

LENDING CLUB CASE STUDY

Group Members :

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Case Study Objectives

- Identification of Loan Applicant traits that tend to 'default' paying back
- Understand the 'Driving Factors' or 'Driver Variables' behind Loan Default phenomena
- Loan Lending Organizations may choose to utilize this knowledge for its portfolio and risk assessment of new loan applicants

Problem Solving Process



Data
Understanding

Data
Cleaning

Univariate
Analysis

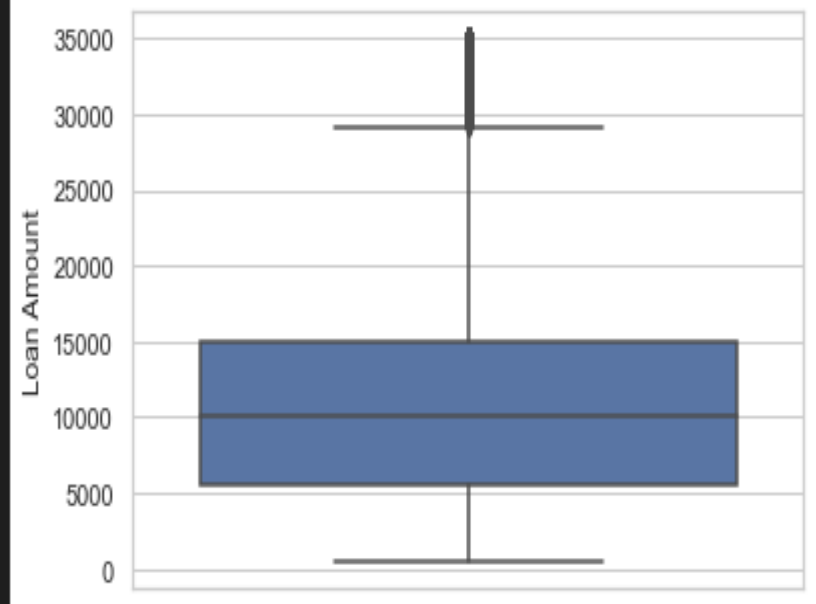
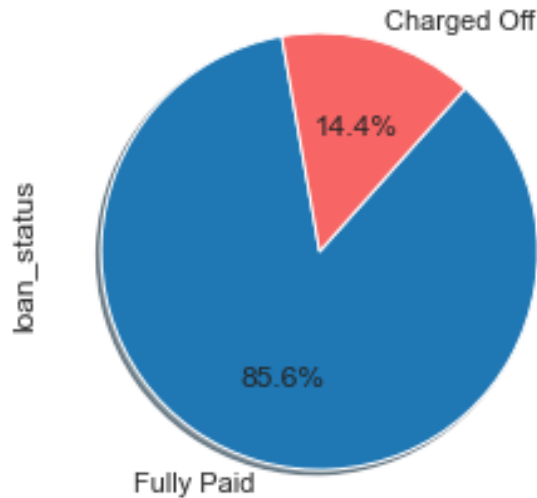
Segmented
univariate
Analysis

Bivariate
Analysis

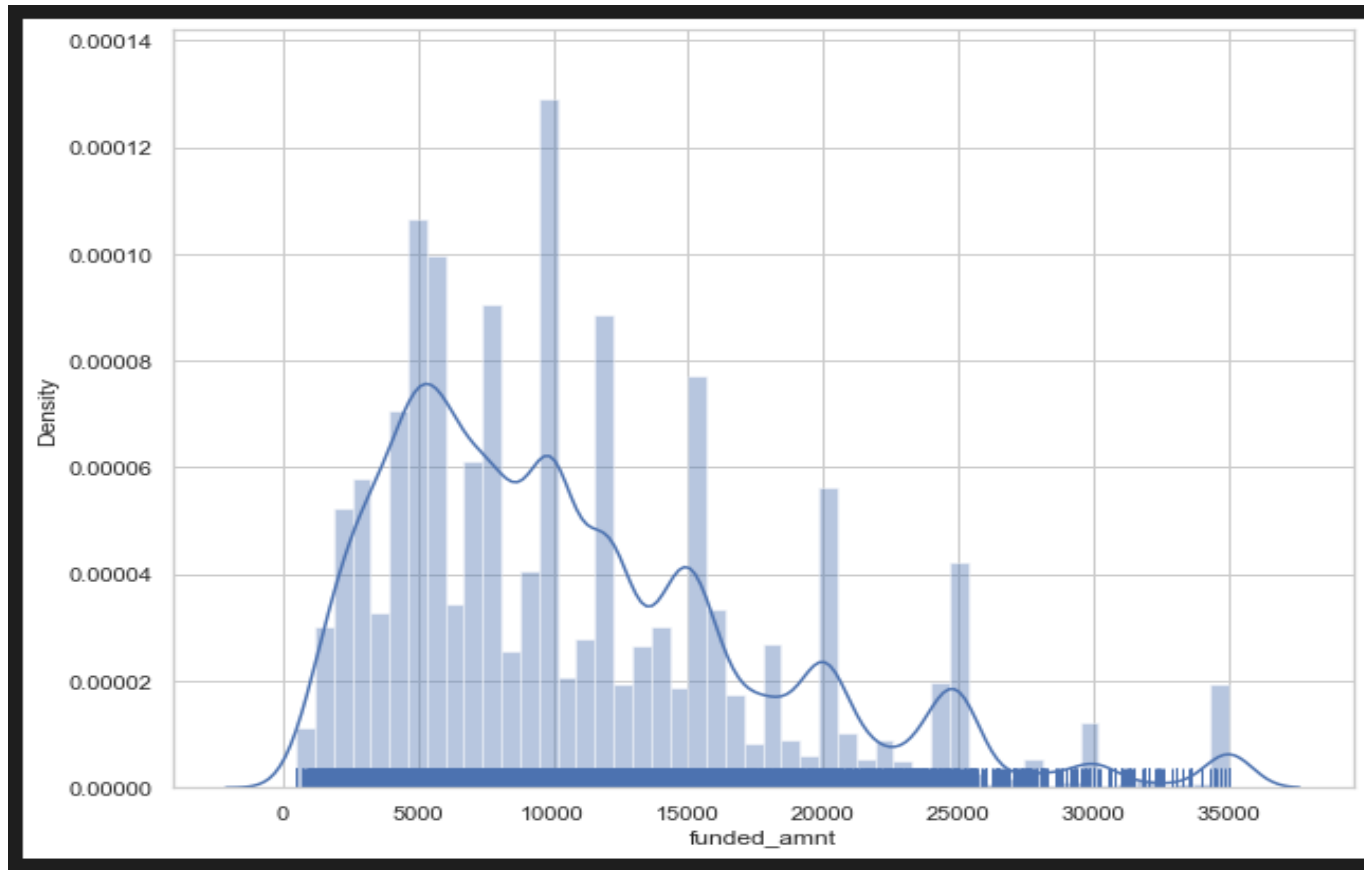
Conclusion

Analysis

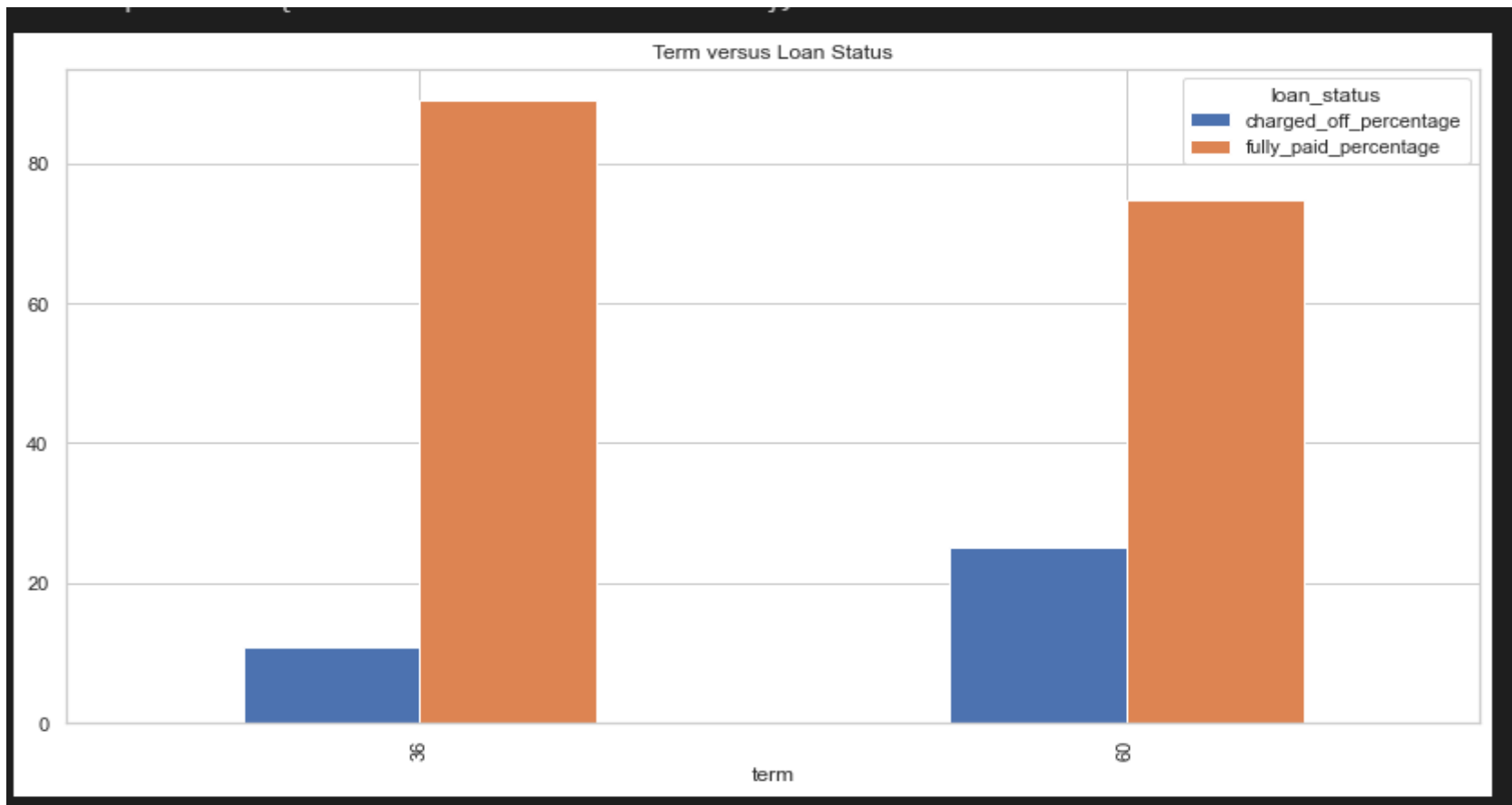
... comparison between defaulter and fully paid applicants



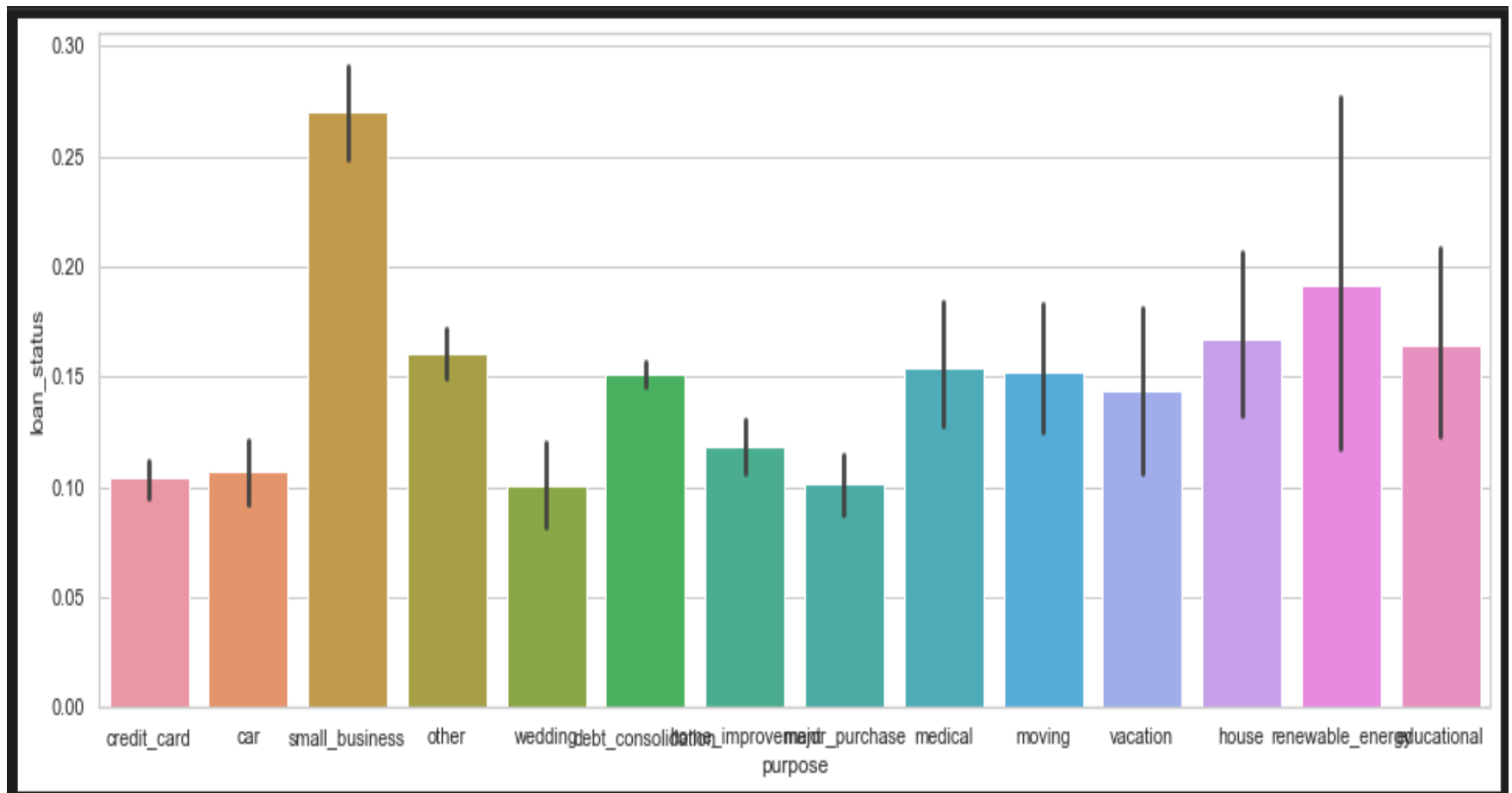
- ▶ 14.4% which is approximately 14 percent of defaulters in the data set and most of the loans are paid and the loan amount varies from 0 to 35,000 having mean of 10,000.



- ▶ Funded amount is left skewed. Most of the loan amount given is 5 lakhs.

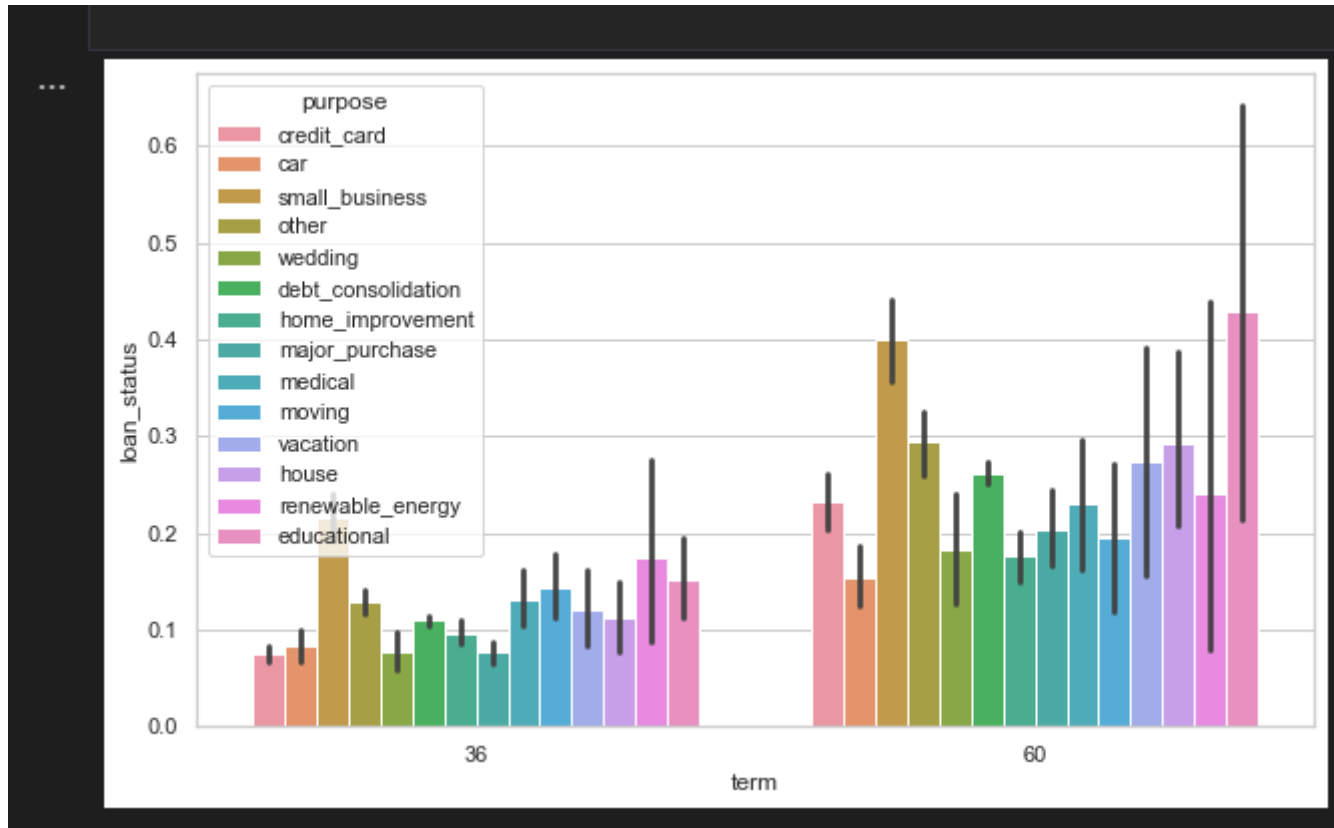


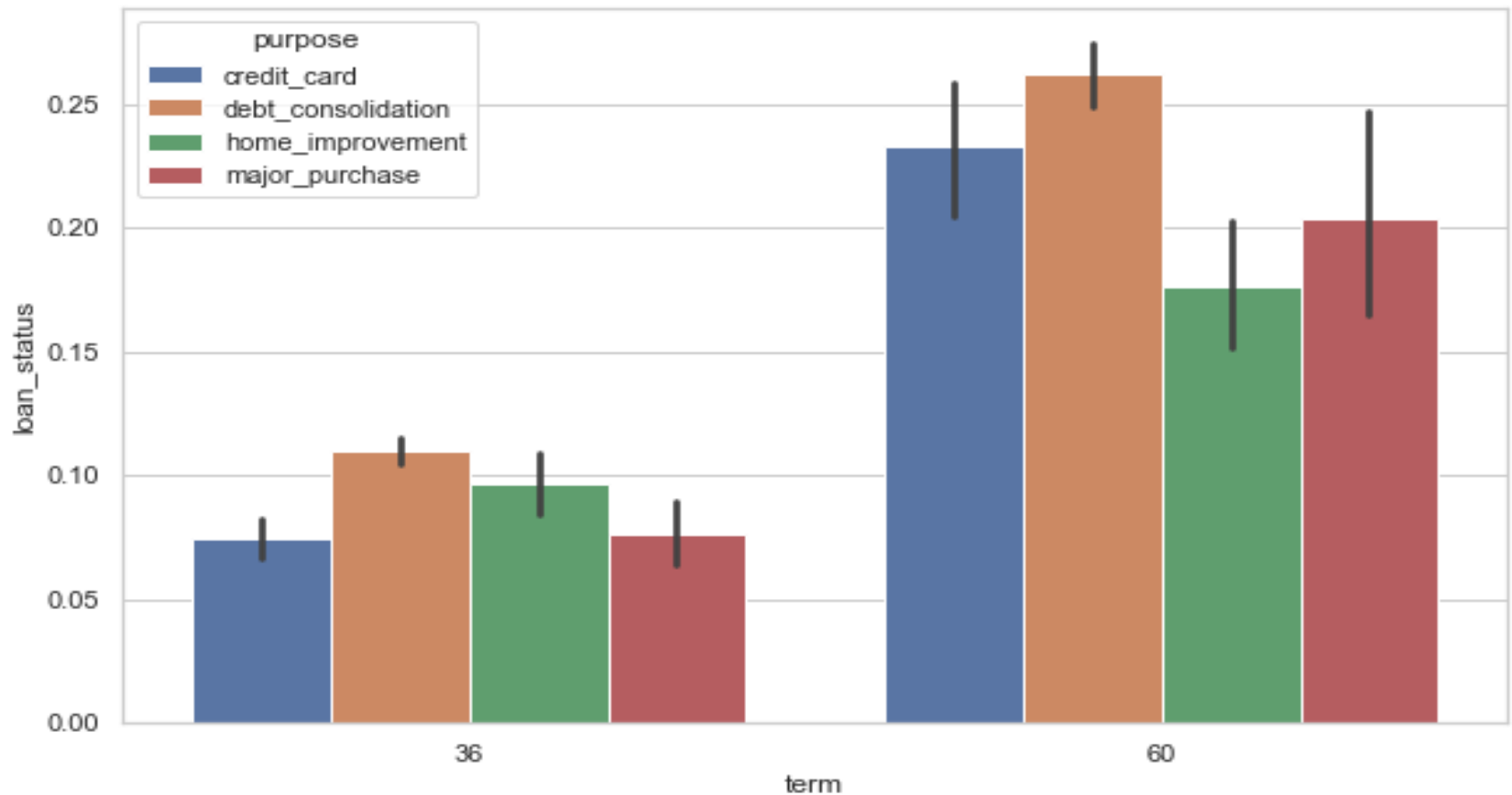
- ▶ 60 term months has majority of defaulters.



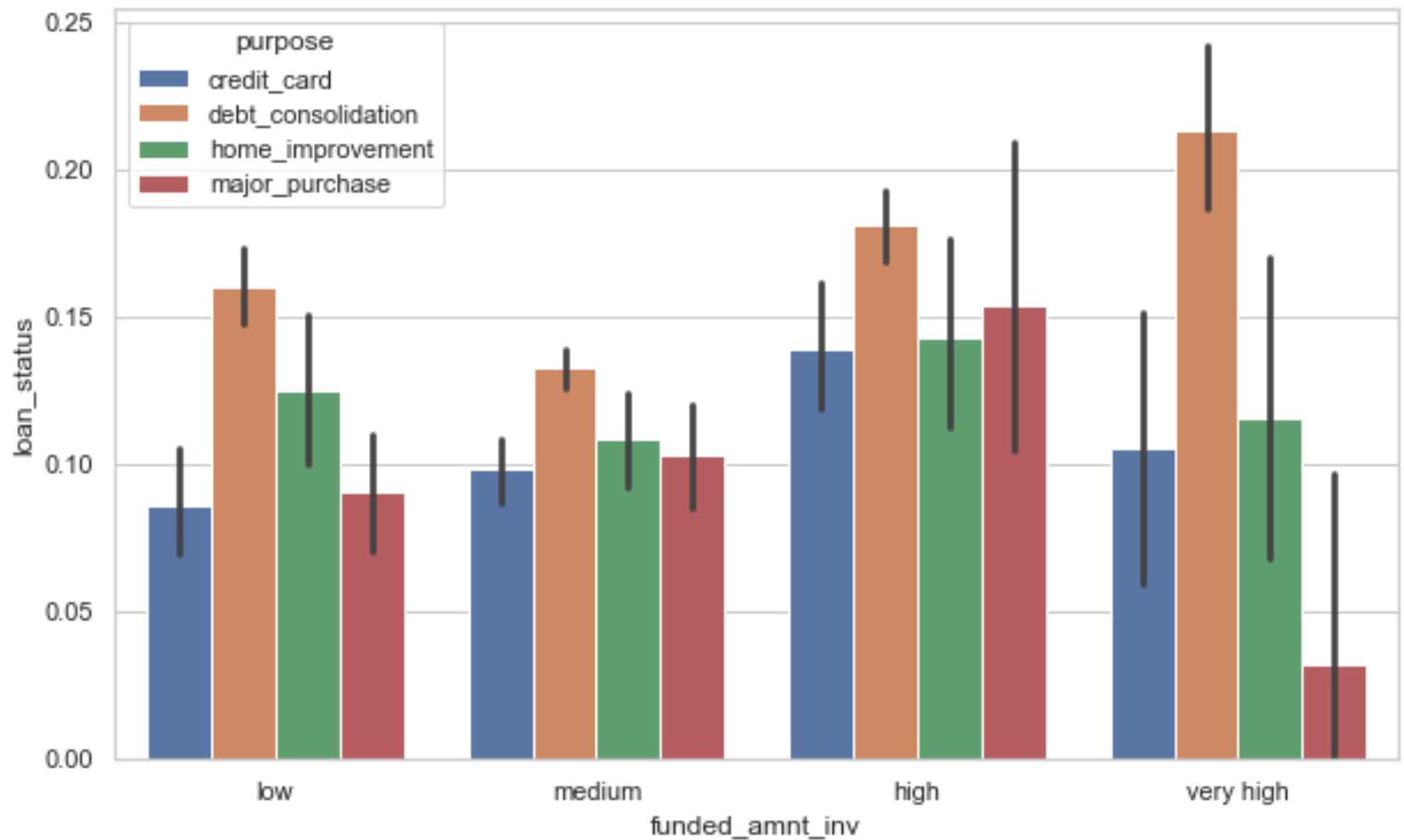
majority of default loans are for
small business > renewable energy > educational.

Segmented univariate analysis

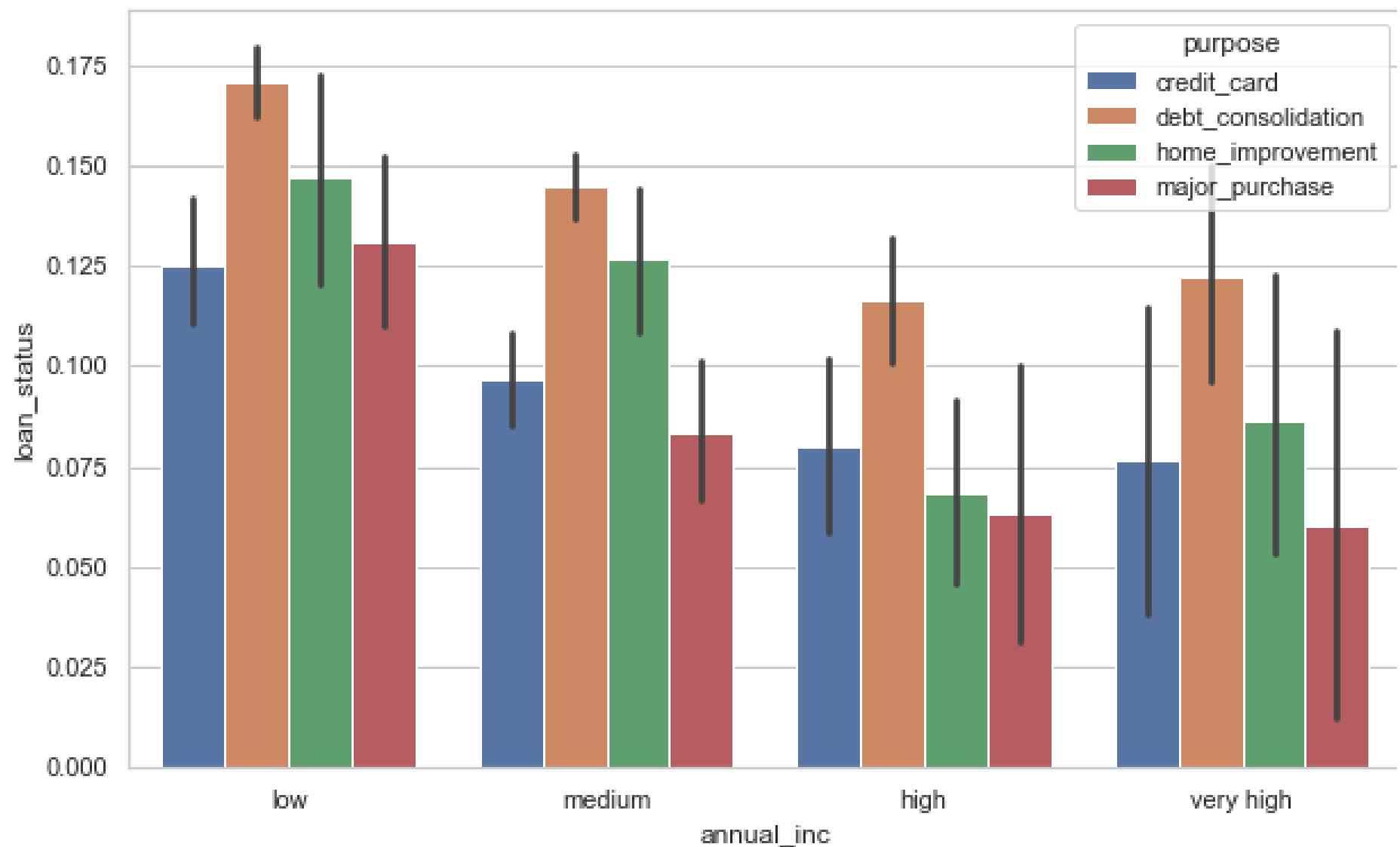




- ▶ We can clearly see the defaulter are high in 60 months term and debit consolidation and credit are top most purpose.

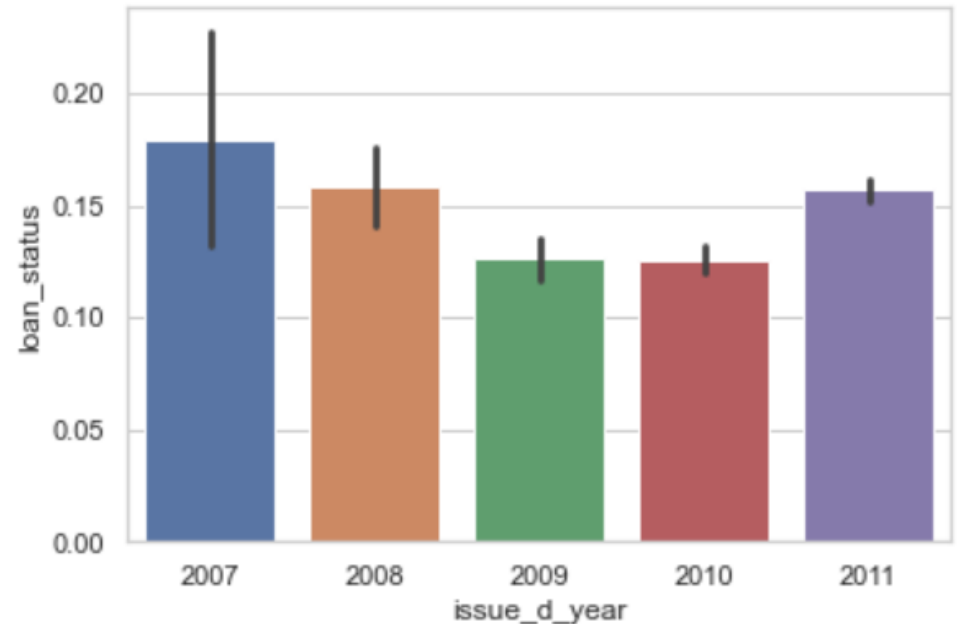
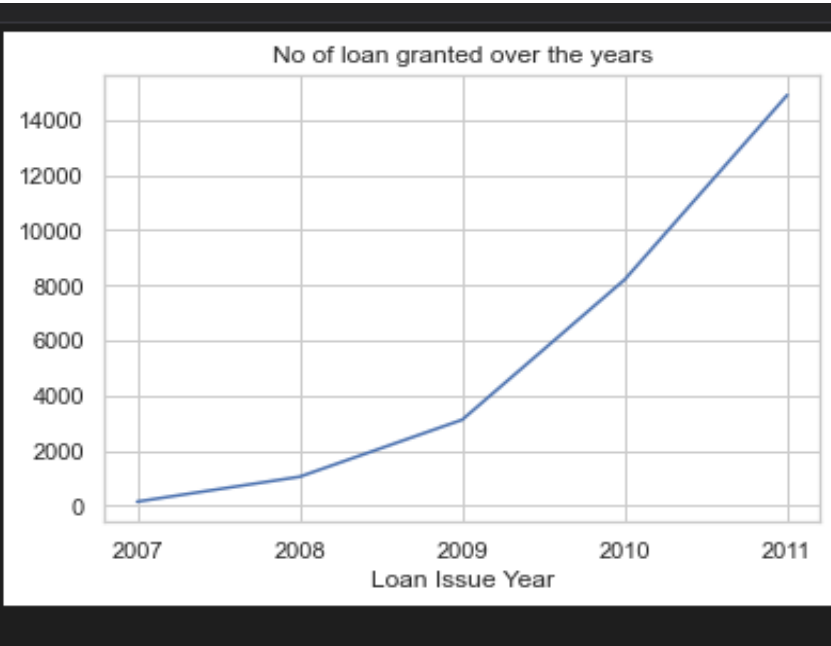


- The debt consolidation has the highest spike the group with more number of defaulters

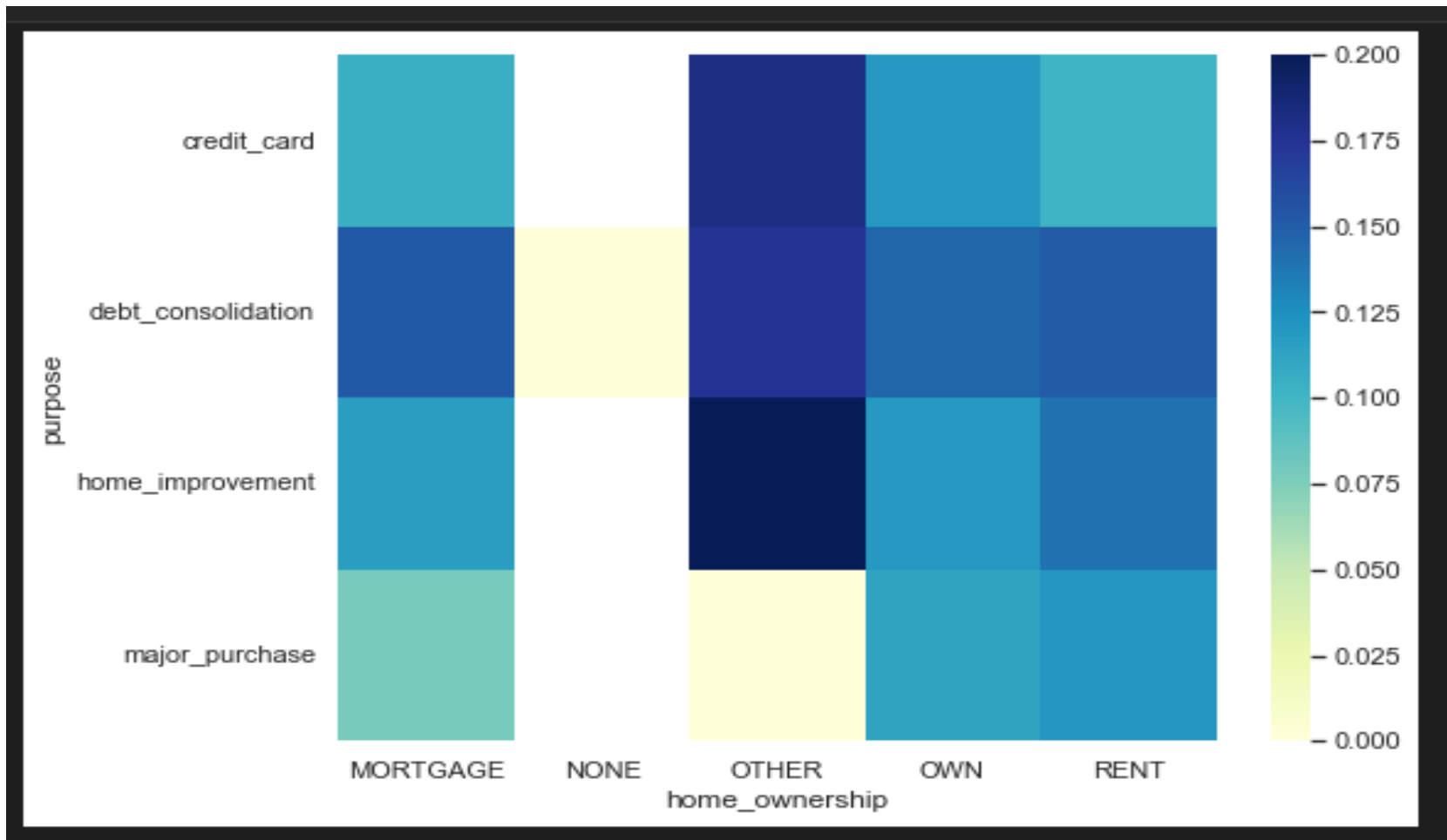


- This concludes that if the annual income is high the defaulters are low and vice-versa

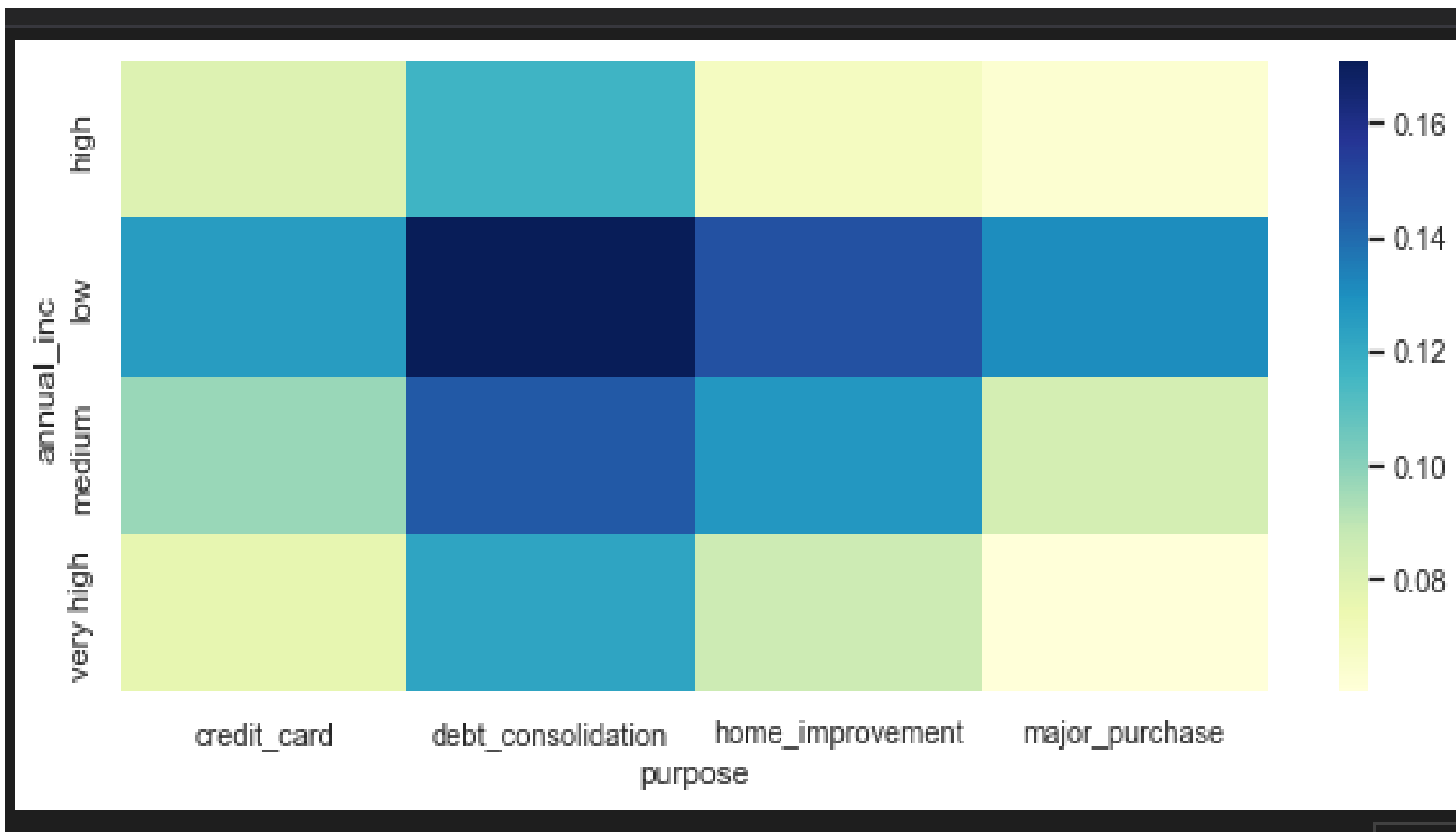
Bivariate Analysis



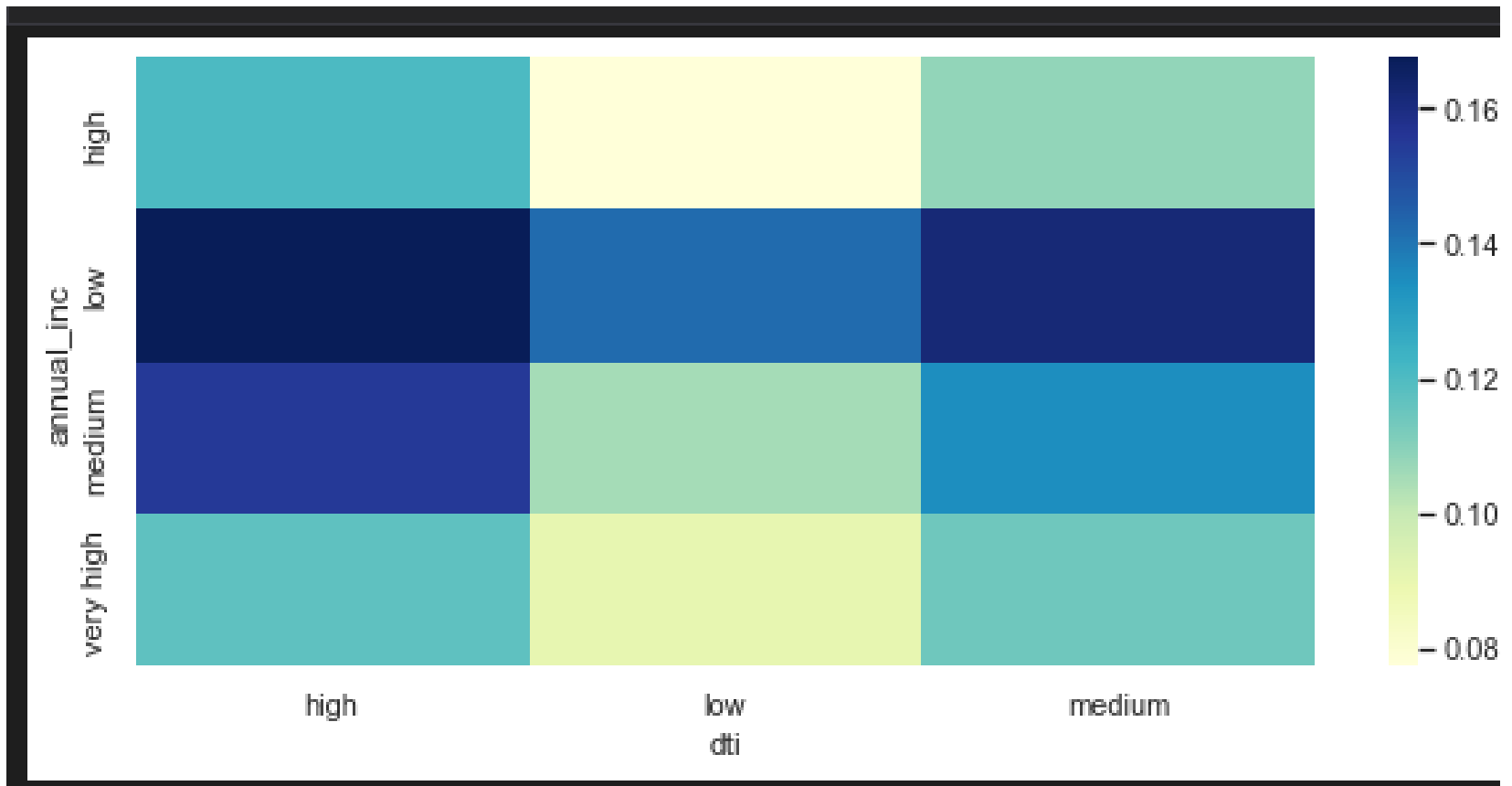
- Number of loan granted are increased in a exponential scale over the period of years
- The loan defaulters have a mild decrease from 2007 and hit a spike in 2011



- ▶ The category other has the higher percentage of loan application for home improvement and credit card.



- ▶ The correlation between debt_consolidation and low annual income is high.



- ▶ Medium debt-to-income group in the lowest income range is the most risky when it comes to loan repayment.