

Visualizing the World Series Through Mobile Geo-Data

By Nicole H. Romano Ph.D. – Data Scientist, RadiumOne

Bay area natives are well aware of the riots (and tortilla throwing) that erupted in San Francisco's Mission neighborhood after winning the 2014 World Series. And the 2012 World Series. Oh, and the 2010 World Series.

But how did the rest of the Bay Area celebrate?

We utilized a rich source of non-personally-identifiable mobile geo-location data, allowing us to visualize how the Bay Area celebrated the Giants' World Series win. In order to make all of this amazing data come to life, we evaluated three components:

- The most popular neighborhoods for celebrating a World Series win
- The migration of SF's bar hoppers post-game
- The World Series parade patterns

Let us break this down for you both in numbers and visuals.

World Series Game 7: The Numbers

- Total zip codes represented in San Francisco: 2,024
- Bay Area: 344
- International: 76

San Francisco Population breakdown:

- SF locals: 52%
- Bay Area: 30%
- US: 25%
- International: 1%

Instead of relying on 3rd party or self-reported data to determine where fans

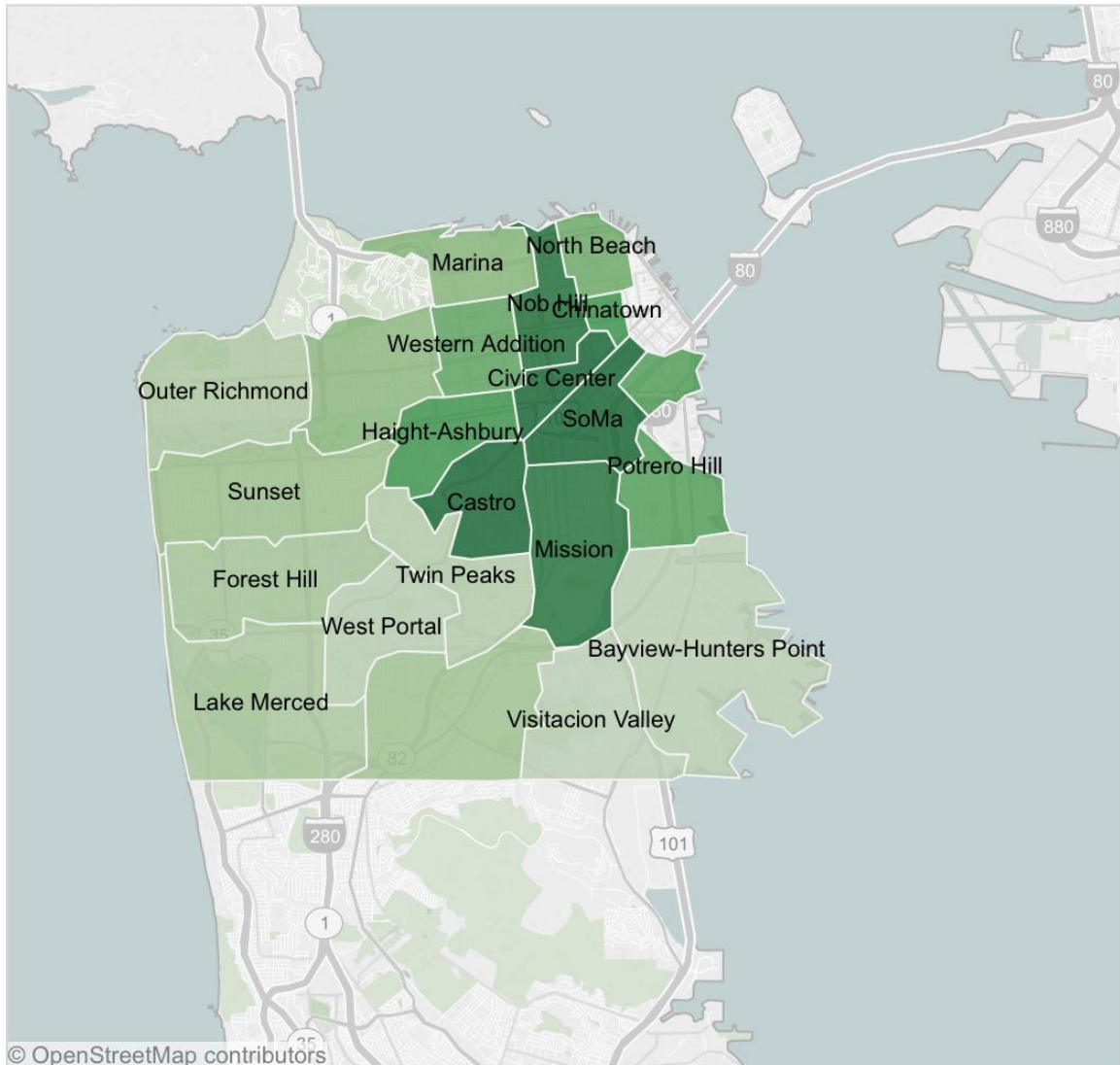
live, we let our mobile geo-location data do the talking. Home zip codes were determined by observing the most frequent zip code visited by each device over a typical week.

Next, we took a look at the game-watching habits of San Francisco locals.

1 in 4 San Franciscans Celebrated the Game 7 Win at a Bar

In order to determine who watched the game in a bar, we collected geo-locations for 1,385 bars and nightlife establishments within the city limits. Using our proprietary mobile data, we identified San Francisco locals who spent at least 2 hours in a nightlife establishment on the last night of the World Series. Between the hours of 5 PM and 1 AM that night, an incredible 26% of the smartphone-wielding population of San Francisco was observed to celebrate with other locals in lieu of watching at home.

Figure 1: Most popular neighborhoods to watch the game (*Population of each neighborhood based on 2010 US Census data*)



The most popular neighborhoods for game watching among locals were: SoMa (20% of the bar-hopping contingent), the Castro (15%), and Civic Center (13%). Of course, these numbers reflect people celebrating in nightlife establishments only. If we include public spaces, Civic Center is the clear winner.

Locals Left their Neighborhoods to Party in SoMa, the Castro, and the Mission

Figure 2: interactive visualization of locals celebrating the Game 7 win, colored by their home neighborhoods.

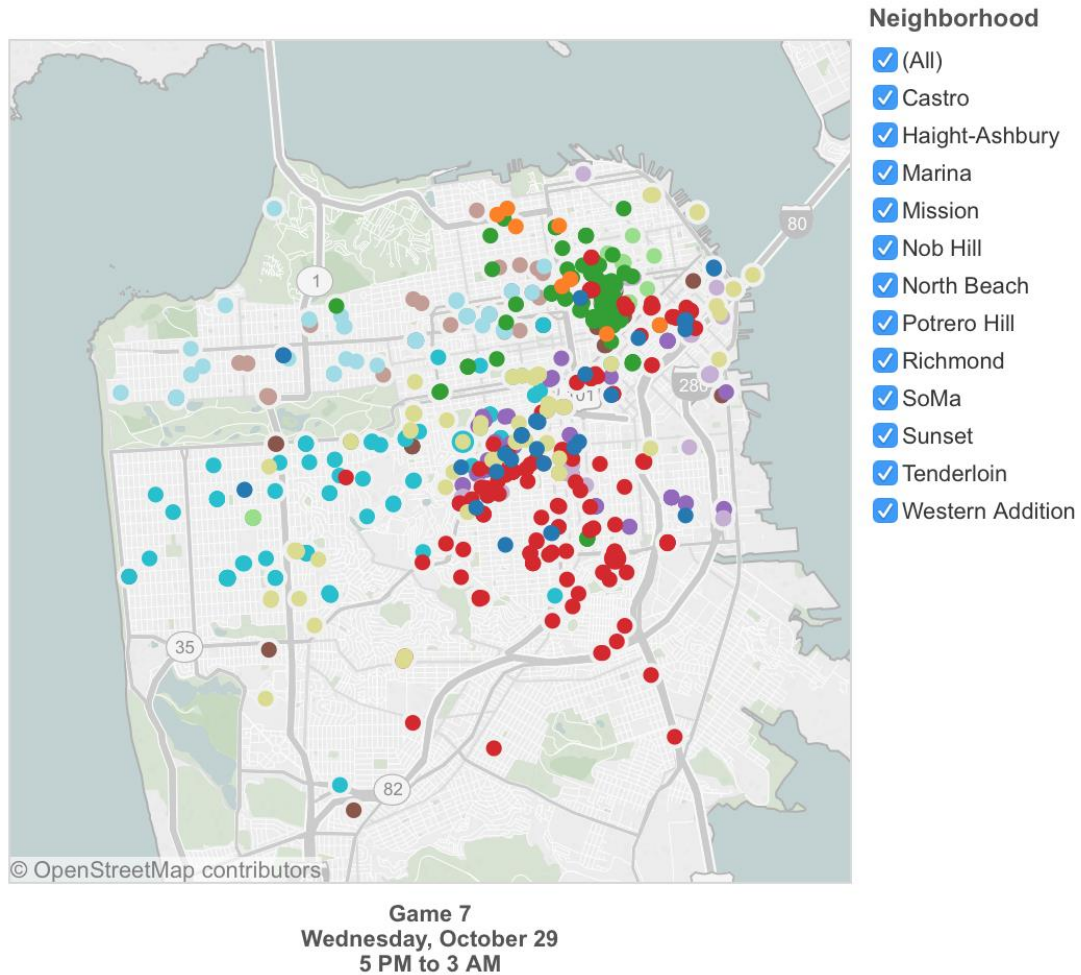


Figure 3: Where locals live and where they chose to celebrate the World Series win.

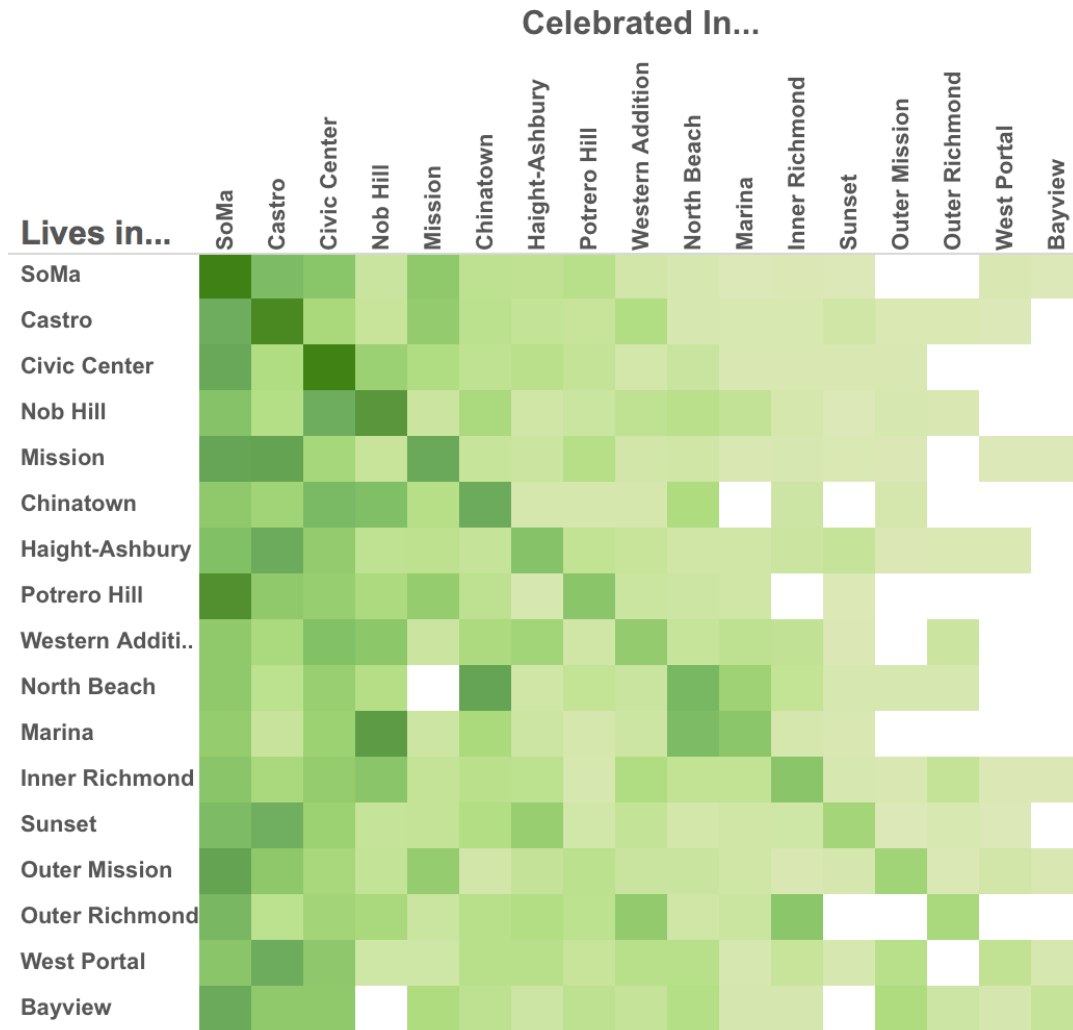


Figure 3 is a co-occurrence matrix detailing the migration patterns of locals from their home neighborhoods to bars across the city. Green color denotes % of locals from a particular neighborhood—darker indicates higher attendance. Neighborhoods have been ranked from left to right in order of popularity.

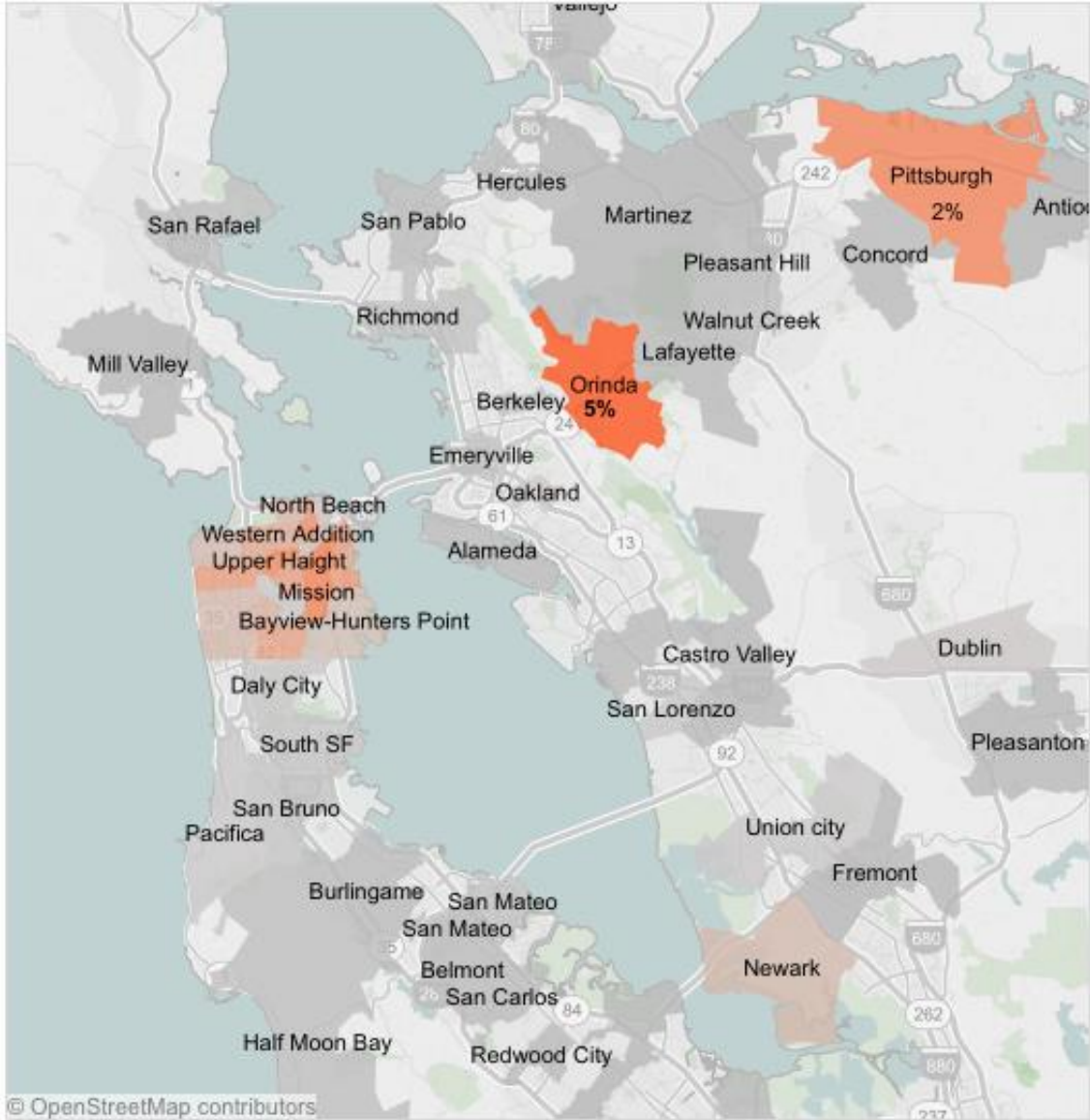
Many stereotypes proved true—the mutual disdain between North Beach and the Mission, for one, and the homogeneous intermingling between North Beach and the Marina, for another. But we were surprised to see so many Marina residents leave their home neighborhood in favor of Nob Hill (26% of bar hoppers from the Marina), as opposed to celebrating at the neighborhood bar (only 14% stayed in the Marina). We attribute this

simultaneously to the lure of Nob Hill's Polk Gulch and the Marina's penchant for rooftop parties, which were not included in this analysis of nightlife establishments. How did your Game 7 plans compare to those of your neighbors?

Orinda and Pittsburgh wore Orange and Black with Pride

1 in 4 locals is a pretty good showing— but locals made up only 52% of people in San Francisco that night. We challenged our geo-location data to tell us which of the Bay Area cities demonstrated superior fandom in San Francisco during the final game of the World Series. On a per-capita basis, Orinda and Pittsburgh traveled to SF in droves for Game 7.

Figure 4: Per capita attendance of Bay Area residents watching Game 7 in San Francisco

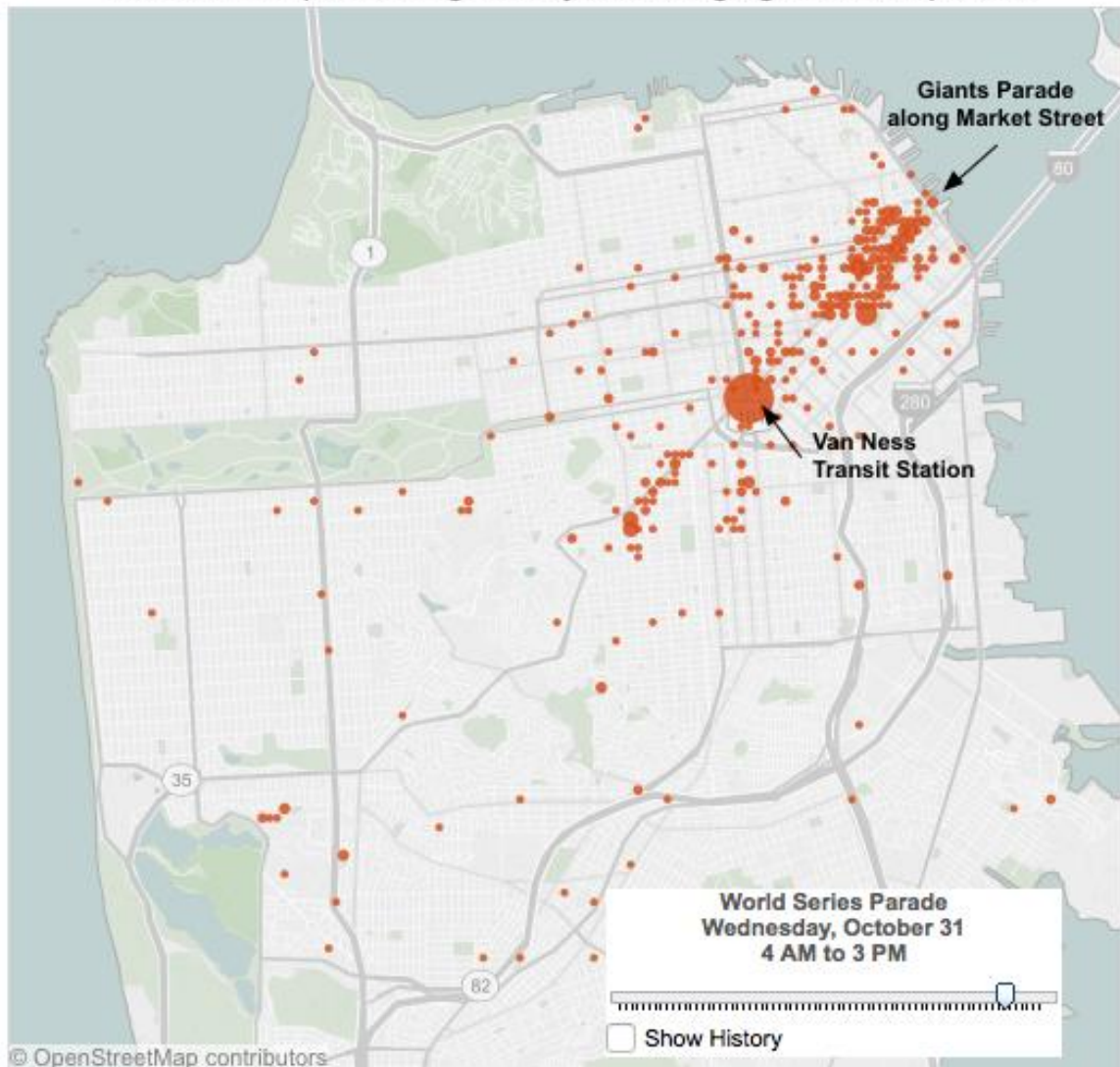


The Giants Parade

Finally, we visualized the Giants Parade on Friday, October 31. Although the parade was scheduled to begin at 12 PM, Market Street was packed by 8 AM. The figure below shows the increase in mobile devices detected, as compared to an average Friday in San Francisco.

Figure 5: Watching the bay area congregate for the parade

Interactive map: watching the bay area congregate for the parade



Consumers are more than ever on the go, whether for work or to share epic sports moments with others, and this presents both a challenge and opportunity for marketers. With the ability to read mobile patterns as RadiumOne did for the World Series, imagine what else can be done for events of all sizes?