

Report

Checking 'bike_station_status' today (March 28th, 2020), the only station, reting bikes, with zero bikes available is William St at 10th St. Then, I checked the top trips, and William St at 10th St is in the position 302th as the starting with 554 trips, and in the position 303th as the ending station with 567 trips. The amount of trips ending is higher than the amount of trips starting, increasing the total amount of bikes that would need to be redistribute.

After this first analysis, I realized that the actual situation of COVID-19 would not provide an accurate information of 'normal' demand. San Francisco started the SHELTER-IN-PLACE on March 17th, although many companies have started home office even before. Beyond this exceptional situation of COVID-19, and to understand better the normal demand, I will disconsider trips after March 1st, 2020. In addition, the table 'bike_station_status' online provide actual information, and will not help me understand this problem.

Analysing the top 25 trips (Appendice4), there are six station with higher demand of starting trips and ending trips: Harry Bridges Plaza (Ferry Building), San Francisco Caltrain (Townsend at 4th), San Francisco Caltrain 2 (330 Townsend), Steuart at Market, Embarcadero at Sansome and 2nd at Townsend.

The station San Francisco Caltrain (Townsend at 4th) has **the same amount** of trips starting and ending (28.859).

The stations Harry Bridges Plaza (Ferry Building), Embarcadero at Sansome and 2nd at Townsend, the amount of trips ending is higher than the amount of trips starting. This fact is **increasing** the amount of bikes available in the station that would need to be redistribute.

The stations San Francisco Caltrain 2 (330 Townsend) and Steuart at Market the amount of trips starting is higher than the amount of trips ending. This fact is **decreasing** the amount of bike available in the station, requiring action from administration to replace them.

- For Steuart at Market station, the replacement should occur before 7 am and 4pm during WEEKDAY due to the high demand of people that arrive at San Francisco by **Ferry to work**. During the weekend, the demand in this station is **lower** than weekday, but it need replace bike before 9 am. This demand is related with the **tourism** in this area of the city.
- For San Francisco Caltrain 2 (330 Townsend) station, the replacement should occur before 8am and 4pm during WEEKDAYS due to the high demand of people that arrive at San Francisco by **train to work**. During the weekend, the demand is **higher** than weekdays and the replacement should occur before 7am. This demand is related with **tourism** in this area of the city. The high prices to stay in hotels in San Francisco, led to many tourism stay in hotes in neighbor cities and using the Caltrain to come to SF.

I recommend that after the CONVID-19 pandemic monitor better the stations status, and create a replacement plan for that the station with high demand of starting trip with low demand of ending trips considerind the peak time during weekends and weekdays to avoid user find empty stations.