

## INFO3300 Project1 Final Submission

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### A. Description of Data

The dataset on median income of each state named “Median.csv” is taken from the Bureau U.S. Census’s website. The data is for 2015. The two variables from the dataset are median income in U.S. dollar, and abbreviation of the 51 states of U.S.

The dataset on list for museums in the U.S. named “museumList.csv” are taken from the website of Institute of Museum and Library Services. The dataset was initially compiled in 2014 and has been evolving so far. The dataset is consisted of the name of all the museums in the U.S, their states, cities, coordinates and many other information. We only use the state list in the database and write functions in JavaScript to compile it into number of museums for each state.

In the end we combine the two datasets into one csv file.

### B. Mapping

We created a bar chart with state abbreviation sorted alphabetically on the x-axis, and number of museums on the y-axis. Median income data is mapped through gradients of blue on each bars that represent the individual states. The 51 state abbreviations are equally distributed from 40px to 1180px on x axis. The number of museums, ranging from 132 to 2670, are mapped on the y-axis from 580px to 30px in a linear scale. The median income, ranging from \$75,847 to \$40,593, are mapped by a blue fill with opacity from 0.2 to 1.

### C. Story

The result is not exactly what we expect. We expected to find that the states with the highest annual median household income would have the most museums, and that the states with the lowest annual median household incomes would have the fewest museums. While the states with the fewest number of museums were consistently among the lowest in annual median household income, which confirmed our original hypothesis, this was not the case with the higher income states. There did not appear to be a connection between extremely high annual median income and the number of museums in the state, as many states with middle-of-the-pack annual median incomes had the highest number of museums.