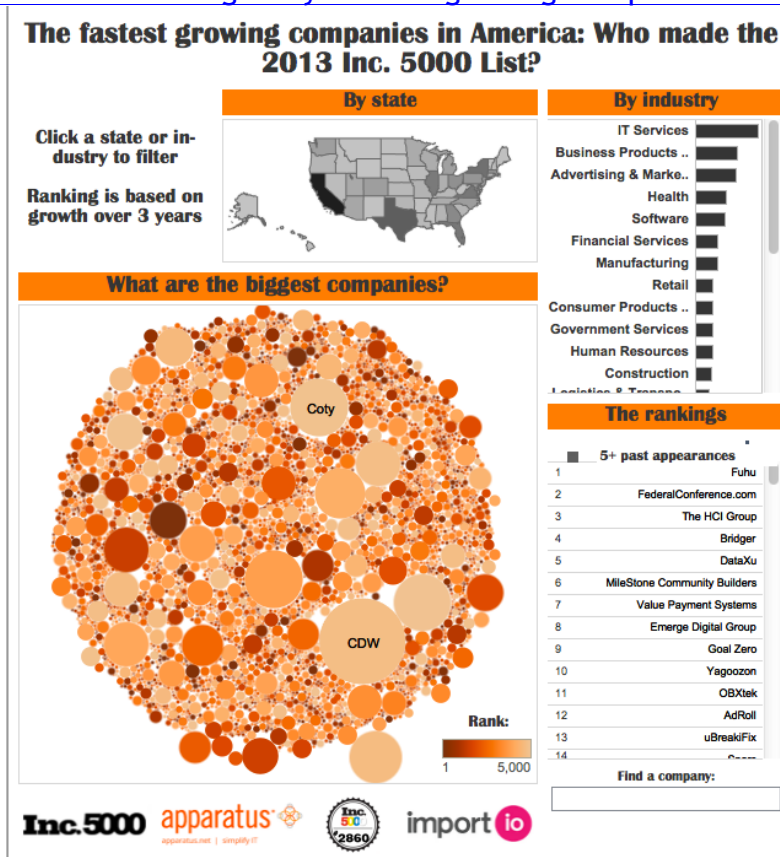Janet Montgomery
MVIS 5401 – Visual Analytics
Assignment: Redesign an existing Tableau Visualization

Redesign of: Fastest Growing Companies in 2013

For this assignment, I decided to evaluate and redesign Michael Carpenter's design called The Fastest Growing Companies in America (http://public.tableau.com/s/gallery/fastest-growing-companies-america).

The original design focused on the company rankings and the largest visualization element focused on the revenue of the 5000 companies. As I explored the visualization, I felt that the visualization elements were telling a disjointed story about the data. For instance the biggest companies element focused on current revenue amounts whereas the by industry and by state elements visualized the number of companies. Neither of these components directly related to the actual ranking, which took up significant screen real estate, which is based on growth (change in revenue). I also thought the original design's data-to-ink ratio (especially with the size of the revenue graphic) was low. There was great information included in the tooltips, but I would have liked to see more analysis and connection between the elements.

In my redesign, I wanted to focus not on the number of companies and their individual revenue but where the growth was occurring in the United States and whether that matched my mental model for job locations. As I was learning and working with the data, I found a number of errors in the original design based on the information presented on Inc.'s website. In order to include desired visualization concepts, I had to fix, at minimum, a bit of the geocoding for the elements. I also fixed other data elements, as much as I could, as I found errors. I also found that the looking at the industry grouping by number of companies versus growth within the companies provided different results. Given that you can have a large number of companies that don't produce results, I decided to focus on the change of revenue growth.

At this stage of my redesign, most of the elements are at a state level, except for the map. The map plots the values at a city level. I made this decision because I wanted to see more nuances in the location, but for someone looking at trends I thought the state level was an appropriate level of detail. Due to the variance in data values, I decided to average the measures for the detailed breakouts. Within the three graphs, the reader is able to click on any of the data points and filter the other graphs. For the map, there is also a filter option by state.

For my design, I wanted to carry the city circles design element from the header throughout. This element reappears in the map and the scatterplot. I decided to outline the circles to continue with the design but because of the overlap to help show/delineate the individual points. For the color choices, I used the Tableau 20 selection because of the volume of industry groups. I did not feel that a diverging or linear color scale made sense for the data I was encoding. Finally, I included the detailed company data in case the reader wanted more information after a selection. It is the smallest element (screen real estate wise) because it was not my primary focus in the redesign. In regards to the data-to-ink ratio, I feel that my redesign has a higher ratio particularly because it shows a bigger picture of how different company components (revenue, location, growth, employee numbers) relate within the list. Additionally

In a future iteration, I would likely do another web scraping of the data and start the data cleaning from scratch. I would like to go through data point by data point, especially with growth, and validate all the data (there were some discrepancies I tried to fix based on Inc.'s website). Additionally, the Inc.'s website include actual revenue and employee data for the companies over time which I would like to pull in as opposed to just the growth percentage used in the original design. This would allow more time lapsed visualizations. I would also consider in combining some of the industry groups, as appropriate.