Lending Club Case Study

How Lending Club can minimise the risk of losing money while lending to customers

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The problem

Lending Club

It specialises in lending 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 profile.

Context

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

Problem statement

Lending club needs to minimize the financial loss by identifying the risky customer profile with the help of its past customer records.

Challenges deep-dive

Challenge 1

Credit Loss

If company approves the loan of an applicant, and the applicant is unable to repay the loan, then approving the loan will lead to financial loss for the company.

Challenge 2

Unstructured Data

Company has the record of its customers, including those who have defaulted, but with too many variables, it's seeking help to identify the risky applicant.

Solution

- Identifying the risky customers using Exploratory Data Analysis (EDA)

- The company can utilise this knowledge for its portfolio and risk assessment.

Once risky loan applicants are identified, then loans to such applicants can be reduced thereby cutting down the amount of credit loss.
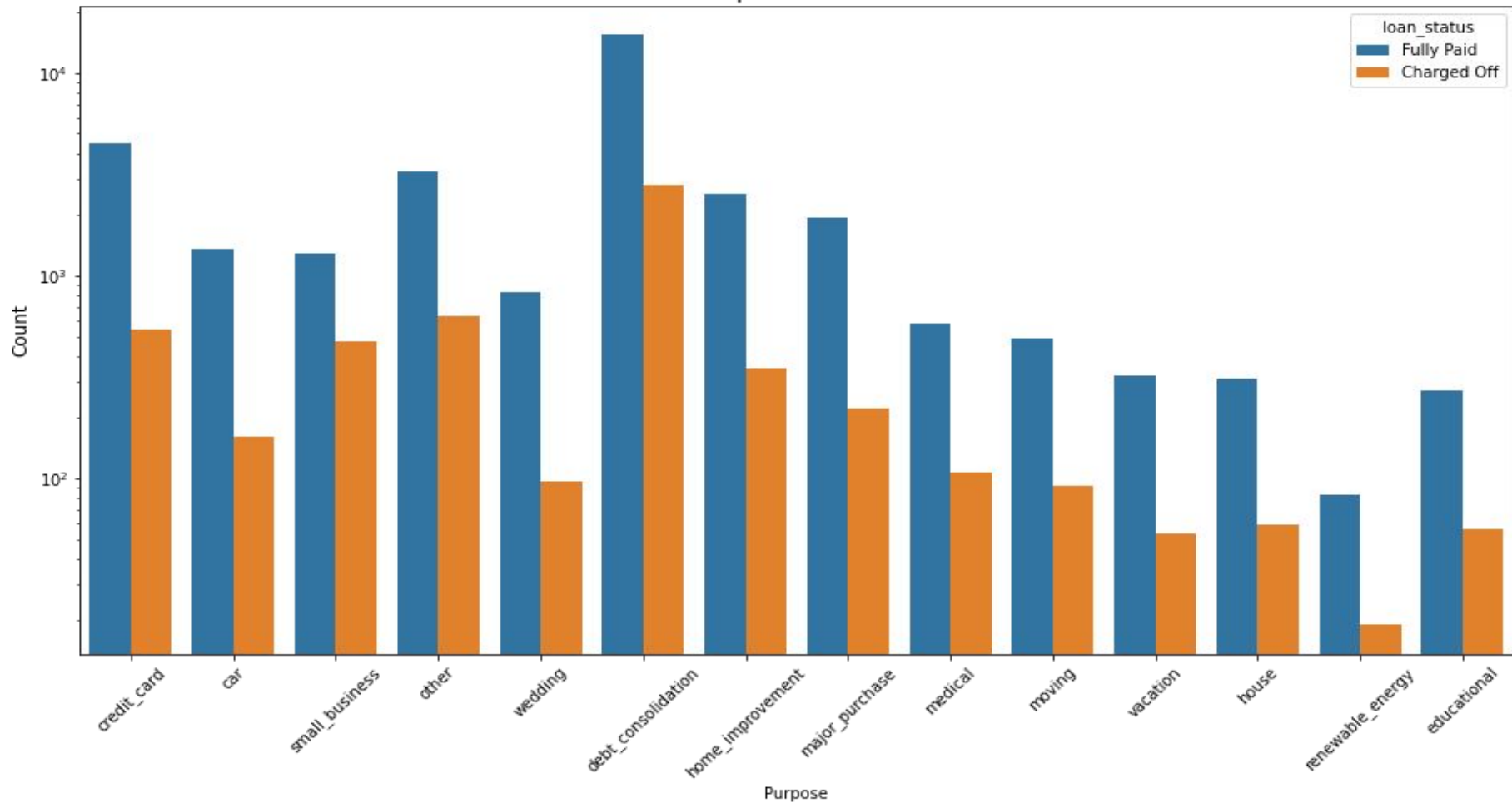
Identification of such applicants using EDA is the aim of this case study.

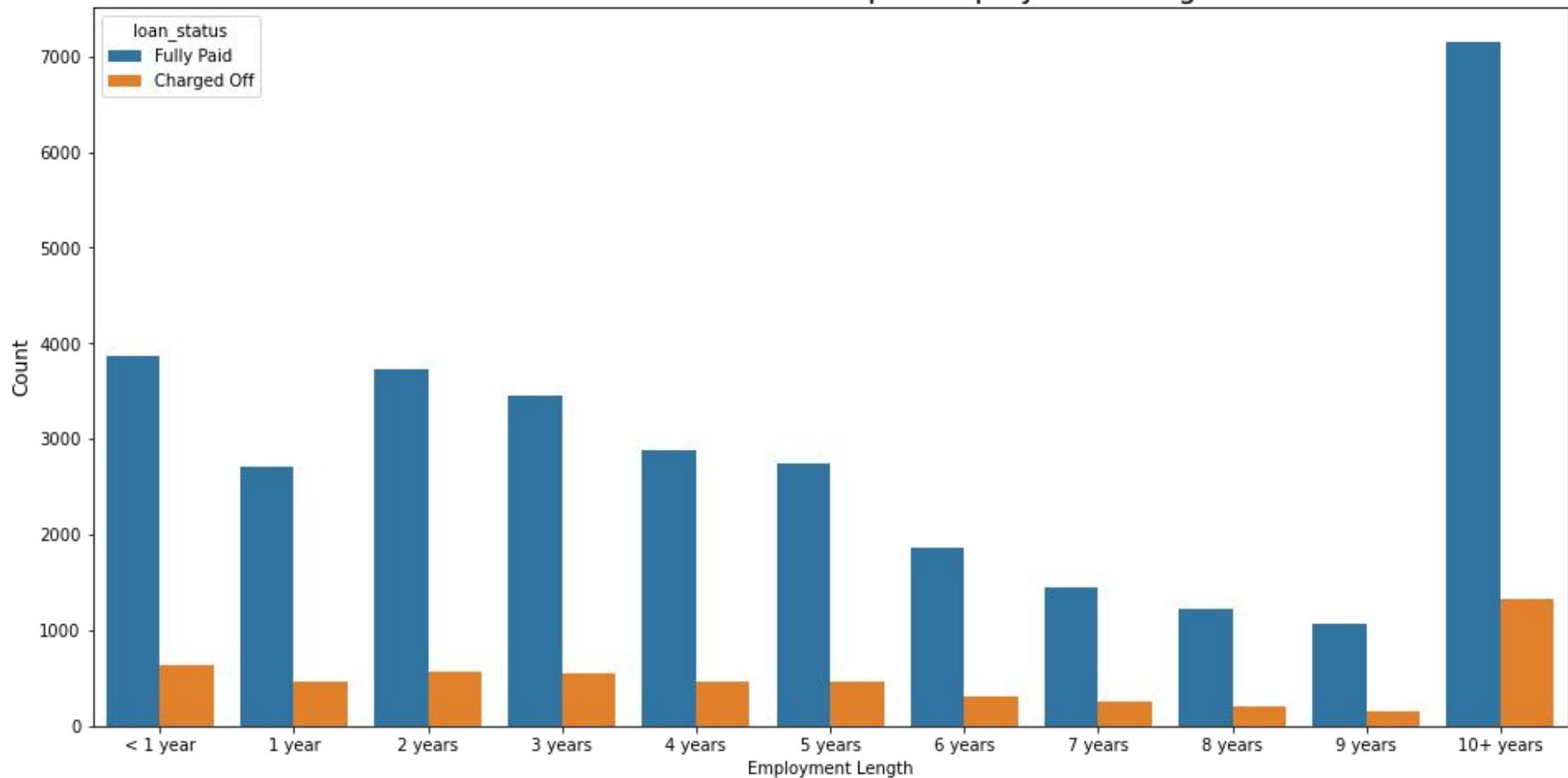# Let's Visualize the Data…
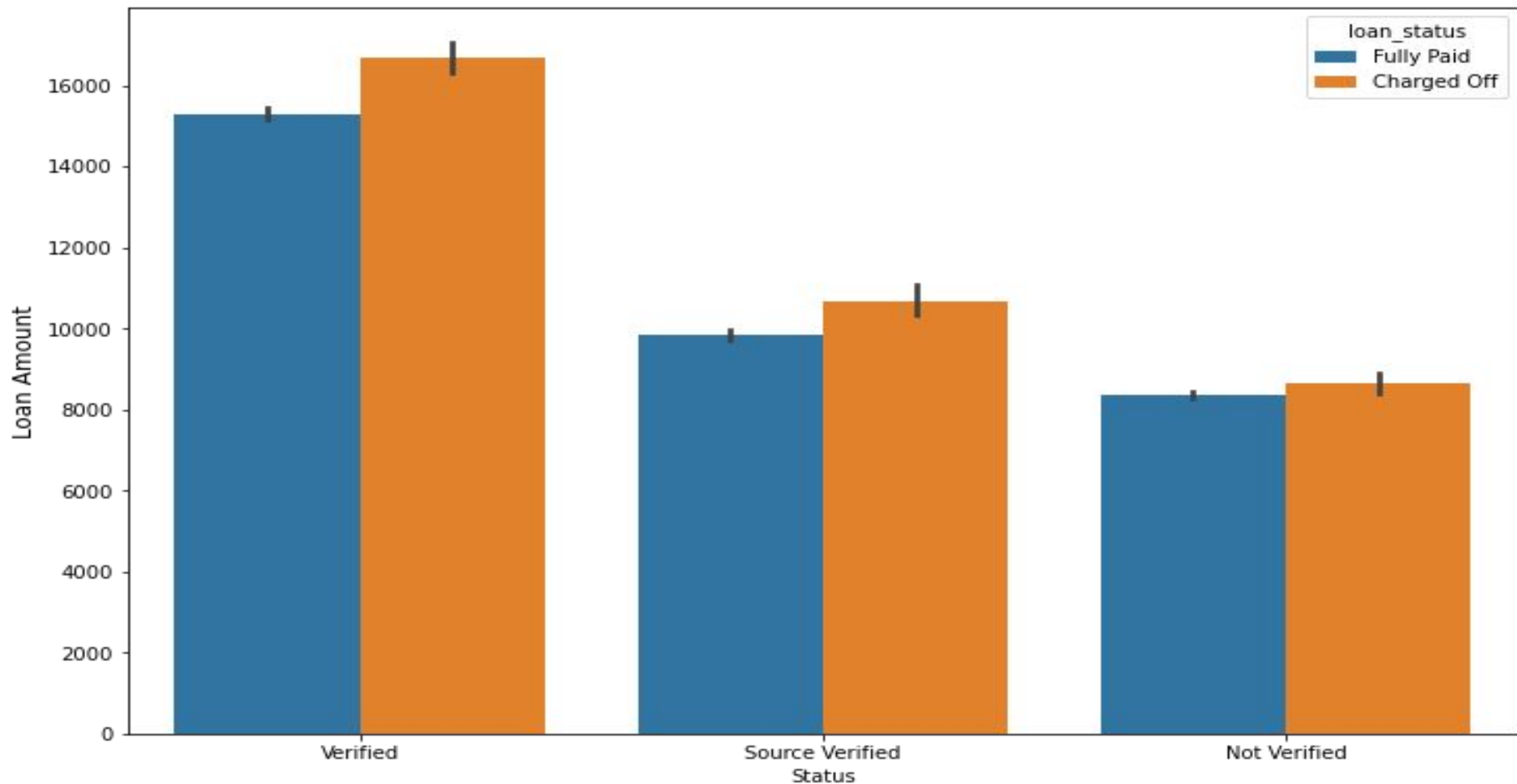
Loan Purpose Distribution

Distribution of Customers as per Employment Length
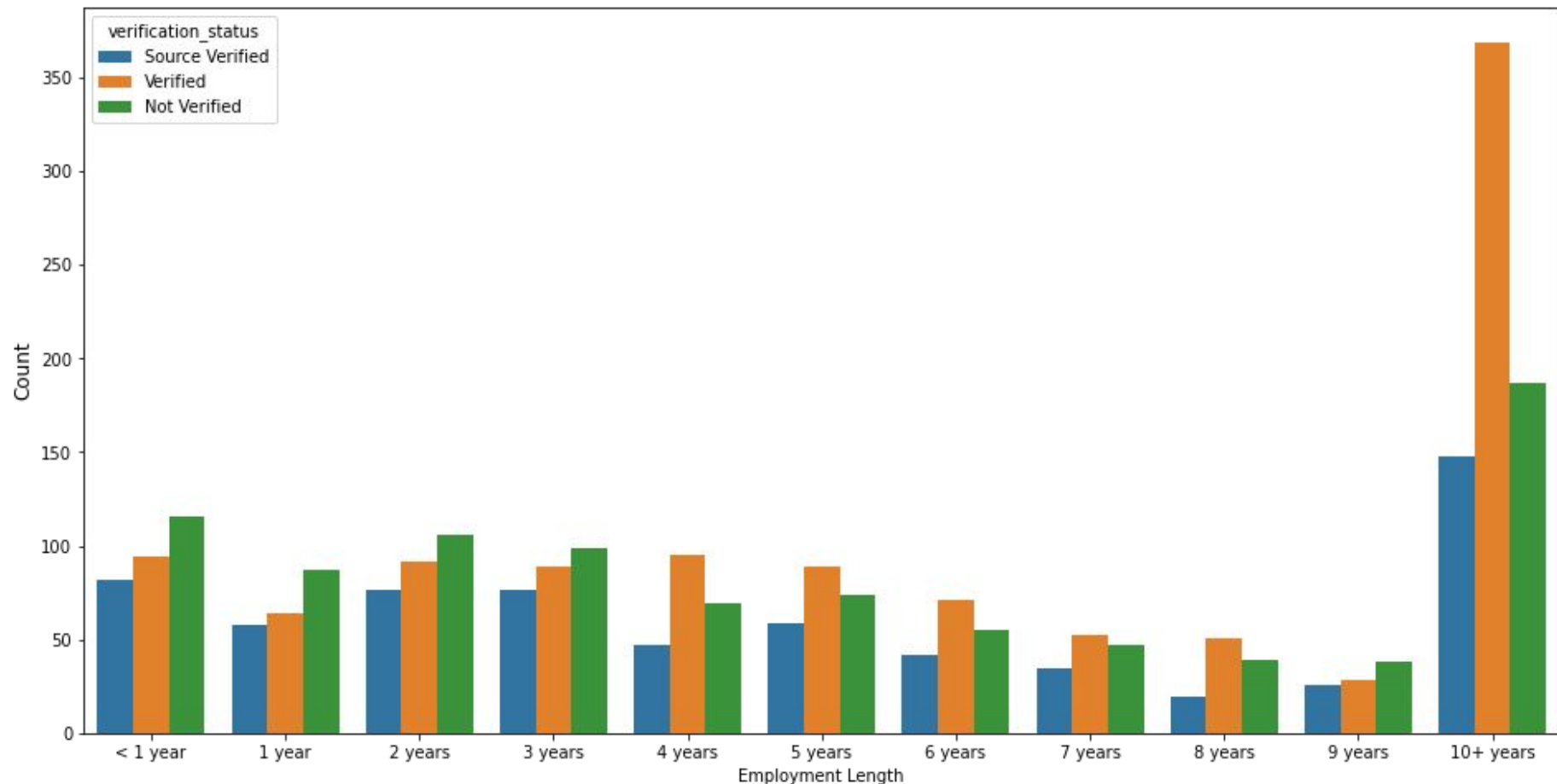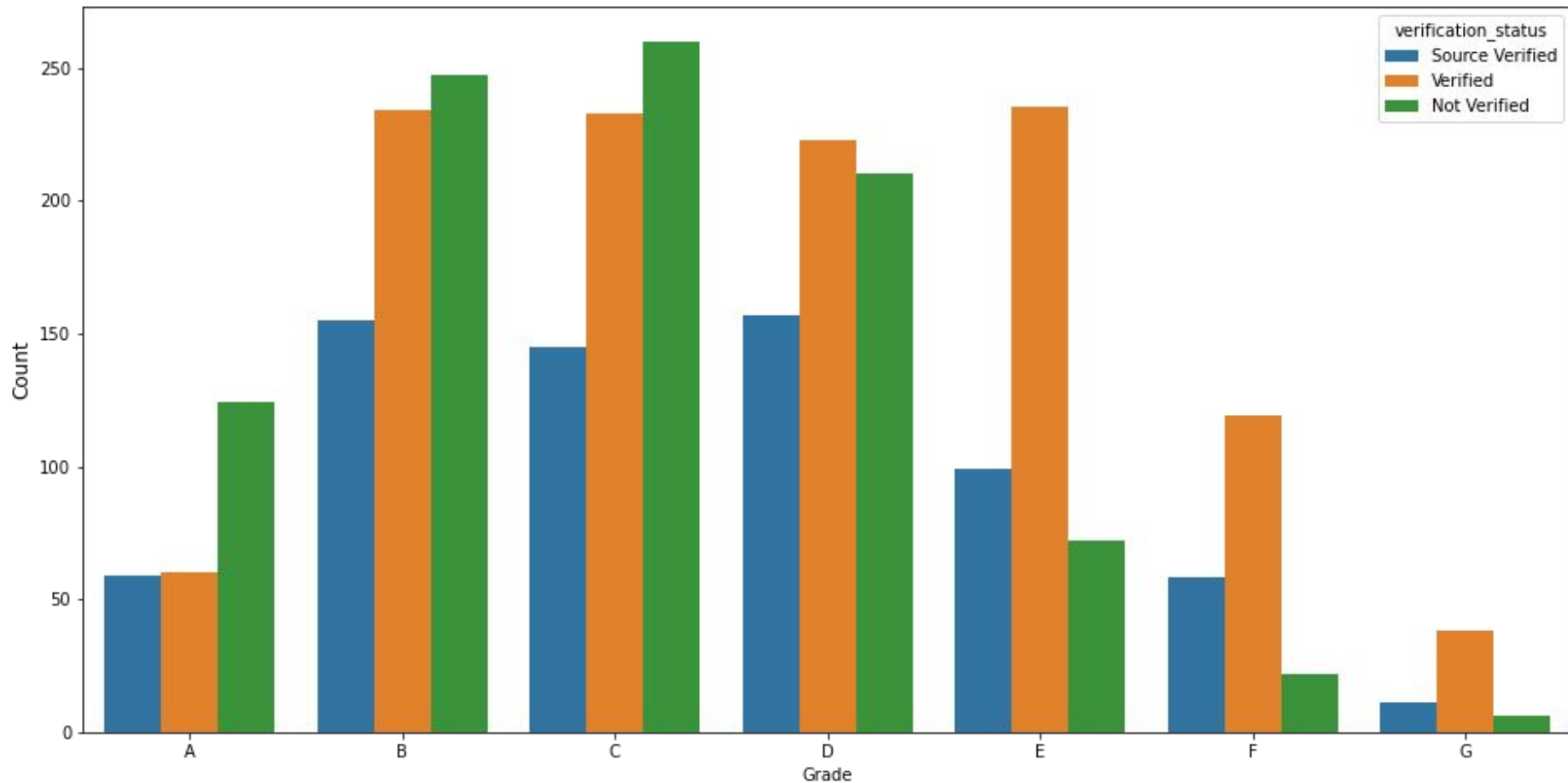
Verification Status & Loan Amount

Defaulters Who Borrowed Loan For Debt Consolidation

Defaulters Who Borrowed Loan For Debt Consolidation

Summary

Lending Club should consider following points and exercise caution while approving loans:

- Out of all the defaulters, the percentage of those who borrowed loan for debt consolidation is 49%, which is at least 4 times more than that of any other purposes.

- Among all the defaulters, those who have 0 to 3 years of experience and more than 10 years of experience combinedly become 47% of the defaulters.

max growth
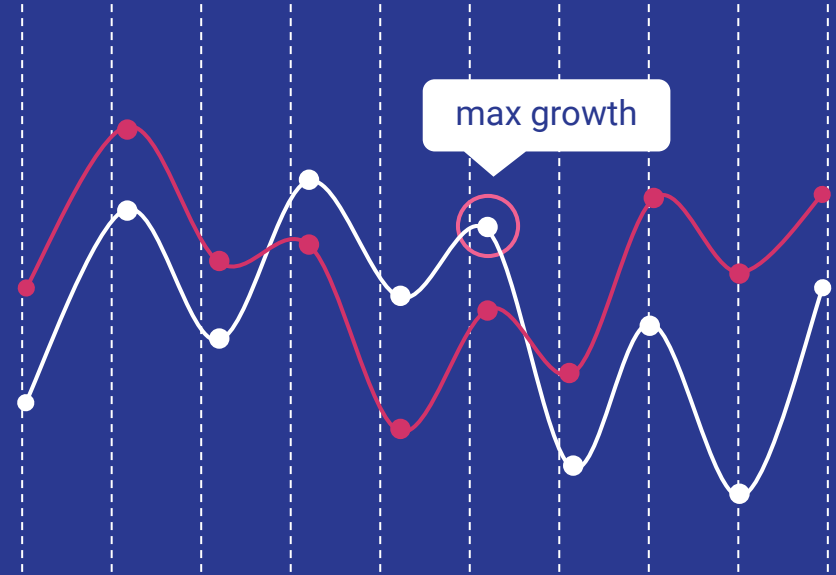
Summary...

- As the grades move from A to G, the amount of loan gradually increases; and the defaulters falling under grade B, C, and D combinedly become 69% of the defaulters.

- Even the verified customers who were given the loan amount exceeding 15,000 have defaulted. Such verified defaulters are in excess of 60% of all the defaulters.

- Number of verified defaulters, who have more than 10 years of experience and who have taken loan for debt consolidation, is at least three times more than any other employment length.