Congestion surcharge Vs Trip distance

congestion_surcharge and trip_distance
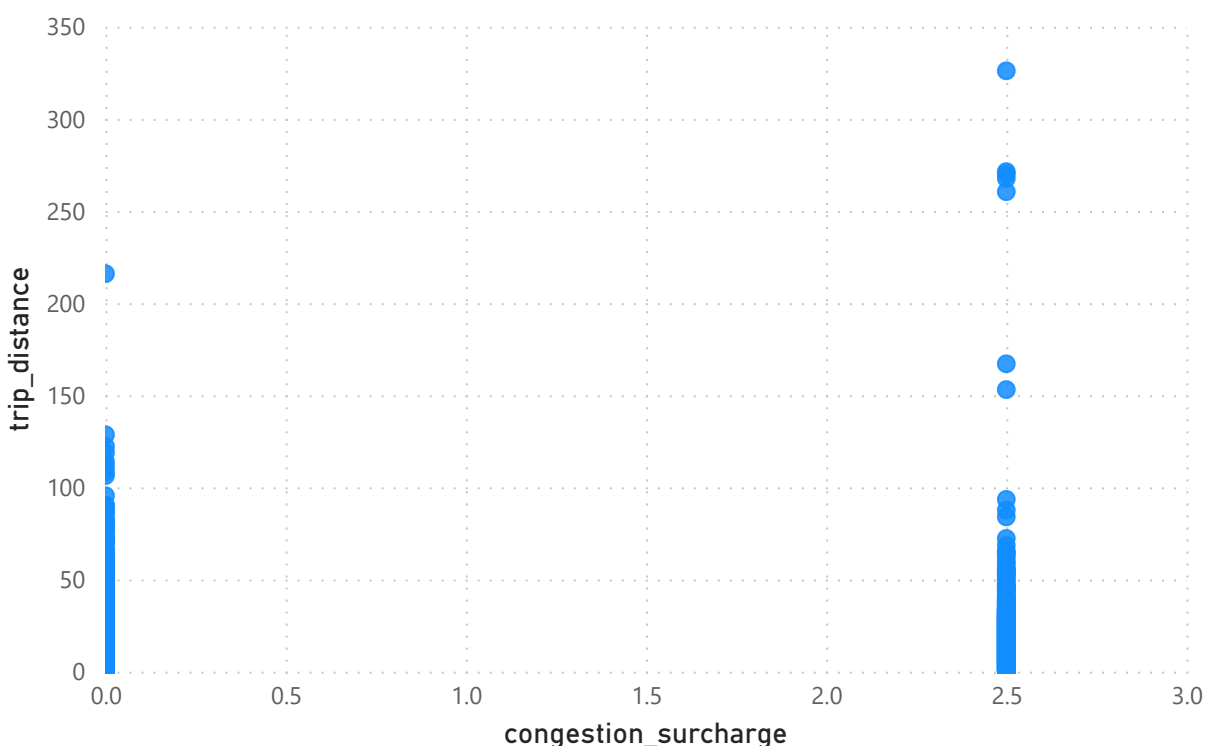
| trip_distance	0.00	2.50	Total
0.10	72.50	156.00	**228.50**
0.20	158.20	779.60	**937.80**
0.30	340.80	2,778.00	**3,118.80**
0.40	856.80	8,563.20	**9,420.00**
0.50	1,288.50	14,548.50	**15,837.00**
0.60	2,200.20	26,116.20	**28,316.40**
0.70	2,384.20	31,363.50	**33,747.70**
0.80	3,246.40	44,432.00	**47,678.40**
0.90	3,130.20	43,581.60	**46,711.80**
1.00	3,891.00	55,500.00	**59,391.00**
1.10	3.258.20	51.662.60	**54.920.80**
Total	**610,545.50**	**2,688,114.10**	**3,298,659.60**

%GT Count of congestion_surcharge by congestion_surcharge
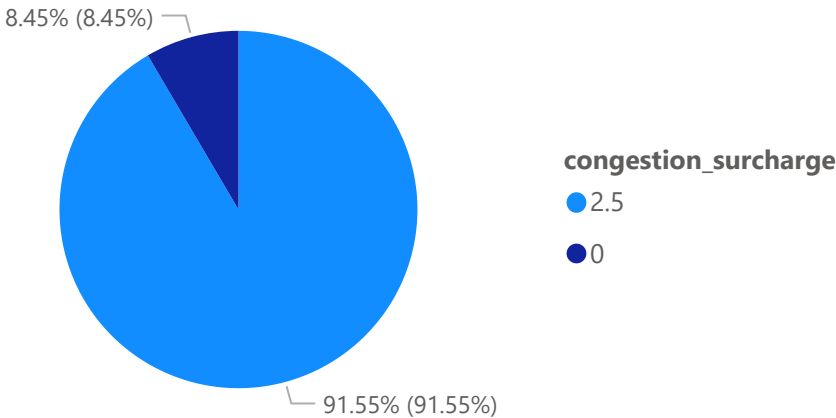
All the trips have been assigned a congestion surcharge of $0.0 and $2.5. Besides, 91.55% trips have $2.5 congestion surcharge and 8.45% trips have no congestion surcharge at all.

congestion_surcharge
- 2.5
- 0

Classifying Trips based on Payment Type

Count of payment_type by payment_type
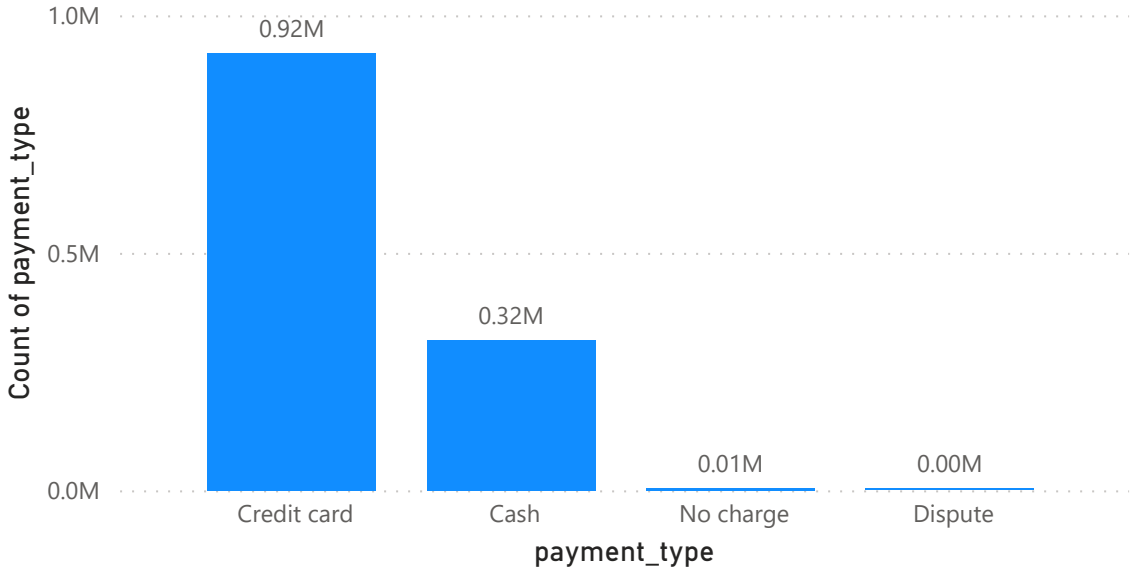
1.24M

Count of payment_type

4

Count of payment_type

payment_type	Count of payment_type
Cash	316249
Credit card	921170
Dispute	1949
No charge	5146
Total	**1244514**

Count of payment_type by payment_type

1.95K (0.16%)

316.25K (25.41%)

921.17K (74.02%)

payment_type
- Cash
- Credit card
- Dispute
- No charge
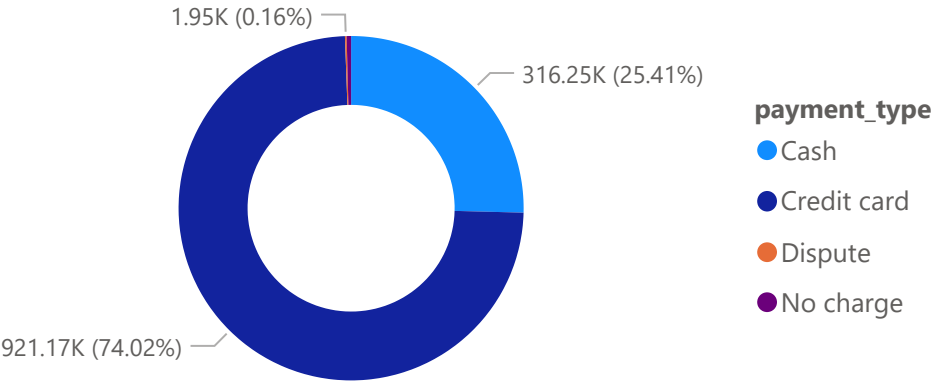
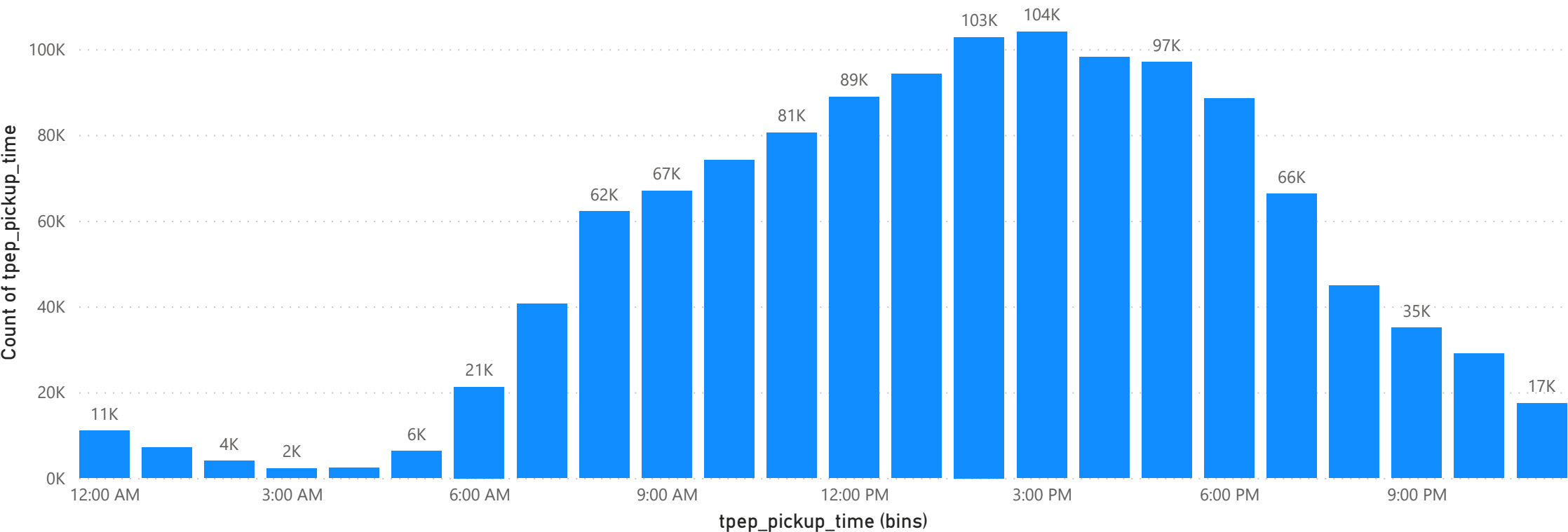**Majority of the trips i.e., 74% are associated with Credit Card Payment Type, followed by Cash as 25%.**

Busiest time of the day

1.24M

Count of tpep_pickup_time

Count of tpep_pickup_time by tpep_pickup_time (bins)

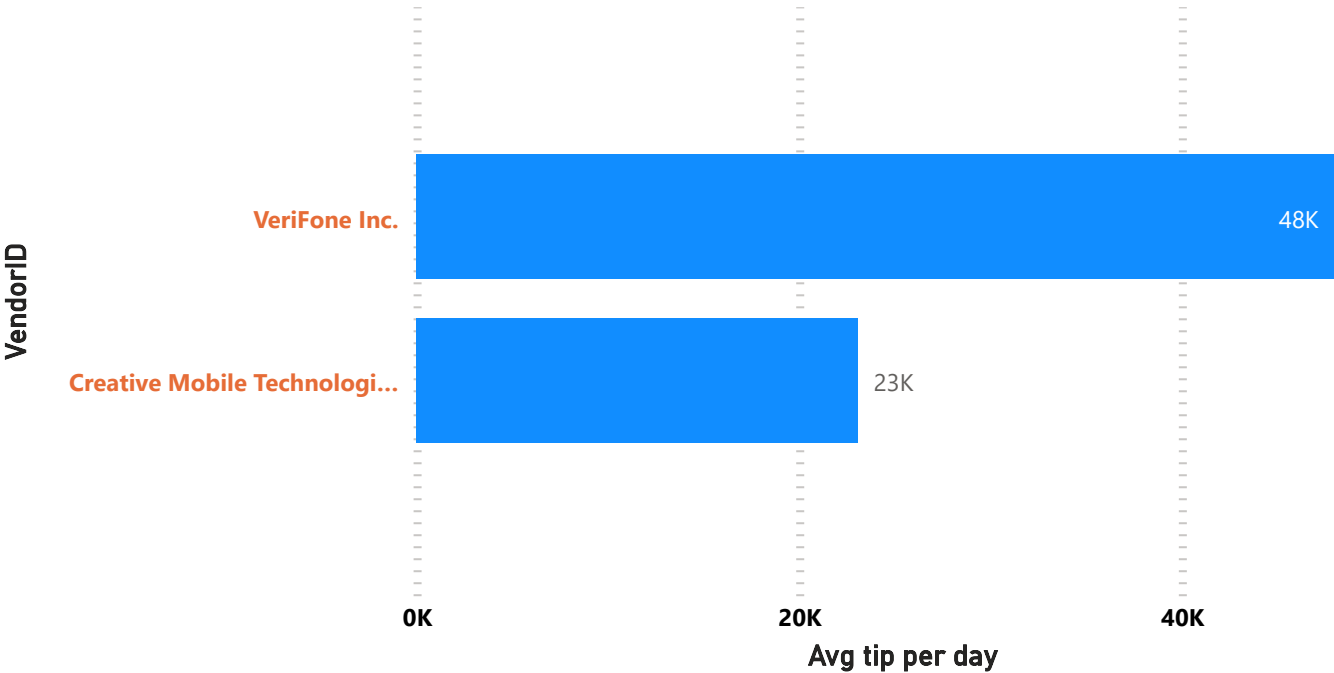**Hence, the above chart shows that the busiest time of the day for any particular vendor is 3pm, 2pm, and 4pm.**

Average tip amount of a vendor per day

2.44M
tip_amount

Avg tip per day by VendorID

VeriFone Inc. — 48K

Creative Mobile Technologi... — 23K

VendorID

Avg tip per day

tip_amount by VendorID

0.76M (31.18%)

1.68M (68.82%)

VendorID
- VeriFone Inc.
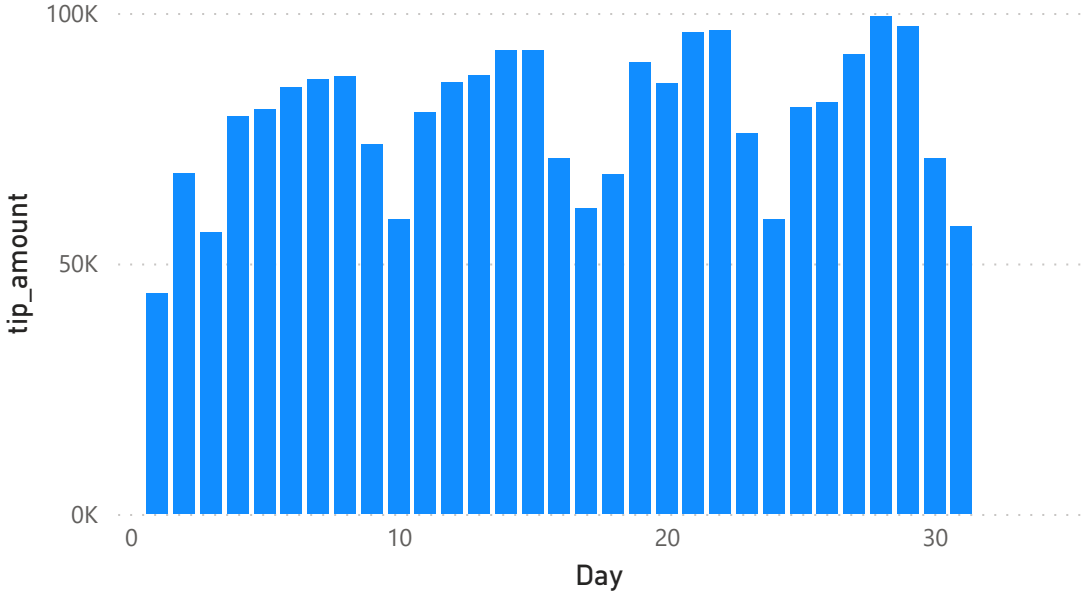- Creative Mobil...

tip_amount by Day

tip_amount

Day

The average tip received by a CreativeMobile vendor during the day is $23070.13, however, the average tip received by a VeriFone vendor during the day is $48000.16.
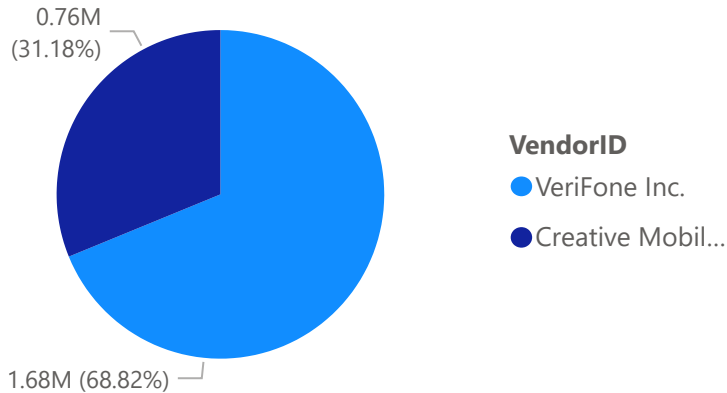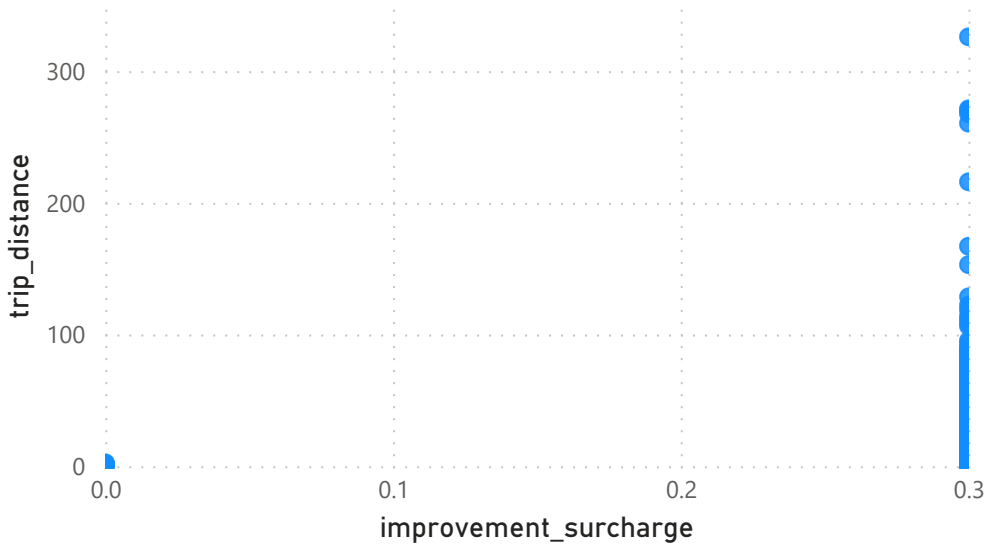
Congestion surcharge Vs Trip distance

improvement_surcharge and trip_distance

trip_distance	0.00	0.30	Total
0.10		228.50	**228.50**
0.20	0.40	937.40	**937.80**
0.30		3,118.80	**3,118.80**
0.40	0.40	9,419.60	**9,420.00**
0.50		15,837.00	**15,837.00**
0.60		28,316.40	**28,316.40**
0.70	0.70	33,747.00	**33,747.70**
0.80		47,678.40	**47,678.40**
0.90		46,711.80	**46,711.80**
1.00		59,391.00	**59,391.00**
1.10		54.920.80	**54.920.80**
Total	**9.40**	**3,298,650.20**	**3,298,659.60**

%GT Count of improvement_surcharge by improvement_surcharge

0.00% (0%)

improvement_surcharge
- 0.3
- 0

100.00% (100%)

Almost all the trips have an improvement surcharge of $0.3.
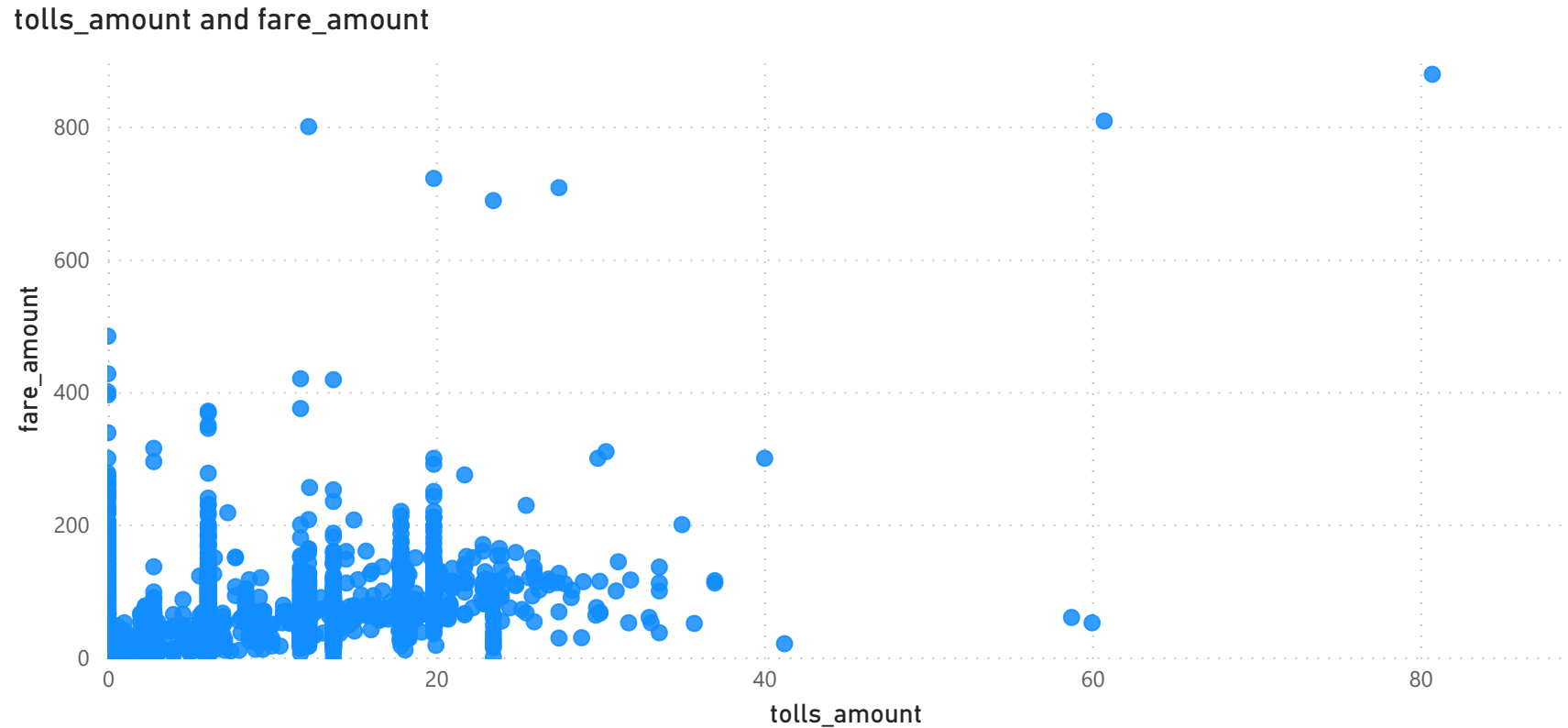
tolls_amount and trip_distance
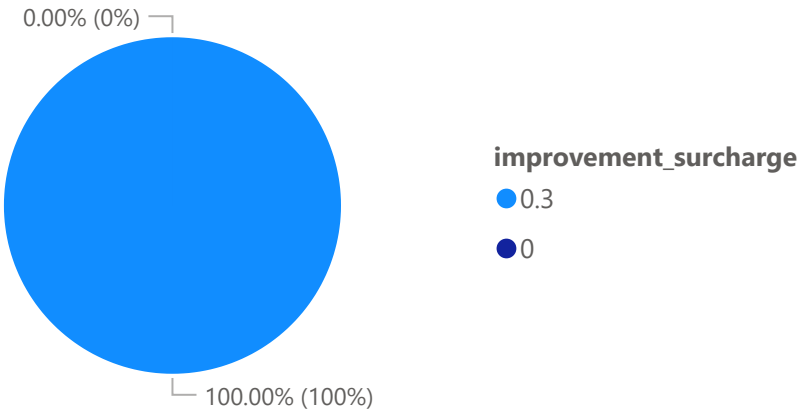
tolls_amount and trip_distance

We can see a positive linear correlation between tolls_amount and trip_distance.

tolls_amount and fair_amount

tolls_amount and fare_amount
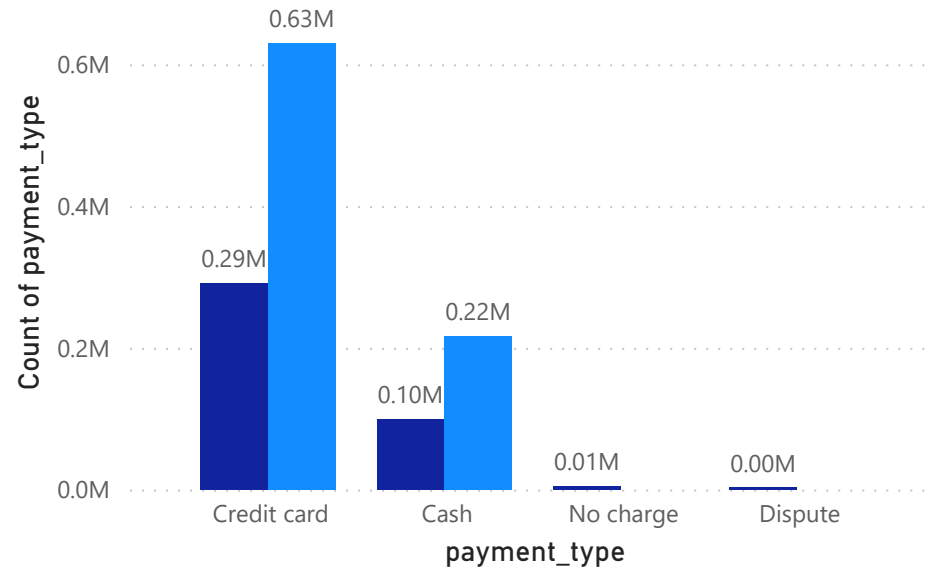
We can see a positive linear correlation between tolls_amount and fair_amount.

Payment_type VS VendorID & RatecodeID VS VendorID

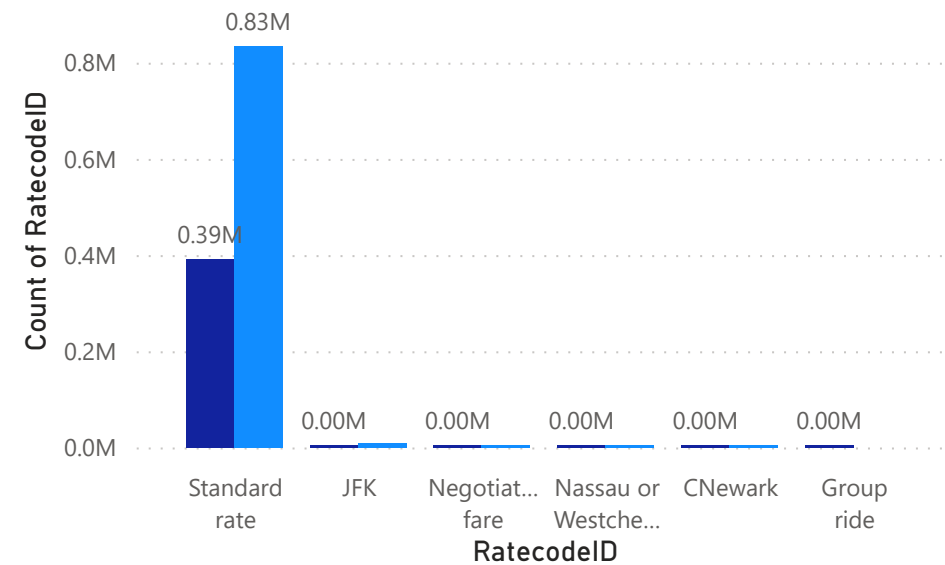

Count of payment_type by payment_type and VendorID

VendorID ● Creative Mobile Technologies, LLC ● VeriFone Inc.

Count of RatecodeID by RatecodeID and VendorID

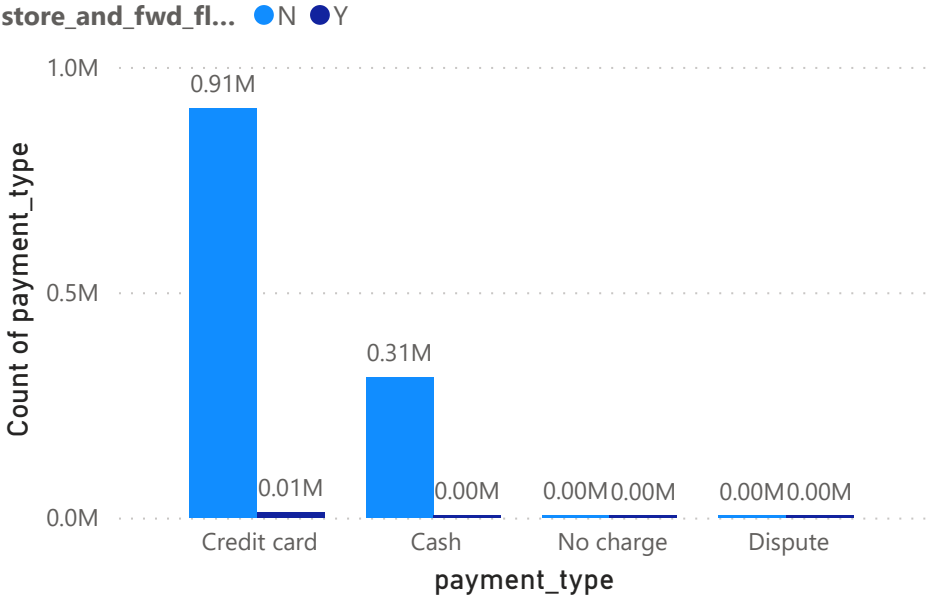VendorID ● Creative Mobile Technologies, LLC ● VeriFone Inc.

Hence, VeriFone VendorID got almost double trips than CreativeMobile VendorID.
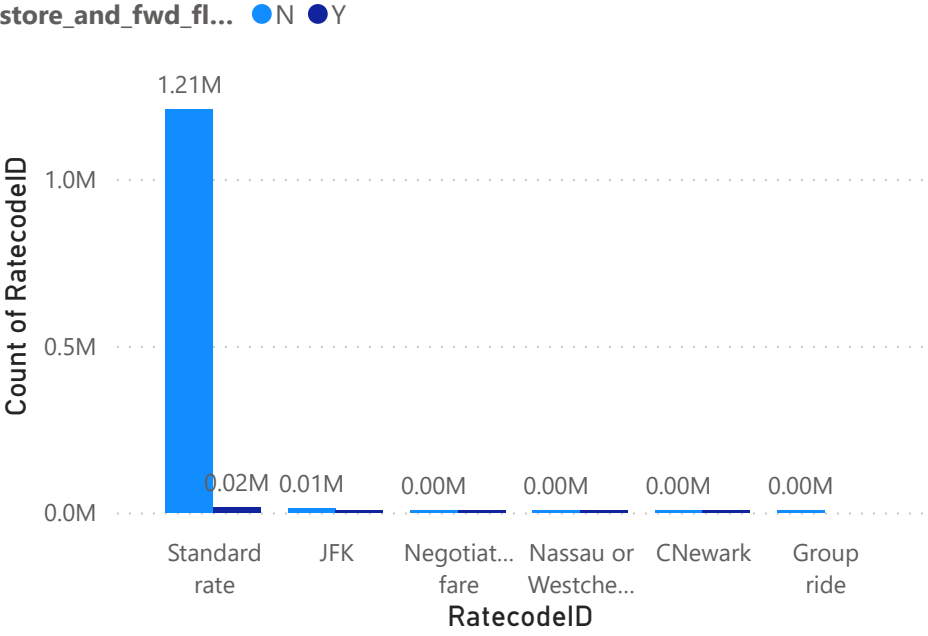
Payment_type VS VendorID & RatecodeID VS store_and_fwd_flag

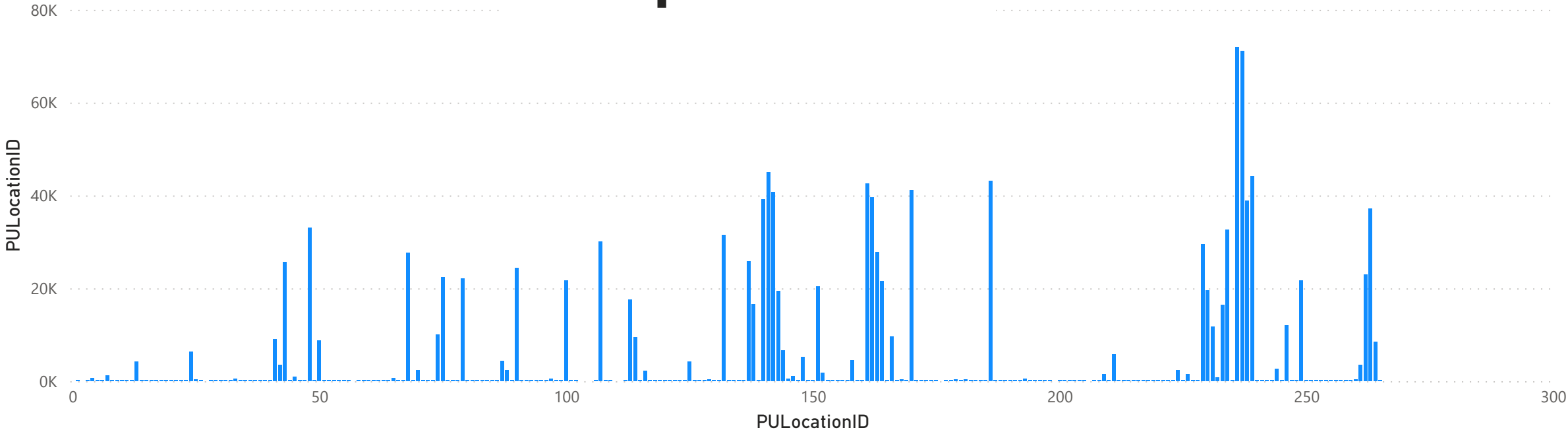Count of payment_type by payment_type and store_and_fwd_flag

Count of RatecodeID by RatecodeID and store_and_fwd_flag

Hence, almost all trips were not a "store_and_fwd_flag".

Pickup LocatioID

PULocationID by PULocationID

13.66M
fare_amount

214.22K
tolls_amount

2.44M
tip_amount

Count of passenger_count by passenger_count

passenger_count	
●	1
●	2
●	3
●	5
●	0
●	6
●	4

16.14K
30.79K (2.47%) (1.3%)
159.73K (12.83%)
942.96K (75.77%)