

The background is a solid blue gradient. Overlaid on this are several sets of thin, white, curved lines that flow from the left side towards the right, creating a sense of movement and depth. These lines vary in density and curvature, with some forming more pronounced peaks and valleys.

# LENDING CLUB CASE STUDY

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Oct 04, 2022

# PROBLEM STATEMENT

- Lending Club is a marketplace for personal loans that matches borrowers who are seeking a loan with investors looking to lend money and make a return.
- The aim of this project is to analyse the existing data and suggest the driver variables behind loan default.

# APPROACH

The following steps were done on the loan dataset to identify the driver variables for loan default.

- Data understanding.
- Data cleaning and manipulation.
- Data Analysis.
  - Univariate analysis.
  - Bivariate analysis.
  - Multivariate analysis.
  - Plots to show the driver variables.

# DRIVER VARIABLES AFFECTING LOAN DEFAULT

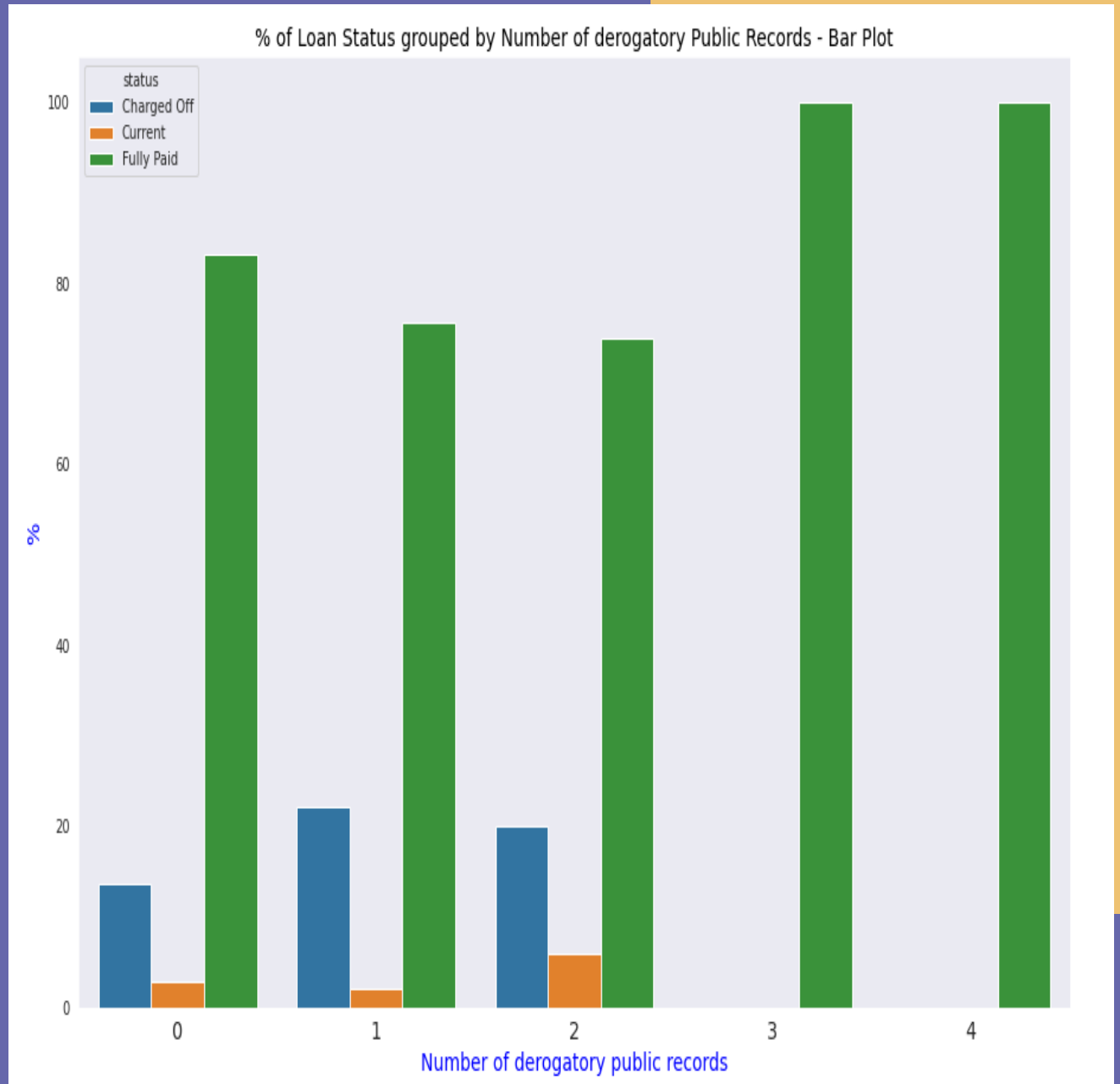
- Number of derogatory public records.
- Number of bankruptcy records.
- Purpose of loan.
- Grade of loan.
- Sub grade of loan.
- Work experience.
- Term of loan.
- Annual Income
- Interest Rate
- Loan Amount
- Revolving line utilization rate
- Number of open credit lines in the borrowers file.

# NUMBER OF DEROGATORY PUBLIC RECORDS.

Charged off percentage is higher for applicants with one or two derogatory public records.

Recommendation:

- More scrutiny before giving loans to applicants with one or two derogatory public records.

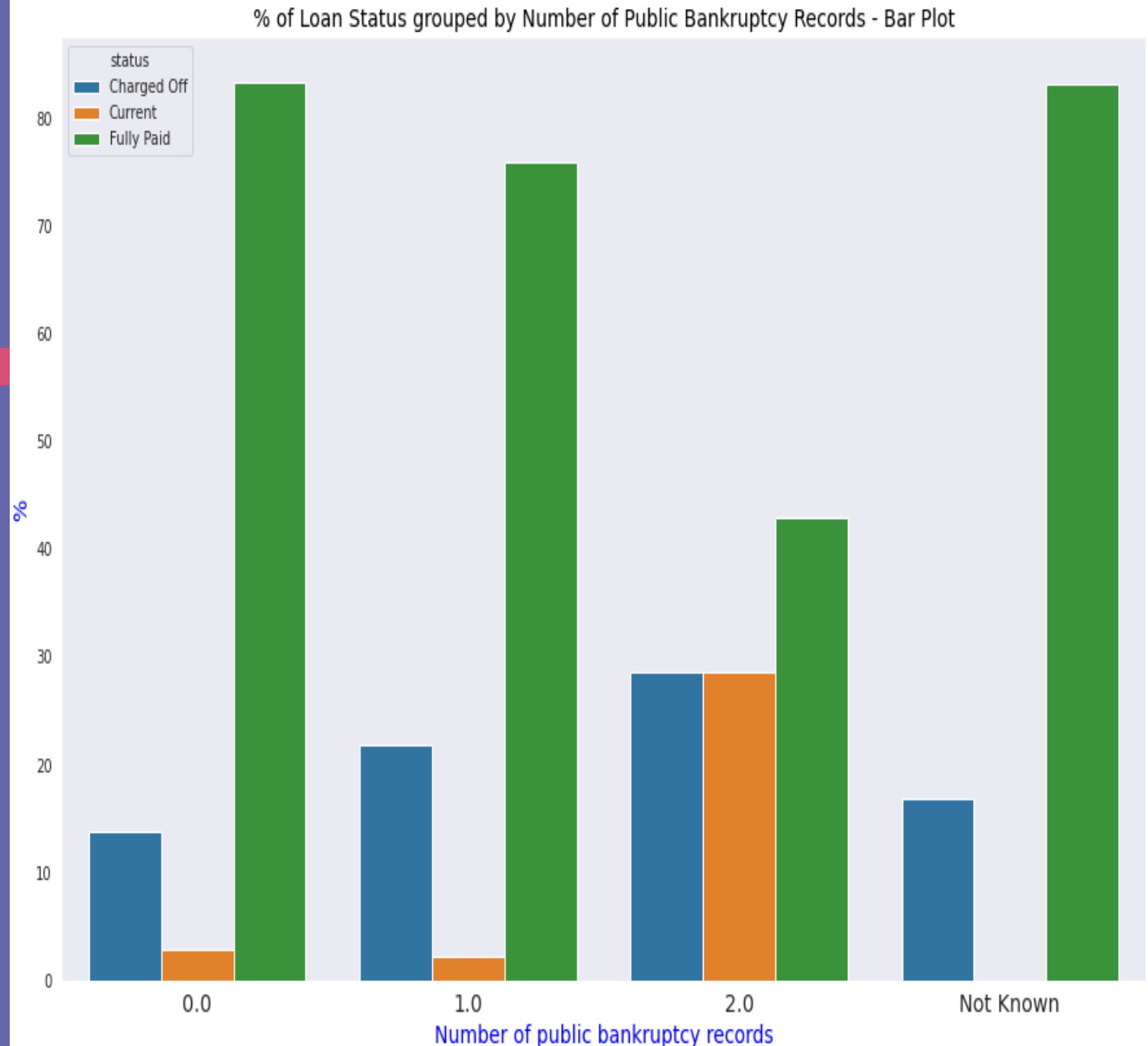


# NUMBER OF BANKRUPTCY RECORDS.

Charged off percentage is higher for applicants with one or two bankruptcy records.

Recommendation:

- More scrutiny before giving loans to applicants with one or two bankruptcy records.
- Avoid Not Known status for bankruptcy in future.

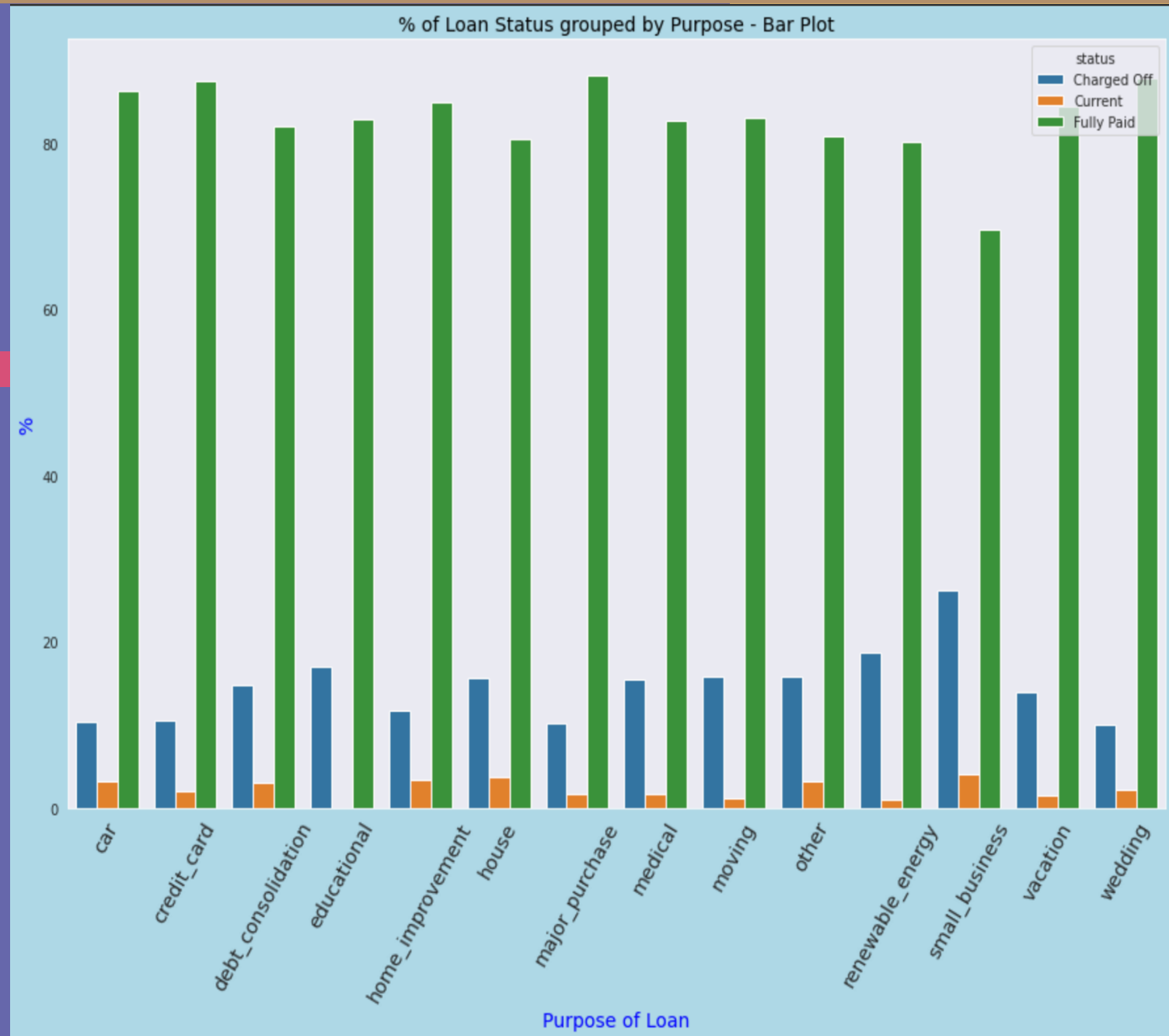


# PURPOSE OF LOAN

Charged off percentage is higher for small businesses.

Recommendation:

- More scrutiny before giving loans to small business.
- Car loans have relatively less Charged off percentage.

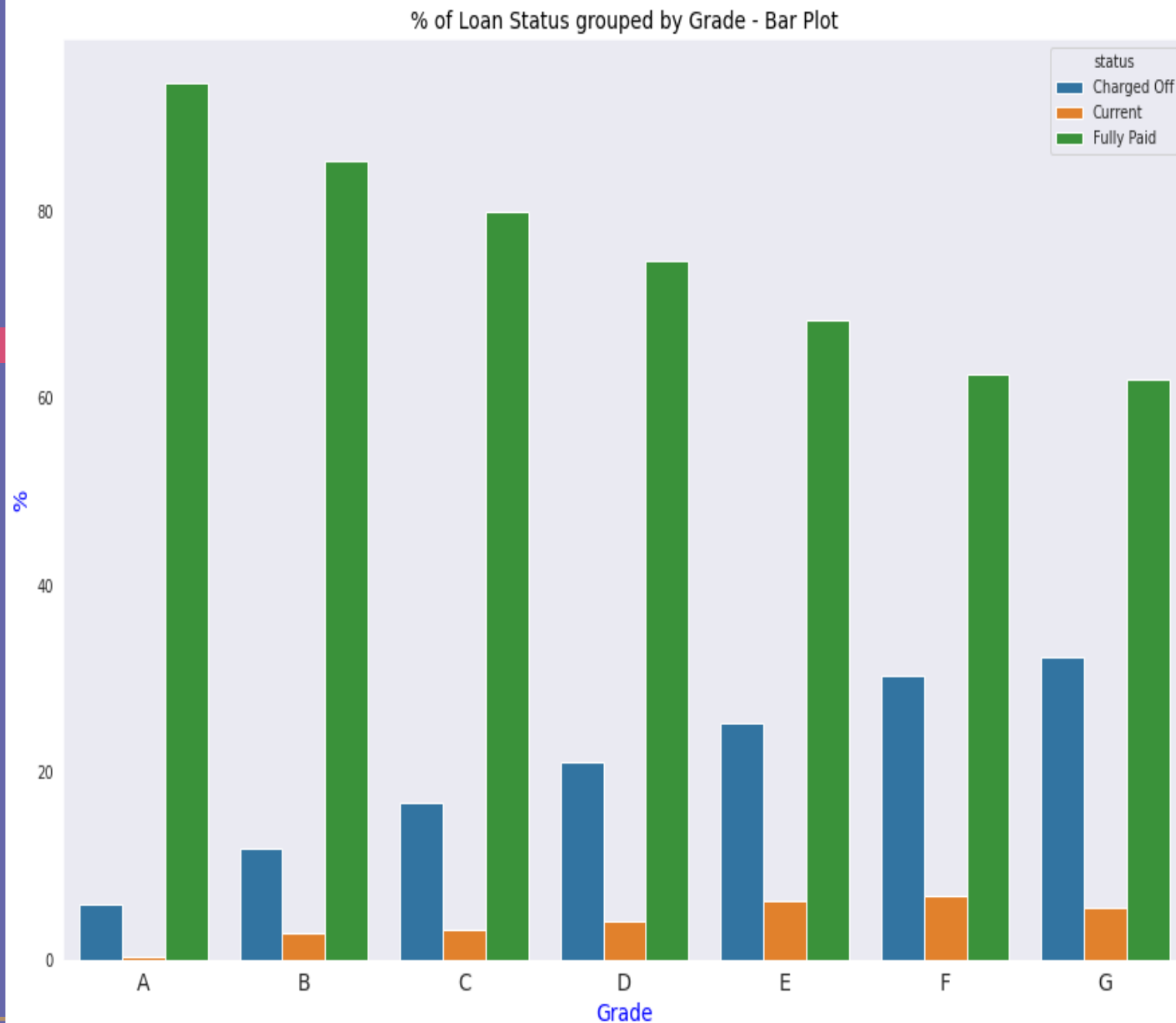


# GRADE OF LOAN

Charged off percentage is higher for Grade G loans

Recommendation:

- More scrutiny before approving Grade G loans.
- Grade A loans are safer.



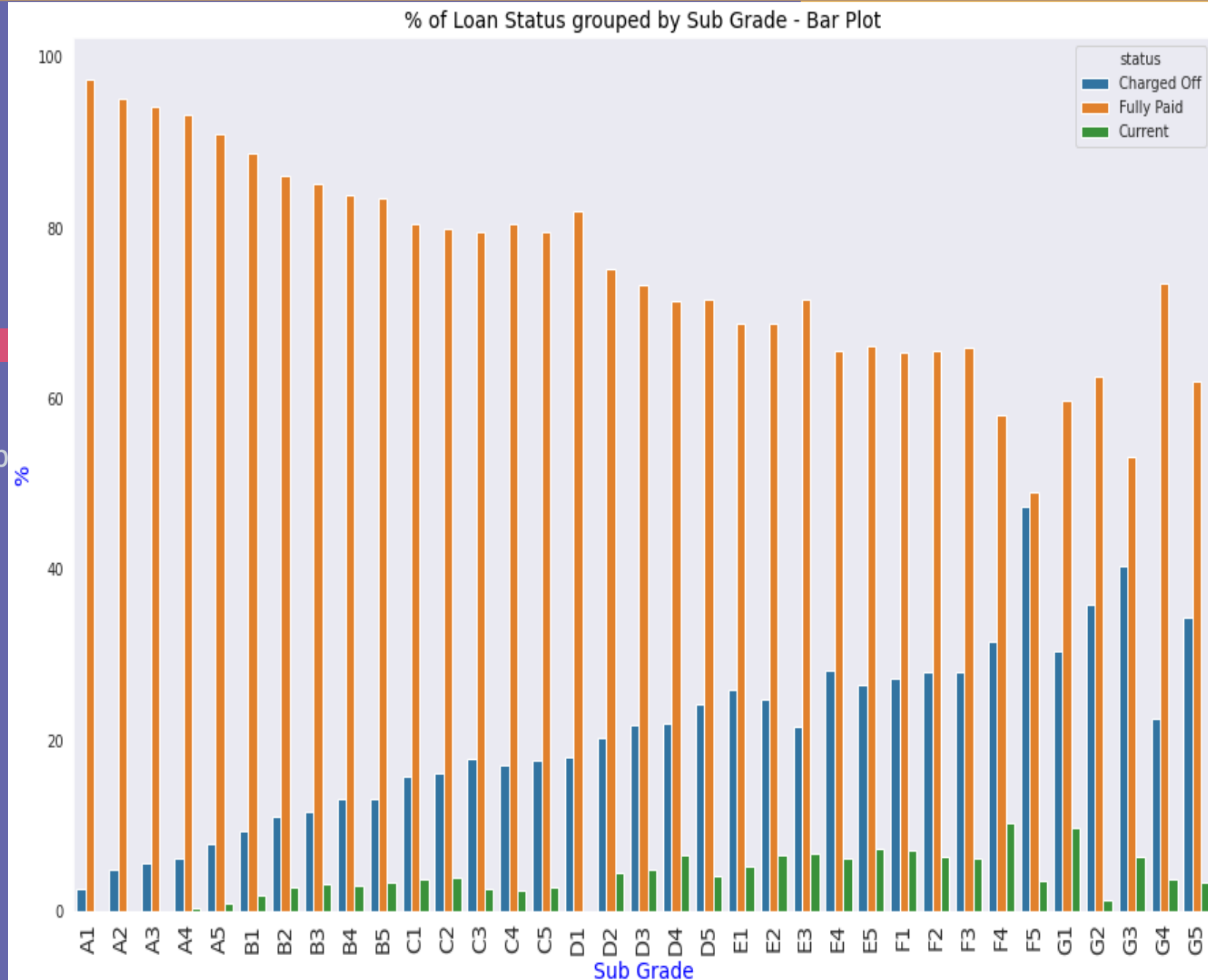


# SUB GRADE OF LOAN

Charged off percentage is higher for Sub grade F5 loans

Recommendation:

- More scrutiny before approving Sub grade F5 loans.
- Grade A1 loans are safer.

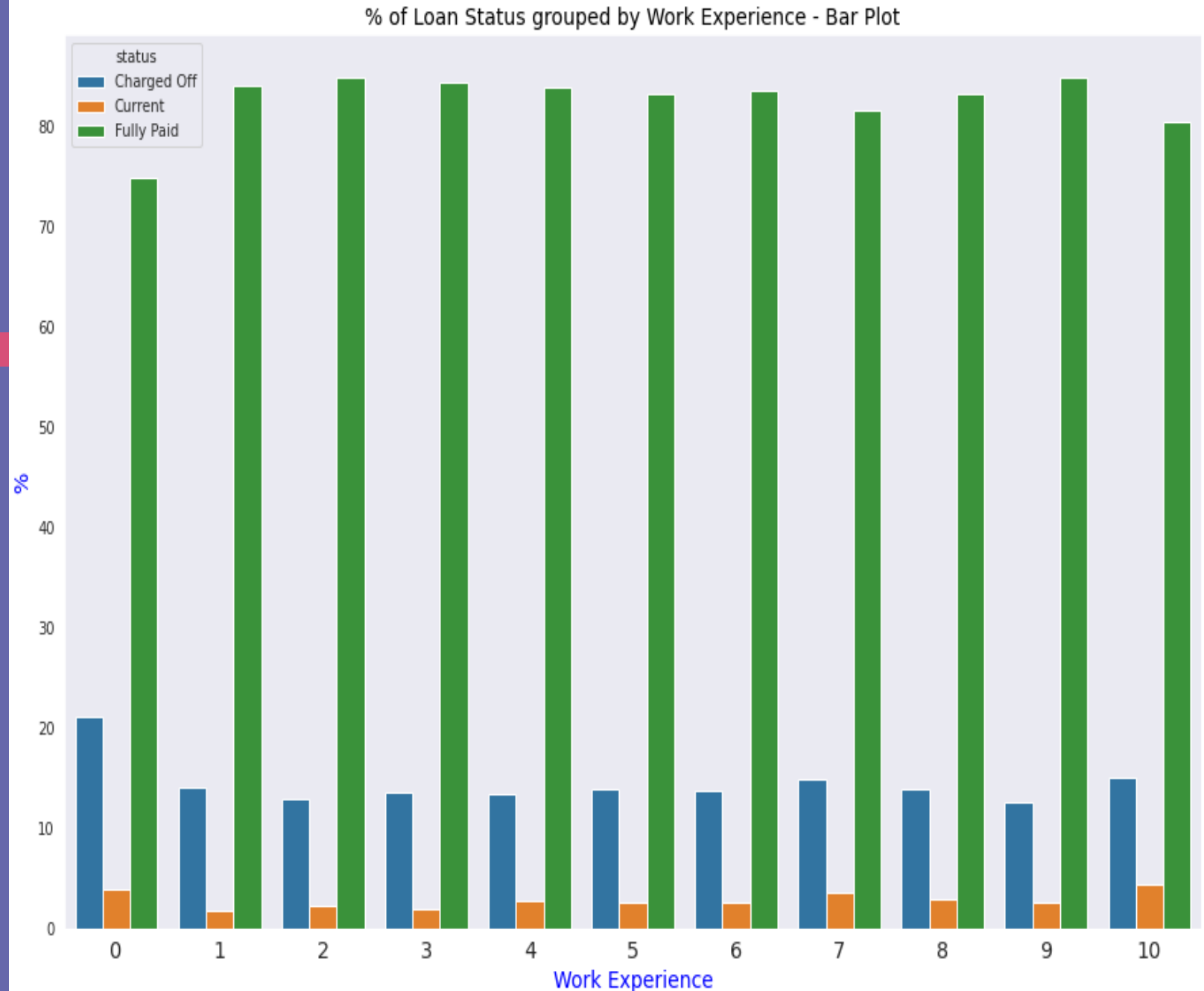


# WORK EXPERIENCE

Charged off percentage is higher for applicants with less than one year of work experience.

Recommendation:

- Loans given to applicant with 2-6 years are have lesser charged off percentage.
- More scrutiny for loan applications with less than one year of work experience.

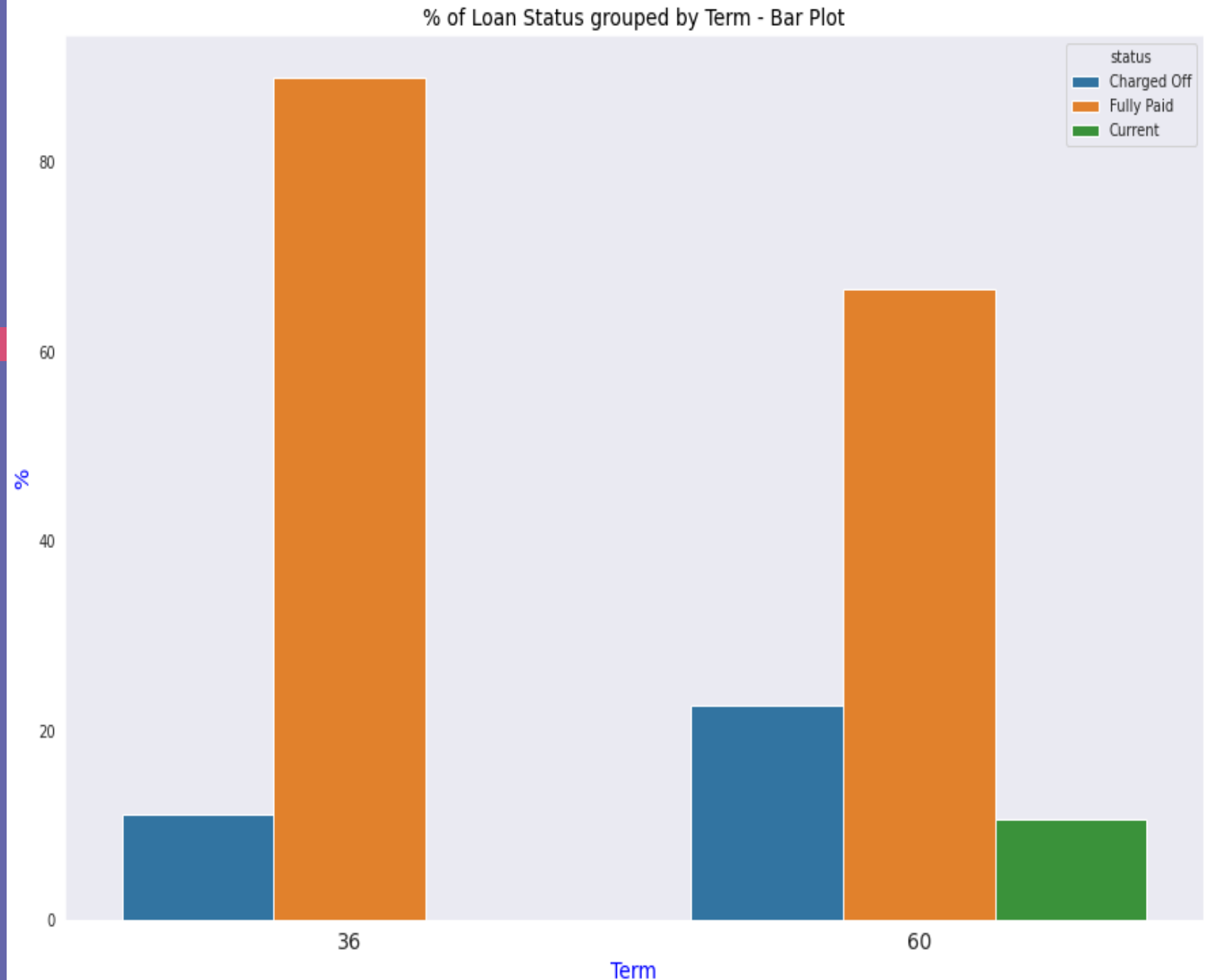


# TERM OF LOAN

Charged off percentage is higher for loans with longer terms.

Recommendation:

- Short term loans are relatively safer.
- Increase in the interest rate for long term loans can be considered.

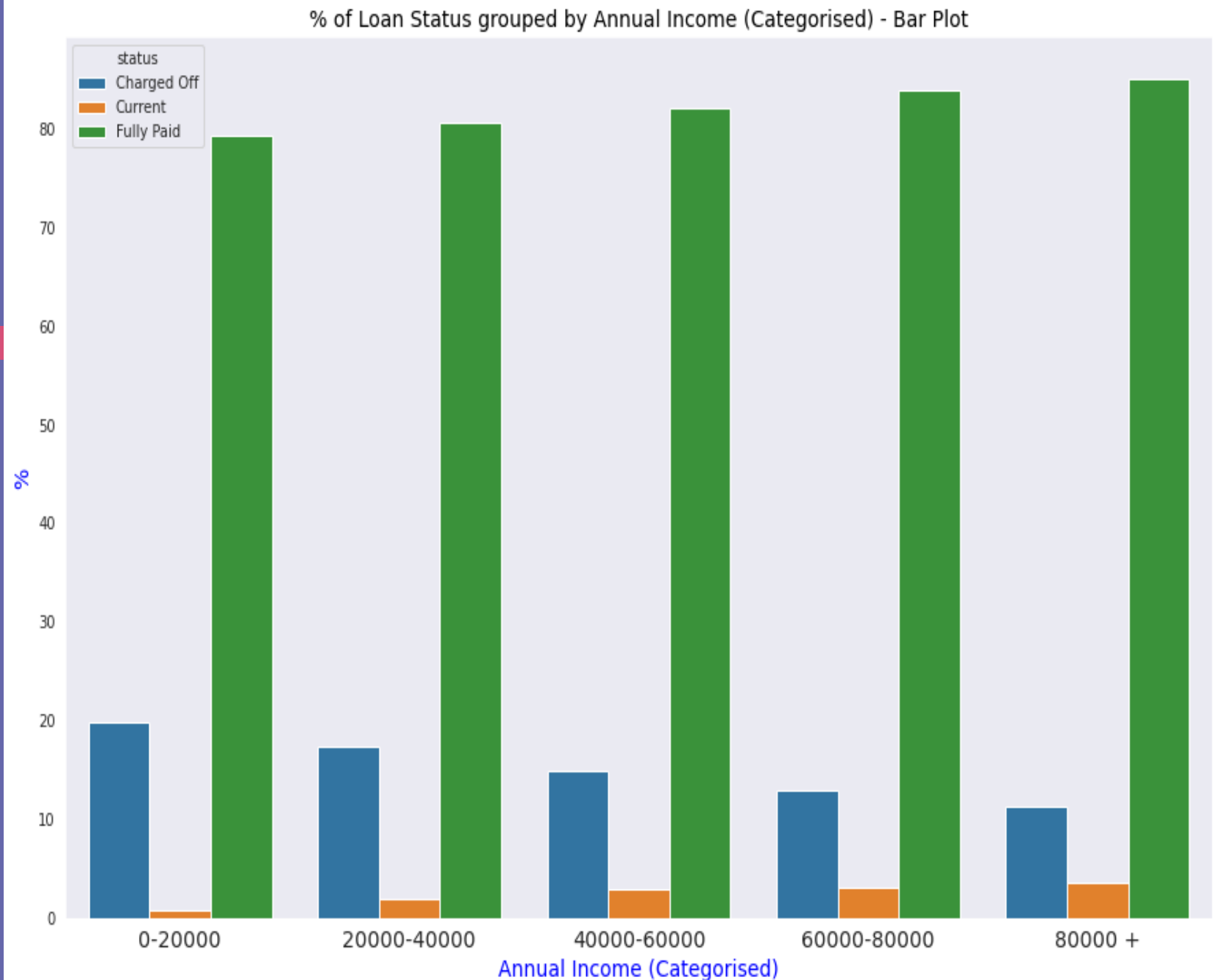


# ANNUAL INCOME

Charged off percentage is higher for loans with applicant whose annual income is between 0 and 20000

Recommendation:

- Loans to applicants with higher annual income is relatively safer.

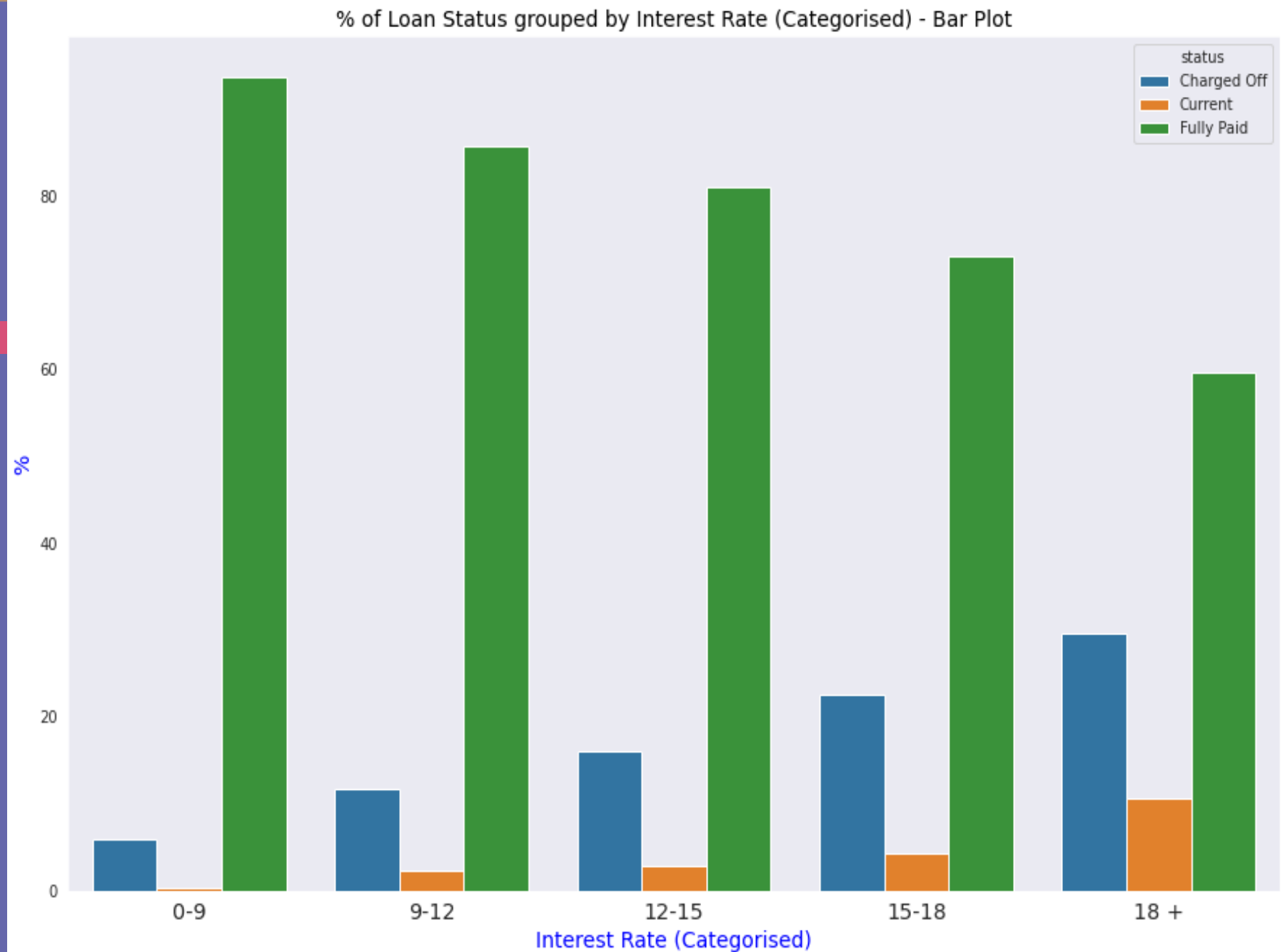


# INTEREST RATE

Charged off percentage is higher for higher interest rate.

Recommendation:

- Loans in lower interest range is safer.

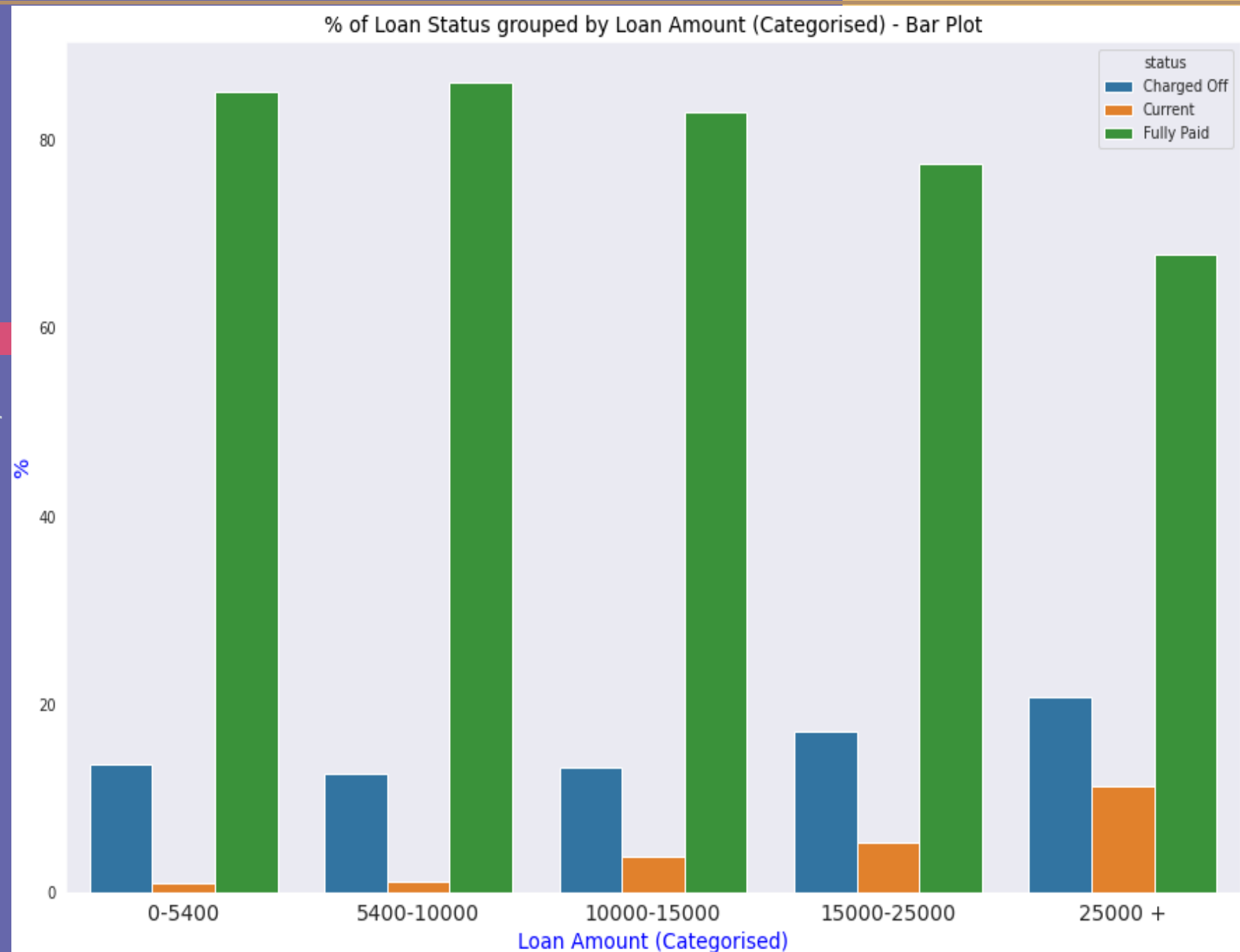


# LOAN AMOUNT

Charged off percentage is higher for higher loan amounts.

Recommendation:

- Median loan amount is safer.

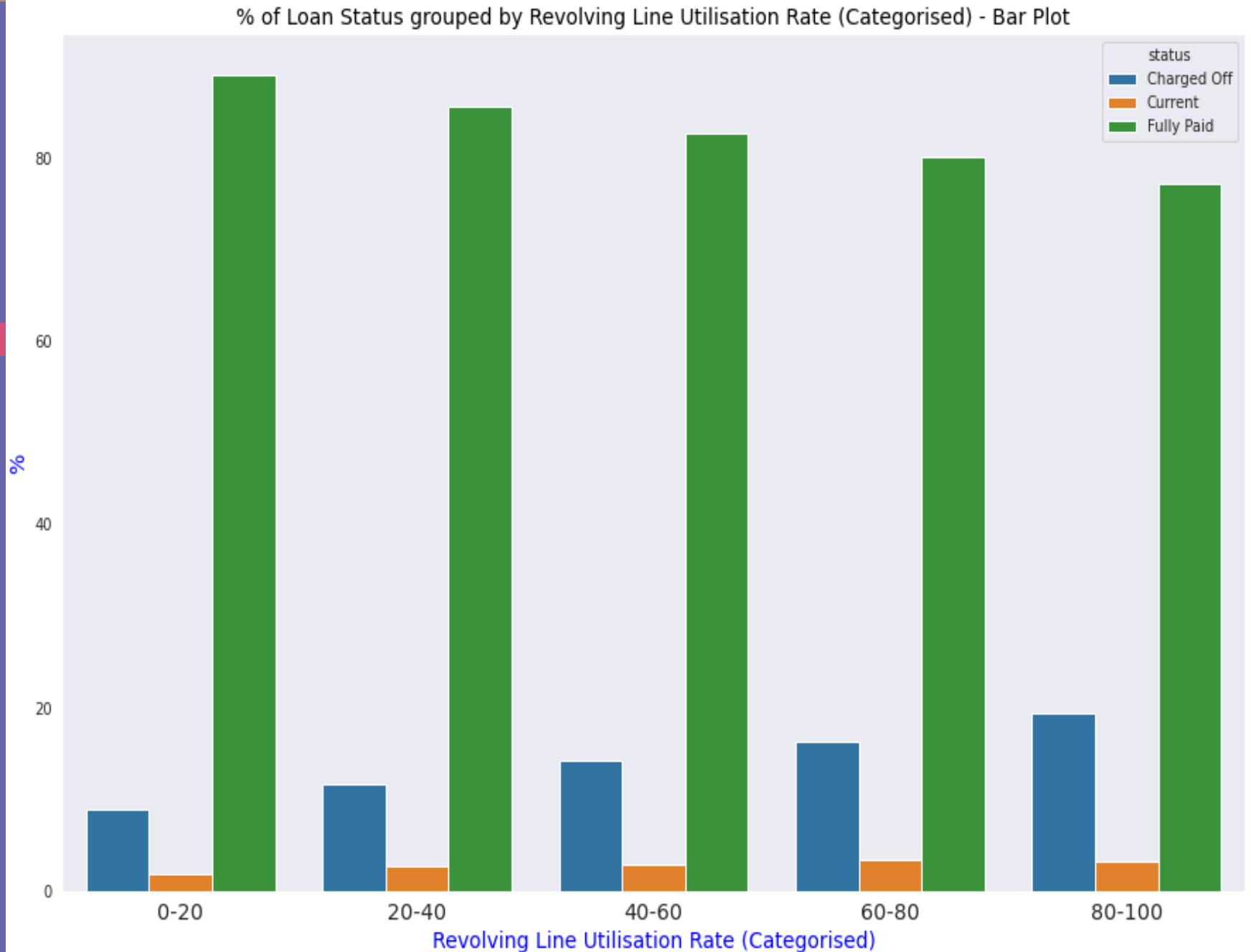


# REVOLVING LINE UTILISATION RATE

Charged off percentage is higher for loan applicants with higher revolving line utilisation rate

Recommendation:

- Loan applicants with lower revolving line utilisation rate are safer.



# NUMBER OF OPEN CREDIT LINES

Charged off percentage is higher for loan applicants with higher number of open credit lines

Recommendation:

- Loan applicants with lower number of open credit lines are safer.

