



# Analyzing Traffic Congestion and Effect on Taxi Prices in NYC

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# INTRODUCTION

When do NYC taxi passengers pay the most per mile?

And why does it matter?

Dataset: 100,000 taxi trips (1% random sample) /  
12.2 million total trips analyzed

Time period: March 2016



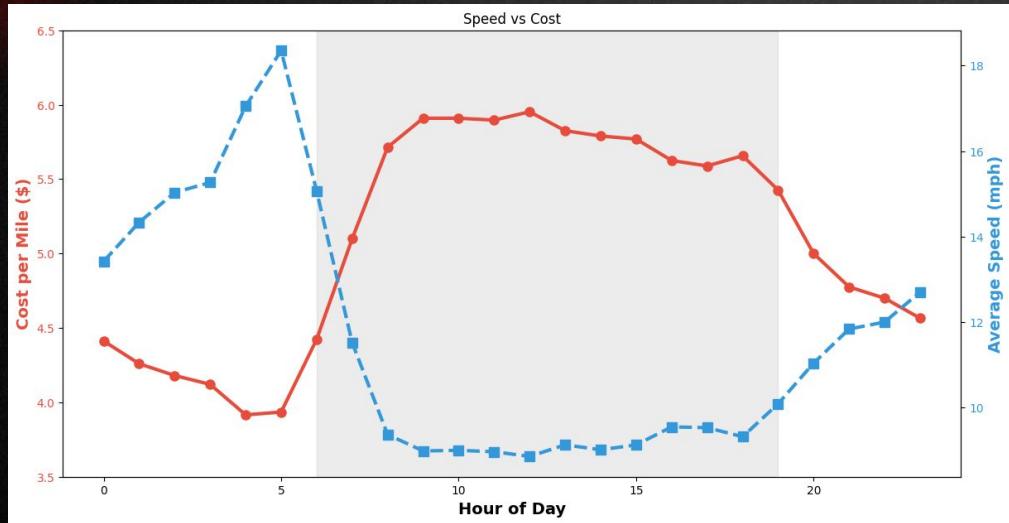
# When do NYKers Pay the Most

**CLEARLY  
DURING  
RUSH HOUR!**



People pay more than median between 8am-7pm, so around working hours. But why?

# Why are prices so uneven?



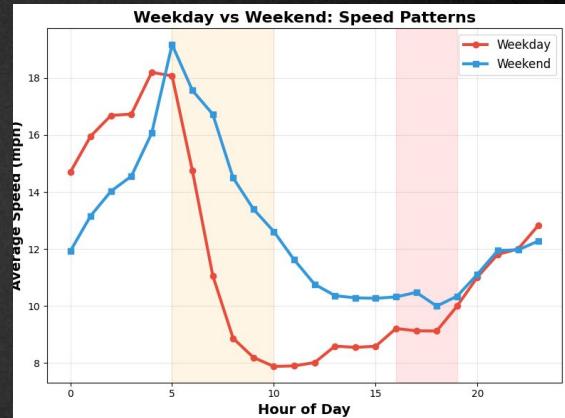
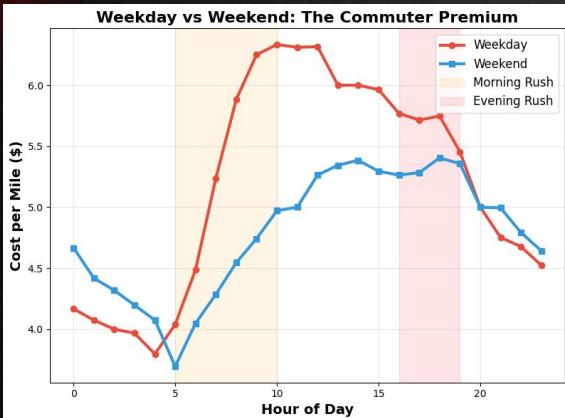
Inverse corr  
b/w speed  
and cost

Lower the speed, higher the cost! The taxis just let the meter run, likely during high traffic period.

# Why are prices so uneven?

## Pattern matches on Weekdays!

On weekdays, we have the general work rush. On weekends, the essential workers. Same patterns observed, pointing more strongly to high volume of traffic then.



Weekday rush hour cost: \$5.39/mile  
Weekend same hours cost: \$4.66/mile  
Commuter premium: \$0.73/mile (15.7%)



# ALL JUST WASTED MONEY

\$1.06 extra per mile during rush hour  
(24% more expensive than off-peak)

\$2,662 annual cost for typical commuter  
(5-mile commute × 2 trips/day × 250 workdays)

100M+ rush hour taxi trips per year in NYC  
≈ \$100M - \$1B in hidden congestion costs  
(varies by trip length assumptions)

# What can we do?

Transparent  
Receipts

Peak/Off-Peak Pricing

Congestion  
Relief Fund

Taxi Express  
Lanes

Smart  
Routing  
Systems

# THANKS!

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