New York Times Graphics Department  
New York, NY

Dear Mike Bostock, Matthew Ericson, David Leonhardt and Bill Marsh (Designers of Across U.S. Companies, Tax Rates Vary Greatly):

I am a student in Prof. Ben Shneiderman’s Information Visualization class at the University of Maryland. I am writing this letter in regards to your interactive visualization work at New York Times website “Across U.S. Companies, Tax Rates Vary Greatly”. I want to share with you my feedback as a user when look at your interactive graph.

I enjoyed the way you present the data and it is very clear and easy to follow. In particular, I think the animation effect when switching from “The Overall Picture” to “The View by Industry” is quite impressive. Also, the position of axis and legends in the graph are fixed for both views. This fits well to Prof. Shneiderman’s “Eight Golden Rules of Interface Design” #1 rule: Strive for consistency. It makes user easy to understand the data over varies views. I also like the idea of using bubble graph to show both the effective tax rate as well as the size of the company. In general I think this is a great visualization that is both intuitive and informative.

On the other hand, I did find some aspects that leave space for improvement.

1. When viewing in Google Chrome browser, letter “E” is lost in the label “Effective tax rate”.

2. After zoom in, bottom legend and captions are overlapped. This may become an issue for user with devices of various resolutions.

3. When switch to “The View by Industry”, bottom legend is invisible from current window because the page is too long. User has to scroll down to the end to see the legend. It might
be a good idea to stick the legend to the edge of screen or make it floating aside such that legend is always visible to user. This related to “Eight Golden Rules of Interface Design” #8 rule: Reduce short-term memory load.

4. The search function is very useful. However, after typing in a company’s name, user has to scroll to find the targeted one, which can be easily missed. If the focus of the window can be automatically redirected to the targeted company’s row, user can easily locate them.

5. In my opinion, the colors used in this bubble graph are less intuitive. At first glance, I thought different colors mean different groups while in fact they represent the percentage of effective tax. Instead, maybe colormap with one single hue fits better to this task so that user can easily get the idea of percentage.

6. Using median instead of mean can reduce the effects from outliers. For example, A.I.G group, which had an $83 billion loss while paying $8 billion in taxes, raised the whole Insurance industry average up while most of the others are stayed at levels below 34%. The current average, 51%, is not an accurate representation of the overall distribution.

7. User might want to be able to zoom in part of the graph. It will be helpful to have zoom-in feature in the graph because some area are crowded and have many small sized dots.

8. I don’t understand why Telecom industry has an overall 26% tax rate when there is only one company (AT&T) has rate at 26% and all other five companies has less rate. I suspect there is error in calculating the average or I didn’t understand the graph correctly.

Thank you for your time reading this letter and I hope my feedback can help in improving your visualization product.

Sincerely,

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