

NYC Taxi Analytics: Operational Insights

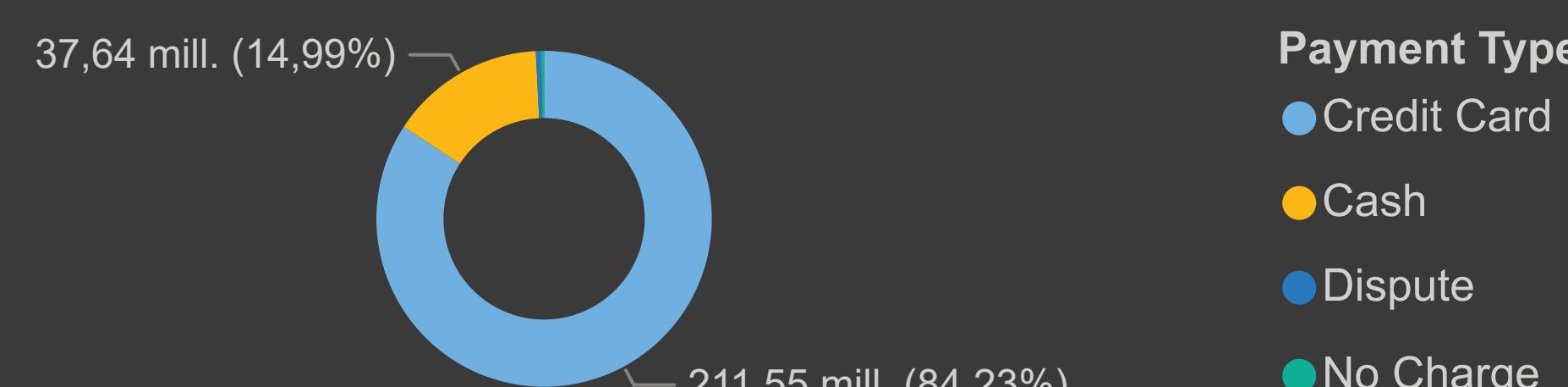
Revenue, Traffic Patterns, and Demand Analysis.

Developed by: Gilberto Agramont
Tech Stack: Microsoft Fabric & DvSspark

Weekly Demand Heatmap

| Trip Hour | Friday | Monday | Saturday | Sunday | Thursday | Tuesday | Wednesday |
|-----------|---------|--------|----------|--------|----------|---------|-----------|
| 0 | 37.529 | 18.478 | 63.088 | 71.106 | 25.215 | 15.687 | 20.854 |
| 1 | 20.946 | 9.261 | 50.581 | 60.218 | 12.337 | 7.144 | 9.404 |
| 2 | 11.838 | 5.195 | 36.647 | 42.206 | 6.677 | 3.792 | 4.772 |
| 3 | 6.936 | 3.748 | 22.929 | 32.385 | 4.239 | 2.616 | 3.235 |
| 4 | 5.834 | 3.902 | 11.580 | 17.791 | 4.219 | 3.003 | 3.553 |
| 5 | 8.423 | 7.393 | 5.497 | 7.218 | 8.044 | 7.818 | 7.928 |
| 6 | 20.997 | 20.358 | 9.656 | 10.241 | 23.919 | 23.499 | 23.303 |
| 7 | 42.926 | 39.998 | 15.928 | 14.980 | 51.386 | 49.841 | 50.664 |
| 8 | 56.366 | 53.729 | 25.692 | 21.930 | 69.616 | 67.370 | 69.079 |
| 9 | 62.574 | 56.524 | 40.059 | 35.302 | 71.874 | 69.951 | 70.703 |
| 10 | 64.779 | 58.437 | 53.132 | 51.512 | 70.624 | 68.466 | 69.781 |
| 11 | 68.497 | 61.342 | 63.872 | 61.131 | 75.757 | 69.669 | 71.699 |
| 12 | 73.941 | 65.942 | 71.628 | 70.384 | 79.455 | 73.196 | 77.119 |
| 13 | 78.088 | 68.218 | 75.068 | 73.352 | 81.028 | 75.113 | 80.092 |
| 14 | 87.989 | 75.516 | 76.001 | 76.187 | 89.949 | 82.410 | 86.662 |
| 15 | 89.534 | 78.544 | 79.439 | 73.566 | 93.026 | 85.488 | 88.847 |
| 16 | 89.410 | 78.023 | 82.248 | 75.308 | 92.593 | 85.082 | 89.293 |
| 17 | 101.141 | 84.884 | 83.747 | 75.180 | 103.337 | 96.010 | 99.623 |
| 18 | 106.474 | 85.735 | 86.375 | 70.545 | 113.722 | 101.309 | 108.937 |
| 19 | 102.735 | 72.263 | 84.611 | 59.296 | 97.495 | 86.486 | 97.306 |
| 20 | 82.551 | 62.502 | 69.559 | 52.309 | 89.777 | 78.423 | 86.681 |
| 21 | 81.621 | 57.334 | 69.875 | 49.639 | 90.145 | 78.054 | 85.128 |

Payment Distribution



9.372.680

Total Trips

258 mill.

Total Revenue

\$19

Avg Fare

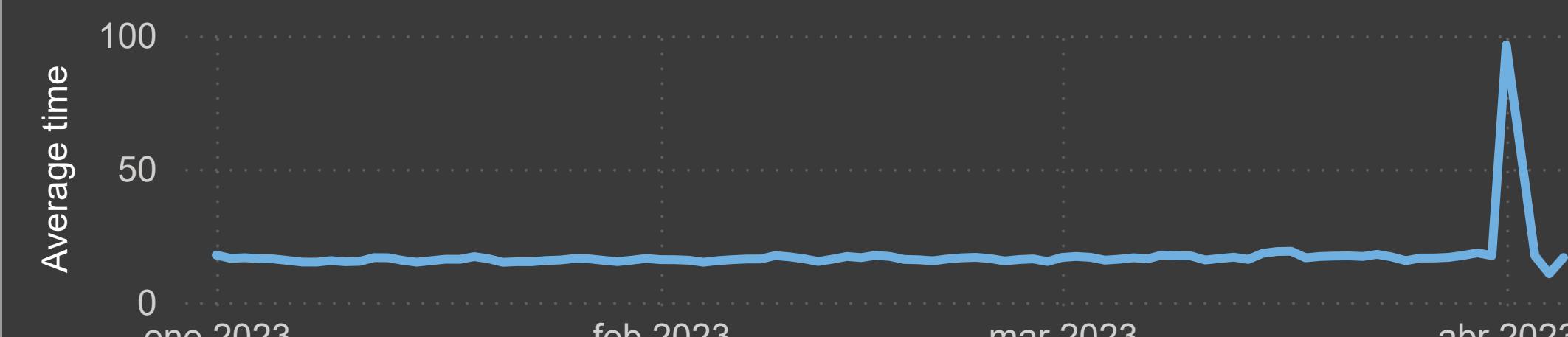
4,10

Avg Distance

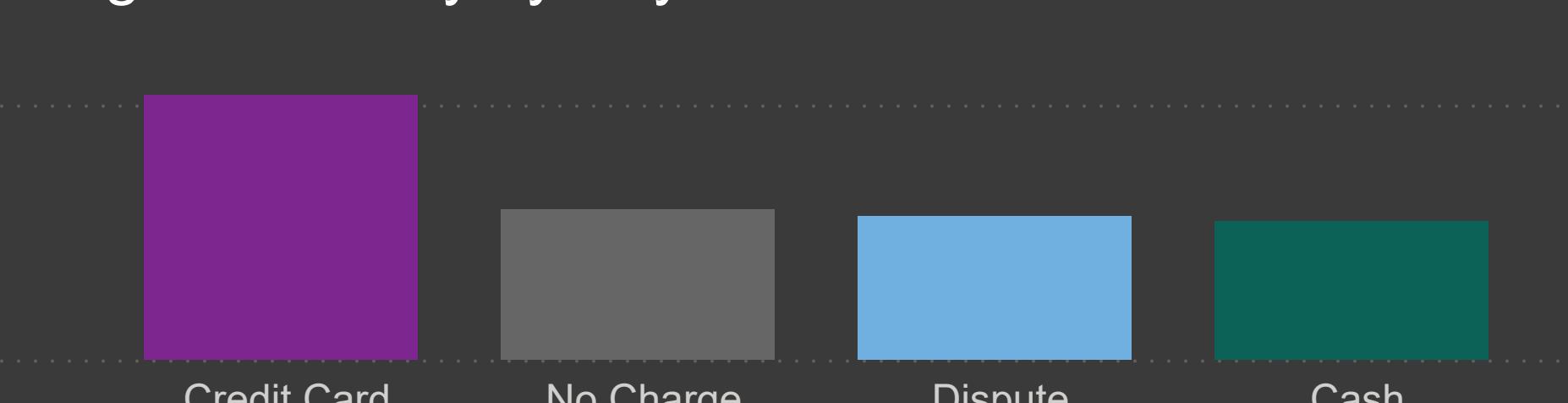
15,04

Avg Speed (MPH)

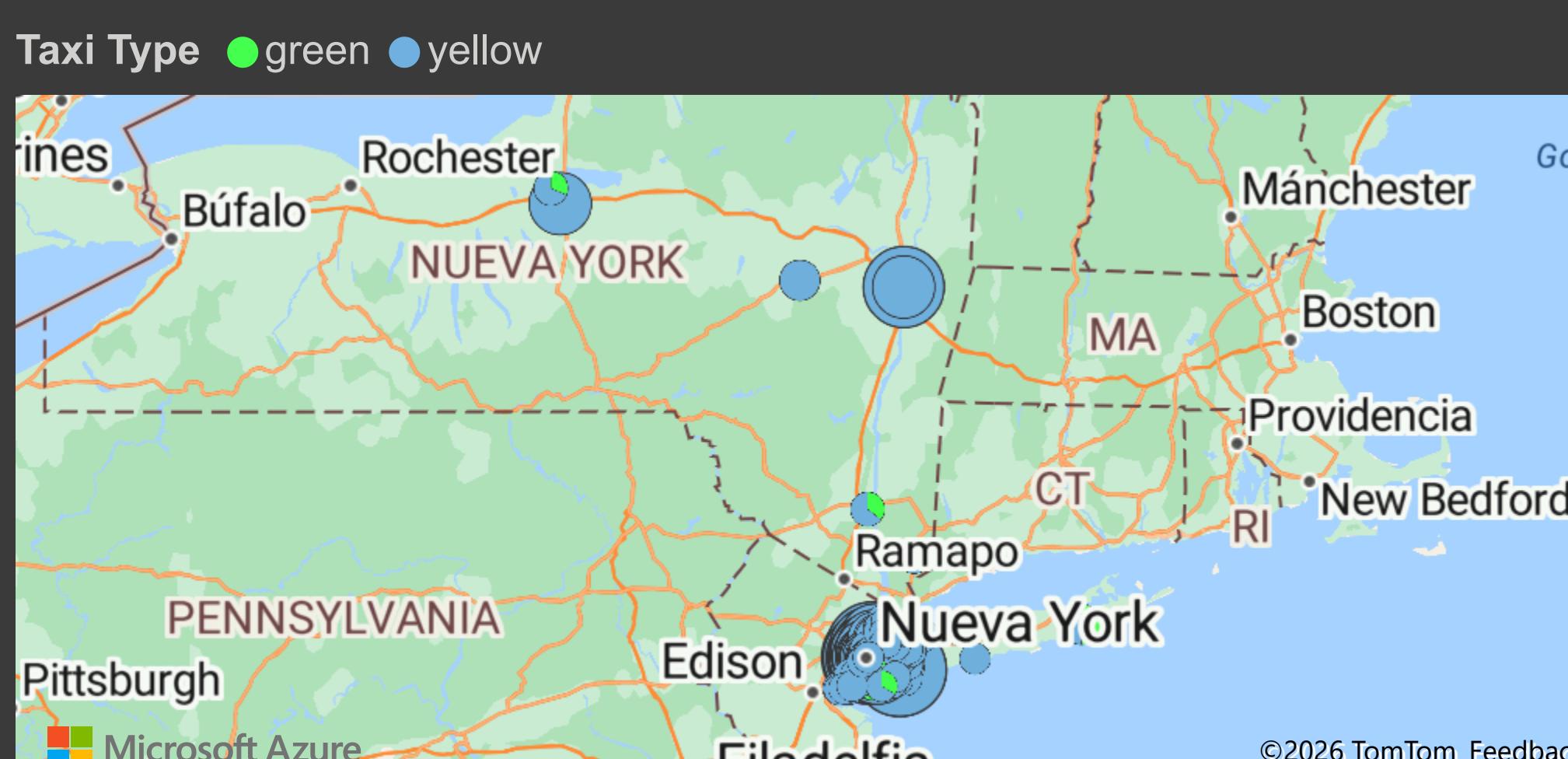
Average Travel Time (Minutes)



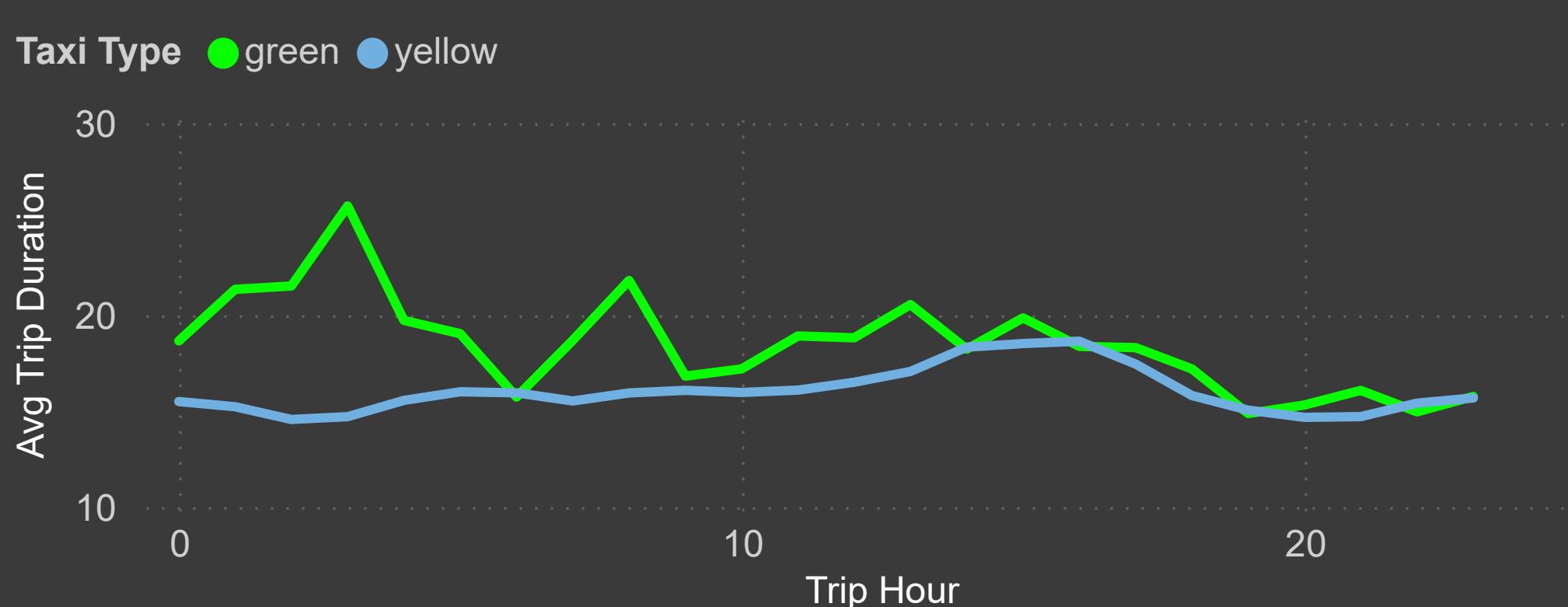
% Surcharge & Gratuity by Payment Method



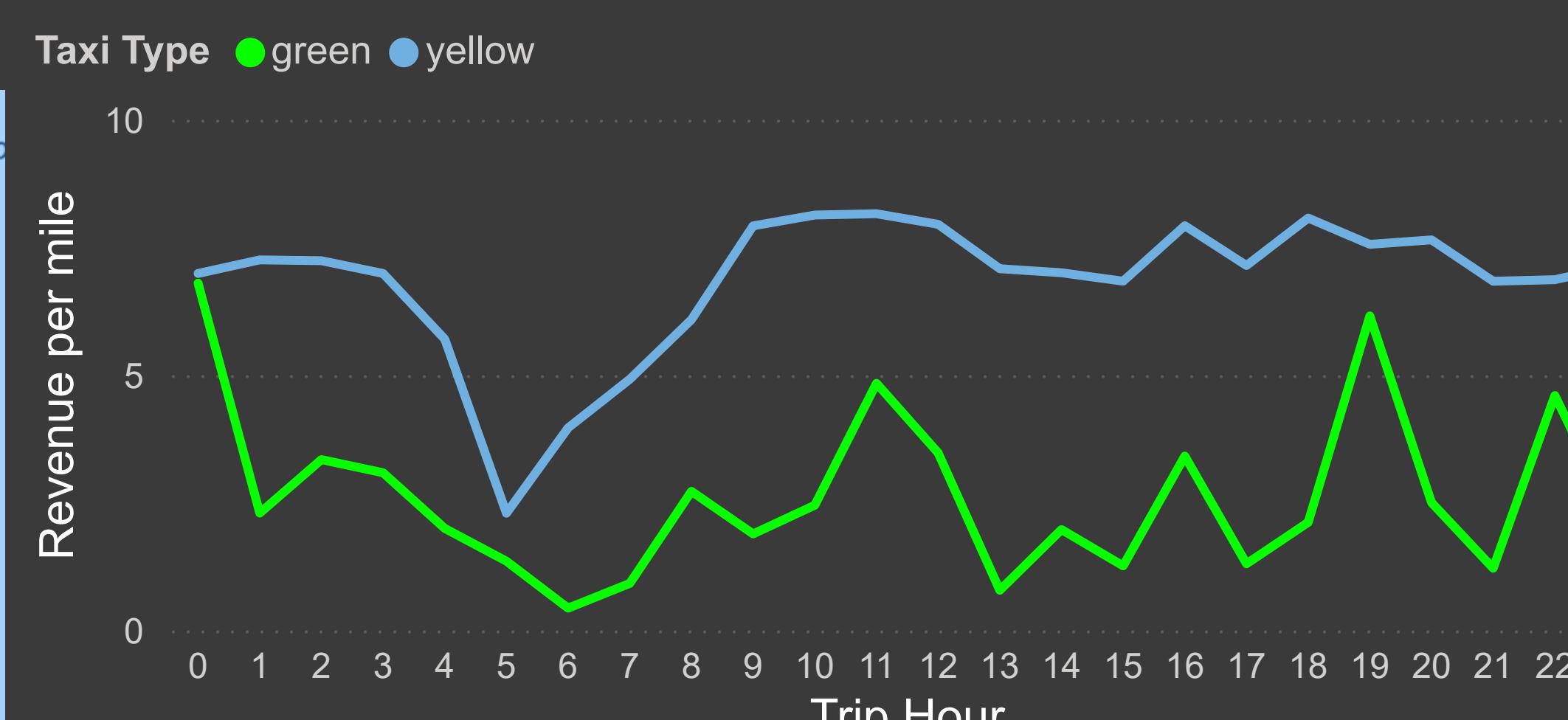
Geospatial Trip Distribution



Average Trip Duration by Hour: Identifying Traffic Peaks



Efficiency Analysis: Revenue per Mile by Hour and Taxi Type



Operational Efficiency: Revenue per Mile vs. Average Speed

