

This is the sixth project for the Data Analyst Nanodegree and accompanies the Data Visualization in Tableau course from Udacity. In this project, we used Tableau to create an explanatory data visualization. Data visualization design principles are incorporated to effectively and clearly communicate a finding to the audience. Feedback is collected several times from peers in the course which is then used to iterate upon the visualization.

Summary

This visualization shows top 5000 fastest growing companies in United States for the year of 2016 and revenue contributed by them. Visualization shows top industries, companies and revenue contributed by them per each state in United States. Health, Business products & services, IT Services are top 3 industries by revenue, California and Texas are Top 2 states by Revenue. Top cities by percent growth, Revenue vs % Growth is shown in later part of the visualization. **Initial Design**

<https://public.tableau.com/profile/vishal3421#!/vizhome/beforefeedback/Story1>

I have created a dashboard with a choropleth graph showing top states by revenue, revenue is encoded with color hue. Bar graph is used to compare revenue by industry, revenue is encoded with color hue. To visualize Top companies by revenue I have used Tree map as the list of companies is long and using tree map I'll be able to show all the 5000 companies, Revenue is encoded with size of the box in tree map. Dashboard has been made interactive by adding filters. Top industries and companies by revenue per state are filtered by selecting the state in the choropleth and top companies by revenue per industry are filtered by selecting industry on the bar graph.

Top cities are represented by circles in the map, % Growth is encoded by Color hue and Revenue is encoded by size. Revenue vs % Growth is plotted by industries, % Growth is encoded by Color hue and Revenue is encoded by size.

Feedback Interview 1

What do you notice in the visualization?

Feedback: I see a revenue of different states compared on sector basis

What questions do you have about the data?

Feedback: It would be good to post revenue of companies along with average growth in that sector

What relationships do you notice?

Feedback: I infer that these revenue numbers hint on how one can develop the state health or other immediate concerns by pushing the budgets into the much-needed sector

What do you think is the main takeaway from this visualization?

Feedback: This is a good representation to help in budgeting government resources for underdeveloped sectors which need to be addressed such as health, food by new initiatives, schemes, subsidies for companies, etc.

Is there something you don't understand in the graphic?

Feedback: Bring in those average numbers along with growth to compare between states.

Interview 2

Your visualization is looking great and your efforts can be seen from this. However, here are my two cents.

display should be consistent in the title map you are showing. As it is not possible to show all the data, it is better to remove the data from the titles.

Text on the titles to be reviewed once.

Ex: in last slide, IT services has **highest** growth and Health has **higher** revenue generation

Interview 3

What do you notice in the visualization?

Feedback: This visualization presents the revenue analysis of United States by state wise and industry wise. In addition, highlights the top States, cities, Industries, and companies leading in terms of revenue generated in 2016.

What questions do you have about the data?

Feedback: In terms of revenue vs growth percentage chart, is the growth percentage compared to previous year or previous decade?

What relationships do you notice?

Feedback: When a state is selected it presents the revenue of that state industry wise and top revenue generated companies in that state in addition to the total revenue.

What do you think is the main takeaway from this visualization?

Feedback: Service-based industries are leading in terms of both revenue and growth than product-based companies in United States.

Is there something you don't understand in the graphic?

Feedback: Top companies by revenue it is unclear for me to know which company belongs to which industry.

(Top 3 industries by revenue chart)

Post Feedback Design

https://public.tableau.com/profile/vishal3421#!/vizhome/FinalVisualization_11/Story1?publish=yes

1. Average revenue is compared to the revenue
2. Eliminated duplicate rows
3. Revenue has been labeled on the bar graph (Revenue per Industry)
4. Redundant titles have been removed
5. Bar Graph is introduced in the Top 10 metro areas to make identification easier and to avoid visual error leading to misinterpretations
6. Top ten fastest growing companies has been introduced

Data

The Inc. 500 is an annual list of the 500 fastest-growing private companies in the United States, introduced in 1982. The Inc. 5000 is an expansion of the Inc. 500, which ranks the country's top 5000 fastest-growing private companies and features a special ranking of the top 10% of the list as the Inc. 500. Inc. 5000 list for the year of 2016 is the data source for this visualization

Resources

- [Data Source](#)
- The Visual Display of Quantitative Information by Edward R. Tufte
- [Tableau Public](#)