# **New York Citi Bike Program Analysis**

In this analysis, I will provide an overview of the key findings and insights from my work as the lead analyst for the New York Citi Bike program. The analysis is designed to be accessible to non-technical readers, including city officials and administrators.

## **DASHBOARDS OVERVIEW**

### **Phenomenon 1: Urban Pulse**

In the first dashboard, "Urban Pulse," we delve into the dynamics of bike usage in New York City. Here are some interesting data discoveries:

1. **Total Recorded Trips:** Over the year from June 2022 to June 2023, we recorded a staggering 6.2 million bike trips. This demonstrates the significant popularity of the Citi Bike program.
2. **Ridership Growth:** There has been a remarkable 20% increase in ridership during this period, highlighting the program's success and growing appeal.
3. **User Type Shifts:** We observed a change in user preferences. While annual subscribers remain the majority, there has been a notable increase in short-term customers under the “Casual” category, especially during the summer months.
4. **Peak Hours:** The visualizations show that bikes are most frequently used during the afternoon hours, with a peak around 5 PM. Interestingly, this pattern remains consistent throughout the year, emphasizing the reliability of the program.

### **Phenomenon 2: Biking Secrets**

In the "Biking Secrets" dashboard, we uncover hidden insights about bike trips:

1. **User Trip Duration:** Casual users tend to take longer trips on average compared to annual subscribers. This insight can inform marketing efforts and promotions tailored to user types.
2. **Average Trip Distance:** The average trip distance is approximately 1.5 miles, indicating that Citi Bike serves as a convenient mode of transportation for short urban commutes.
3. **Maintenance Needs:** We identified specific bikes that may need maintenance or inspection based on their usage patterns. This information is valuable for ensuring the safety and reliability of the fleet.
4. **Bike Utilization Variability:** Some bikes are heavily utilized, while others are less popular. Understanding this variability can help with fleet management and distribution.

### **Map**

One of the most insightful aspects of this analysis is the interactive map that plots all bike stations and indicates the most popular locations to start and end journeys. I've also overlaid zip code data to provide a more comprehensive view.

**Notable Trends:**

* **Downtown Hotspots:** Lower Manhattan, including areas around Battery Park and the Financial District, emerges as a hotspot for starting journeys. This could be due to the high density of offices and tourist attractions in the area.
* **East River Bridges:** The map reveals that the bridges connecting Manhattan to Brooklyn, such as the Brooklyn Bridge and Williamsburg Bridge, are critical transit points for bike users. This suggests that Citi Bikes serve as a popular mode of crossing between boroughs.
* **Central Park Attraction:** Central Park stands out as a significant destination for ending journeys, indicating that people use Citi Bikes to explore the park.

### **Conclusion**

This analysis has unveiled key insights into the New York Citi Bike program. We've seen its impressive growth, user dynamics, and the impact it has on urban mobility. The interactive map showcases where bike journeys start and end, shedding light on the pulse of the city's transportation patterns.

These findings are not only informative but also actionable. They provide city officials with the necessary data to make informed decisions about program improvements, expansion plans, and user engagement strategies. The Citi Bike program has not only become a staple of New York City's transportation ecosystem but also a fascinating case study in urban mobility.