Our topic of this presentation is about the housing price of California.

From this graph, we can see that real estate industry plays a significant role in U.S GDP, and in California GDP. Also, we can feel that not only the tuition fee increase each quarter, but also the housing price. So we are concern about the housing price in the whole California to see whether it increase, and the reason behind that.

First, we tried to build a model by Time Series to predict the housing price each month in California in 2017. We diagnose it by setting the data of from 1996 to 2015 as training data, and setting the data from 2016 as testing data, to see whether the model is acceptable. From the graph, we can see that the difference between real Price and predict price is about 2 percent. It is relatively acceptable. Then we use this model to predict the housing price of 14 large cities in California, which we use the number of population as the determinant to filter top 14 in California. San Mateo, San Francisco, Santa Clara and Santa Barbara have the relative highest prediction price of 2017. Not surprising.

Intuitively, we come up with three basic factors that cause these three cities have the highest price- income, housing demand and supply relationship, and the population density, in general

From the income plot, we can see that the high-income people in California is focused on San Francisco, San Jose, Santa Barbara, and Los Angeles.

In the future, we will concern about more detailed factors. We will more focus on the specific reason that cause the 4 cities have the highest price. For example, we know that Santa Barbara is a holiday resort, so we need to find out the relation between the high consumption activities, or some high-class restaurants, and the housing price. And the influence of the development of super company on the housing price in Bay area.