Data Visualization - Assignment 1

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Objectives I took two data sets— one with data about the percentage of land under the Defence Ministry in each state and union territory in India, and another with data about the number of ex-servicemen till 2015 in the Defence forces from each state. The objectives were the following:

- To find any correlation between the number of people joining the defence forces from a state that has a lot of defence establishments.

- To find the spread of defence establishments in states close to not-so-friendly neighbouring countries.

Source Public data at https://data.gov.in, via the Ministry of Defence.

Results and Inferences

- While there was no general correlation between the extent of defence establishment in a state and the number of servicemen from that state, two states with large defence establishments (Punjab and Haryana) contribute heavily in terms of number of people in the forces.

- Uttar Pradesh contributes highest percentage of people to the defence, but has only about 0.2% of it's land occupied by the defence. Could be due to the large uneducated population in the state for which the defence is a good option as a permanent job. Similar is the case with Bihar.

- States neighbouring Pakistan have high defence establishment— Haryana, Punjab and Rajasthan. This is explained by the long history of hostility between the two countries.

- States neighbouring China do not have that high percentage of defence establishment, which could be due to the mountainous landscape which makes it difficult to establish defence setups.

- Very surprisingly, Jammu and Kashmir has only 0.04% of it's land under the control of the Defence. This could again be because of the mountainous terrain.

Choice of Representation A mix of bar and line graph and circle packing helps serve two purposes—compare the data from the two data sets, and also compare data in each data set separately.

- A mixed bar and line graph appropriately helps make a comparison between the land occupied and the servicemen from the state.

- Circle packing visually helps in making a comparison between the land occupied in each state. Similarly, it also helps see the difference between the percentage servicemen in each state.