

Babbling about BABS

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In this visualization, I have implemented three views: a map, a line chart, and a bar chart. The map is tied closely to both of the other visualizations, and can be interacted with by clicking to select elements, or ctrl+clicking to select multiple elements for a calculated average. After making selections on the map (or none at all), interacting with the line chart can be done through scrolling to initiate a zoom on minute-by-minute data points, and then clicking and dragging the view. Finally, the bar chart is mainly static by itself; mousing over will show a tool tip, and clicking different bars will highlight their position on the map and adjust data to that particular bike station.

As justification of these views, I wanted to first give a contextual and visual cue towards the data in question, which is achieved through the map. Using bicycle icon location pins, the map easily communicates the objects in question. Then, given selectable markers on a map, I wanted to provide usable average data so that riders could determine their odds of finding a bike to ride. That manifested in a line chart, which shows the average number of available bikes on a per-minute basis, which can be further investigated through zooming. Lastly, the bar chart took form as a desire to visualize where riders end up – each rider that parks their bike at a specific station adds to the area of that bar.

From an overview of the bar chart, it can be seen that an overwhelming majority rides end up at one of the two Caltrain bike share stations. When I first plotted the data on the map, it was strange to me that there were two overlapping markers, but after implementing the bar chart, it was obvious that the Caltrain station was the most popular destination. Exploring that data further, we see that most rides from the Caltrain station end up at the Ferry Building, with the most popular time being around noon (garnered from the number of bikes available at the Caltrain station at that time). It's fun to imagine that this is caused by bay area residents dropping into the city for a quick lunch or stroll around the downtown area.

For this project, I had Schuyler Alschuler take a look and play with my visualizations. From a user point of view, the use of transitions were helpful in understanding how data changes through selection. Schuyler also noted that the zooming and filtering features shed some more insight and generally caught his attention more so than a static vis would have. After clicking through the features, Schuyler discovered a bug that I was previously aware of in regards to the map: when clicking on bar chart areas, the intended function is to create a popup on the respective marker on the map, and sort the data. It's a perfectly valid criticism; unfortunately, it's difficult to address as the click events are not occurring on the map itself, which screws up the popup function.

Extra Credit

In this assignment, I have two ways to filter and explore data – a zoom and scrub function in the line chart, and a multiple selection feature in the map. These tie in with the design of the overall system, allowing the visualizations to adapt to all sorts of interactivity.