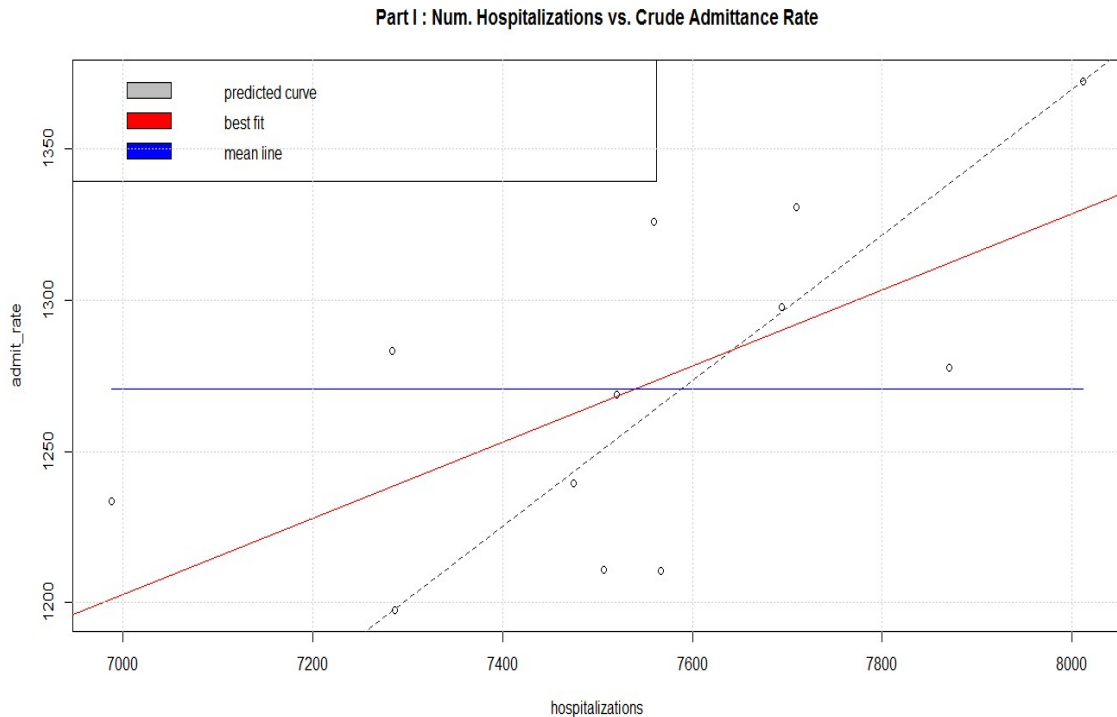


## Ozkan Emre Ozdemir – Assignment #4– Methods for Data Analysis – 4/28/2016

- "Hospitalizations" is the total number of people discharged from hospitals (irrespective of their health/disease status)
- "Crude Admittance" is the number discharged with diabetes. Both numbers are "per 10,000"

### PART I

- The Ratio between Hospitalizations vs. Crude Admittance Rate  $\sim 0.240633608815427$  which means If the total number of people discharged from hospitals goes up by 10,000 then the number discharged with diabetes goes up by 2406.33608815427
- The SSE value is 32334.0793612496
- The SST value is 34590.120091829
- and the R Square value is obtained as 0.0652221132678945  
which means that predicted linear regression line can only approximates the 6.52221132678945 % of the data points (shown below)



## **PART II**

- The annual change between Num. Hospitalizations vs. Crude Admittance Rate ~ 0.171207087486157

which means the annual change in the total number of discharges goes up by 10,000 then the annual change in discharges with diabetes goes up by 1712.07087486157

- The SSE value is 3567608.91715869
- The SST value is 3588154.37580684
- and the R Square value is obtained as 0.918810221151129

which means that predicted linear regression line can approximate the 91.8810221151129 % of the data points (shown below)

