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INFO 474
Assignment 3 - Part 1

I decided to first choose my data domain. I wanted to look at the sales of alcoholic beverages in the United States over the past couple decades and found that data on the Federal Reserve Bank of St. Louis' Economic Research website. This data set only had sales for each month since 1990 and I wanted to add more data. After taking a look at this data, I saw that alcohol sales were steadily increasing throughout the years. So, I decided to combine the data for number of food and alcoholic beverage workers in the USA for each month for the same years. I assumed that with the sales of alcohol increasing, we might be hiring more workers to accommodate that, so I wanted to explore that.

The first visualization I plan on making is an area graph for the sales of alcoholic beverages over time. The interactions I want to do for this one is a zoom feature and also show a description of the data points on hover. I think that the zoom feature will be helpful because you can zoom in on certain years and have that be the full shown graph if you want to only analyze a subset of the years. I think that the hover feature will be useful to find out the exact number of sales that data point, since it will be hard to tell from just the area graph. I think that the area graph will be good for comparing between different months because you can see the peaks and dips, but these descriptions will give more precise numbers. Then while I was making the storyboards for this, I remember seeing examples of brushing and linking and I thought I would implement that as well. There would be a smaller version of the entire graph and the user can select a part of that graph to show in the larger graph.

The second visualization I plan on making is a scatterplot. The x-axis will have the number of workers at a drinking place in the US and the y-axis will have the same sales data. I also want to have the same hover feature as above to show more precise numbers for the data points. The interaction I want to implement for this visualization is dynamic queries and filtering. I plan on filtering by year using a slider, so that the user can pick the domain that they want to see, and either a drop down menu or checklist for months of the year. I am leaning towards checklist, so that the user can select multiple months if they want to.I think that both of these interactions will be effective in the context of my data domain because it allows for selective viewing of the data based on month or year which is helpful if someone wants to find any patterns or trends.

Links to data sets:

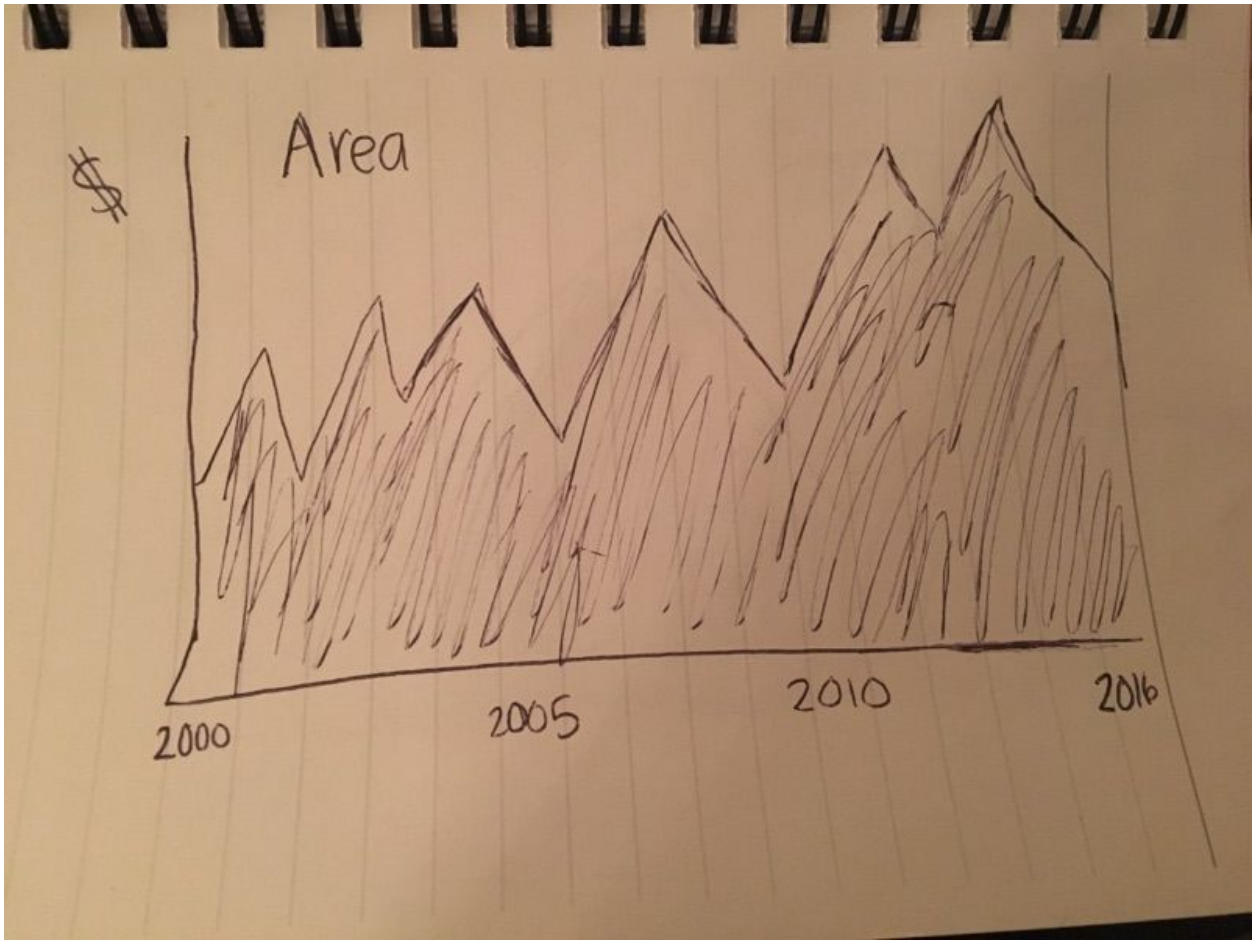
https://fred.stlouisfed.org/series/S4248SM144NCEN
https://fred.stlouisfed.org/series/S4248SM144NCEN

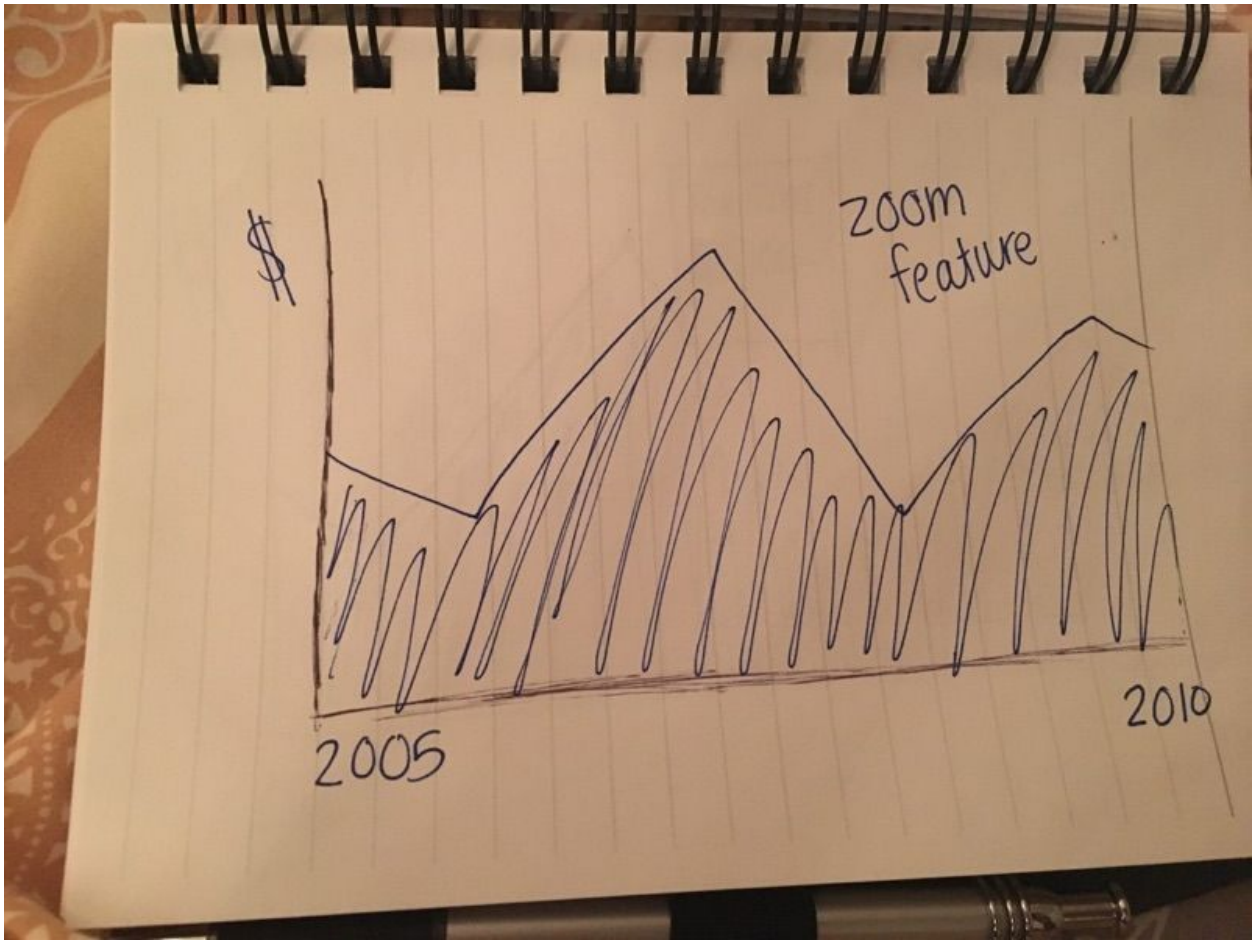
Notes on Part 1 to work on for Part 2:

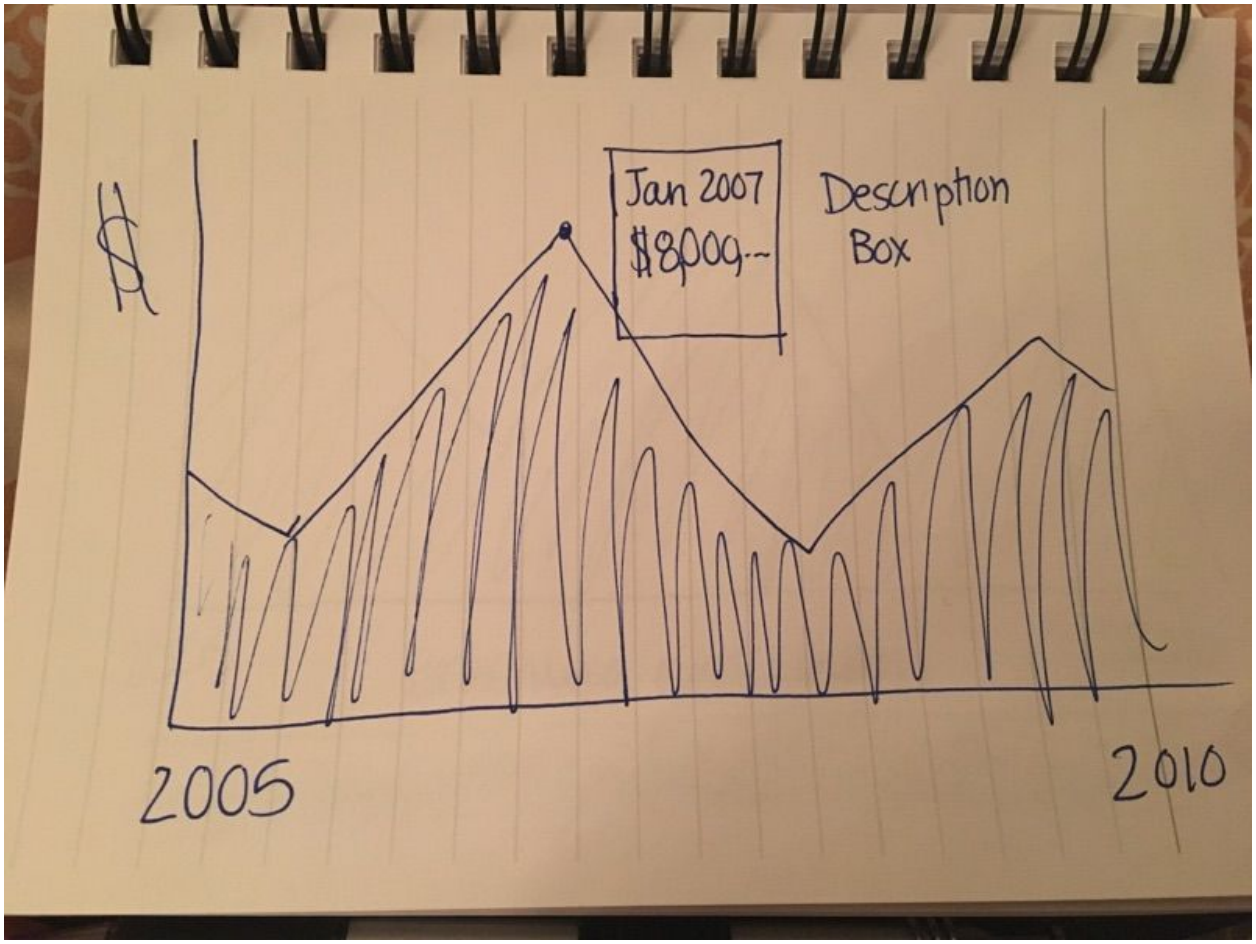
- I couldn't get the axis labels to show up, so I commented them out and will try to figure it out for Part 2

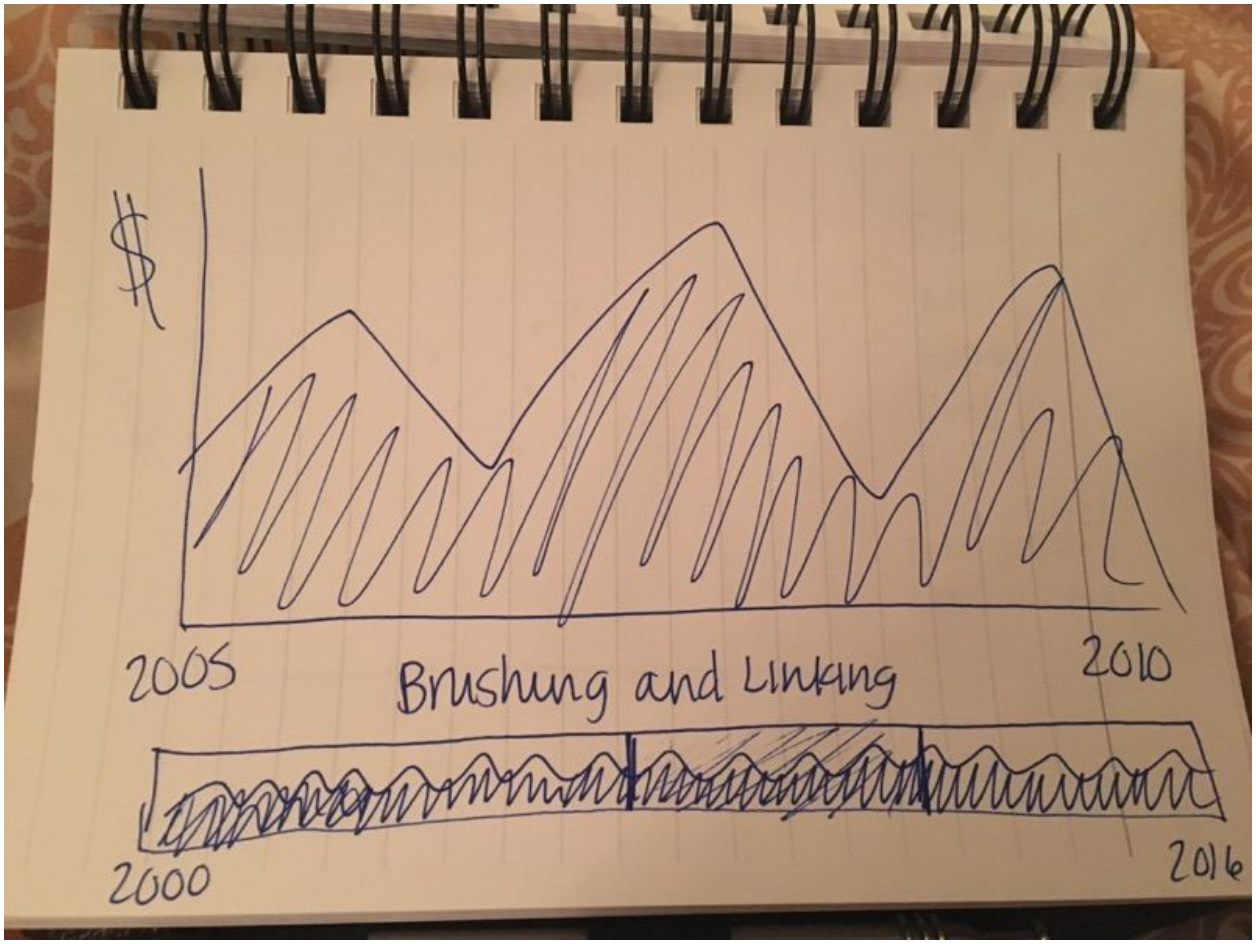
    - Y axis for both graphs are supposed to sales of alcohol in that month, in millions of dollars. X axis for the scatter plot is number of workers in a drinking establish in thousands of people. X axis for the area graph is the date.
- Potentially, I would like the smaller area graph to also link to the scatterplot and interact with that
- Try to find some categorical/ordinal data to add to my data set to allow for different colors fills for the scatterplot and also for more filtering options
- Debug the description hovers (didn't include that code for this part since we aren't supposed to have buggy code)
- Potentially change area graph to a line graph instead

Storyboards for Area Graph

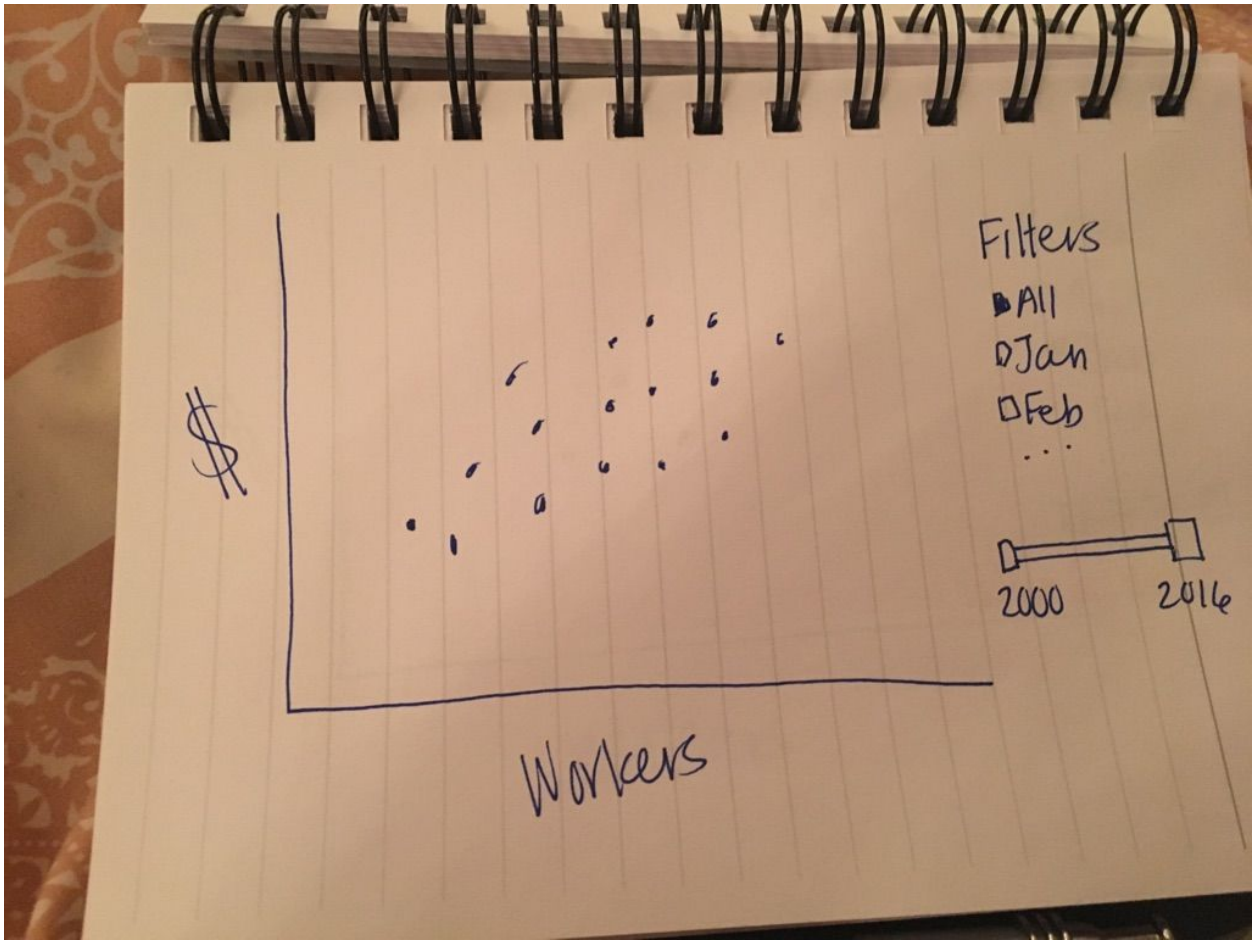


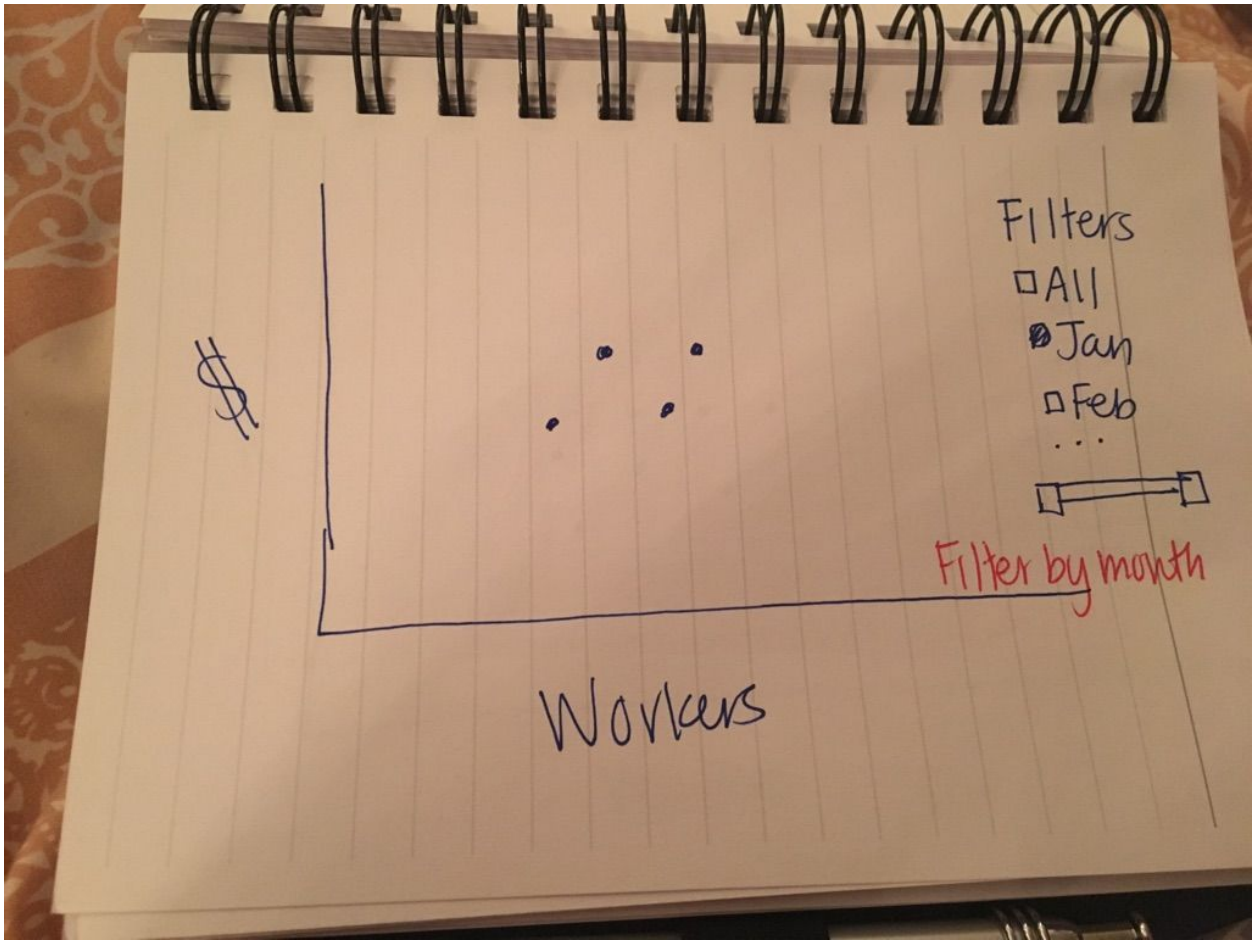

$
zoom
feature
2005
2010

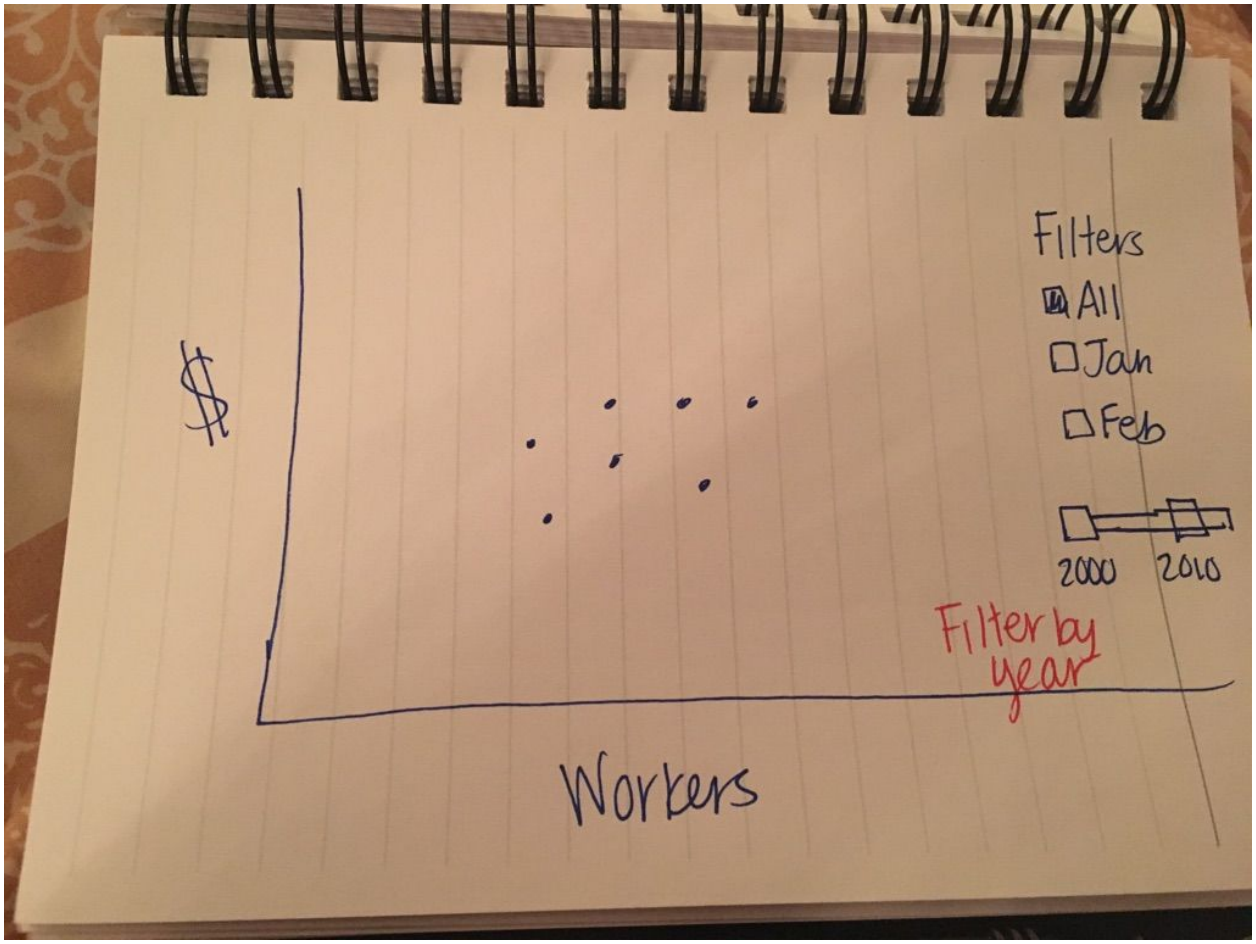

$
Jan 2007
$800g.-
Description
Box
2005
2010


$
2005
Brushing and Linking
2010
2000
2016

Storyboards for Scatter Plot




Filters
All
Jan
Feb
...
Filter by month
$
Workers


$
Filters
All
Jan
Feb
2000
2010
Filter by year
Workers