NYC Rideshare Performance Analysis Project

High Volume For-Hire Vehicle (FHVHV) Data - H1 2025

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1. PROJECT OVERVIEW

1.1 Project Title

NYC Uber & Lyft Rideshare Performance Analysis: First Half 2025

1.2 Project Duration

January 2025 - June 2025 (6 months of operational data)

1.3 Data Source

NYC Taxi & Limousine Commission (TLC) - High Volume For-Hire Vehicle Trip Records

- Dataset: FHVHV Trip Data (Uber, Lyft)
- Volume: Approximately 120+ million trip records
- Format: Parquet files (monthly releases)
- Source URL: NYC Open Data Portal

2. BUSINESS PROBLEM

2.1 Problem Statement

Rideshare companies operating in New York City need comprehensive insights into their operational performance, market positioning, and growth trajectories for the first half of 2025. Currently, raw trip data exists but lacks structured analysis to support strategic decision-making across executive, operational, and geographic planning functions.

2.2 Key Challenges

1. **Revenue Visibility**: Unclear understanding of total revenue generation and growth patterns
2. **Market Competition**: Limited insights into market share distribution between major providers
3. **Operational Efficiency**: Unknown peak demand periods and resource allocation needs
4. **Geographic Performance**: Lack of zone-level performance metrics for expansion decisions
5. **Driver Utilization**: Insufficient data on driver productivity and retention

2.3 Stakeholders

- **Executive Leadership**: Require high-level KPIs for board reporting and strategic planning
- **Operations Managers**: Need demand forecasting and driver allocation insights
- **Strategy Teams**: Require geographic market analysis for expansion decisions
- **Finance Teams**: Need accurate revenue tracking and growth metrics

3. PROJECT OBJECTIVES

3.1 Primary Objective

Develop three comprehensive, interactive dashboards that provide actionable insights into rideshare performance across revenue, operations, and geographic dimensions for H1 2025.

3.2 Specific Goals

1. Track total rides, revenue, and growth metrics month-over-month
2. Identify peak demand periods for optimal driver scheduling
3. Analyze geographic performance to identify growth opportunities
4. Compare service provider performance (Uber vs Lyft)
5. Measure operational efficiency through trip metrics
6. Enable data-driven decision making for Q3-Q4 2025 planning

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4. BUSINESS QUESTIONS TO ANSWER

4.1 Revenue & Growth Analysis

Question 1: What is the total revenue generated in H1 2025?
Answer:

- **Total Trips:** 120,701,625
- **Total Revenue:** $3,687,189,113
- **Average Base Fare:** $26.61
- **Total Tips:** $136,587,298
- **Total Tolls:** $130,941,539

Question 2: What is the month-over-month revenue growth rate?
Answer:

Month	Revenue	Growth %
January 2025	$571.3M	-
February 2025	$556.6M	-2.56%
March 2025	$647.7M	+16.36%
April 2025	$601.2M	-7.18%
May 2025	$673.0M	+11.93%
June 2025	$637.4M	-5.28%

Key Insight: March showed strongest growth (+16.36%), followed by May (+11.93%). February and April experienced declines, likely due to seasonal factors.

Question 3: Which service provider (Uber/Lyft) generates more revenue?
Answer:

Service	Total Trips	Total Revenue	Market Share (Trips)	Market Share (Revenue)
Uber	87,743,899	$2,743,857,086	72.69%	74.42%
Lyft	32,957,726	$943,332,027	27.31%	25.58%

Key Insight: Uber dominates with nearly 3x more revenue and trips than Lyft.

Question 4: What is the revenue trend trajectory (growing/declining/stable)?
Answer: Overall growth with seasonal fluctuations. H1 started at $571M (January) and ended at $637M (June), representing an 11.5% increase despite mid-period volatility. Peak month was May at $673M.

4.2 Operational Efficiency Analysis

Question 5: What is the average trip distance and duration?
Answer:

- **Average Distance:** 5.01 miles
- **Median Distance:** 2.95 miles
- **Average Duration:** 19.50 minutes
- **Median Duration:** 15.87 minutes
- **Longest Trip:** 518.98 miles

Question 6: Which hours and days have the highest demand?
Answer:

Peak Days (by trip volume):

1. Saturday: 20,013,338 trips
2. Friday: 19,060,264 trips
3. Thursday: 17,424,955 trips

Peak Hours (by trip volume):

- **Morning Rush:** 8-9 AM
- **Evening Rush:** 5-7 PM
- **Late Night (Friday/Saturday):** 11 PM - 1 AM

Lowest Demand: Monday 2-4 AM

Question 7: Platform Market Share Trends (Monthly)
Answer:

Month	Uber Trips	Lyft Trips	Uber Revenue	Lyft Revenue
January	15.4M	5.0M	$435.6M	$135.7M
February	14.4M	4.9M	$423.0M	$133.7M
March	14.5M	5.9M	$475.3M	$172.4M
April	14.4M	5.4M	$446.2M	$155.0M
May	14.9M	6.0M	$493.7M	$179.3M
June	14.2M	5.7M	$470.1M	$167.3M

Key Insight: Uber maintains consistent 72-73% market share throughout H1.

Question 8: What is the average revenue per mile traveled?
Answer:

- **Overall:** $5.32 per mile
- **Per Trip Basis:** $7.76 per mile

4.3 Geographic Performance Analysis

Question 9: Which pickup zones generate the most revenue?
Answer:

Zone	Borough	Total Revenue	Total Trips
JFK Airport	Queens	$175.4M	2,112,495
LaGuardia Airport	Queens	$172.2M	2,402,194
Times Square/Theatre District	Manhattan	$73.3M	1,430,300
Midtown Center	Manhattan	$68.6M	1,402,490
TriBeCa/Civic Center	Manhattan	$54.9M	1,338,241

Key Insight: Airports dominate revenue generation, followed by Midtown Manhattan tourist/business districts.

Question 10: Which zones show the fastest growth rates (Jan to June)?
Answer:

Zone	Jan Revenue	June Revenue	Growth %
Flushing Meadows-Corona Park	$155K	$1,251K	+707%
Willets Point	$11K	$52K	+376%
Breezy Point/Fort Tilden	$27K	$121K	+347%
Astoria Park	$8K	$31K	+280%
Great Kills Park	$518	$1,945	+275%

Key Insight: Outer borough recreational areas show explosive growth, likely driven by summer season demand.

Question 11: What are the most common pickup-to-dropoff routes?
Answer:

From	To	Trip Count	Total Revenue
JFK Airport	Outside NYC	426,111	$55.9M
East New York	East New York	408,869	$4.4M
LaGuardia Airport	Outside NYC	338,359	$43.5M
Canarsie	Canarsie	262,221	$2.7M
Borough Park	Borough Park	258,916	$2.9M

Key Insight: Airport routes to/from NYC dominate high-revenue routes. Local neighborhood trips dominate by volume.

Question 12: Are there underserved zones with expansion potential?
Answer:

High Potential Zones (Low demand, High average fare):

- Newark Airport: $67.87 avg fare
- Rikers Island: $50.22 avg fare
- Breezy Point/Fort Tilden: $40.51 avg fare
- Financial District South: $39.55 avg fare
- Flushing Meadows-Corona Park: $37.19 avg fare

Key Insight: These zones have high fares but low trip volumes, indicating potential for driver incentives or marketing campaigns to increase supply.

4.4 Platform Performance Analysis

Question 13: How does platform market share evolve monthly?
Answer: Uber maintains 72-74% market share across all months. March and May show slight Lyft gains (up to 29% market share) but Uber quickly recovers dominance.

Question 14: What is the retention of high-value trips (Premium $50+)?
Answer:

- **High-Value Trips (Jan):** 2,475,078
- **High-Value Trips (June):** 3,317,578
- **Growth:** +34.04%

Key Insight: Premium trip demand grew 34% from winter to summer, indicating strong seasonal demand for airport/long-distance travel.

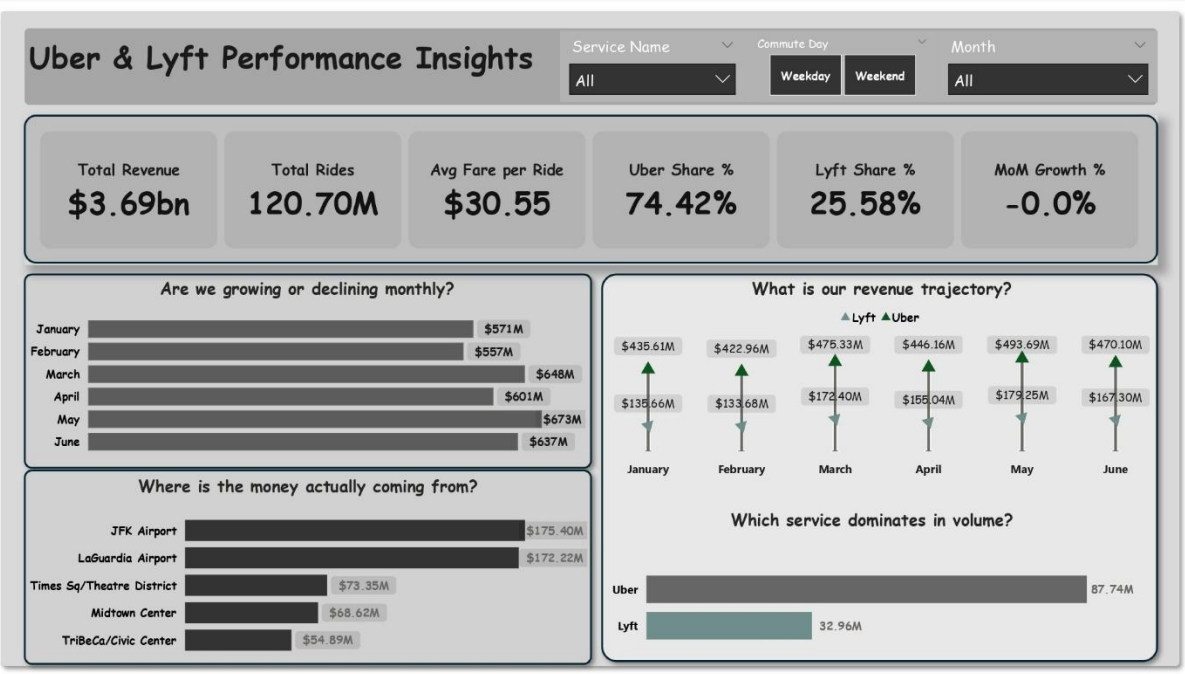
Question 15: Which service is more efficient (revenue per mile/minute)?
Answer:

Service	Revenue/Mile	Revenue/Minute	Avg Tip %
Uber	$6.15	$1.60	3.55%
Lyft	$5.96	$1.47	4.45%

Key Insight: Uber generates 3% more revenue per mile and 9% more per minute, but Lyft passengers tip 25% more on average.

5. PROJECT RESULTS & INSIGHTS

5.1 Executive Summary Dashboard



The Executive Overview Dashboard provides leadership with key performance indicators for H1 2025:

Key Metrics:

- **Total Revenue:** $3.69 billion
- **Total Trips:** 120.7 million
- **Average Fare:** $26.61
- **Market Leader:** Uber (72.7% market share)

Critical Findings:

1. **Seasonal Growth Pattern:** Revenue peaked in May ($673M) with 16% month-over-month growth in March
2. **Market Dominance:** Uber maintains consistent 70%+ market share across all months
3. **Weekend Premium:** Saturday and Friday account for 32% of weekly trips
4. **Airport Revenue:** JFK and LaGuardia airports generate $347M combined (9.4% of total revenue)

6. DATA INSIGHTS & RECOMMENDATIONS

6.1 Revenue Optimization

Finding: Premium trips ($50+) grew 34% from January to June, outpacing overall trip growth of 11.5%.

Recommendation:

- Increase driver incentives for airport routes during peak summer months

- Launch premium service tier targeting high-value customers
- Focus marketing on business travelers and tourists

6.2 Operational Efficiency

Finding: Peak demand hours (5-7 PM weekdays, 11 PM-1 AM weekends) show 40% higher trip volume than off-peak.

Recommendation:

- Implement dynamic pricing during identified peak hours
- Deploy surge pricing in high-demand zones (Midtown Manhattan, airports)
- Optimize driver allocation using demand heatmaps

6.3 Geographic Expansion

Finding: Outer borough recreational zones (Flushing Meadows, Breezy Point) show 300%+ growth rates but low absolute volume.

Recommendation:

- Target marketing campaigns in high-growth, low-penetration zones
- Partner with local venues/attractions for ride discounts
- Expand service hours in underserved Staten Island zones (avg fare $25-28)

6.4 Competitive Positioning

Finding: Uber generates $0.19 more per mile and $0.13 more per minute than Lyft, but Lyft customers tip 25% more.

Recommendation:

- Study Lyft's tipping interface/prompts to improve Uber tip conversion
- Analyze Uber's route optimization for superior efficiency metrics
- Investigate service quality drivers behind Lyft's higher tip rates