



MAXIMIZING TAXI EARNINGS THROUGH DATA-DRIVEN INSIGHTS

NYC TRIP ANALYSIS | CHRISTIAN | 21 MAY 2025

OVERVIEW

Problem Statement

The company lacks insights into when and where taxi operations are most profitable. There is also limited understanding of what factors most influence total earnings and tips. This hampers the ability to make informed operational, pricing, and staffing decisions

Goal

To uncover patterns in time, location, and trip characteristics that significantly impact total earnings and tips. This analysis aims to deliver actionable recommendations that can improve operational efficiency, optimize resource allocation, and enhance revenue.

TAXI SERVICE OPERATORS

responsible for managing fleets and maximizing revenue

CITY TRANSPORTATION MANAGERS

interested in traffic, congestion, and service efficiency

PRICING AND STRATEGY TEAMS

focused on optimizing fare structures and customer satisfaction

DATASET

68211 Rows
20 Columns
4334 Missing Values
174 Invalid Values
43 Outliers



Fare Breakdown

- fare_amount
- extra
- mta_tax
- tip_amount
- tolls_amount
- ehail_fee
- improvement_surcharge
- congestion_surcharge

Passenger & Distance

- passenger_count
- trip_distance

Payment Info

- payment_type

Trip Info

- VendorID
- lpep_pickup_datetime
- lpep_dropoff_datetime
- store_and_fwd_flag
- trip_type

Location Data

- PULocationID
- DOLocationID
- RatecodeID

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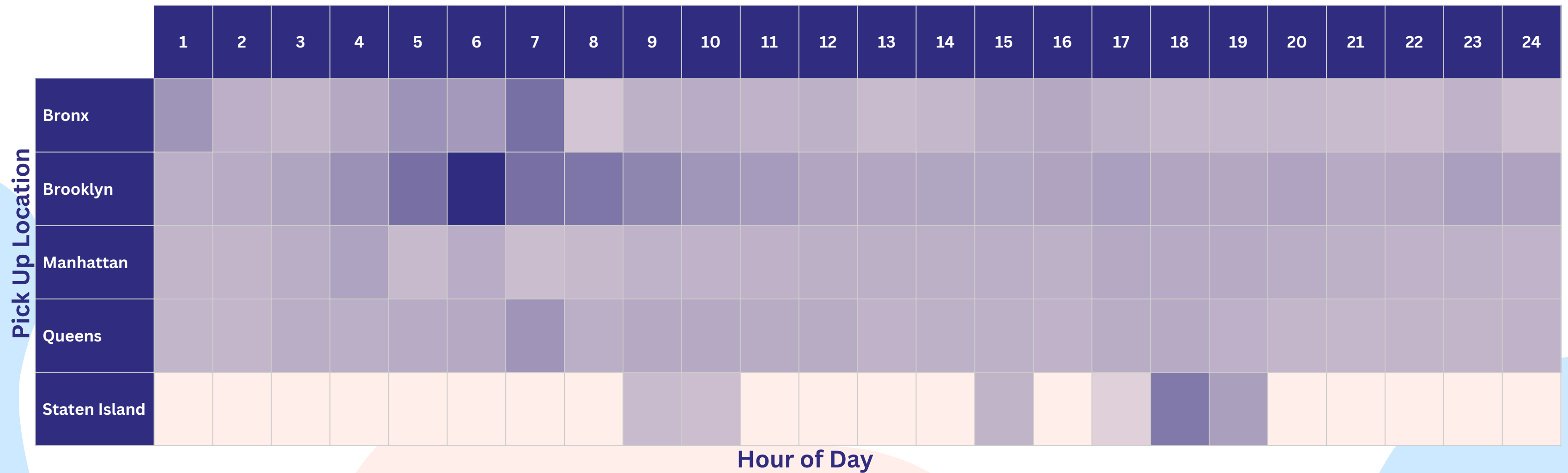
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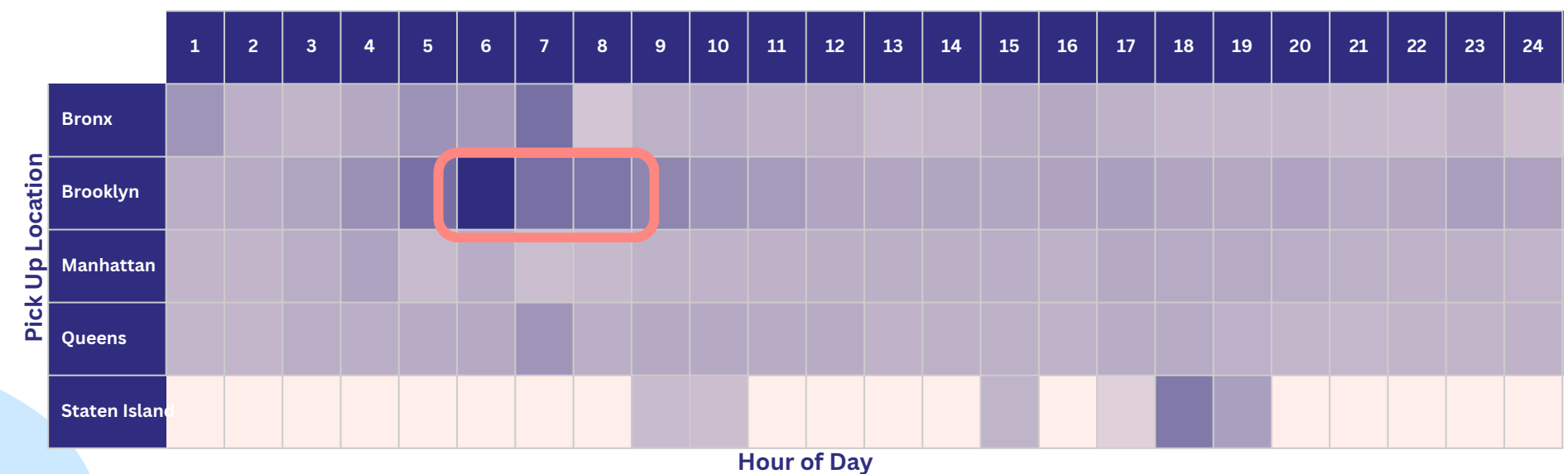
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CHASING THE GOLDEN HOURS



Average Earnings (Total ammount + Tip ammount) per Trip by Pickup Location and Hour

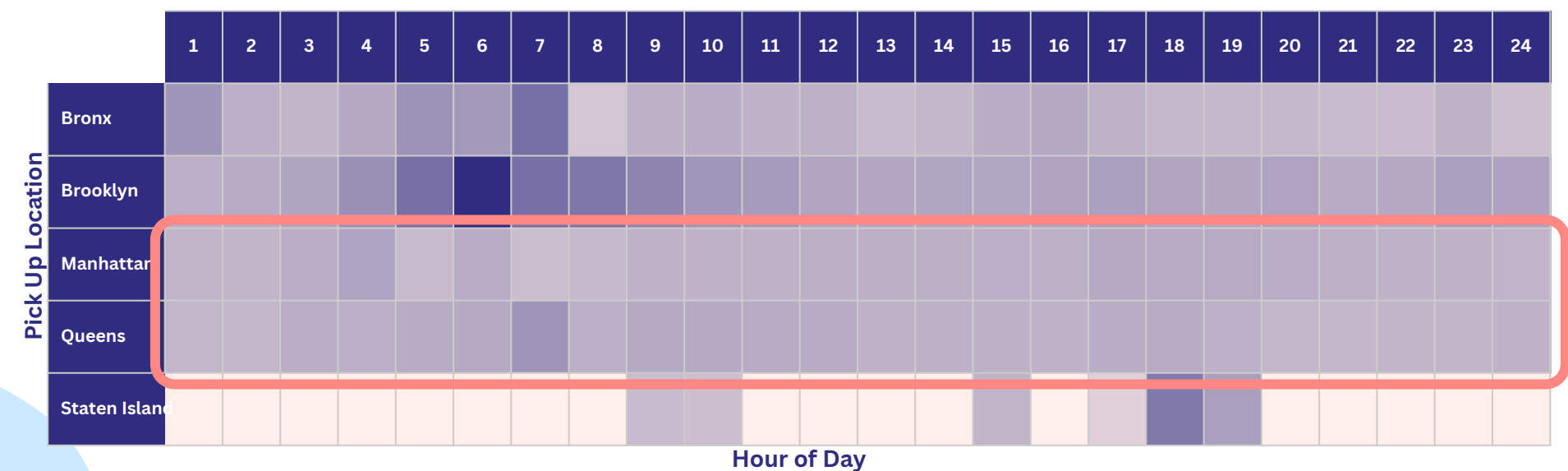
CHASING THE GOLDEN HOURS



Brooklyn delivers the highest earnings during morning hours (6–8 AM), supported by the longest average trip duration (21.68 mins)

Pickup Location	Avg. Earnings	Avg. Trip Distance	Avg. Duration	Count of Trips
Brooklyn	28.54	3.34	21.68	4397
Staten Island	26.14	3.48	15	8
Manhattan	23.33	2.51	17.20	27278
Queens	23.21	3.01	19.45	10673
Bronx	23.28	3.58	18.40	366

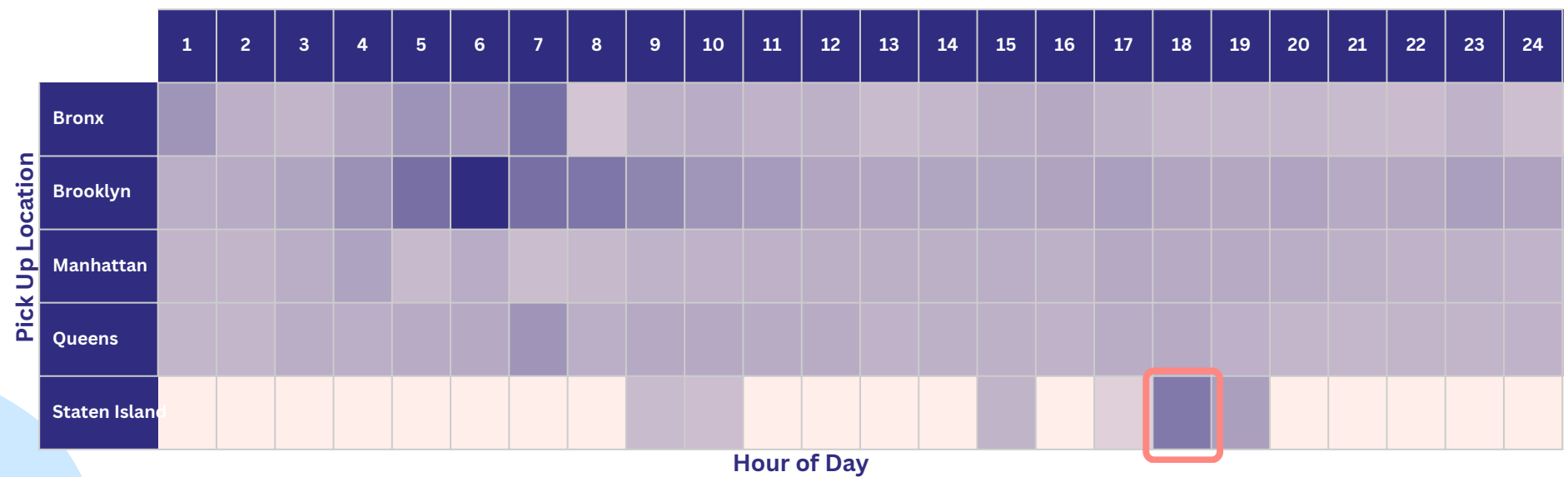
CHASING THE GOLDEN HOURS



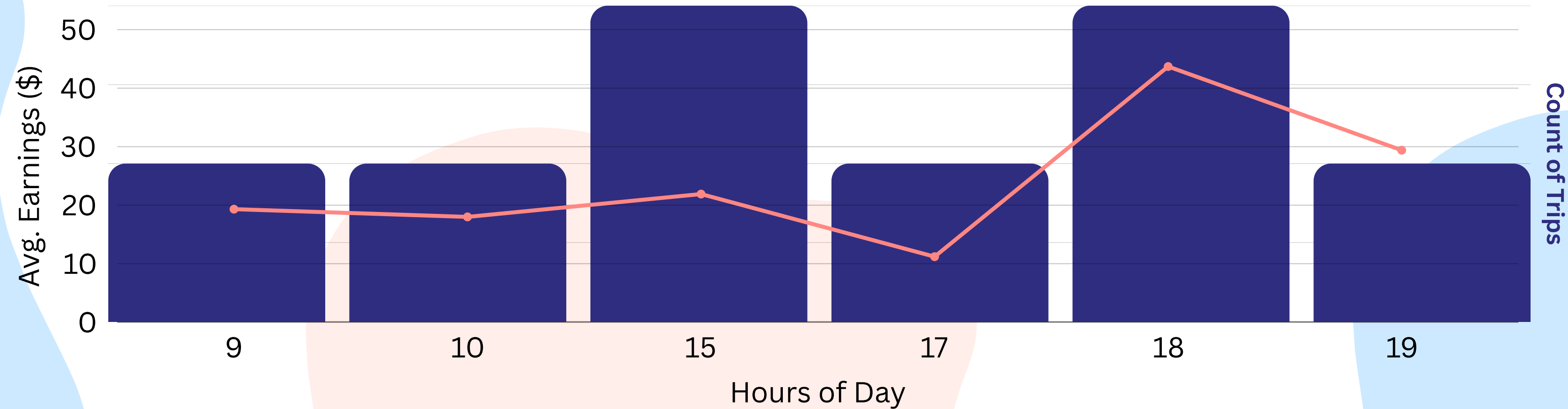
Manhattan and Queens are busy zones with high trip counts, but shorter rides mean lower earnings per trip.

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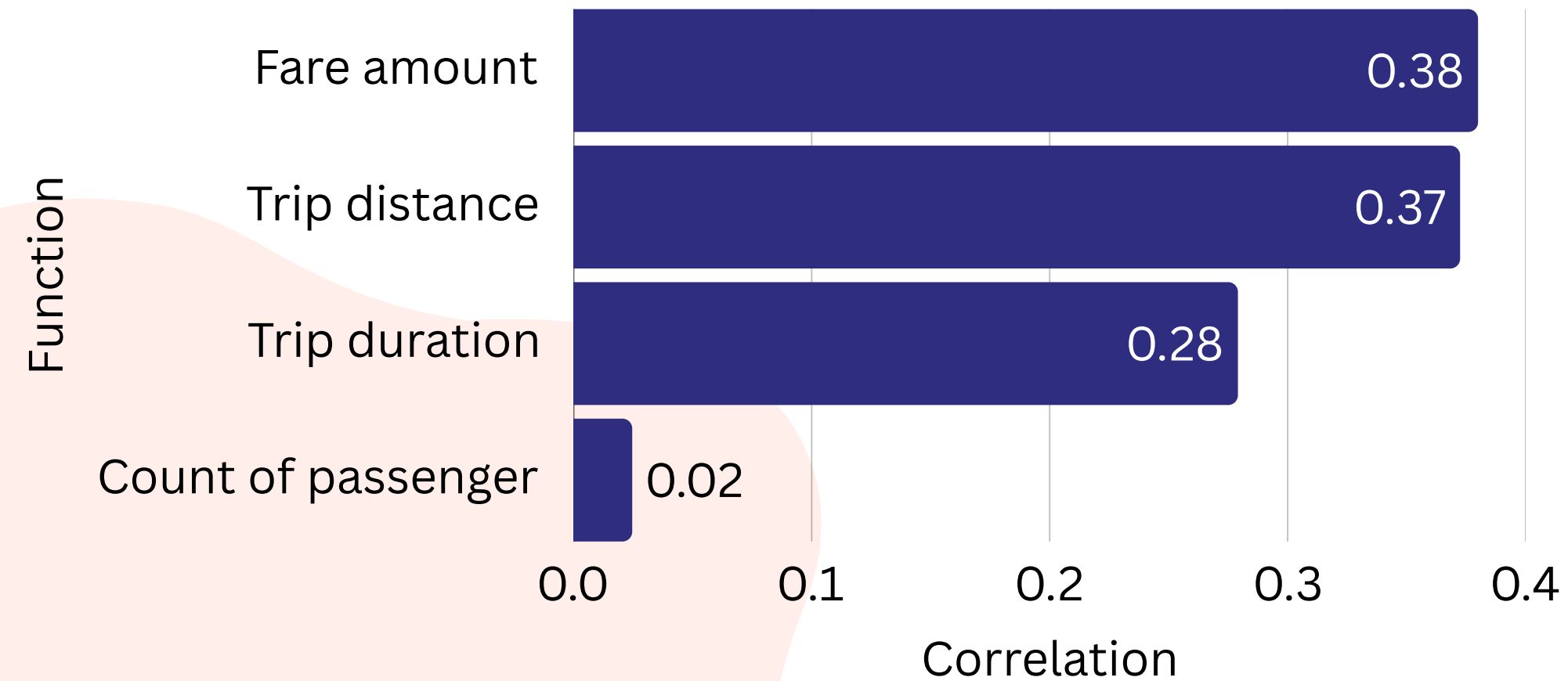
CHASING THE GOLDEN HOURS



Staten Island shows an earnings spike at 6 PM. Although trip volume is low, these rides are longer and more profitable a golden window worth targeting.

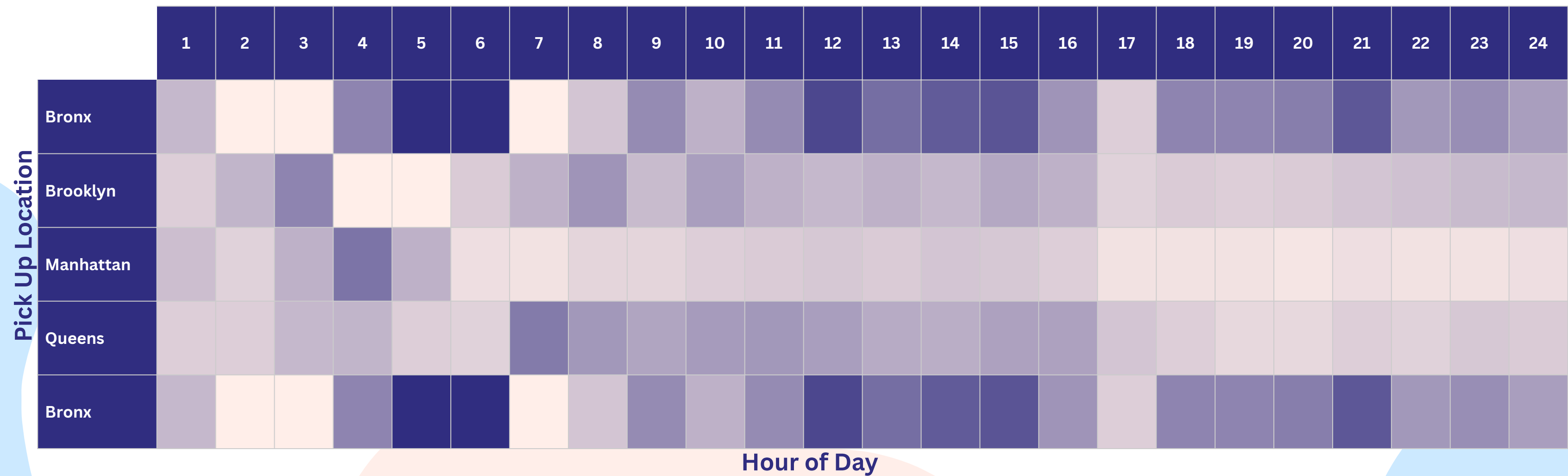


THE SECRETES BEHIND BIGGER TIPS



Fare amount and trip distance have the strongest correlation with tip amount

WHEN BUSY DOESN'T MEAN PROFITABLE

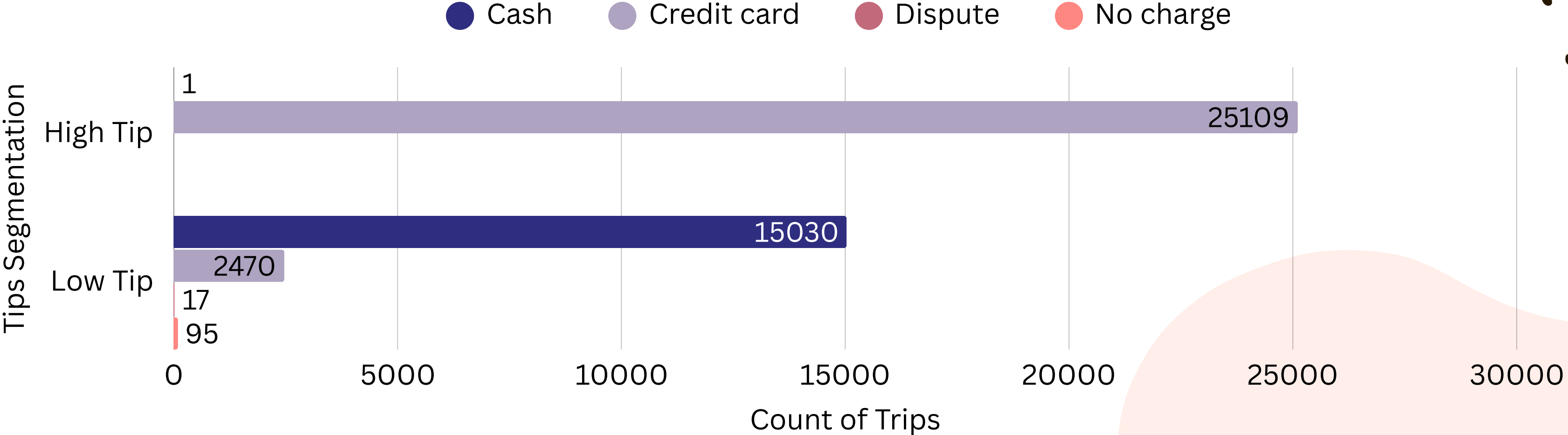



Bronx and Brooklyn early morning hours have high rates of low-efficiency trips

DIGITAL PAYMENTS, BETTER TIPS



High-tip trips are almost all paid with credit cards.







1. Re: Cabs - cash tipping?

2 years ago

Every cab I've been in has the ability to add the tip onto the credit card charge

 Save


AutumnHuntress
Virginia



2. Re: Cabs - cash tipping?


2 years ago

You can add the tip on the card. Add the % you want when prompted . Or you can pay tip in cash , either works.

 Save

LaRue400
Colorado


7,712 posts



3. Re: Cabs - cash tipping?

2 years ago

If you put the Curb app on a smartphone you can use it to pay both regular taxi fare and tips. There's a code for each taxi (at least all the ones I've been in) with that taxi's Curb code. Just put it in and the fare will be charged to whatever credit card you've set up on Curb. You can also set Curb for an automatic tip percentage (20% is customary.) Then all you have to do is enter the Curb code at some point during the ride and just get off when you reach your destination. Nothing else to do.

 Save

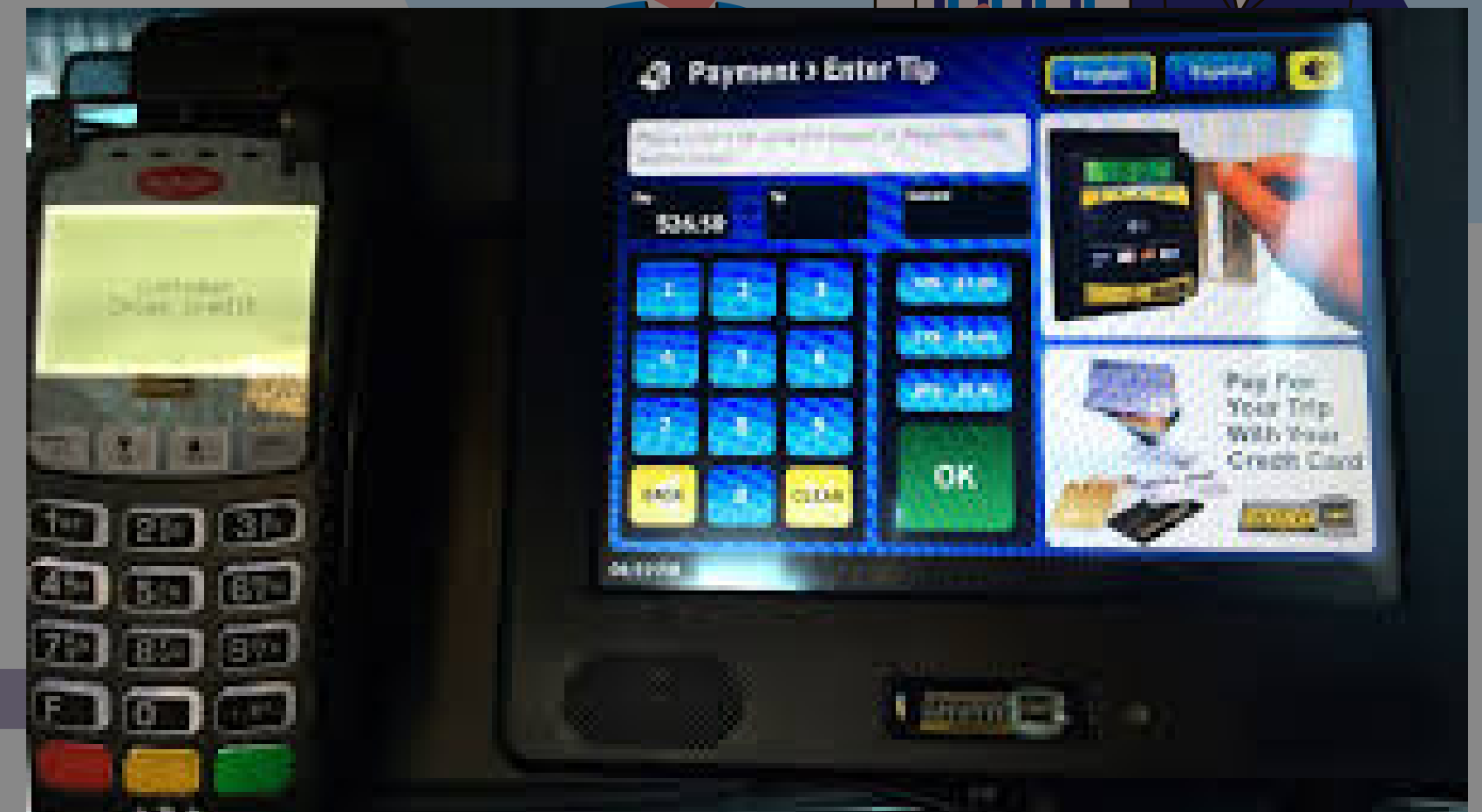
AudenHoggart
Portland, Maine

16,356 posts

40 helpful votes

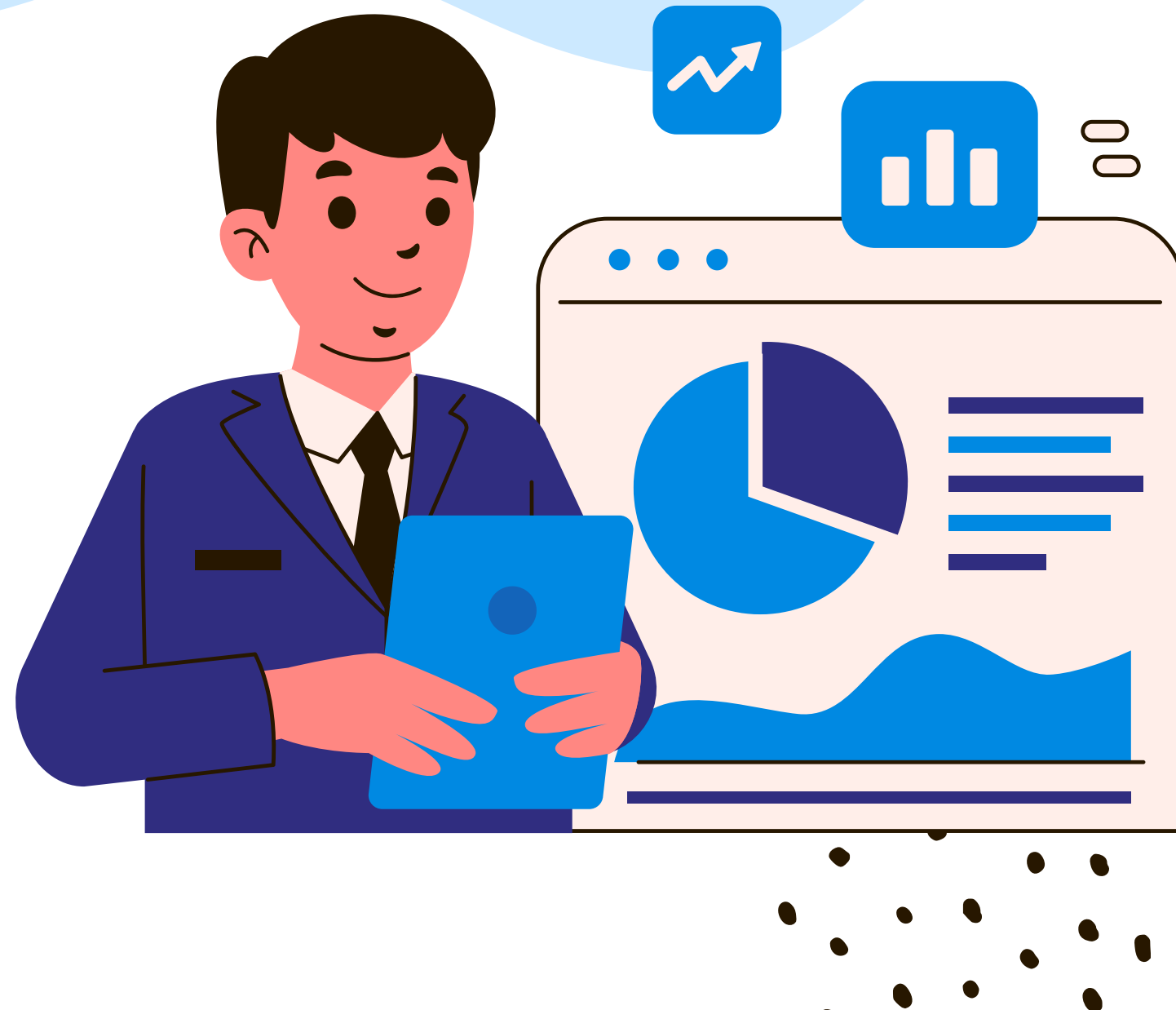
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CONCLUSION



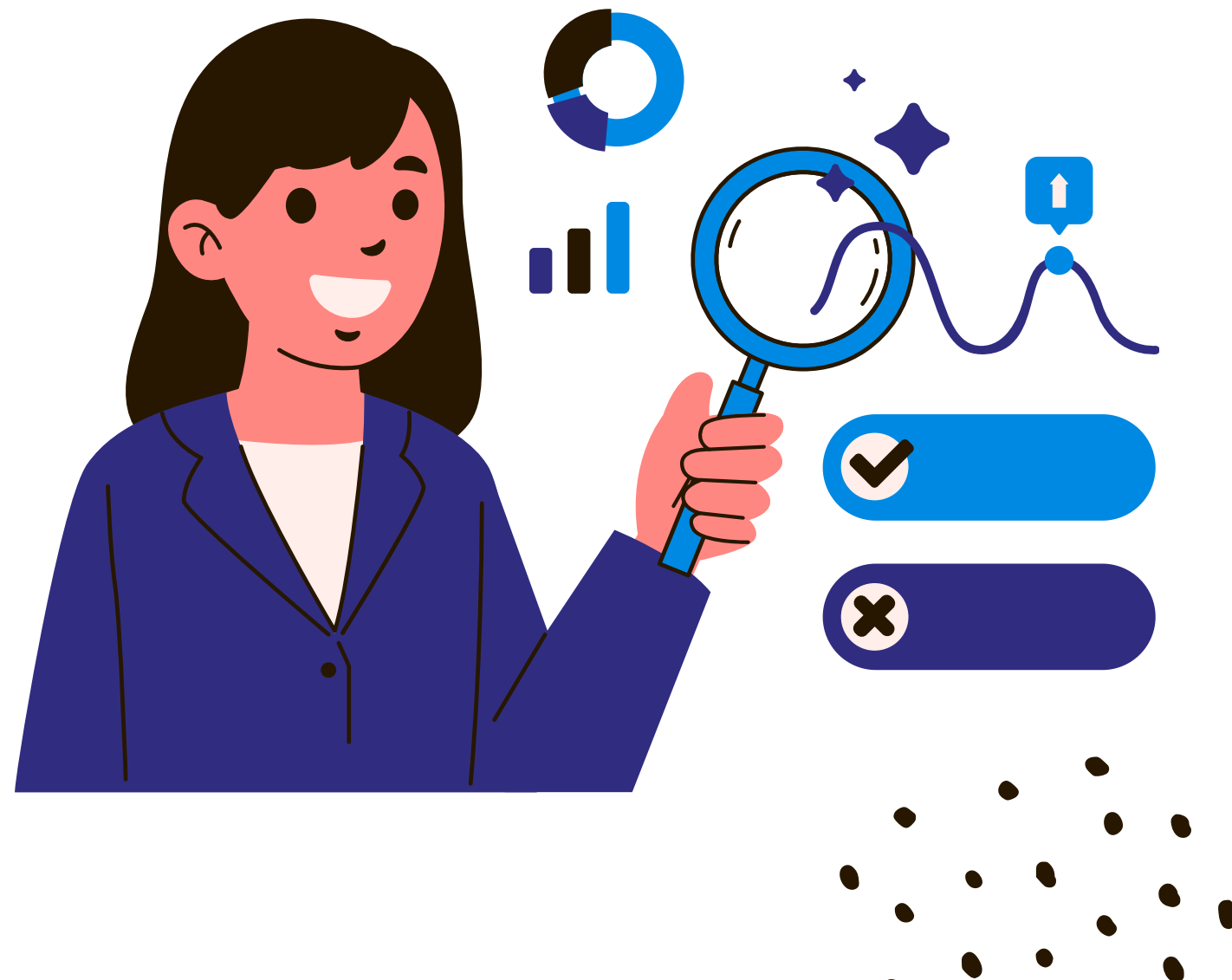
BROOKLYN MORNINGS AND STATEN ISLAND EVENINGS OFFER THE MOST PROFITABLE TRIPS.

MANHATTAN AND QUEENS, WHILE BUSY, GENERATE LOWER PER-TRIP INCOME DUE TO SHORTER RIDE DISTANCES

LOW-EFFICIENCY RIDES IN THE EARLY MORNING SHOULD BE AVOIDED TO REDUCE WASTED TIME AND FUEL

LONGER TRIPS AND DIGITAL PAYMENTS RESULT IN BETTER TIPS, WHILE CASH AND SHORT RIDES ARE LESS REWARDING

RECOMMENDATIONS



START IN BROOKLYN MORNINGS, SWITCH TO
STATEN ISLAND EVENINGS

PREFER LONGER DURATION TRIPS

AVOID LOW EFFICIENCY TRIPS IN EARLY HOURS,
ESPECIALLY IN BRONX

ENCOURAGE DIGITAL PAYMENTS TO INCREASE
TIPPING ODDS



THANK YOU