



# Lending Club Case Study

CREATED BY –

ROHAN KALE

EPGML C55 JULY 2023 BATCH

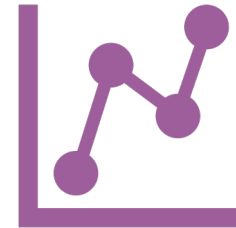
# Agenda



Background



Problem Statement



Analysis

# Background

You work for a consumer finance company which specialises in lending various types of loans to urban customers. When the company receives a loan application, the company must decide for loan approval based on the applicant's profile.

The company wants to understand the driving factors (or driver variables) behind loan default, i.e., the variables which are strong indicators of default.



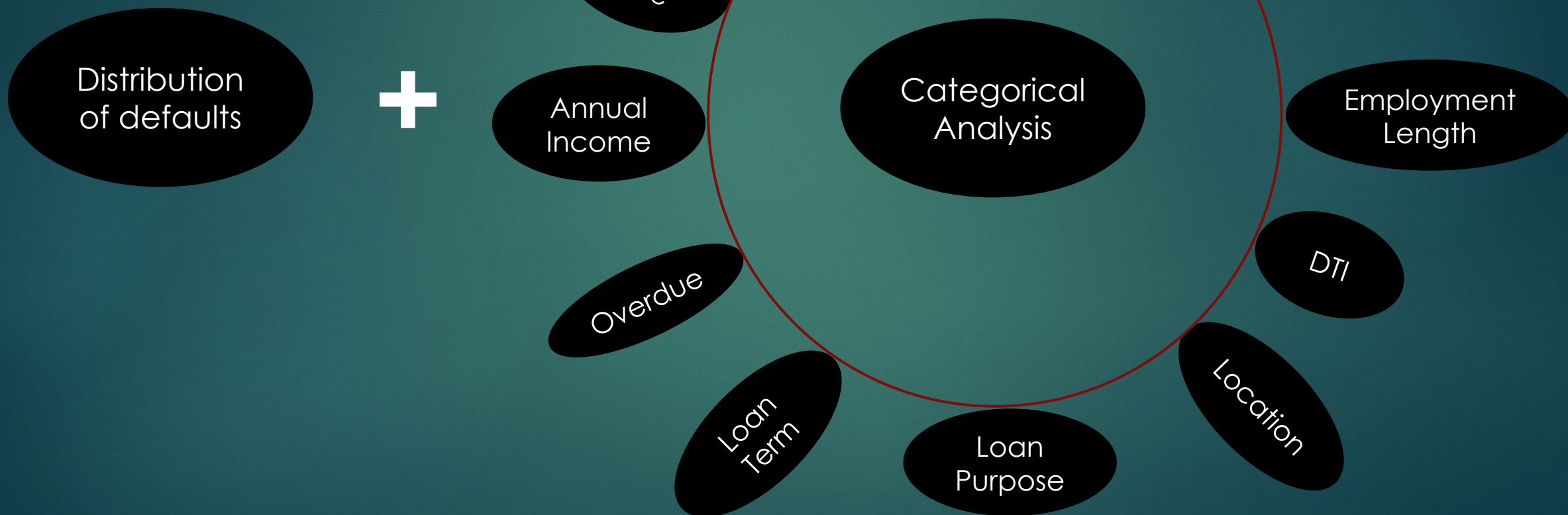
# Problem Statement

- Understand how consumer attributes and loan attributes influence the tendency of default
- Understand the driving factors (or driver variables) behind loan default, i.e., the variables which are strong indicators of default

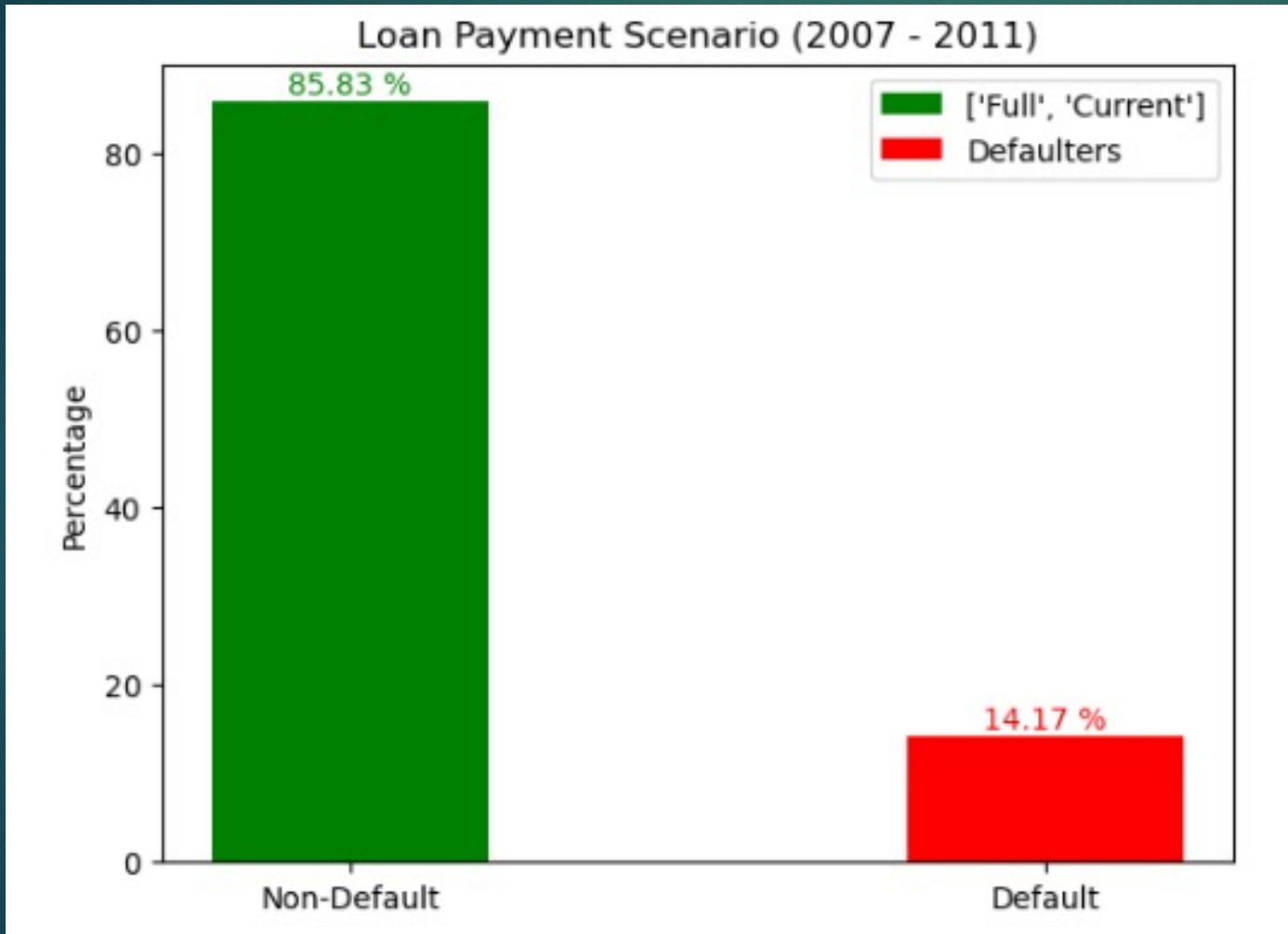




# Analysis



# Distribution of Defaults

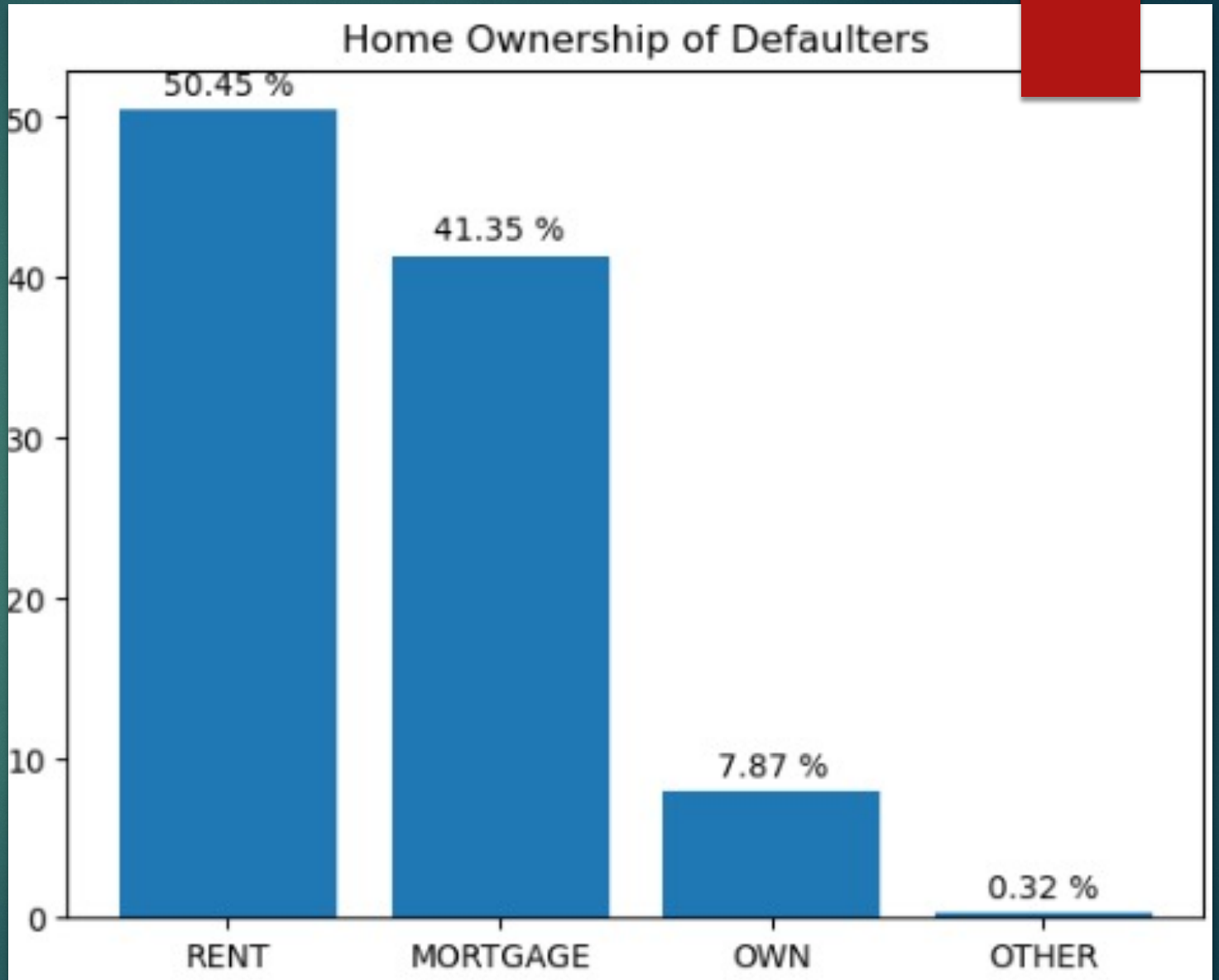


- About 86% of the members are non-defaulters i.e., either have fully paid off the loan or are paying in time
- Remaining 14% of the members have defaulted



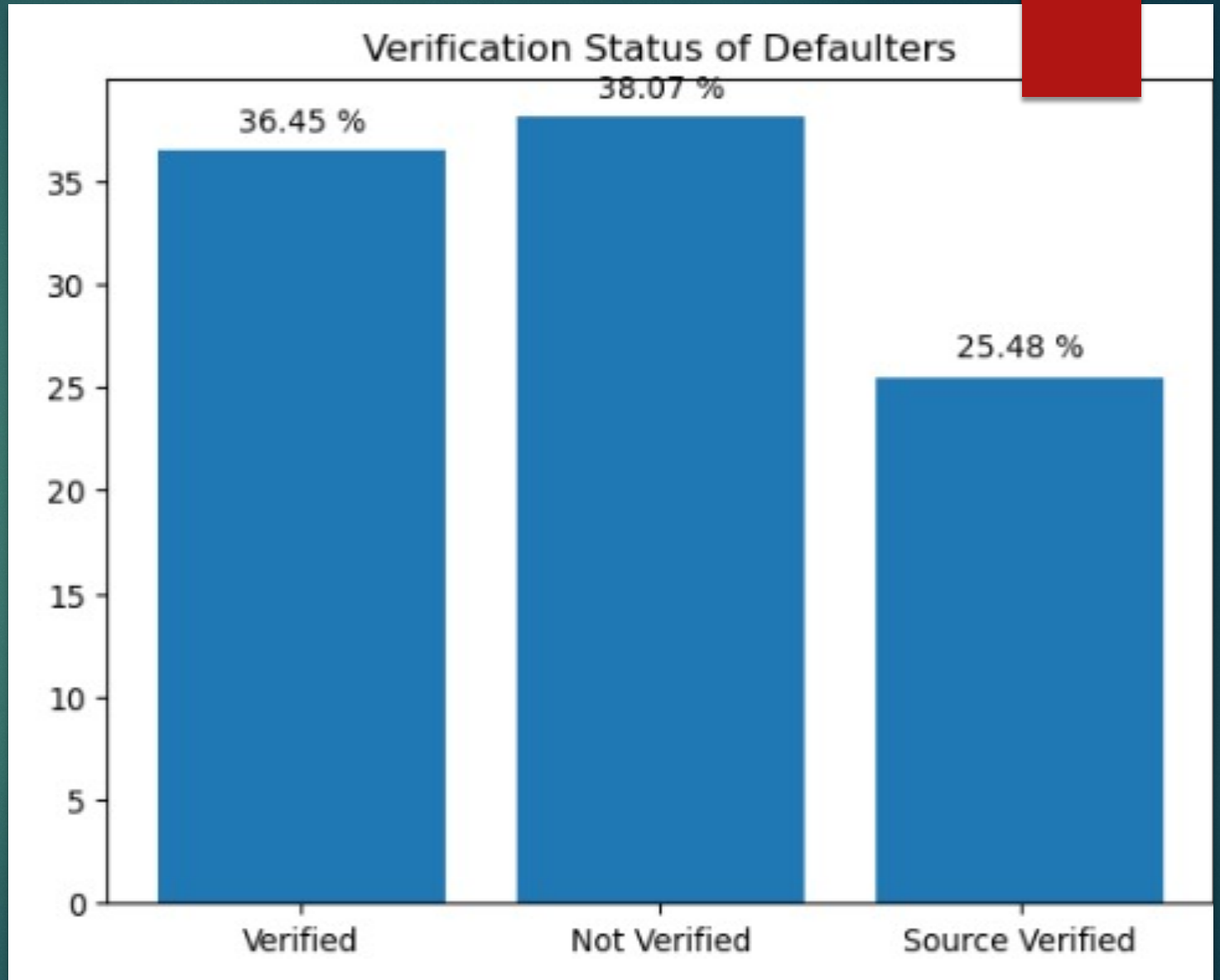
# Home Ownership

- ▶ About 50% of the defaulters stay in a rented house - from this one can infer that they are either bachelors or have low income if they have family staying with them
- ▶ 41% of them have mortgage and only 8% have their own houses



# Verification Status

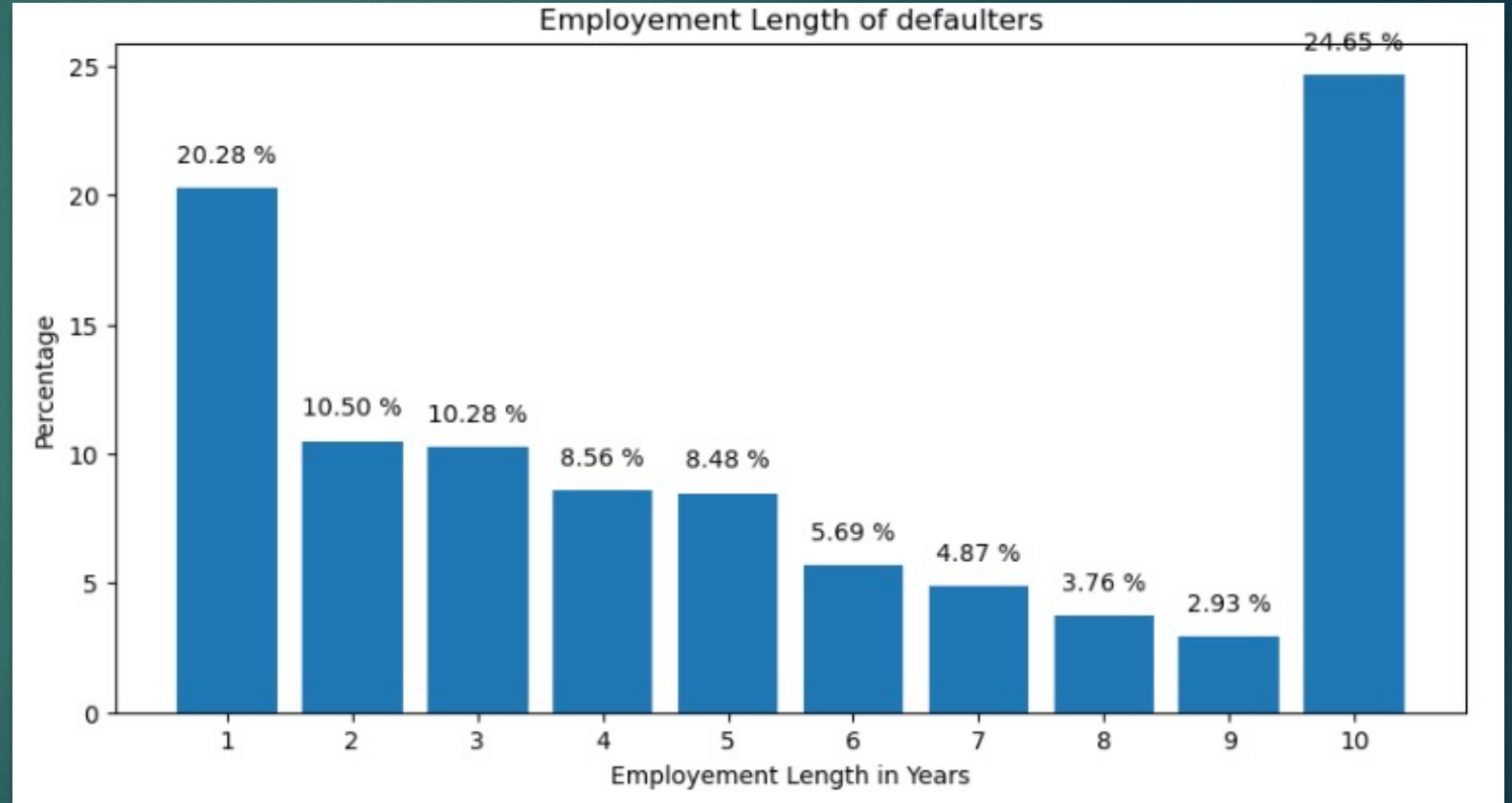
- ▶ Defaults seem to occur where either income is verified by LC or not - this would also mean since their income source is not verified, the source of income is not stable enough to repay the loan
- ▶ Defaults occur lesser where the income source is verified





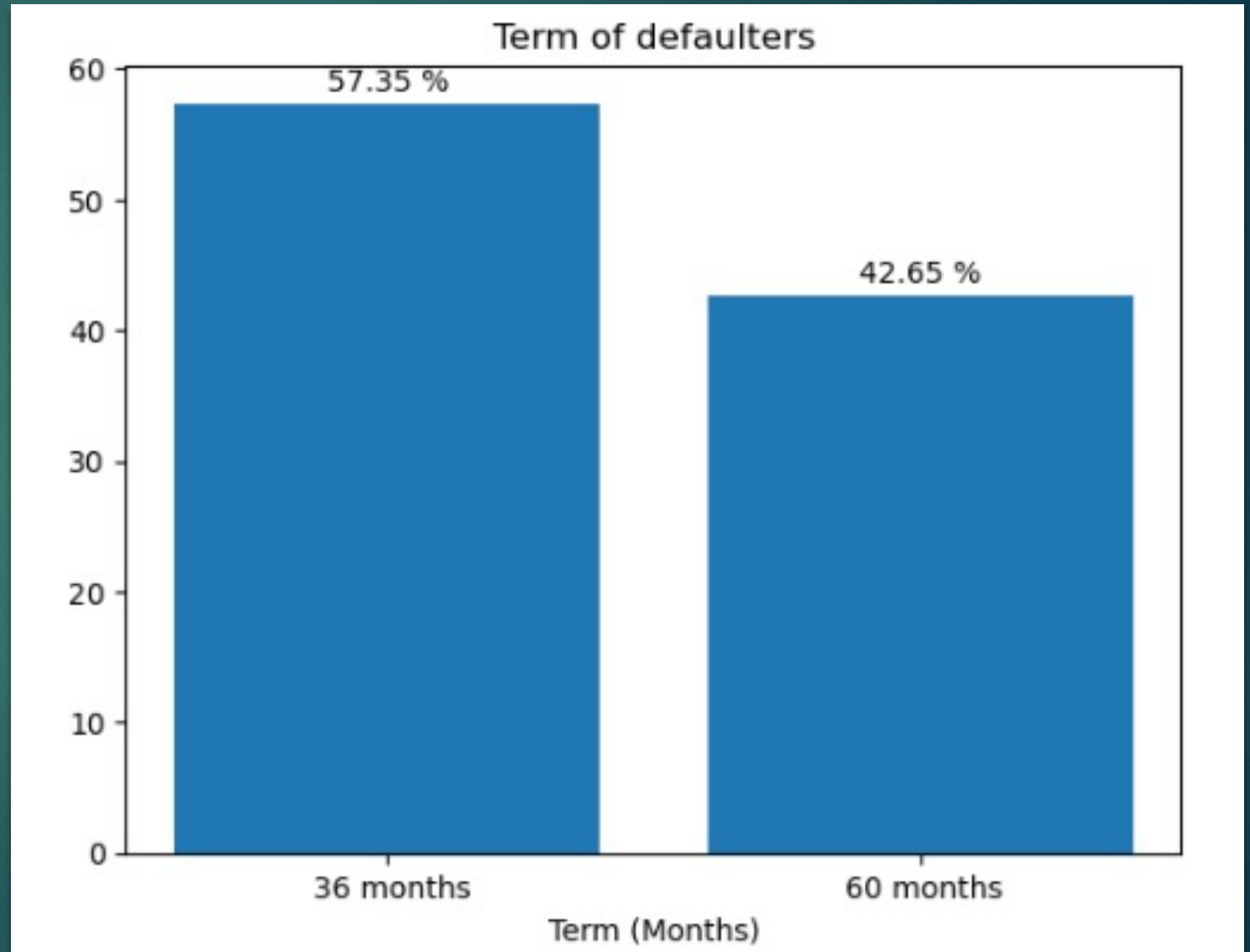
# Employment Length

- Generally, the defaults tend to decrease gradually as the members spend more time in the company(s)
- However, there is a shoot up in defaults when employment length is 10 years and more
  - This might be since the job is low paying and applied loan is higher and the interest rate goes on increasing and/or they are not getting promoted and expenses are rising



# Loan Term

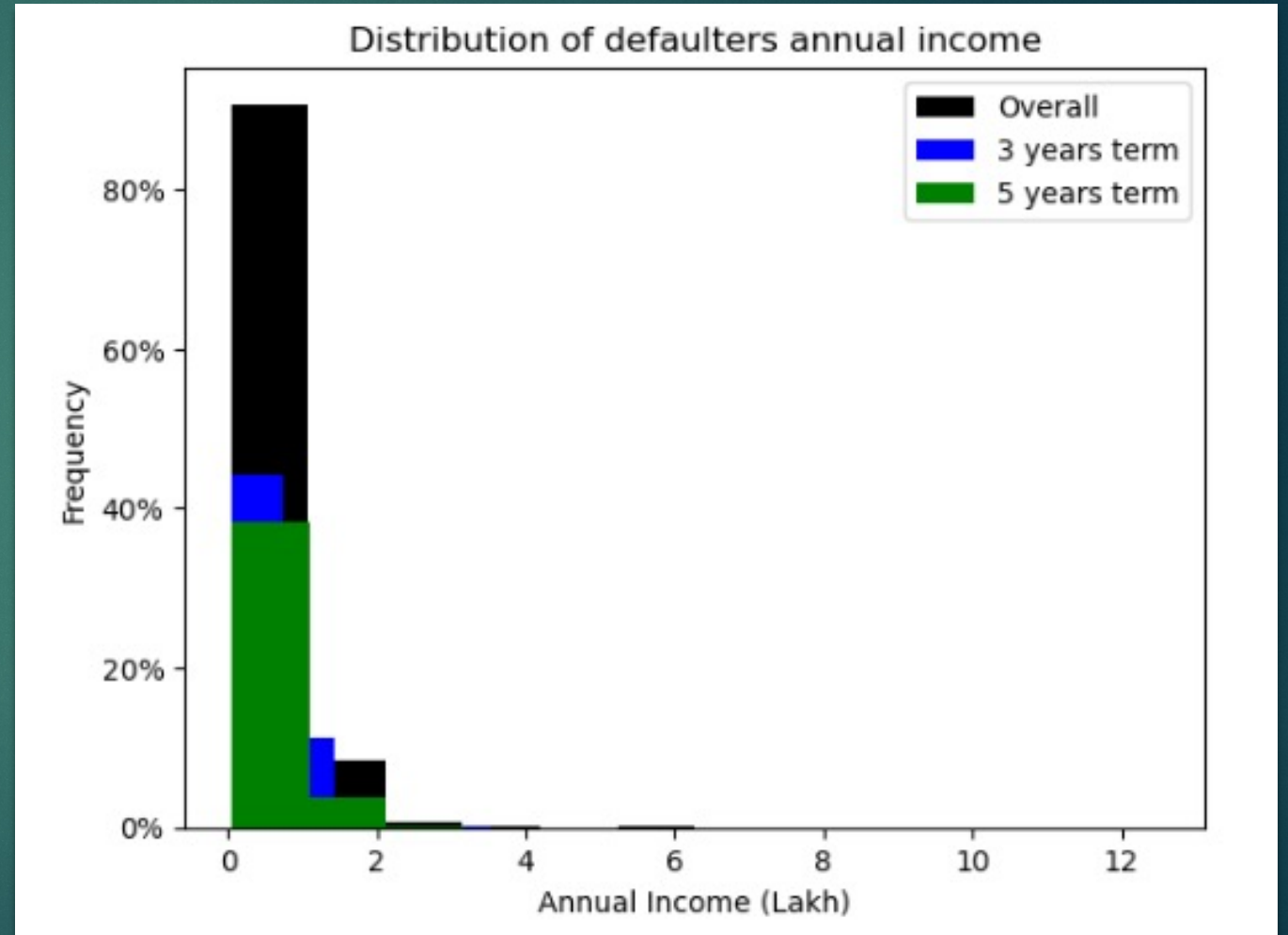
- ▶ About 57% of the defaulters chose to go for 3 years term for the loan assignment





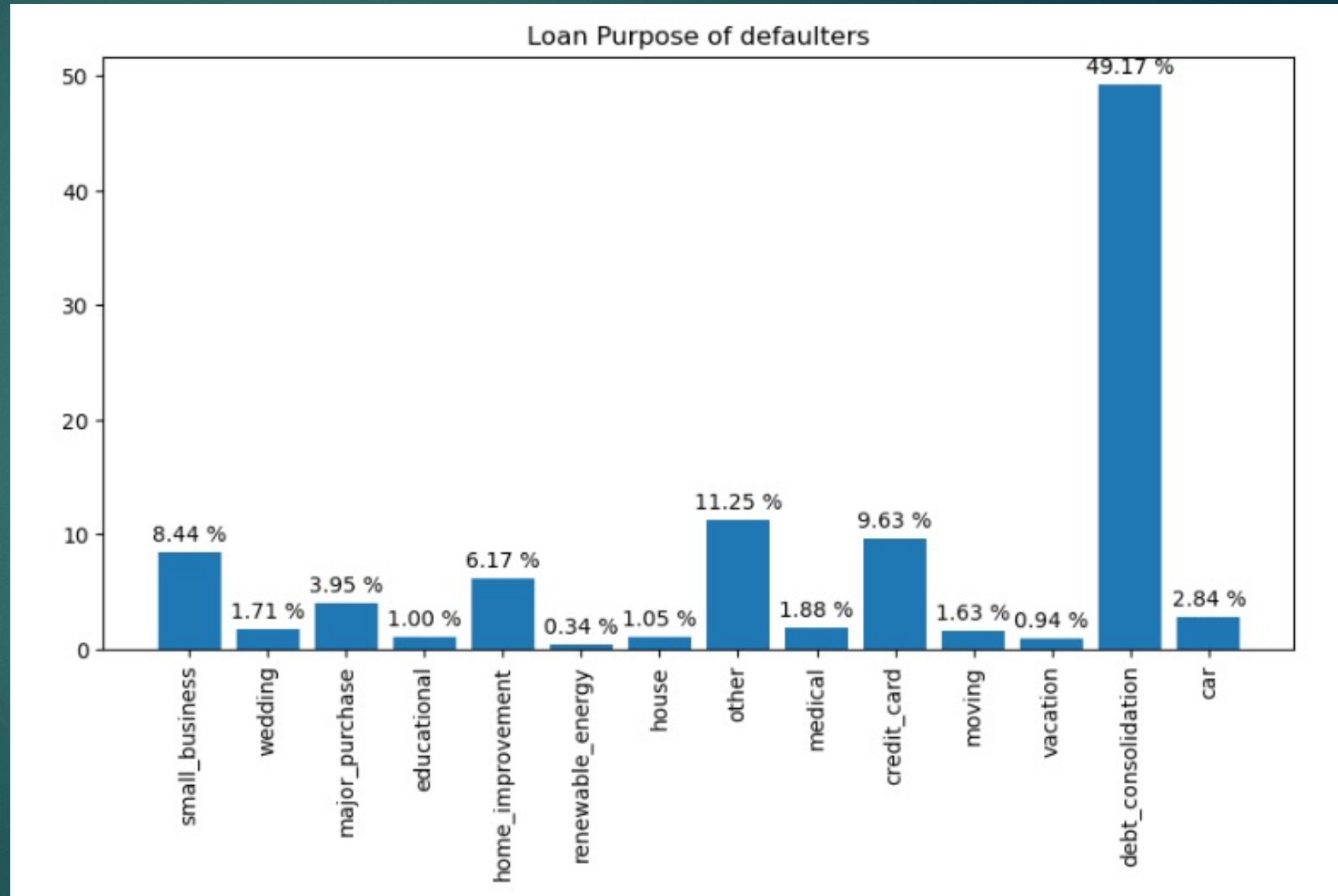
# Annual Income

- ▶ With both 3- and 5-years term plan, most of the defaults happen for annual income up to 1 Lakh per annum
- ▶ This also means, defaulters have low paying jobs



# Loan Purpose

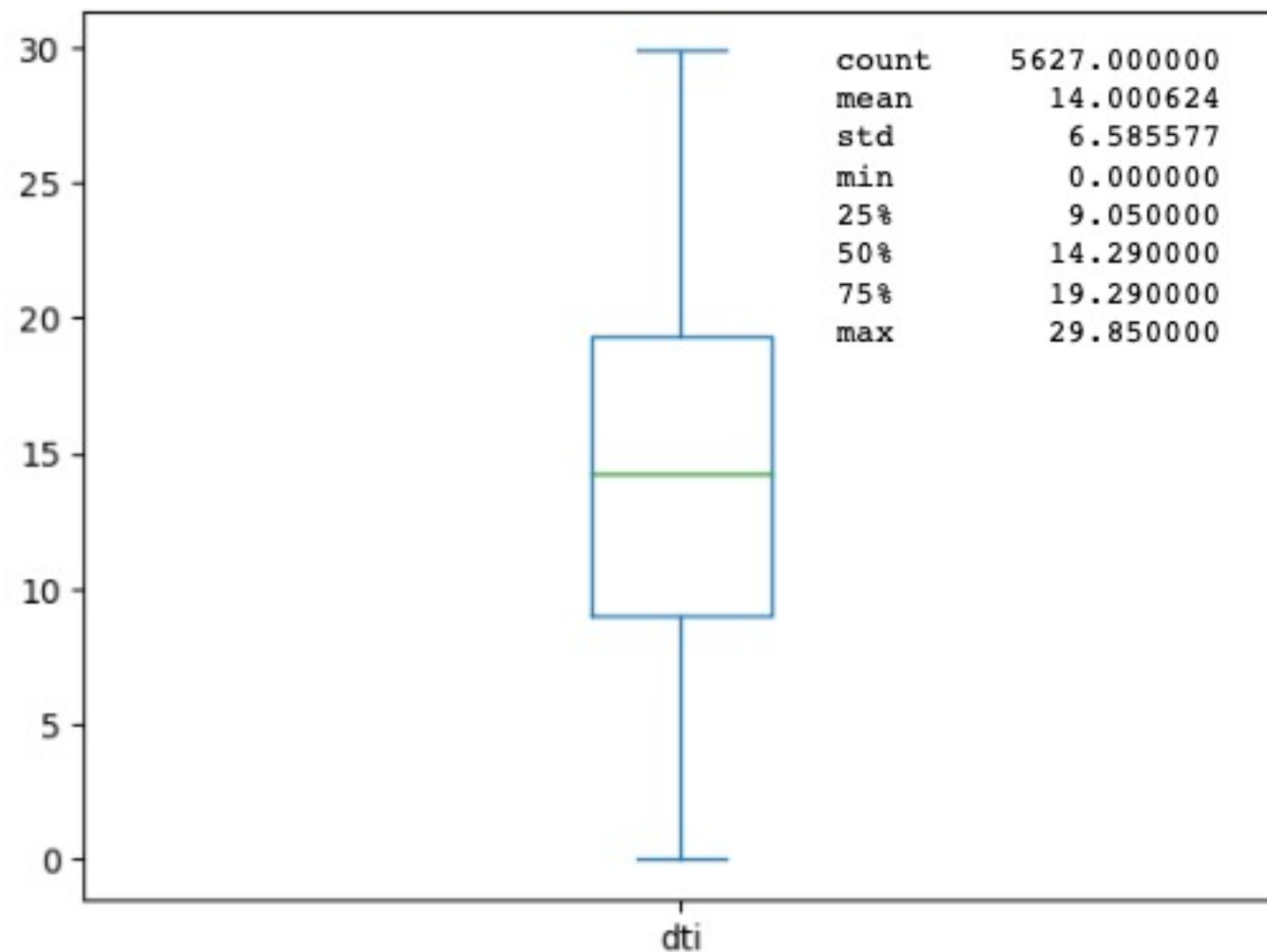
- ▶ 50% of the defaulters have debt to be consolidated - this is clearly explainable by low income and higher loan requirements



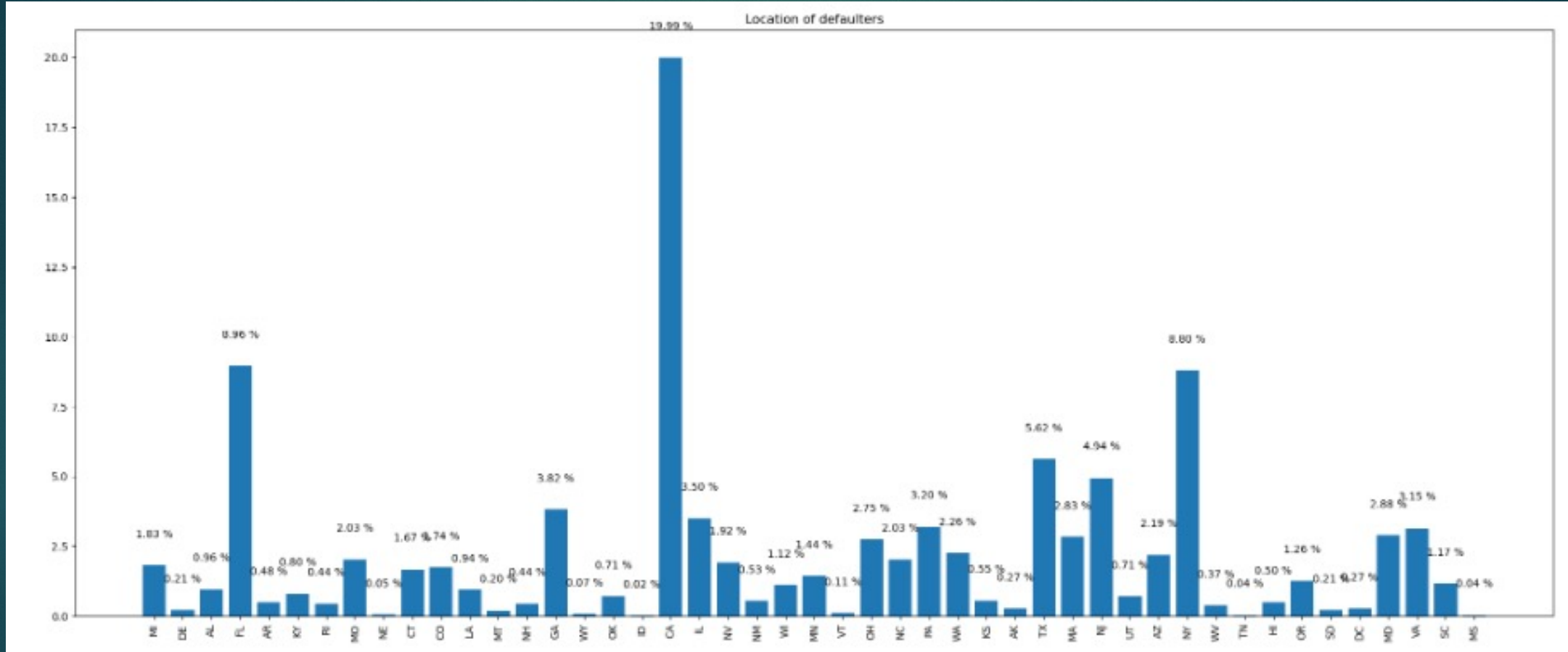


# DTI

- Most of the defaulters have DTI of about 14 which means monthly debt are 14 times more than total debt obligations!
- This again is supported by the fact that 50% of the defaulters are consolidating debts - see purpose section



# Location

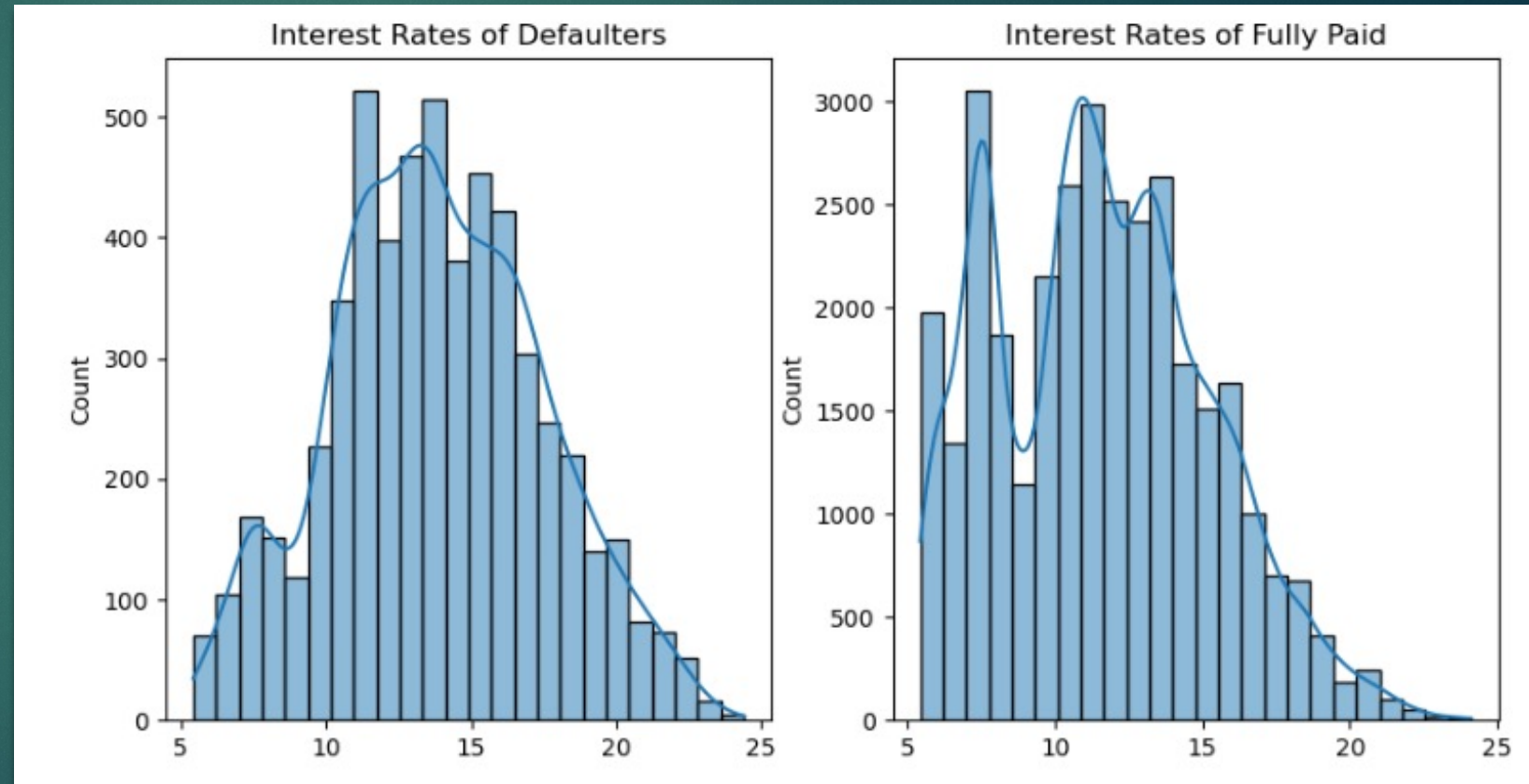


- Almost 20% of the defaulters stay in California
- Standard of living in CA is definitely higher as compared to other states!
- High standard of living --> higher debt consolidation --> lower income --> Defaults!!



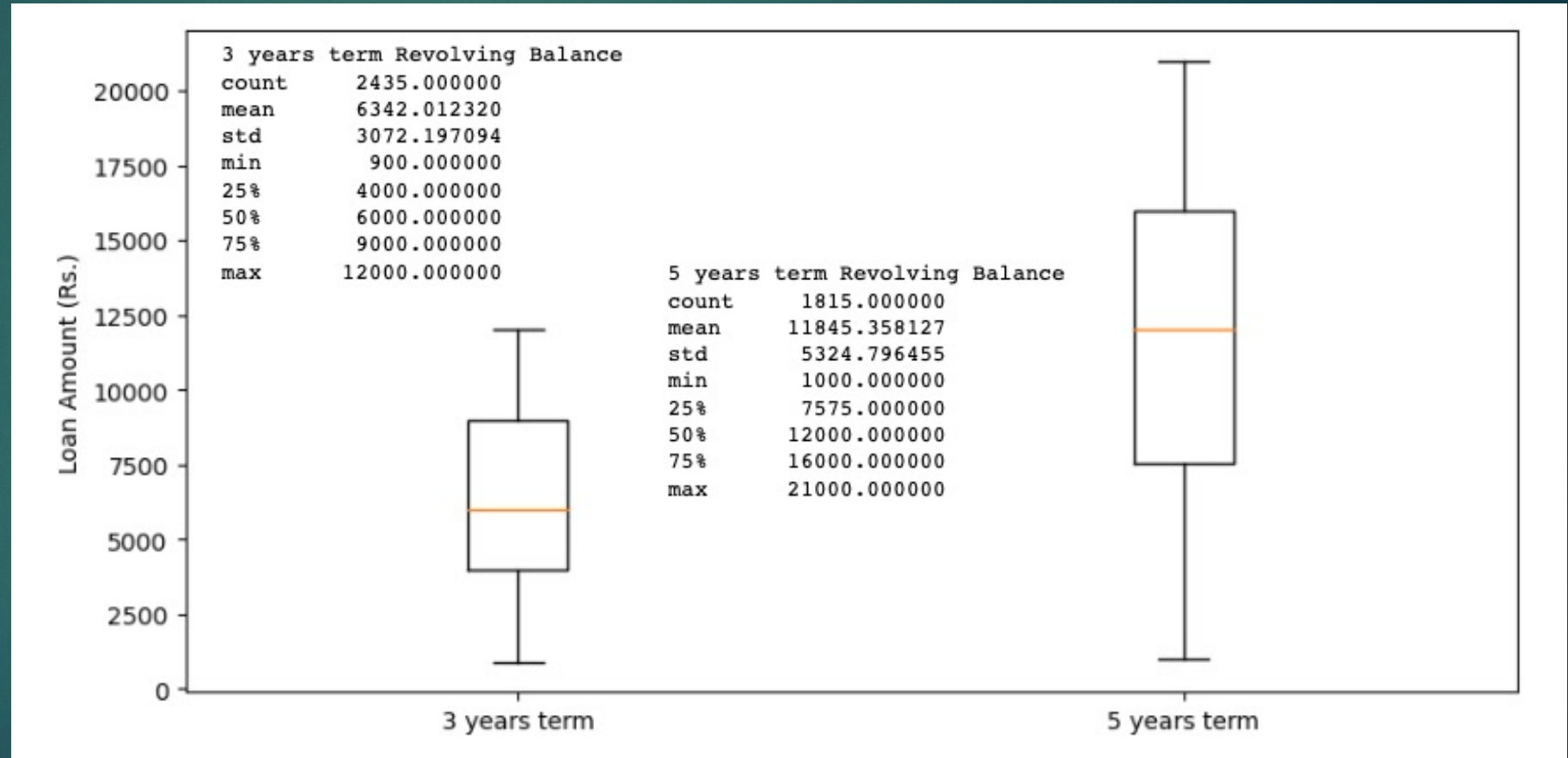
# Interest Rate

- ▶ On an average, defaulters have to pay loan with an interest rate of 14% p.a which is high considering lower income of the defaulters!



# Loan Amount

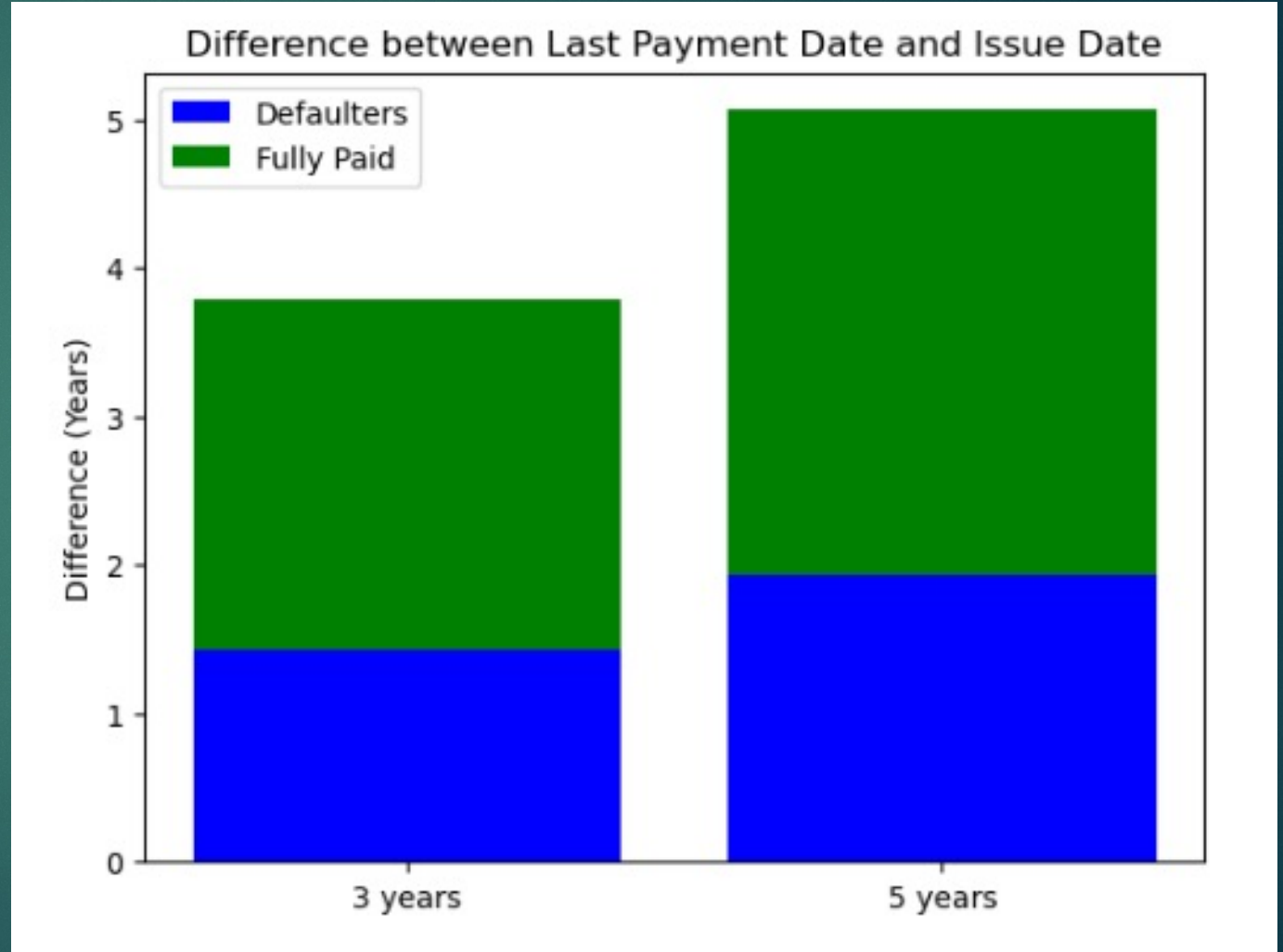
- For a 3 year term, most of the defaulters have a loan of Rs. 6000 with interest rate of 14%
- For a 5 year term, the loan doubles i.e. becomes Rs. 12000 with interest rate of 14%
- Variation/expanse of applied loan is more for a 5 year term with 1st quartile raised by almost Rs. 4000





# Overdue

- It can be clearly seen that the defaulters have not paid any loan instalment lately
- Larger difference in the last payment date and issue date indicates that more number of loan instalments have been paid off by the fully paid cases
- Lesser difference for the defaulters clearly indicate less number of instalments paid till date!
- Assuming last payment date as the loan repayment completion for fully paid cases
  - For the 3 years term, defaulters have not paid off the instalments since last 2 years!!
  - Similarly for 5 years term, defaulters have not paid off the instalments since last 3-3.5 years!!



# Revolving Balance

- For a 3 years term, most of the defaulters still have the revolving balance of around Rs. 5600 which is pretty close to the loan amount itself (Rs. 6000)
- For a 5 years term, most of the defaulters still have the revolving balance of around Rs. 7800 which is pretty close to the loan amount itself (Rs. 12000)

