

Assignment : Lending Club Case Study

Case Study Understanding

We are working for Lending club a finance company which has various types of loans to urban customers.

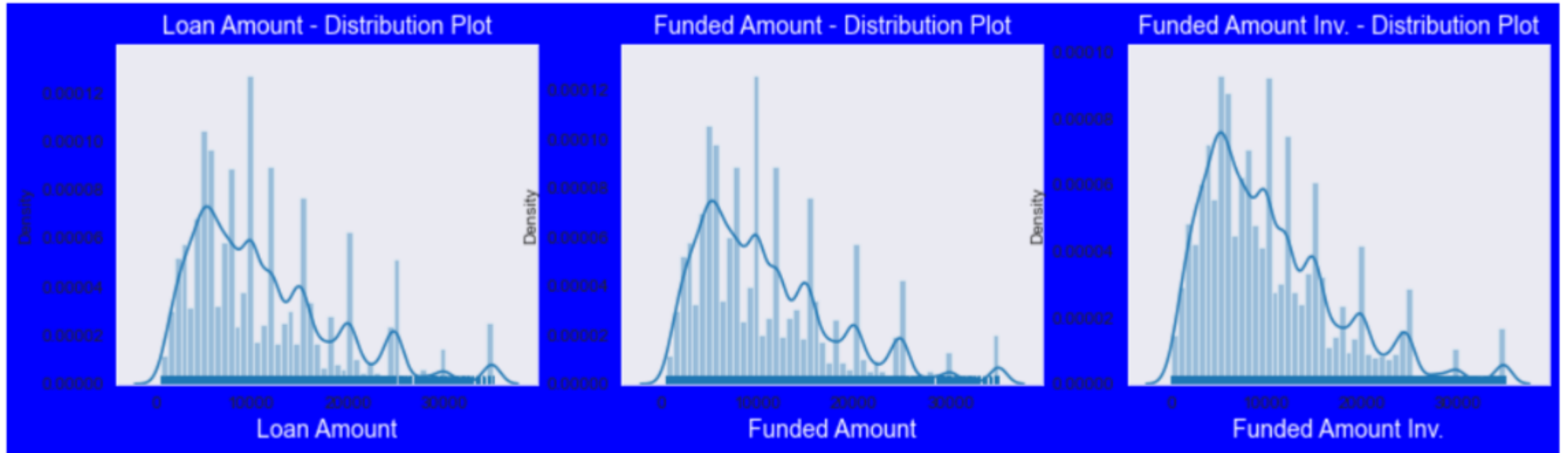
When the company receives a loan application, the company has to make a decision for loan approval based on the applicant's financial data.

As mentioned in the case study there are two types of risks are associated with the bank's decision:

1. If the applicant is to repay the loan, then not approving the loan results in a loss of business to the company
2. If the applicant is not likely to repay the loan, i.e. he/she is likely to default, then approving the loan may lead to a financial loss for the company

The main objective of the company is to understand how many customers are being charged off and also analyse all the graphs will be generated for quantitative and Categorical variables. The company can utilize this knowledge for its portfolio and risk assessment.

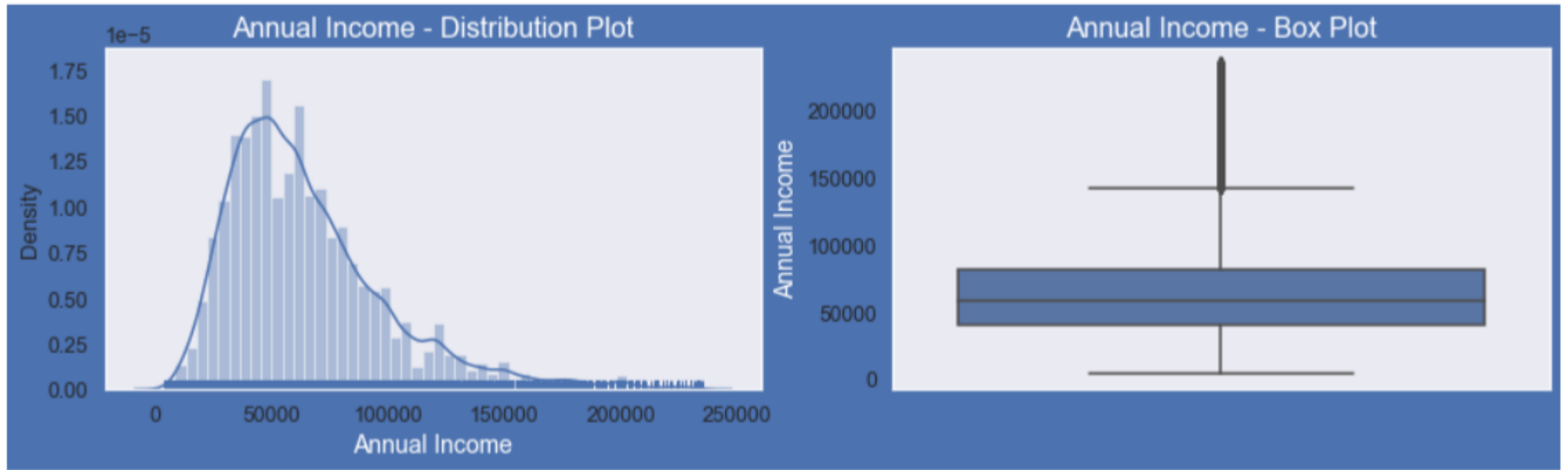
Distribution of amounts



Observations:

1. Distribution of amounts for all three looks very much similar.
2. We can consider only loan amount column for rest of our analysis.

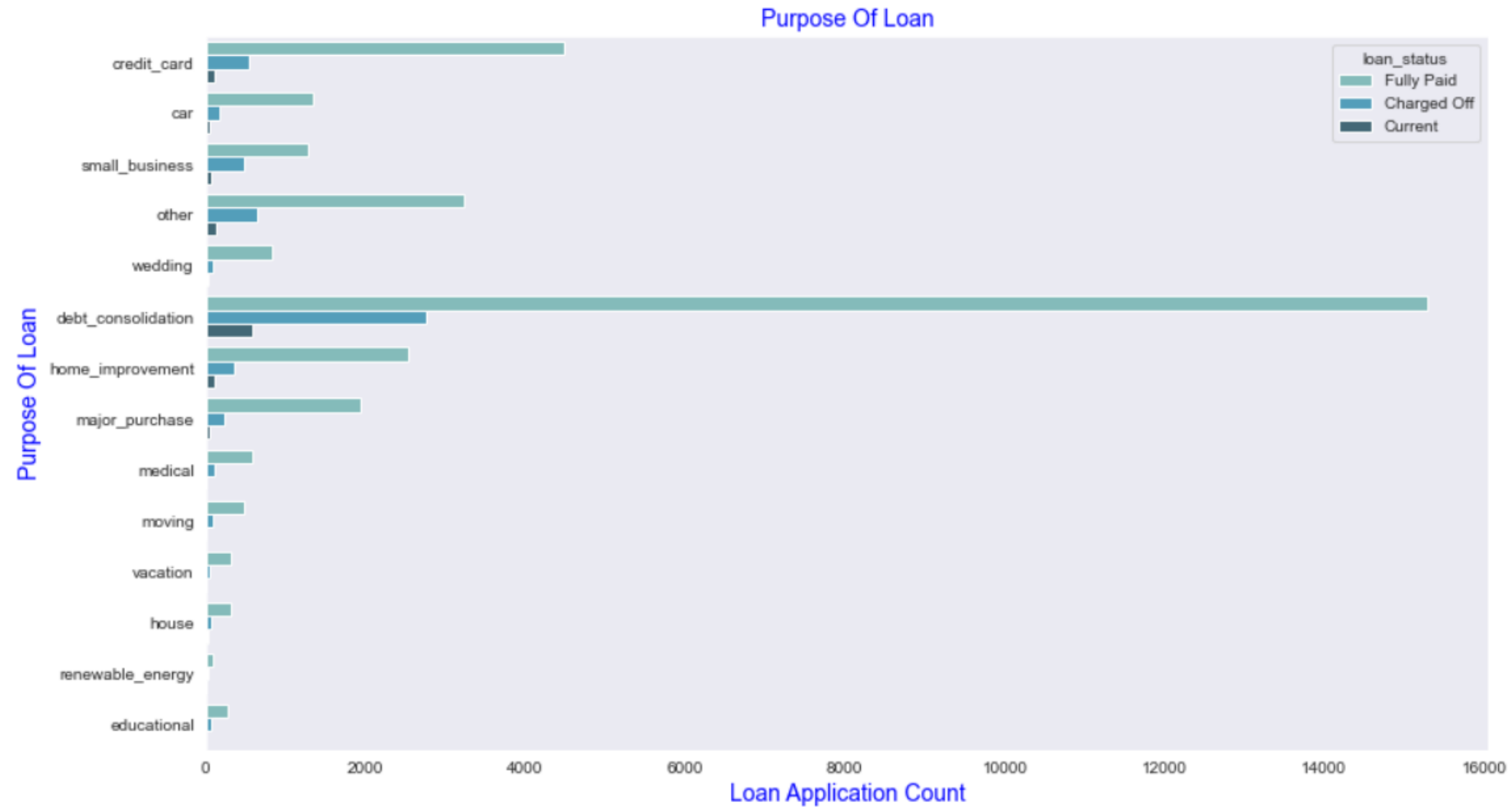
Analysis on Interest Rate



Observations :

The above plots show that most of the borrower's Annual incomes are in range of 40000- 80000

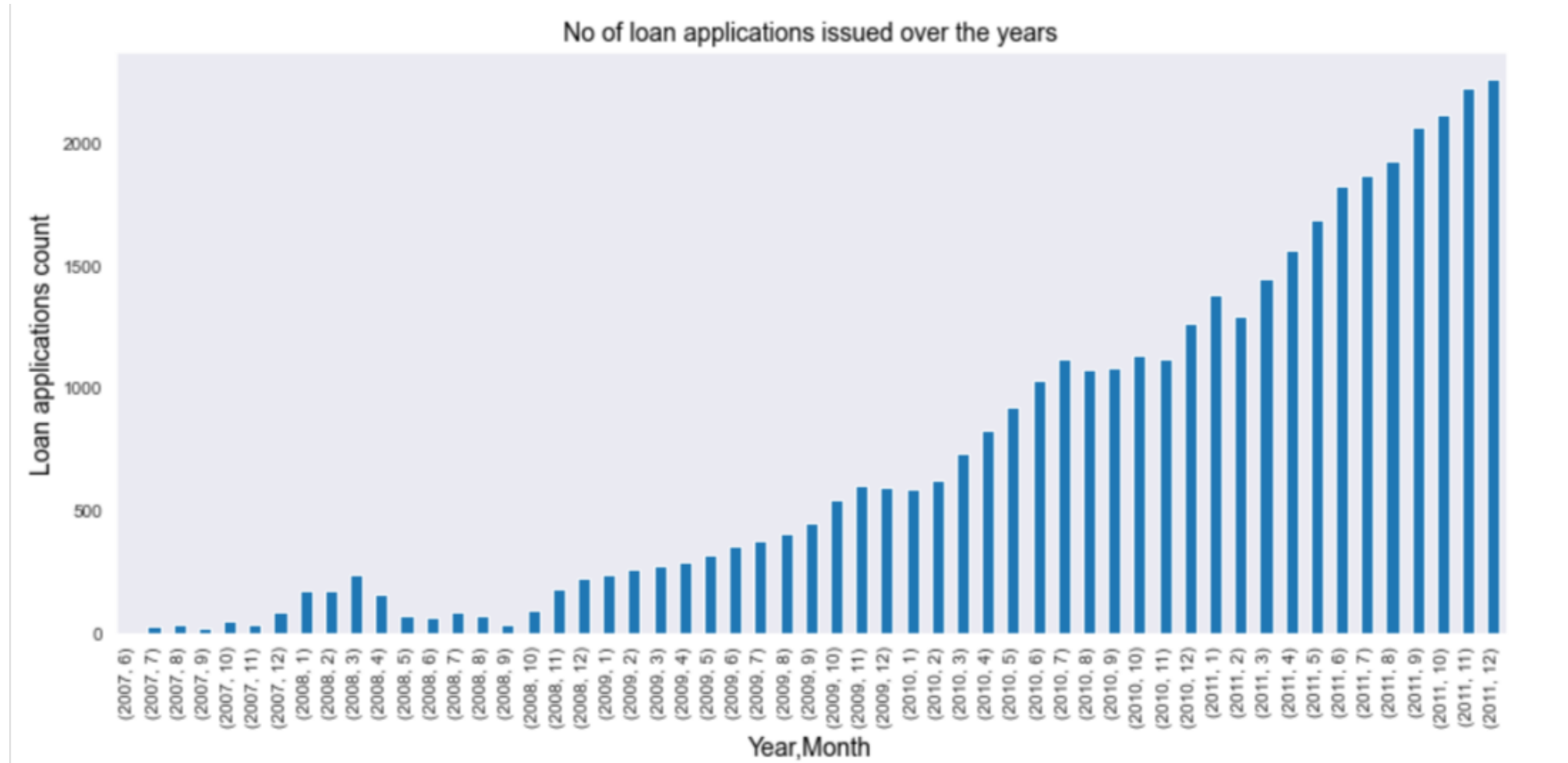
Measuring Purpose of Loan



Observations :

The above plot shows that most of the loans were taken for the purpose of debt consolidation & paying credit card bill.

Checking loan application



Observation:

The count of loan application is increasing every passing year.

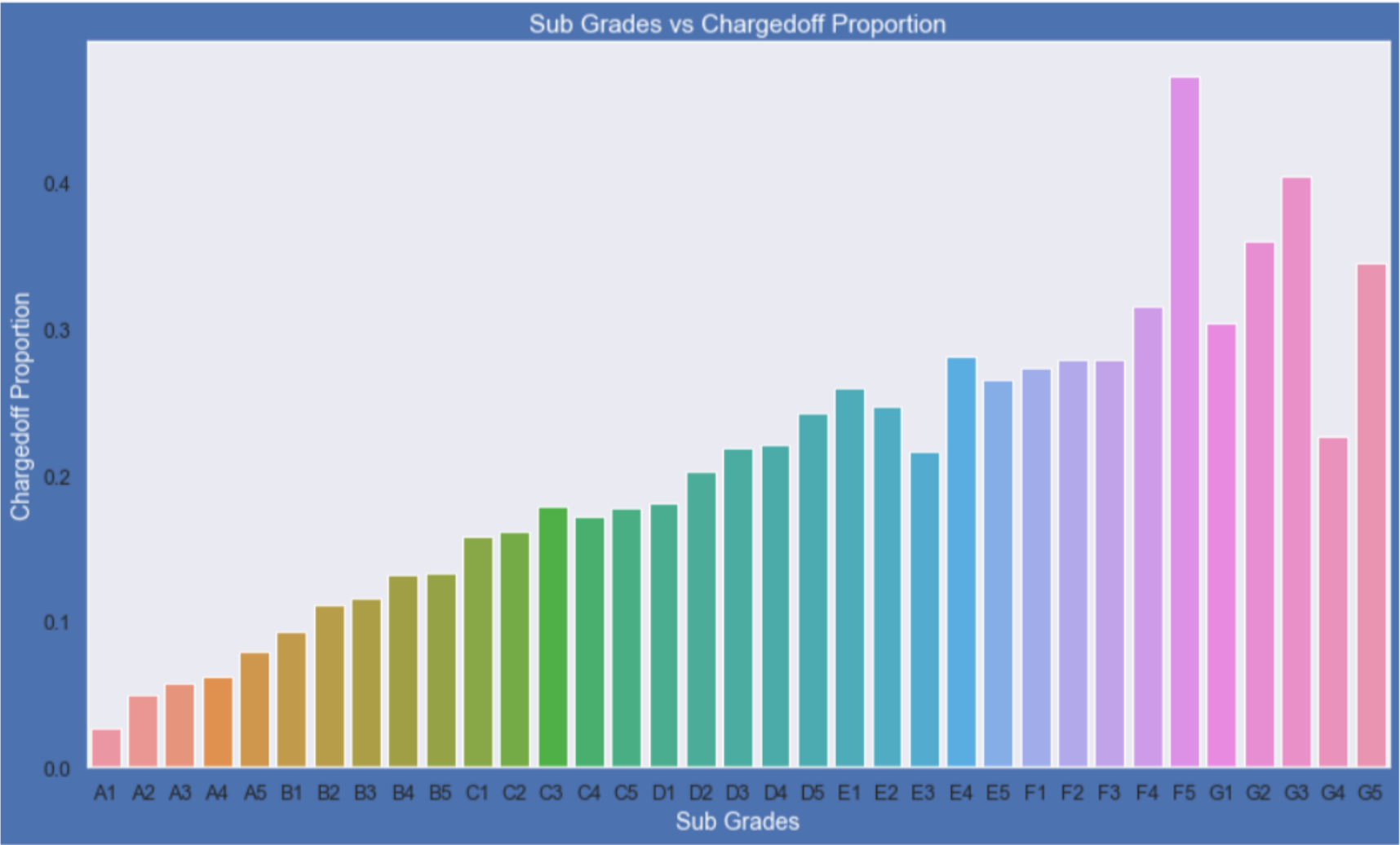
Subgrade vs Chargedoff Proportion

Observations:

Sub Grades of "A" has very less chances of charged off.

Sub Grades of "F" and "G" have very high chances of charged off.

Proportion of charged off is increasing with sub grades moving from sub grades of "A" towards sub grades of "G".



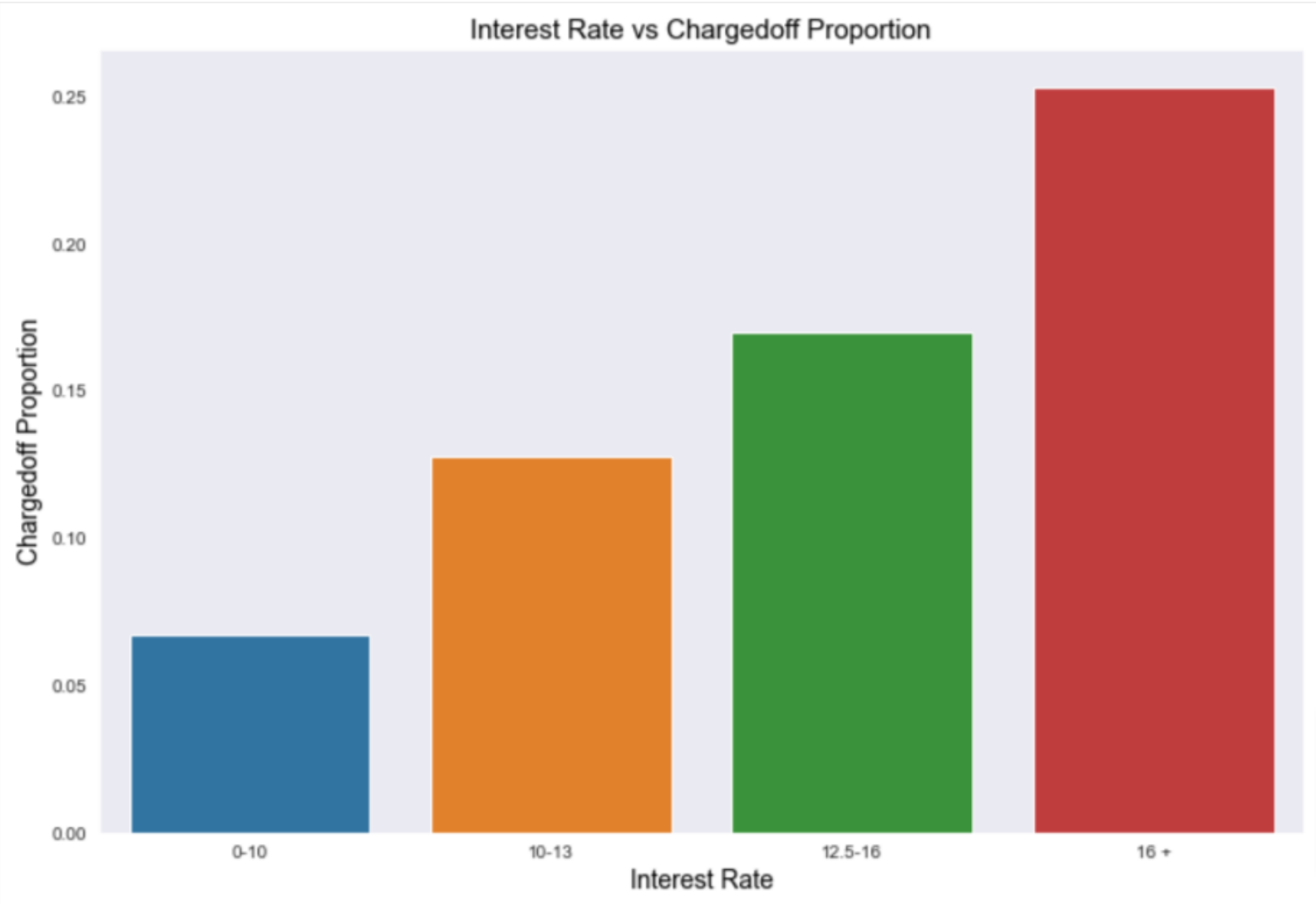
Interest Rate vs Chargedoff Proportion

Observations:

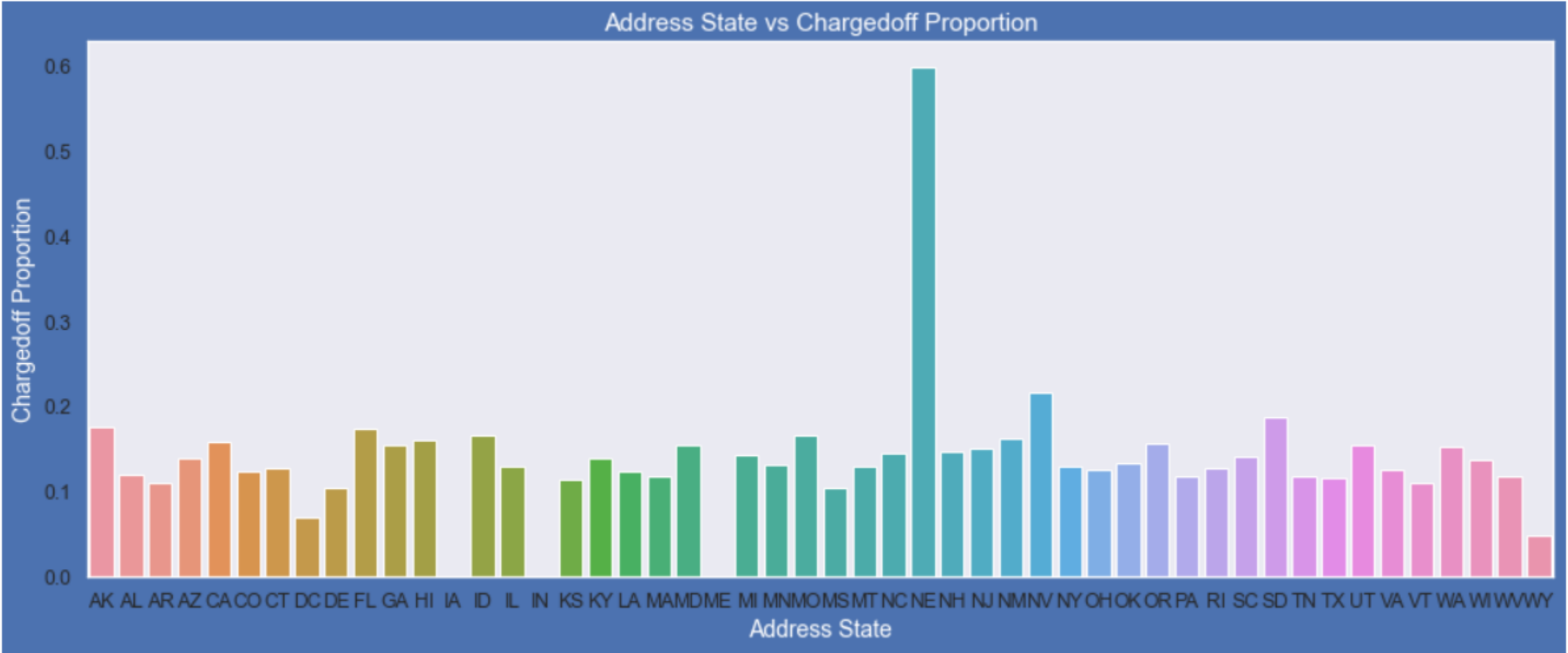
Interest rate less than 10% has very less chances of charged off

Interest rate more than 16% has good chances of charged off as compared to other category interest rates.

Charged off proportion is increasing with higher interest rates.



State wise analysis against Chargedoff Proportion



Observations:

States NE has very high chances of charged off.
NV,CA and FL states shows good number of charged offs in good number of applications.

Year wise breakup against Interest Rate

Observations:

Plot shows interest rate is increasing slowly with increase in year.

In 2011, The interest rate has gone above 22%

