Lending Club Case Study

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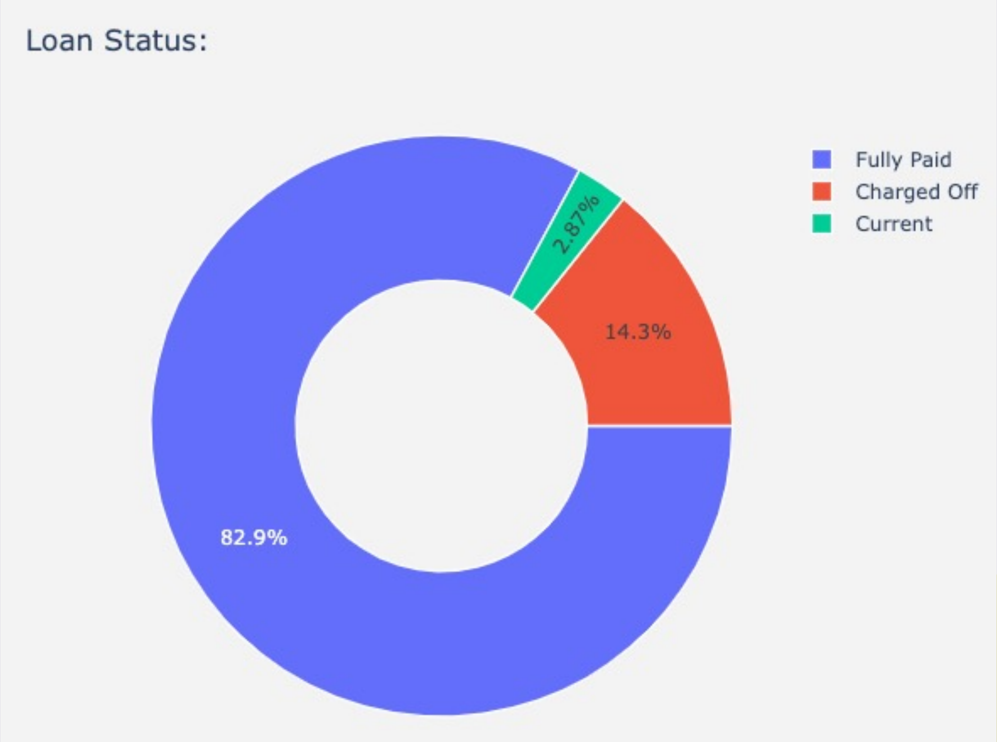
Overview

- This analysis is done on about 40k loans issued between 2007 to 2011.

- The terms of these loan data is either 36 or 60 months and all the application types are “Individual”.

- Most loans are fully paid by the Applicants.
  Some are still being paid off by the borrowers.

- About 14% loans were defaulted which are labelled as “Charged Off” as shown in the Pie graph.



Objective

- The company wants to understand the driving factors behind loan default so that they can utilize this knowledge for its portfolio and risk management.

- The objective of this analysis report helps the company to avoid lending loans to risky applicants who can cause financial loss when they refuse to pay or runs away with the money owed.

- The analysis is performed on data that was submitted by the applicants at the time of loan application and the data collected from the Bureau.

Data Information

- Each application has been assigned a grade from A to G. Each grade is further divided into five sub-grades 1 – 5. Example: A1 – A5 etc.

- The loan interest is charged according to the application grade and sub-grade. The interest rate range varies from 5% to 24%. ‘A’ grade loan has lower interest rate than ‘B’ grade loan.

- The number of loans has been increased each year and majority of loans are submitted between October to December. It could be due to the Festival/Holiday seasons when people plan to buy new things or planning for vacations.

- Most loans have 36 months term and rest have 60 months term.

Data Information …

- The loan amount ranges from $900 to $35,000. Almost 75% loans have amount under $15,000

- The majority of borrowers has a home ownership type as “Rent” or “Mortgage”. Very few have their own home.

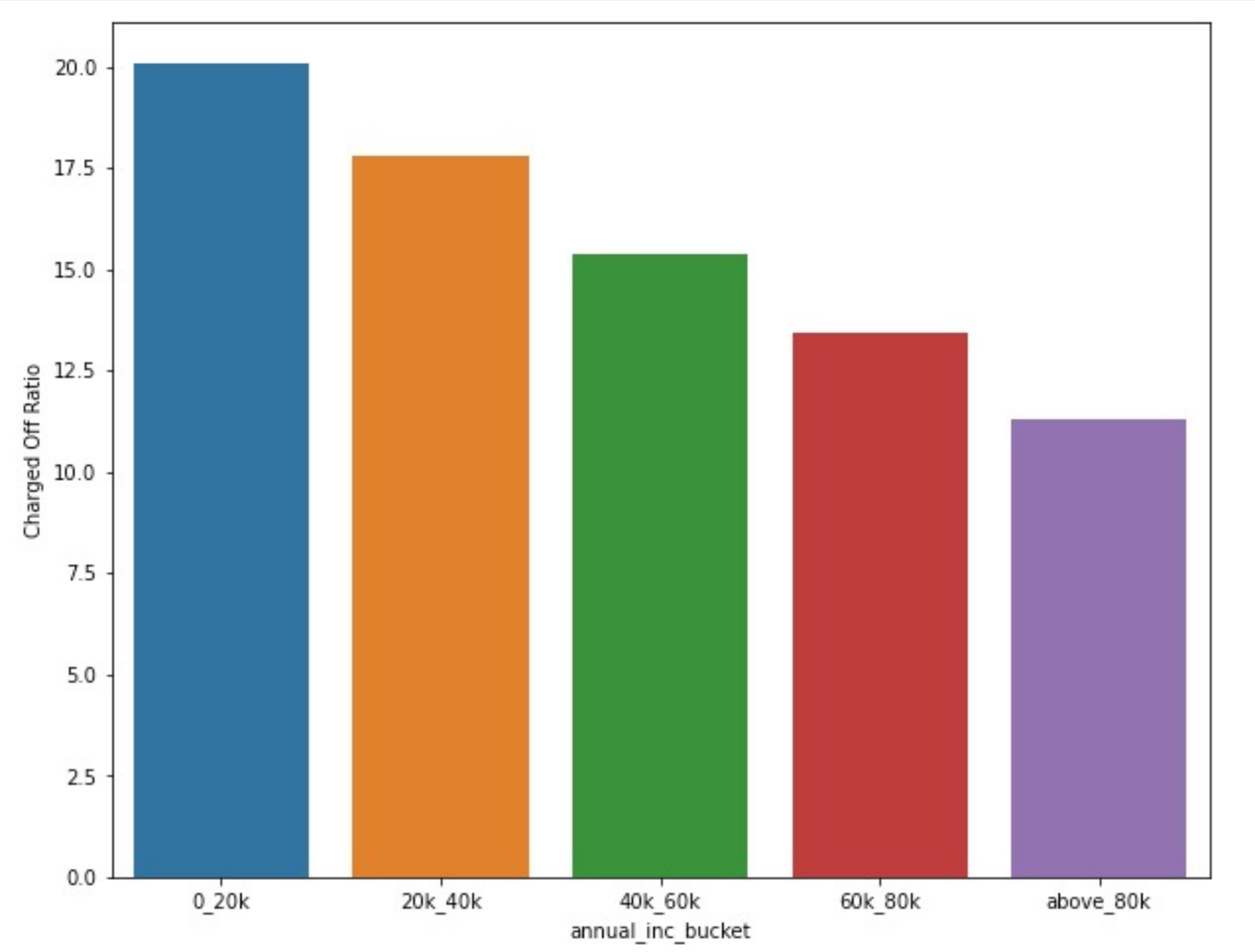
- Most of the applicant’s annual income is under $1,00,000.

- Around 43% loan applications have income verification status as “Not Verified”.

- The Debt-to-Income (dti) ratio ranges from 0 – 30 in the data.

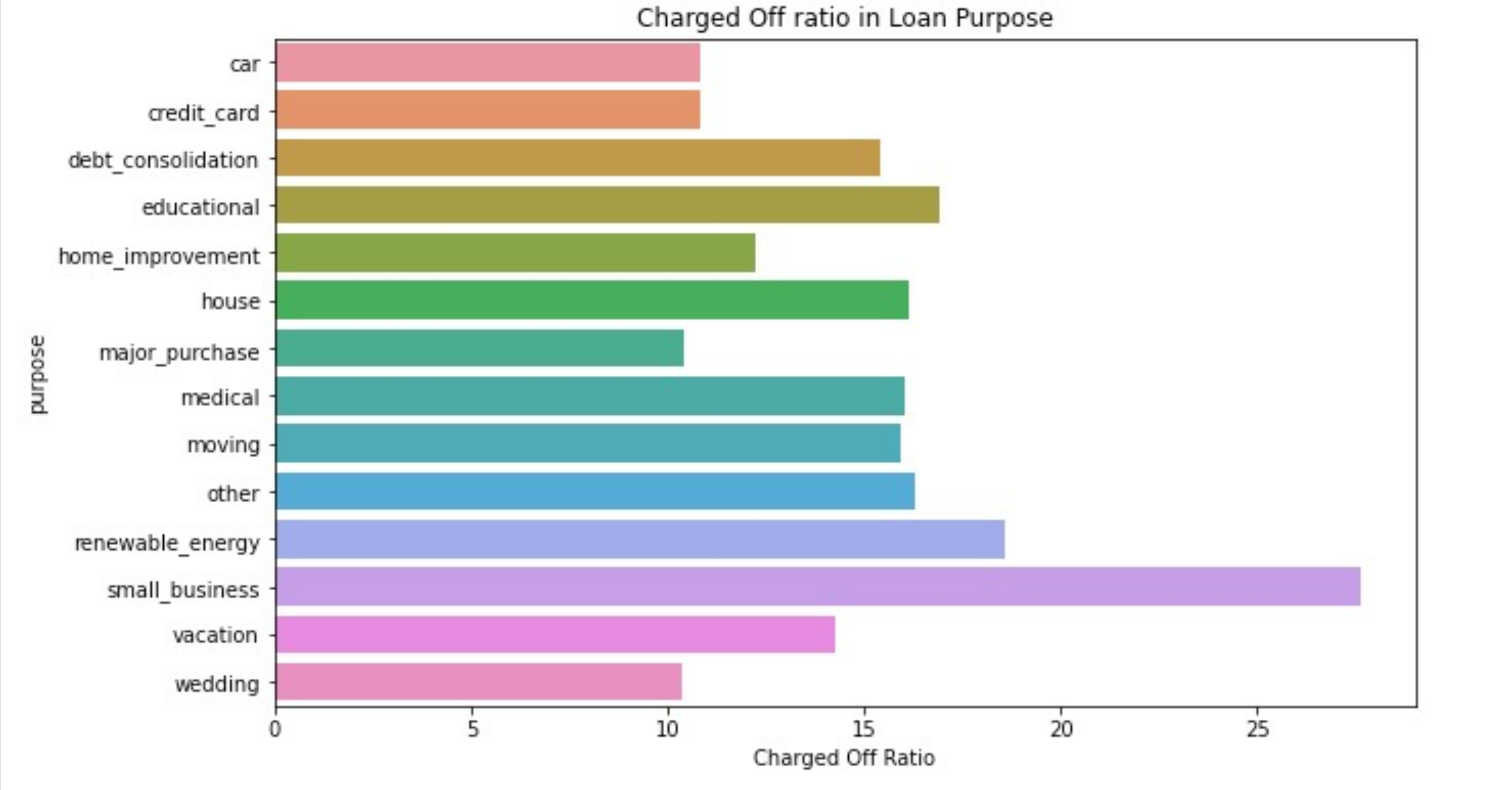
Analysis Results

1. It is observed that the ratio of Charged Off higher where annual income is under 20000



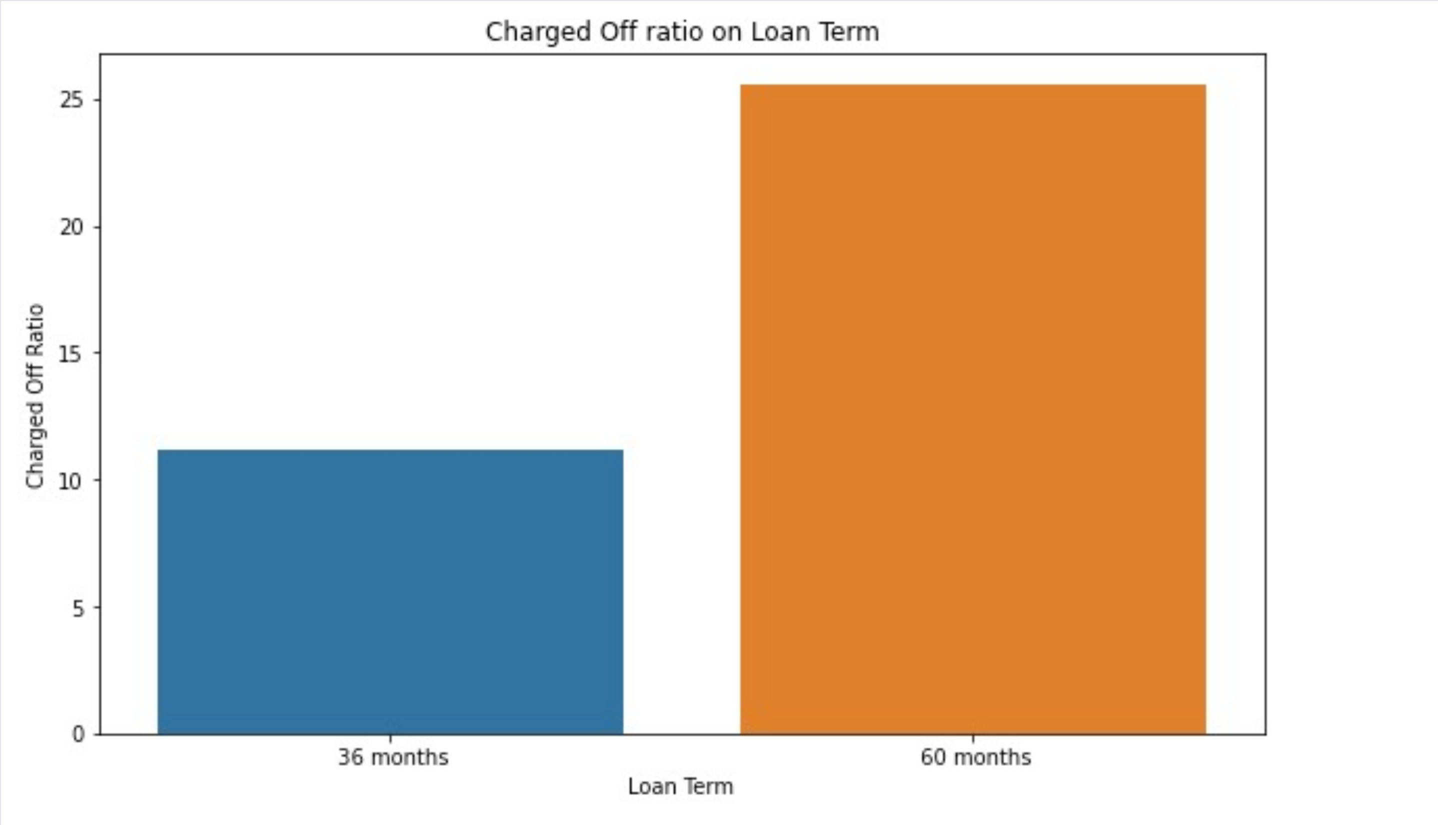
Analysis Results …

2. Small business applicants have high chances of getting default.



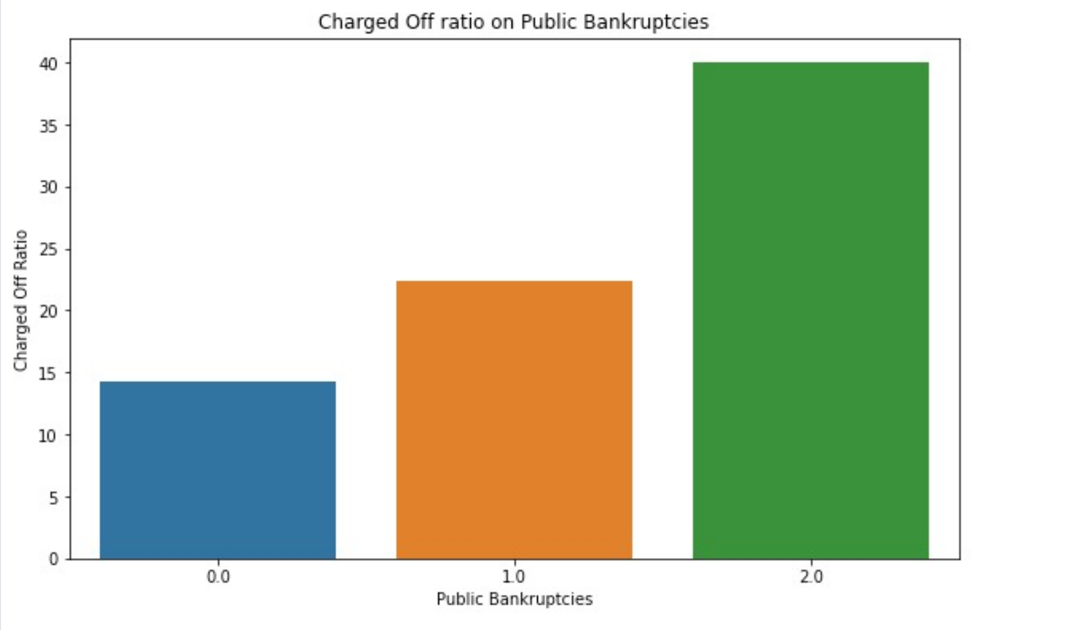
Analysis Results

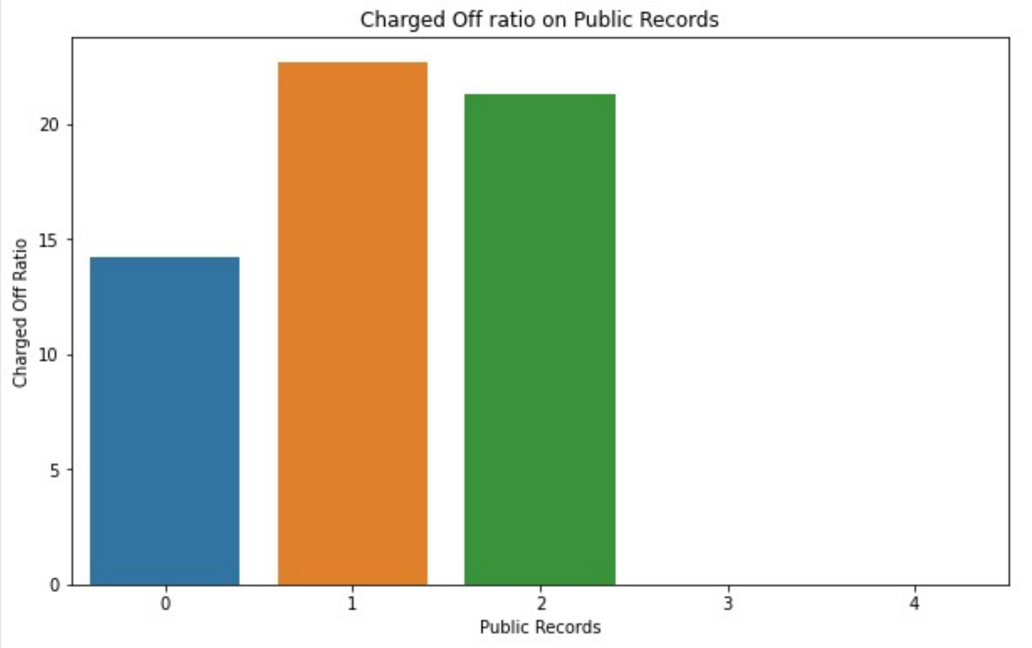
3. Although most applications have a loan term of 36 months, but the ratio of 60 months term is much higher on Charged Off loans.



Analysis Results

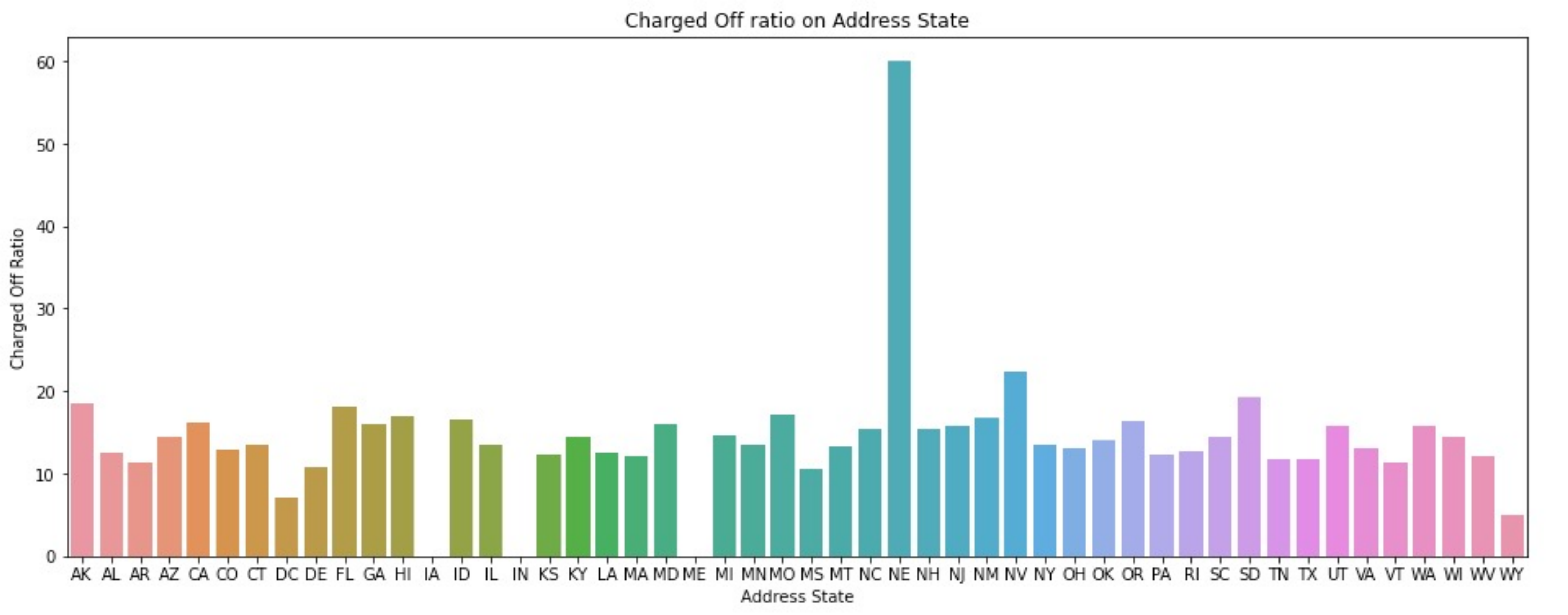
4. There are high chances of getting Charged Off if applicant has a previous Public Record or Public Bankruptcy.





Analysis Results …

5. NE state has the highest ratio of Charged Off, but the count is only 3 so we cannot make any decision on such a low number. On the other hand, NV State has a good number of Charged Off loans.



Conclusion and Recommendations

After performing all the analysis, we have reached to the following conclusion:

1. The company should avoid loans where the applicant's income is less than 20k.

2. Loans should be given carefully to small businesses as there are higher chances of getting them charged off.

3. Loan should be avoided to those applicants who already have previous Derogatory Public Records.

Conclusion and Recommendations …

4. Loan should also be avoided to those applicants who already have previous records of Public Bankruptcy. There are high chances of such applicants getting Charged Off.

5. The company should give more loans with a shorter term. Short term loans will have lower interest rates than long term and applicants will be able to pay the instalments on time.