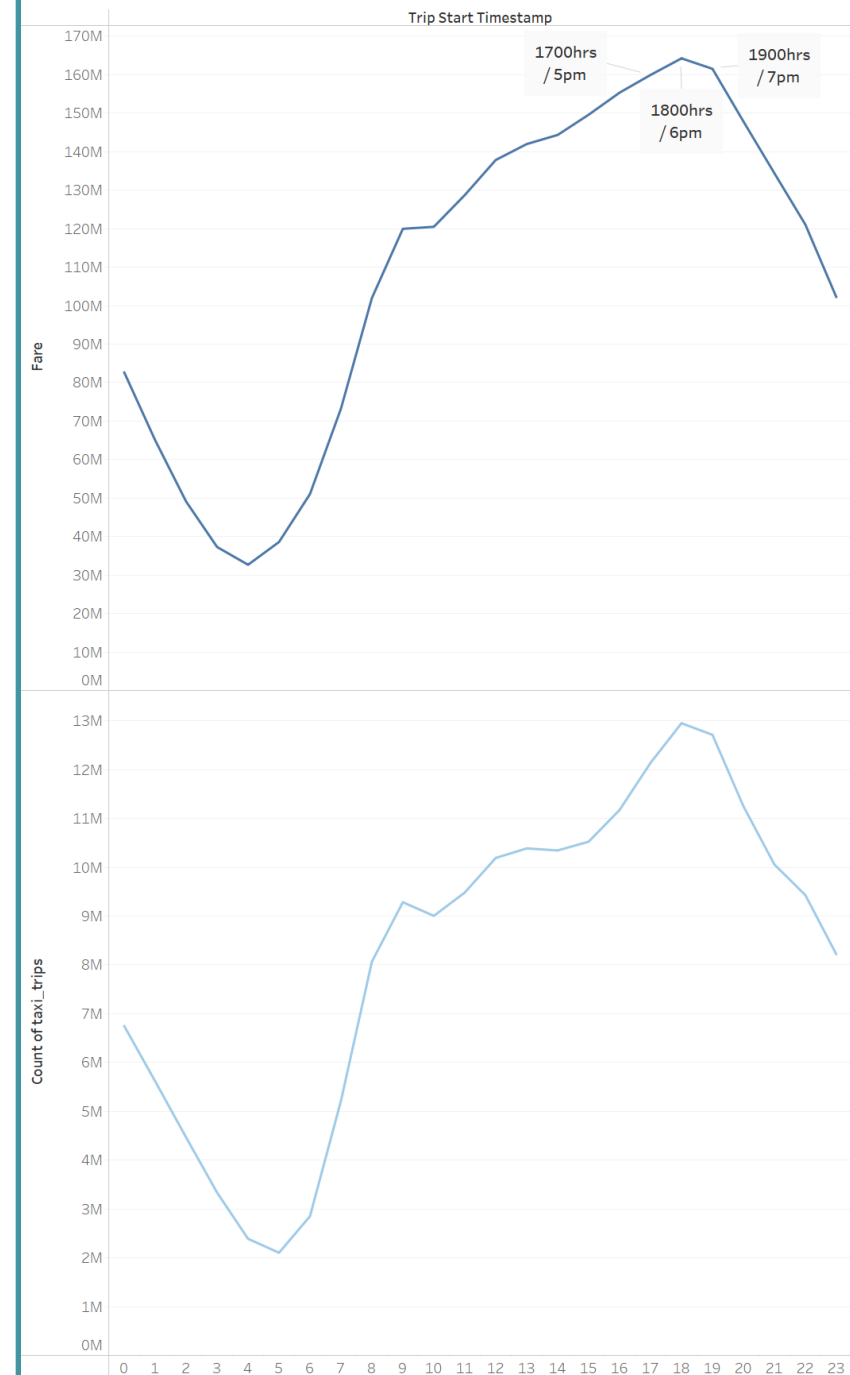
The trends of sum of Fare and count of taxi_trips for Trip Start Timestamp Day.

Total Fare & No. of Trips throughout a Week

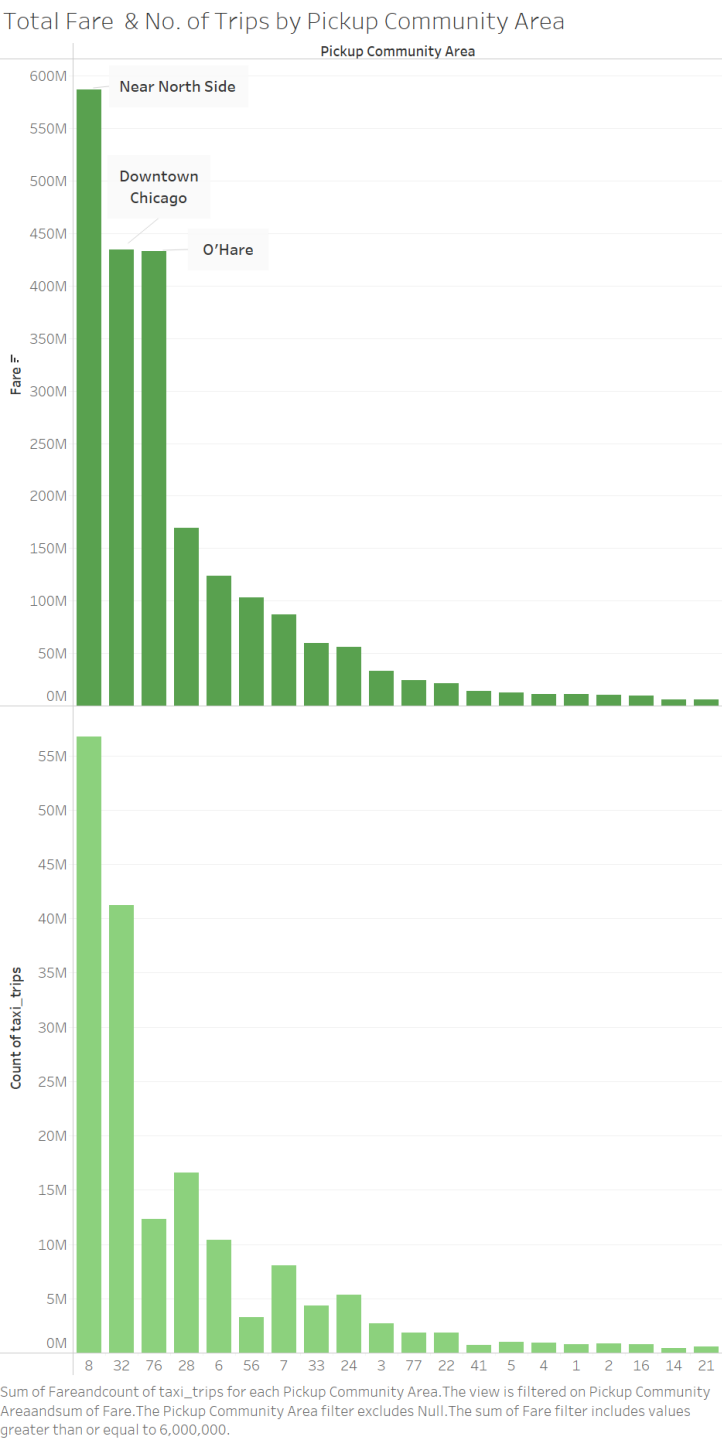


The trends of sum of Fare and count of taxi_trips for Trip Start Timestamp Weekday.

Total Fare & No. of Trips throughout a Day



The trends of sum of Fare and count of taxi_trips for Trip Start Timestamp Hour.

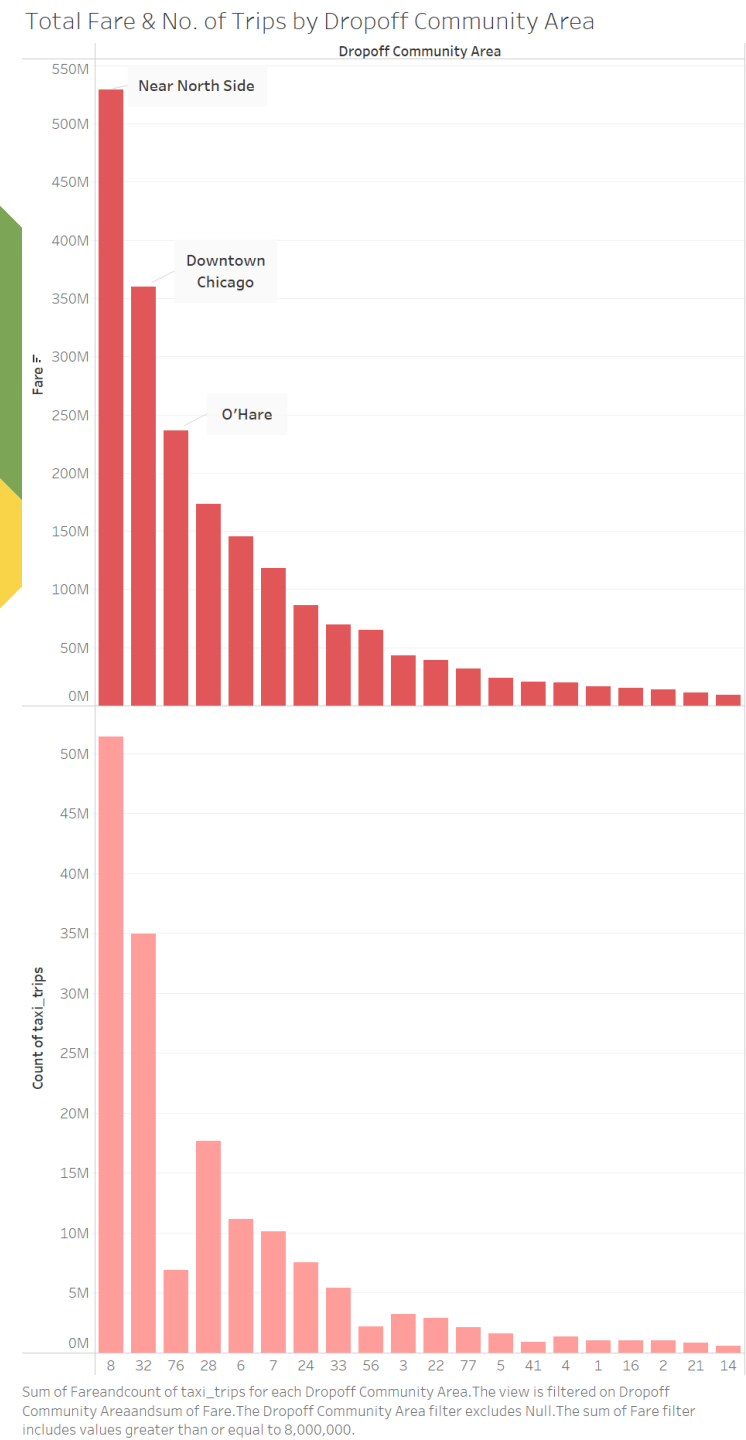


Highest Total Fare and Most Number of Trips:

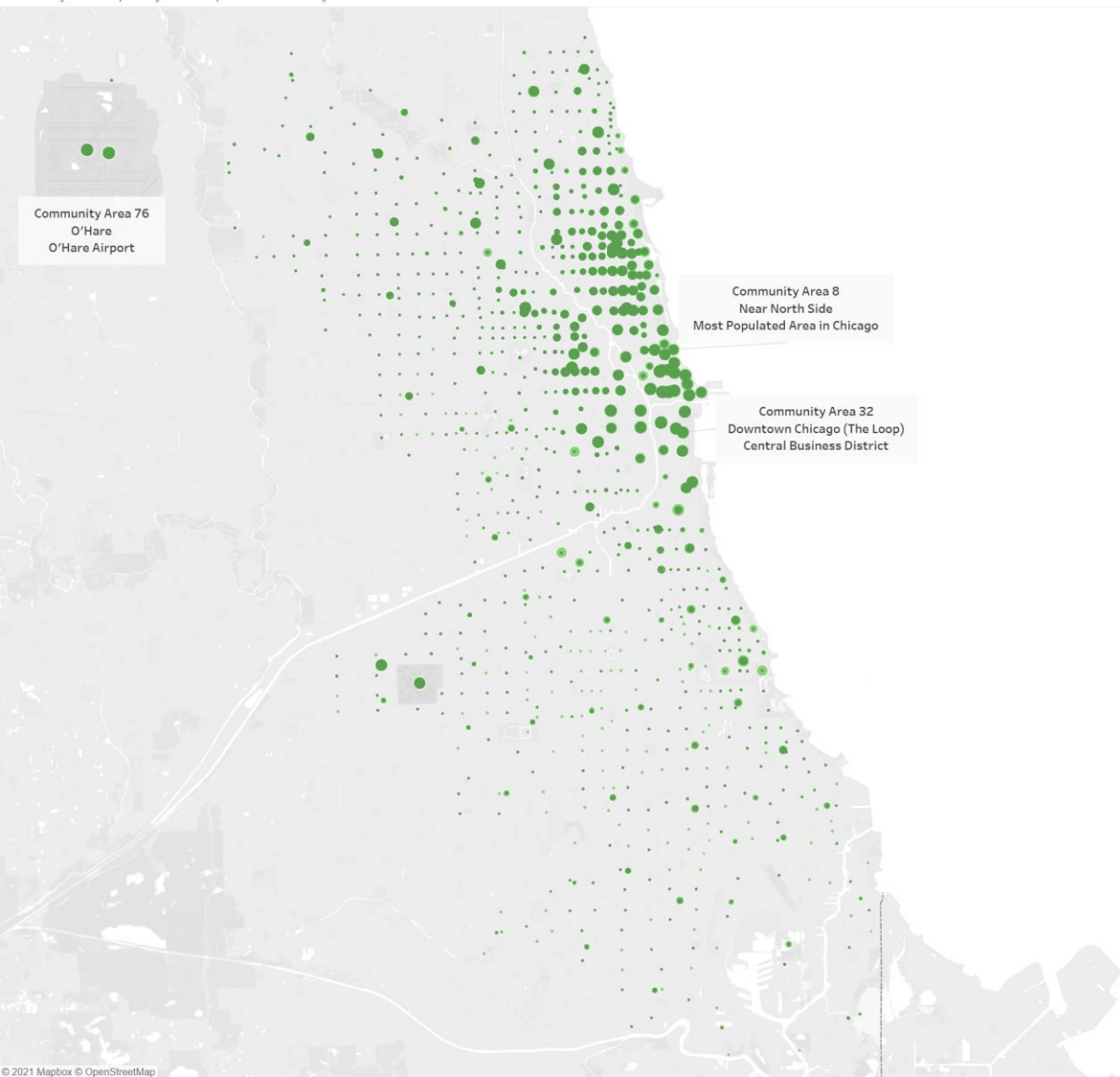
Chicago's **Most Populated Area**
Community Area 8: Near North Side

Chicago's Central **Business District**
Community Area 32: Downtown Chicago

O'Hare International **Airport**
Community Area 76: O'Hare

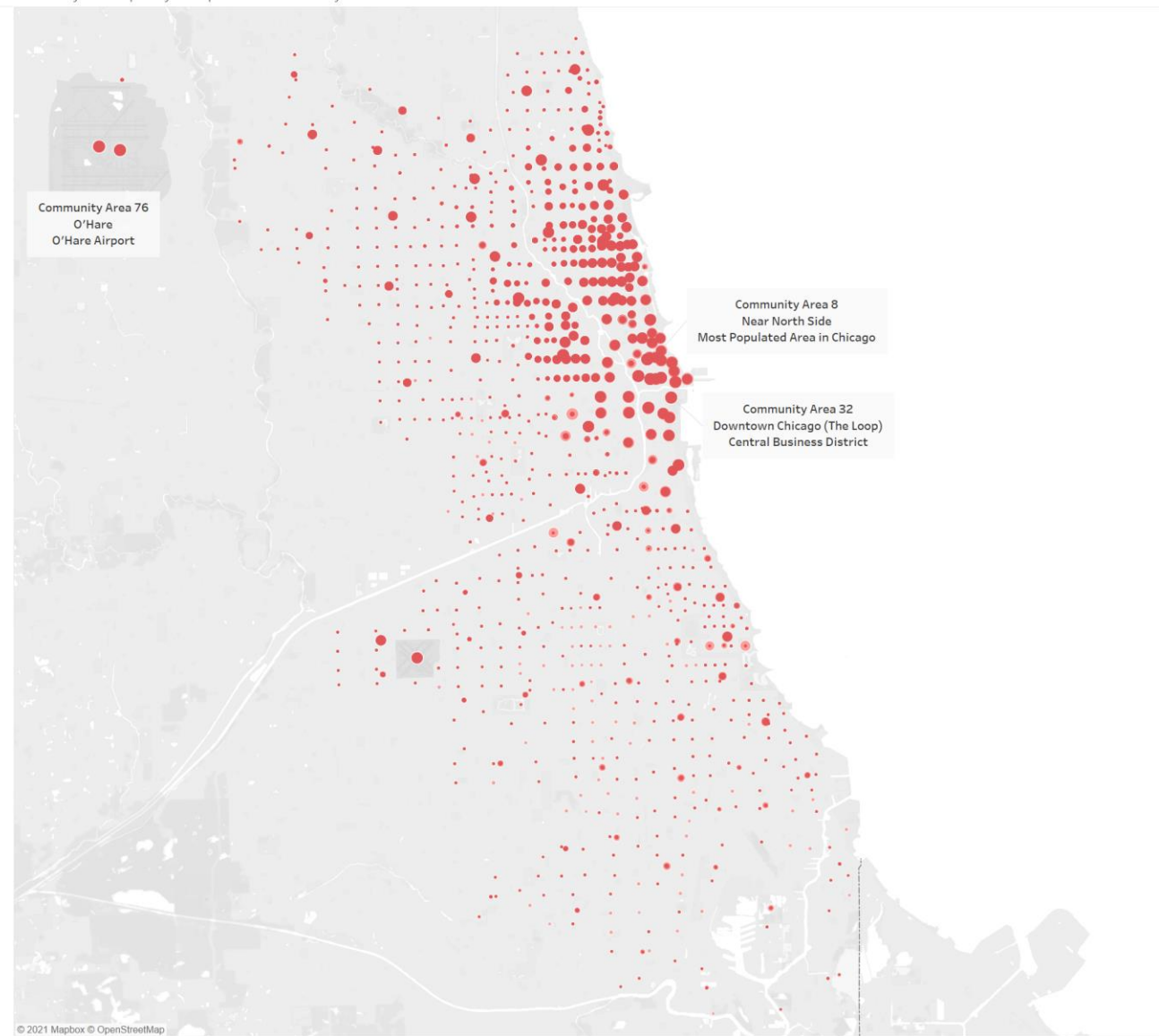


Density of Trips by Pickup Community Area



- Dark green spots indicate pickups between 7pm – 6am
- Light green spots indicate pickups between 7am – 6pm

Density of Trips by Dropoff Community Area

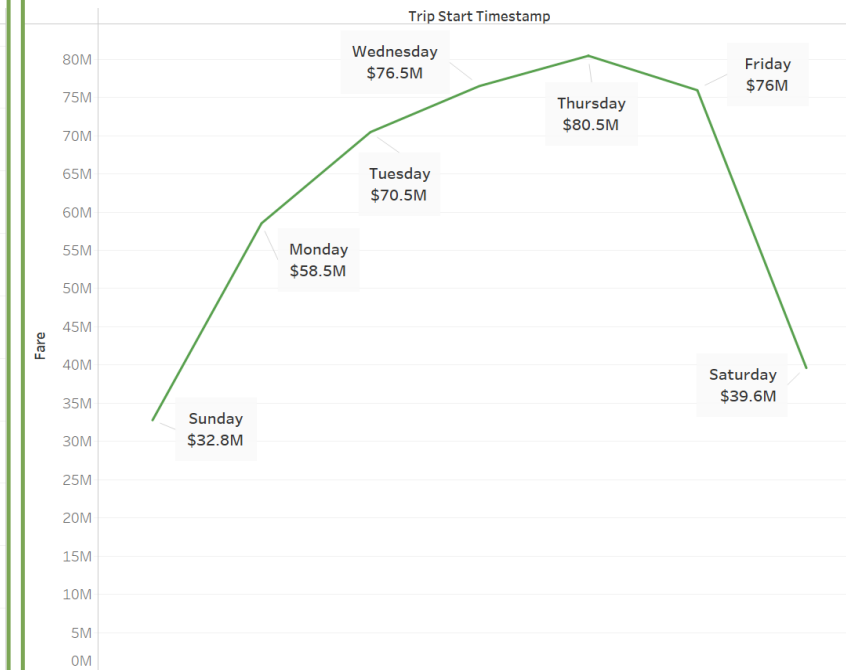


- Dark red spots indicate drop-offs between 7pm – 6am
- Light red spots indicate drop-offs between 7am – 6pm

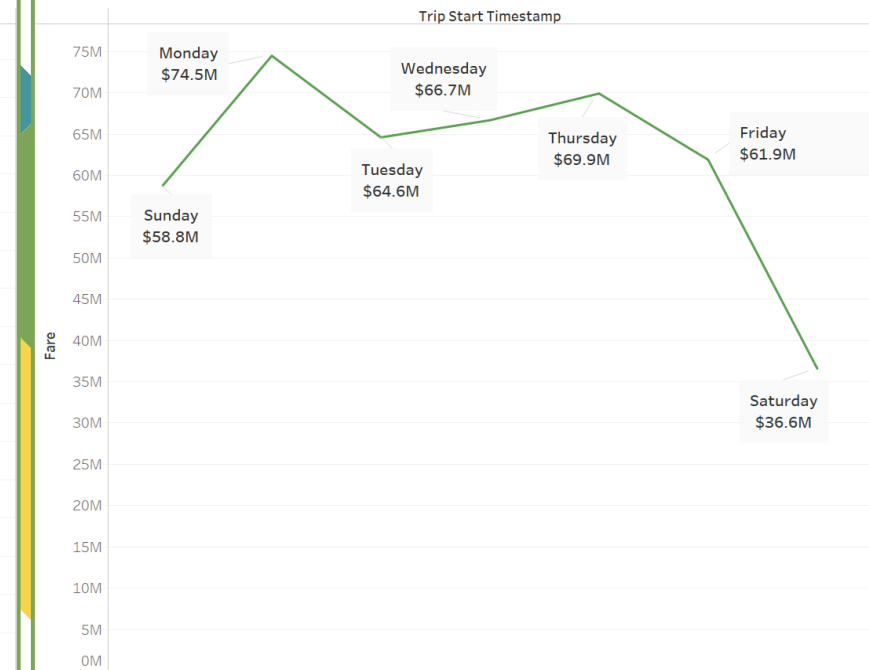
Best Pickup Days at Near North Side



Best Pickup Days at Downtown Chicago



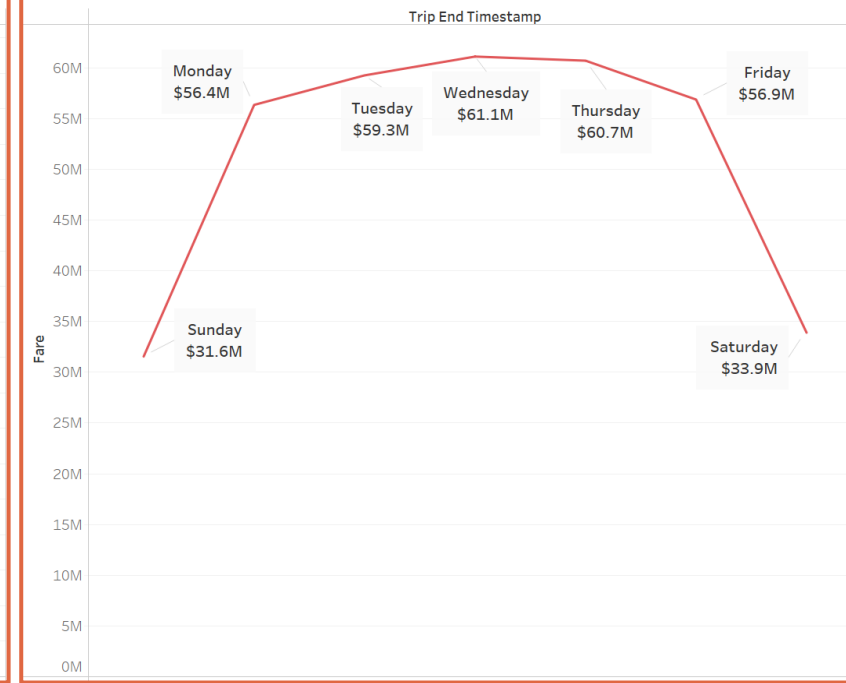
Best Pickup Days at O'Hare



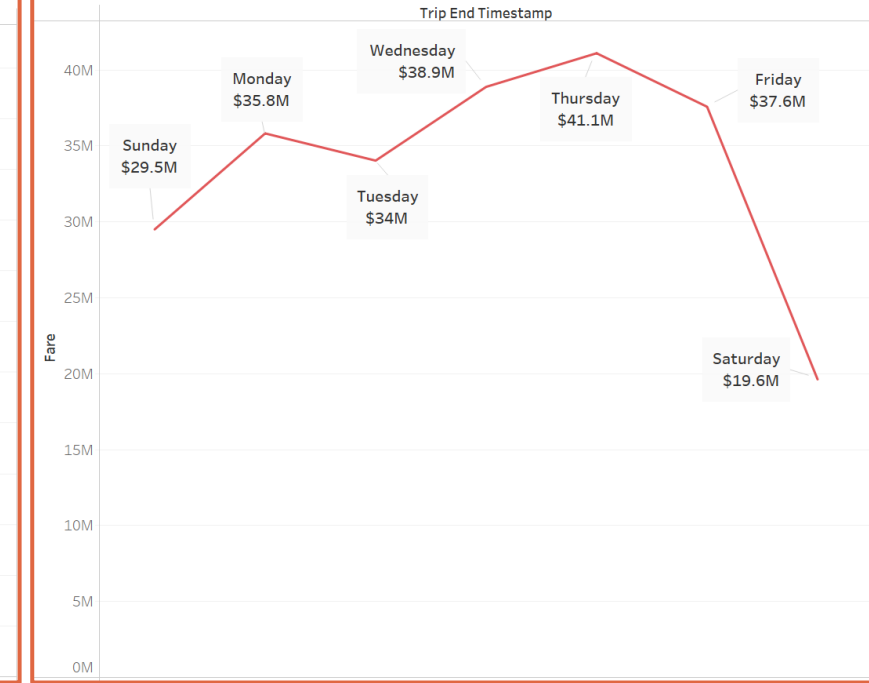
Best Dropoff Days at Near North Side



Best Dropoff Days at Downtown Chicago



Best Dropoff Days at O'Hare



Strategy & Observations

| | | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|------------------|---------|---------|---------|---------|-----------|----------|---------|----------|
| Near North Side | Pickup | \$80.2M | \$69.3M | \$75.5M | \$82.5M | \$88.6M | \$98.4M | \$92.4M |
| | Dropoff | \$63.3M | \$70.4M | \$73.9M | \$77.7M | \$81.3M | \$87.4M | \$75M |
| Downtown Chicago | Pickup | \$32.8M | \$58.5M | \$70.5M | \$76.5M | \$80.5M | \$76M | \$39.6M |
| | Dropoff | \$31.6M | \$56.4M | \$59.3M | \$61.1M | \$60.7M | \$56.9M | \$33.9M |
| O'Hare | Pickup | \$58.8M | \$74.5M | \$64.6M | \$66.7M | \$69.9M | \$61.9M | \$36.6M |
| | Dropoff | \$29.5M | \$35.8M | \$34M | \$38.9M | \$41.1M | \$37.6M | \$19.6M |

The table above is colour coded with the darker colours signifying higher priority locations and lighter colours signifying lower priority locations. (Green is for pickups, and red is for drop-offs.)

- Monday is a good day to hover around O'Hare since the Airport is there, and most arrivals would require a taxi, possibly to head to Near North Side (NNS) which is the most populated area in Chicago.
- Sunday and Tuesday to Saturday are historically good days to pick up passengers from the Near North Side. It also has the highest drop-offs, most probably from people working in Downtown (which has the second highest pick-up fares Tuesday to Friday) travelling back home to NNS.
- A good strategy for drivers would be to hit as many of the pickup – drop-off – pickup combinations. For example, pick up a passenger from Downtown on a Thursday, drop him off in NNS, and then pick up another passenger from there.
- By maximizing these combinations, the drivers can minimize their idle time and earn their fares in a more efficient manner, which in turn also benefits Flash Cab.

Conclusion



When's the ideal time to find passengers

Every month on the 15th, better still if it's a Friday, between 5pm – 7pm

Where's the best place to find passengers

Near North Side (most populated area in Chicago), and Downtown Chicago (Central Business District) are the best locations. O'Hare, due to the airport, would also be a good bet to find passengers.

How can we improve?

Through actively engaging our drivers with our data insights so that they can maximise their earnings which in turn would also benefit the organisation.

Pitfalls to avoid

We must further strategise the distribution of our drivers to avoid situations where most or all of them end up going to the same location(s) which would result in a surplus of taxis in comparison to passengers.



Thank you

