

### **Insight 1**

<https://public.tableau.com/profile/hehe.kelly#!/vizhome/WhichStateHasTheBusiestTraffic/Sheet1?publish=yes>

Summary: From this visualization, we can tell California is the state with the busiest traffic as its colour is the darkest in the United States. The average transportation for California is 1.75 billion minutes (close to 2 billion minutes).

If we move the filter to the left, we can see the light-coloured states are gathered in the middle north of the country. By moving the filter further left, we can see the least busy state is South Dakota, with the average transportation time of 20.38 million minutes.

Design: The Avg Transportation used the Tableau Avg aggregation function with the formula of Transportation = (totalpop \* (Drive + Carpool + Transit + Walk + Other transp) \* mean commute

Then I add Avg transportation into colour marks and show it as a filter.

Resources: N/A

### **Insight 2**

<https://public.tableau.com/profile/hehe.kelly#!/vizhome/RelationbetweenPovertyandMeanCommuteTime/Sheet2?publish=yes>

Summary: The chart built by poverty and mean commute time numbers are shaped like a bell curve. The mean commute time ranges from 4 to 44 minutes, while the high poverty number tends to stay in the middle of the mean commute ranges around 22-24 minutes.

The filter of driving numbers is added to see how driving people distribute among the commute people. Within the bell curve, the people who choose driving are distributed at the peak of the curve.

Design: a simple chart with statistics of driving information as a filter

Resources: N/A

### **Insight 3**

[https://public.tableau.com/profile/hehe.kelly#!/vizhome/Avg\\_IncomeforfourtypesofworkInHighIncomeState/Dashboard1?publish=yes](https://public.tableau.com/profile/hehe.kelly#!/vizhome/Avg_IncomeforfourtypesofworkInHighIncomeState/Dashboard1?publish=yes)

Summary: According to the colour palette on the top map, the state with the highest total income is California (1T). When clicking California, we see the Avg. the income per cap has changed on the bottom chart. Many people in California are doing private work, the high point of the avg income per capita for private work is 60,236. There are very limited people doing family work, and the avg income is not as high as private work. For public work, the high income is accumulated around 0-20 people area and the highest avg. the income per capita is the same as private work. The highest avg. the income per capita for Self Employed is between private/ public and family work and the number of people is not as high as private work and public work.

Design: Combine the map with the calculation for total income (total population for each state \* income per capita) and the line chart of the avg. the income per capita for four types of work in the U.S. census dataset.

Resources: N/A