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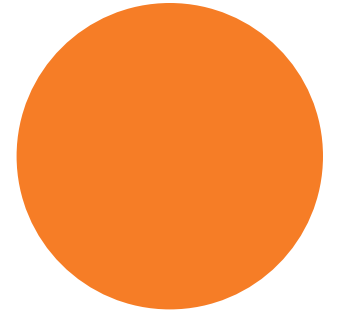
Blue Bikes Boston Ride Behavior Analysis

Context: Business Intelligence Practicum

Tools Used: Tableau, Blue Bikes System Data

Objective: Understand customer ride patterns to improve operations, targeting, and strategy

INTRODUCTION & PROJECT SCOPE



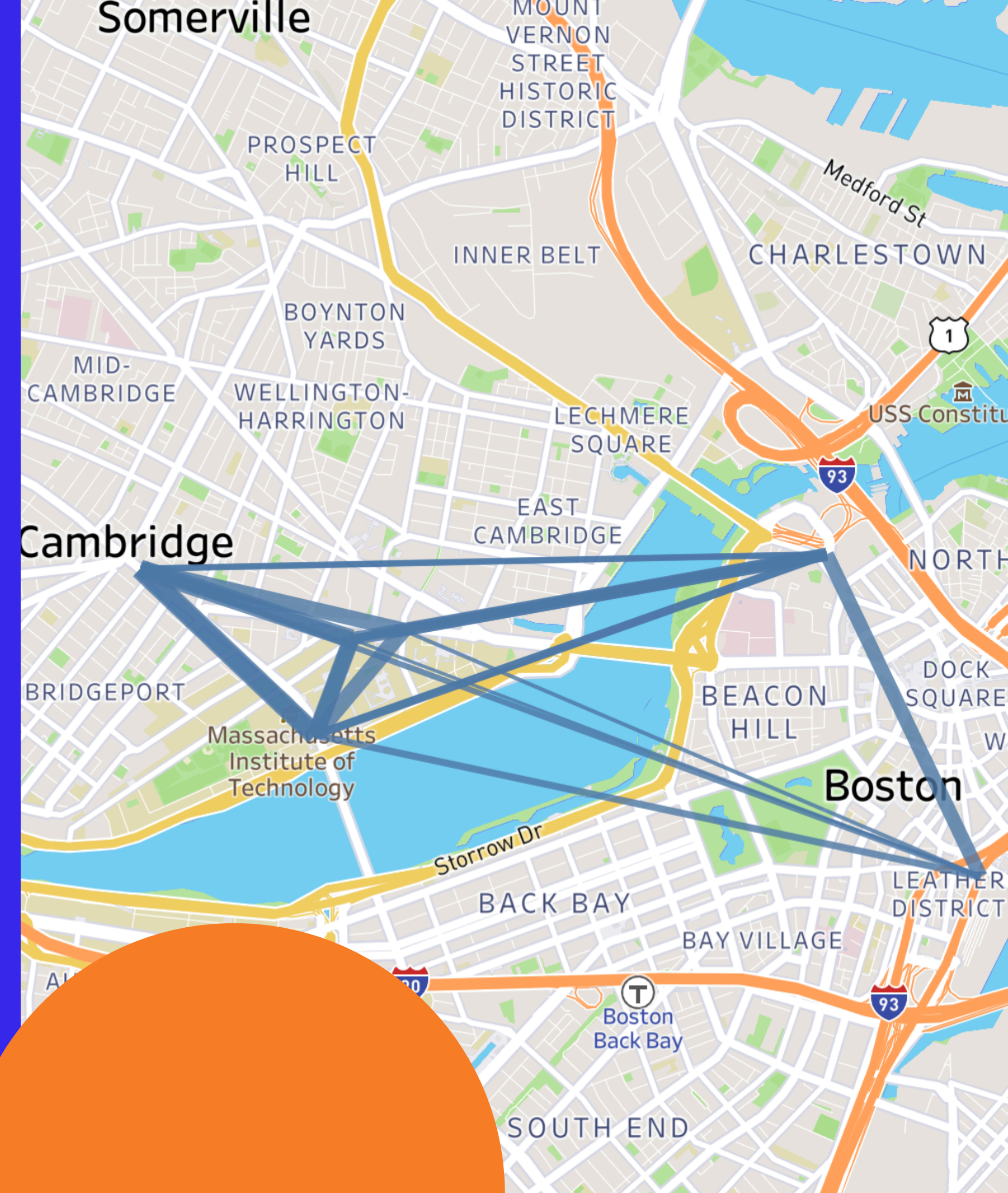
- Blue Bikes operates ~200 stations across Boston.
- Customers include commuters, casual riders, and tourists.
- Goal: Analyze 1 year of ride data to uncover:
 - Station-to-station ride flows
 - Temporal ride trends
 - Differences in behavior between rider types

INSIGHT 1: KEY TRAVEL CORRIDORS BETWEEN STATIONS

Visualization: Station-to-Station Ride Map

- High ride volume between residential and business hubs (e.g., Cambridge ↔ Downtown).
- Clear commuter routes emerge — especially during weekday peaks.
- Downtown core and Back Bay are high-density zones.

Actionable Idea: Prioritize these stations for bike availability, maintenance, and capacity planning.

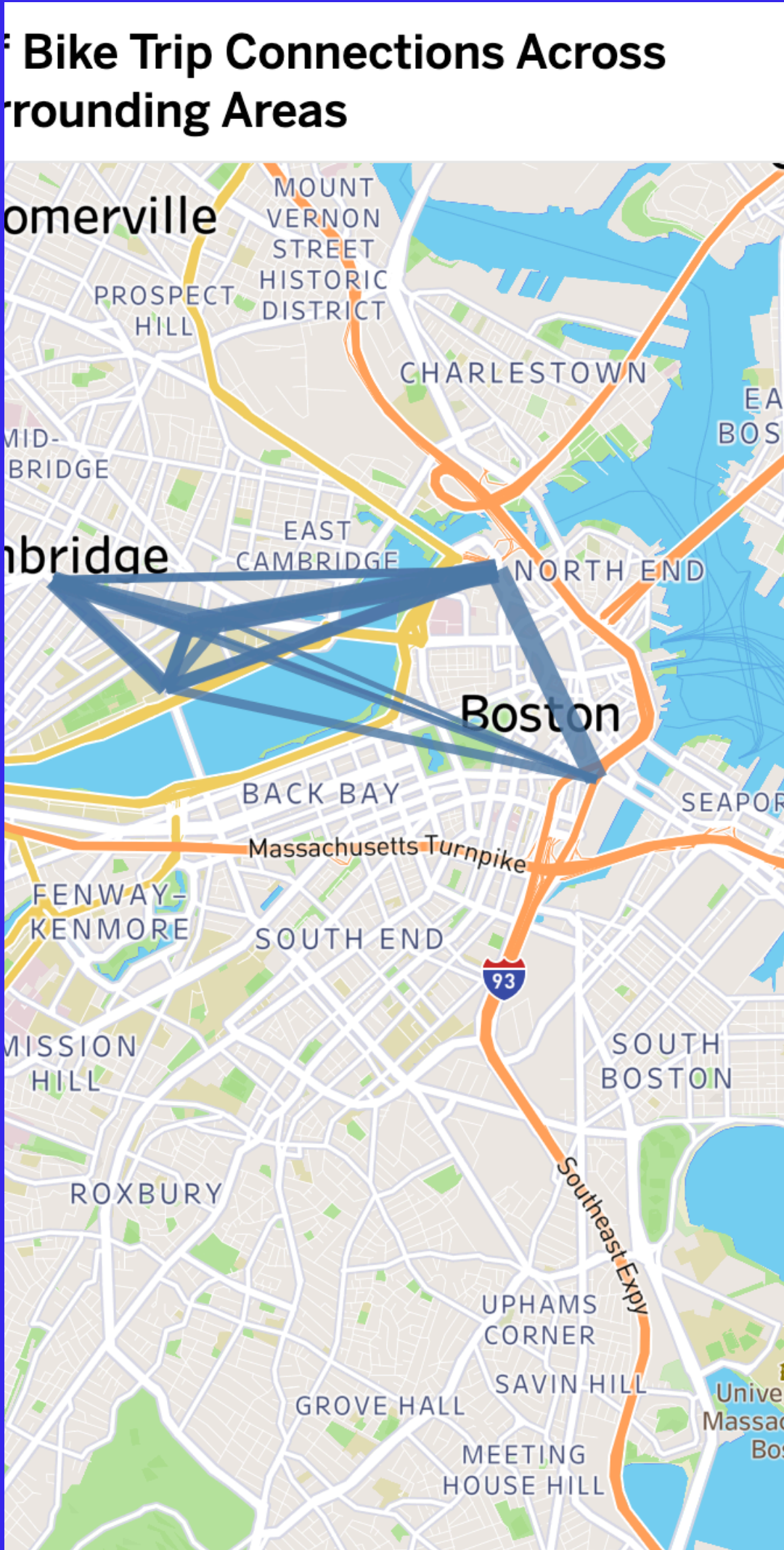


INSIGHT 2: STRONG SEASONALITY & WEEKDAY PATTERNS

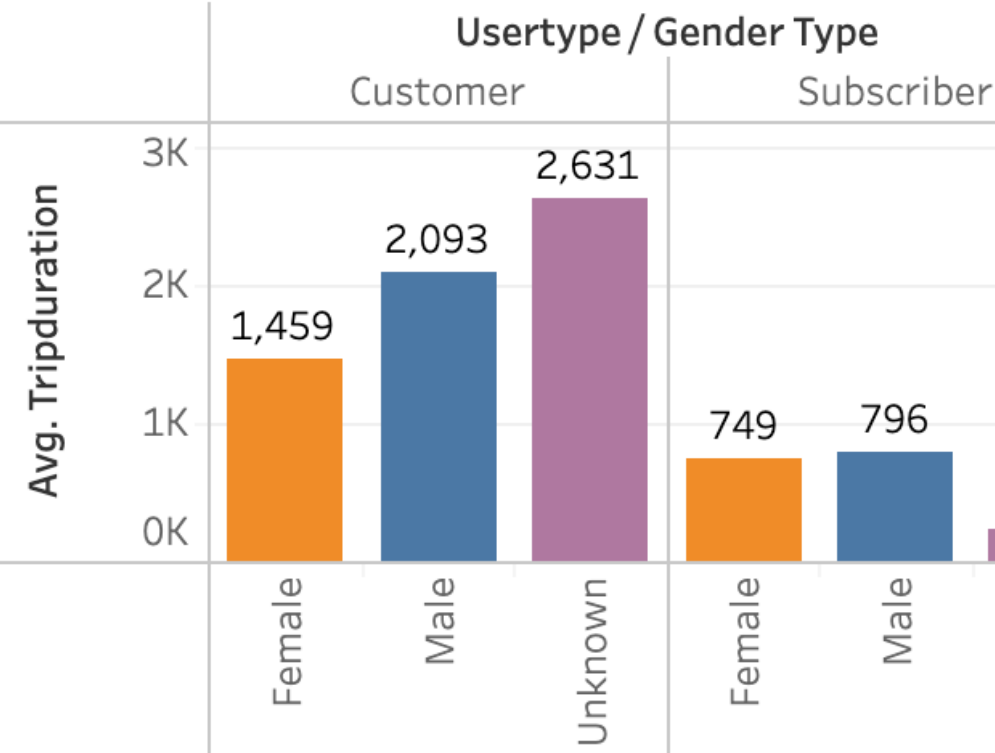
Visualization: Usage Over Time

- Summer peak (June–August), winter trough — strong seasonality.
- Members ride more on weekdays, aligning with commute hours.
- Casual riders spike on weekends, especially midday.

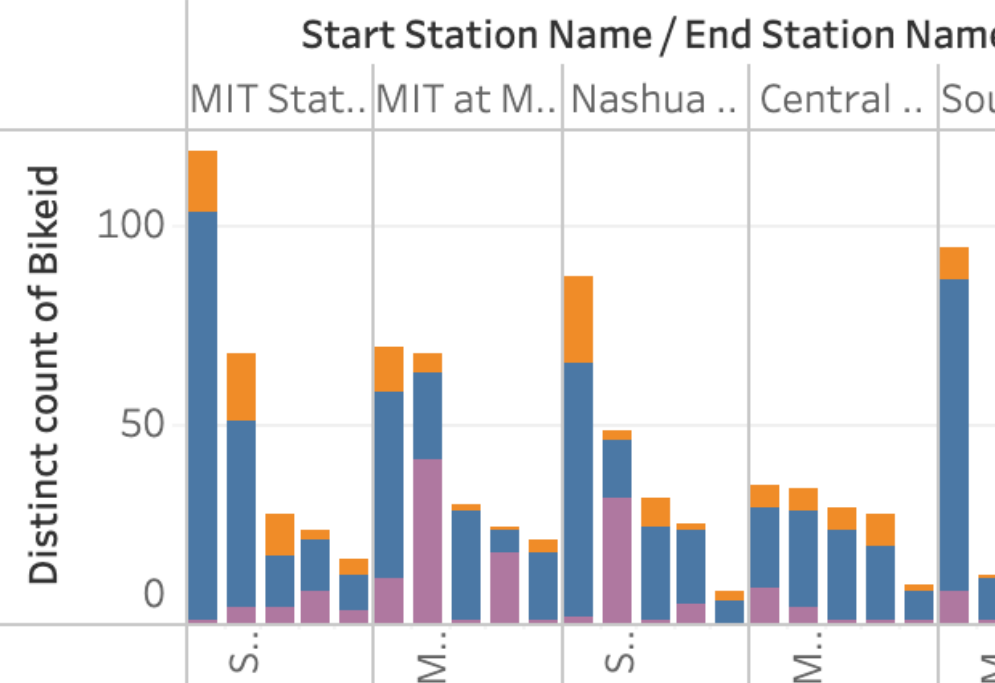
Actionable Idea: Tailor pricing, promotions, and marketing to season and day-type (weekday commuters vs. weekend tourists).



Average Trip Duration by Gender and User Type: Insights into Blue Bikes' Customer Engagement Patterns



Bike Usage Across Top 5 Start and End Stations: Gender-Based Distribution with Ride Counts

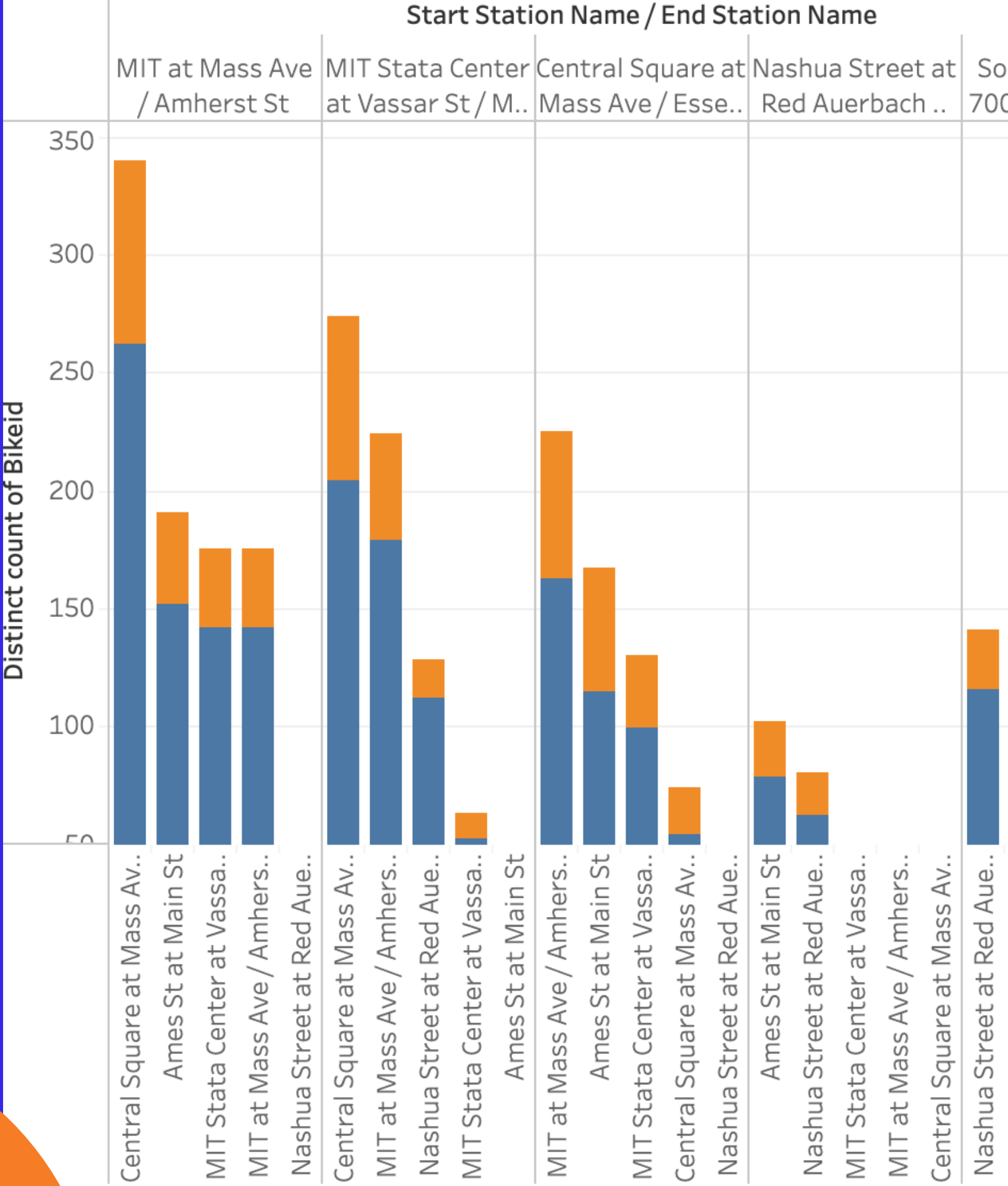


INSIGHT 3: RIDE DURATION & RIDER TYPE BEHAVIOR

Visualization: Ride Duration & Rider Type

- Members take frequent, short rides — consistent commuter behavior.
- Casual users take longer rides — likely tourists or recreational riders.
- Casual user experience varies more; may benefit from more guidance or incentives.

Actionable Idea: Create tailored onboarding or offer maps for casual riders. Promote membership upgrades with personalized offers.



Bike Usage Across Top 5 Start and End Stations: This chart displays the unique bike usage for each end station, segmented by the top 5 start stations and categorized by rider type (Female: Orange, Male: Blue, Unknown: Purple). The visualization highlights patterns across these key locations

KEY RECOMMENDATIONS

01

Optimize Station Inventory

- Focus operations and rebalancing on high-volume commuter corridors.

02

Segment and Personalize Offers

- Commuters: Incentives for referrals, loyalty.
- Tourists/Casuals: Weekend passes, guided ride suggestions.

03

Drive Member Conversion

- Use ride behavior to nudge casual users toward low-cost trials or time-based discounts.

04

Plan for Seasonality

- Prep for summer spikes with more fleet and support. Offer winter loyalty bonuses.

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FINAL THOUGHTS

- Blue Bikes serves diverse use cases — commuting, recreation, tourism.
- With strong data and strategic segmentation, Blue Bikes can:
 - Improve ride experience
 - Boost membership
 - Optimize operations
- I'd love to bring this data-driven thinking to your BI team. Thank you!