Loan defaulted cause

Gramener case study

Back ground:

- Working for a **consumer finance company** which specializes 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

BUSINESS OBJECTIVE:

- we have to find out what kind of customers are likely will not pay the loan. which leads to loss for the organization

Steps to be followed

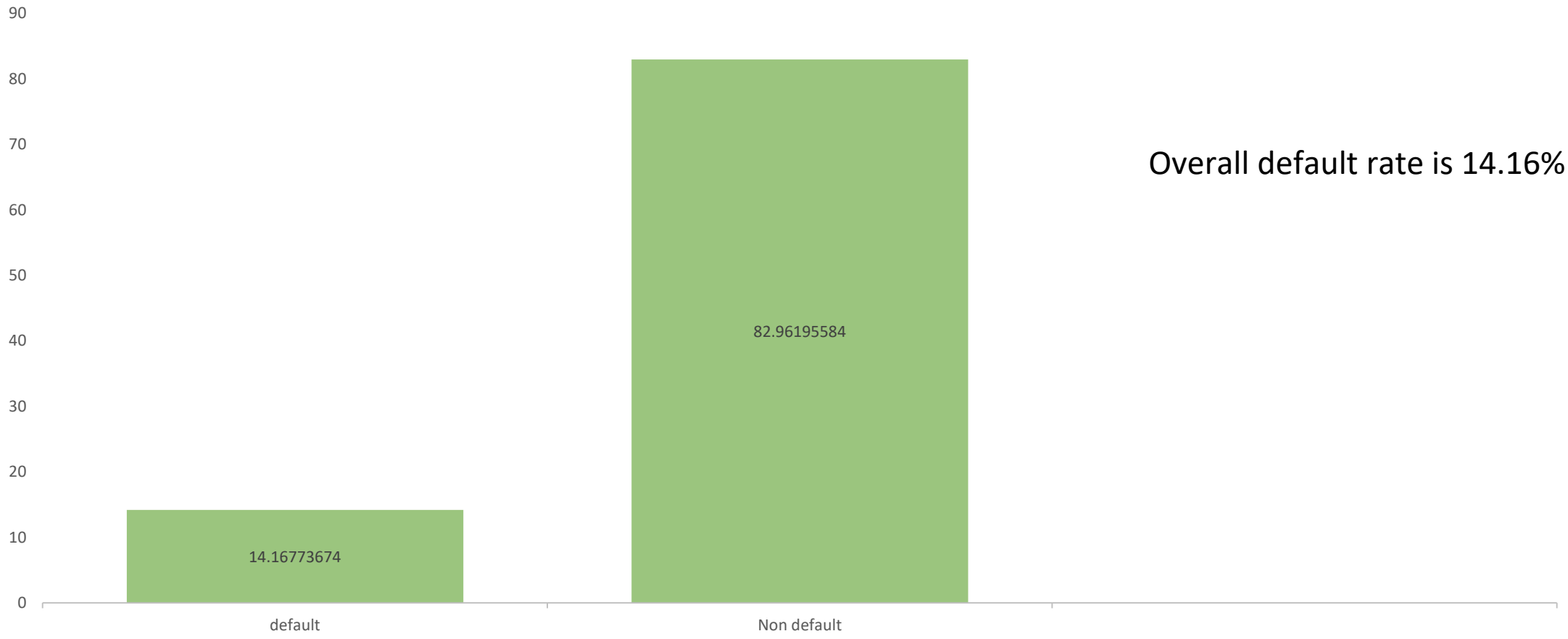
- Data understanding
- Data cleaning
- Data analysis
- Data visualization

Data understanding:

Types of variables:

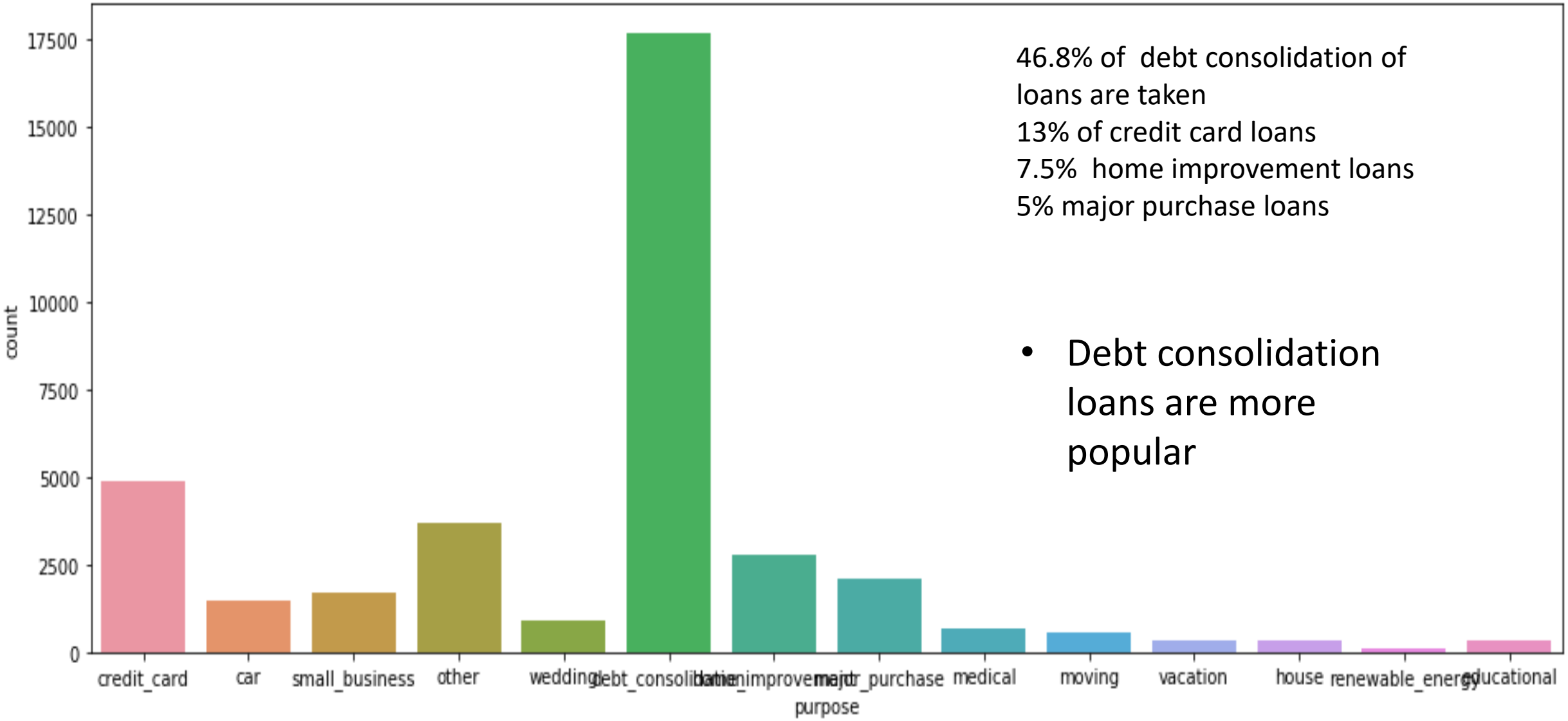
- Data consists of three types of variables:
- Customers information:
  - Employment length, employment title, annual income etc;
- Loan information
  - loan amount ,interest rate, loan status ,loan grade etc;
- Customers behavior variables
  - revolving balance, application type, recoveries, loan purpose

Data understanding overall default rate



Overall default rate is 14.16%

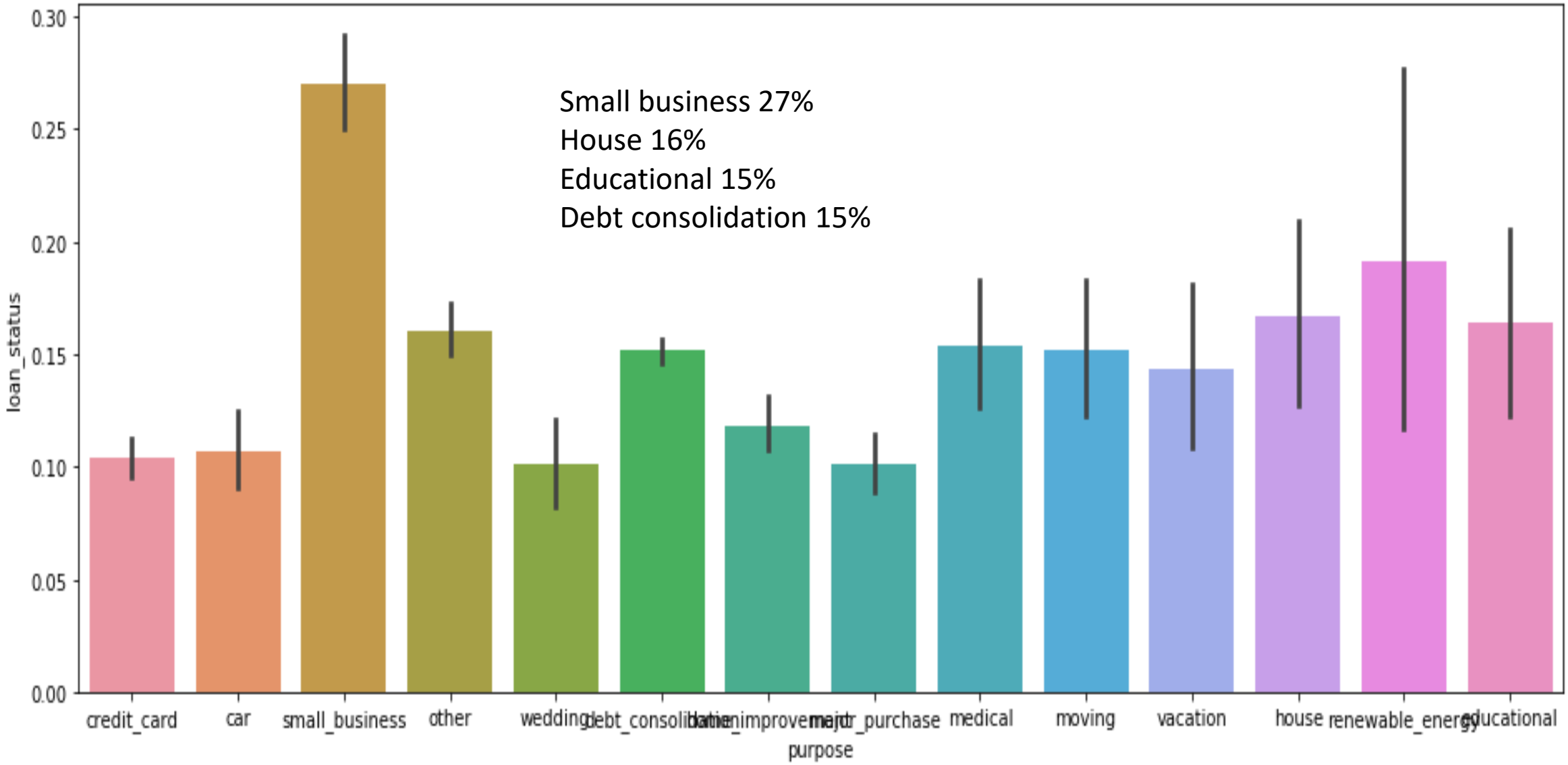
Loan purpose distribution



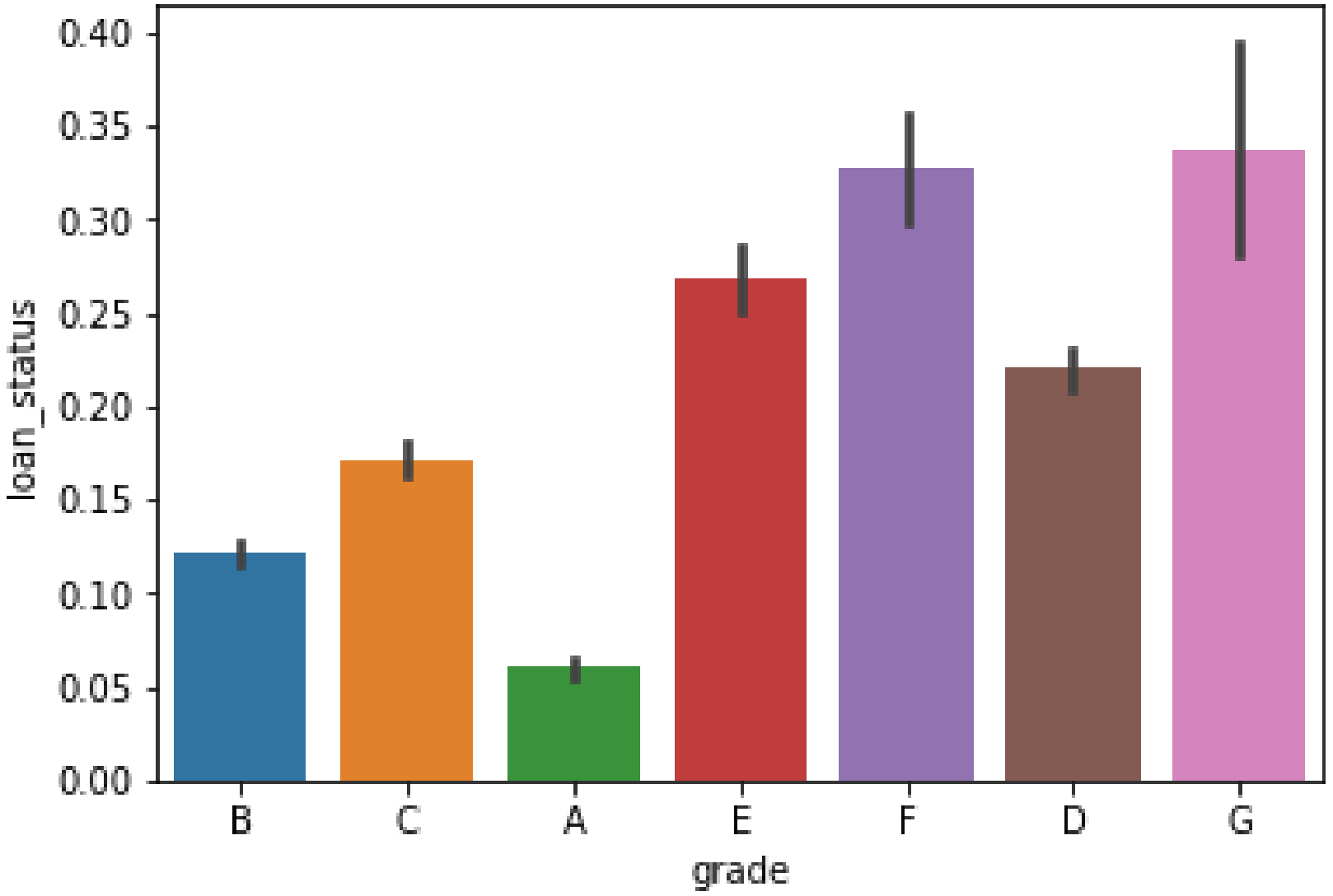
46.8% of debt consolidation of loans are taken
13% of credit card loans
7.5% home improvement loans
5% major purchase loans

- Debt consolidation loans are more popular

Default rates by loan purpose:

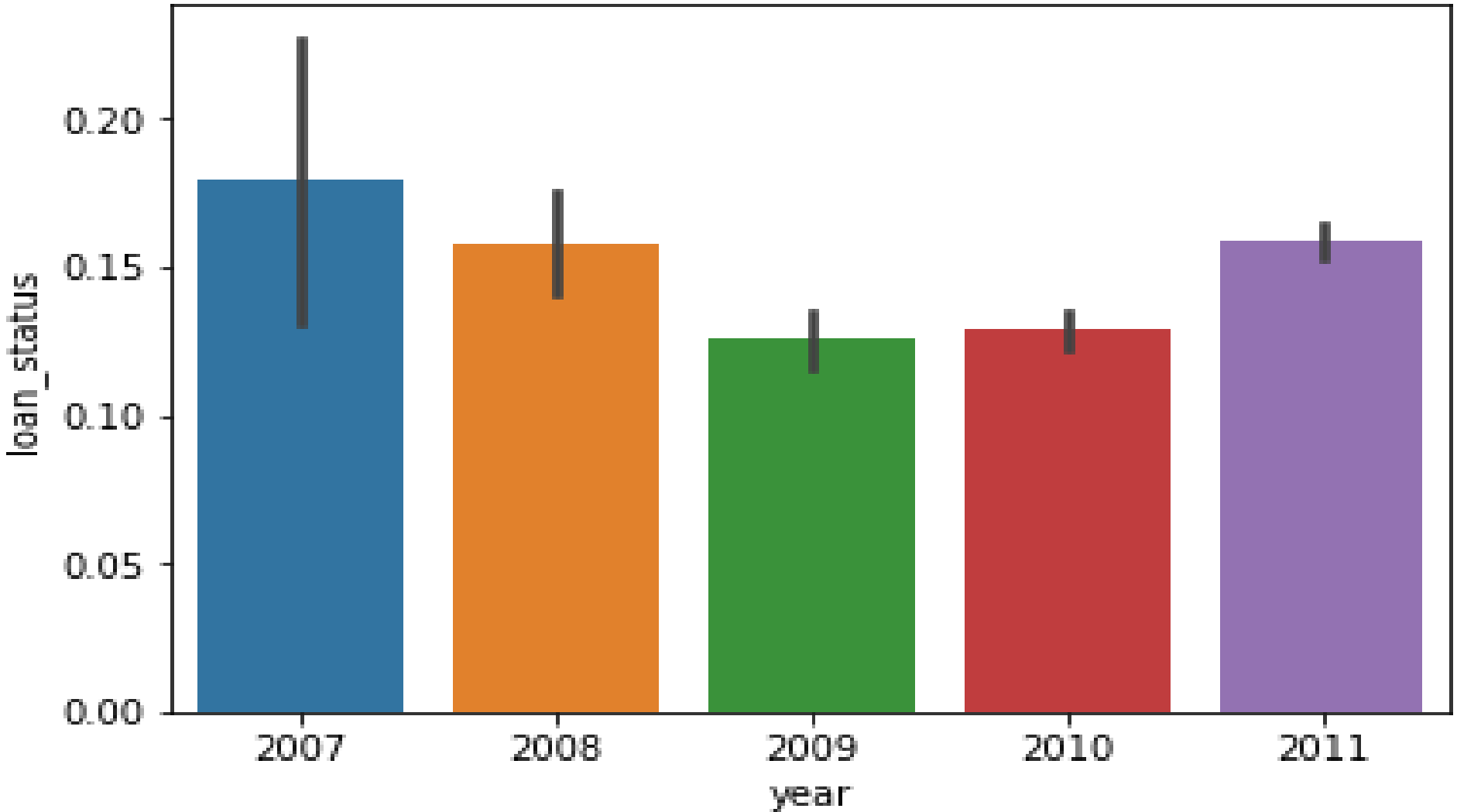


Grade vs default rate

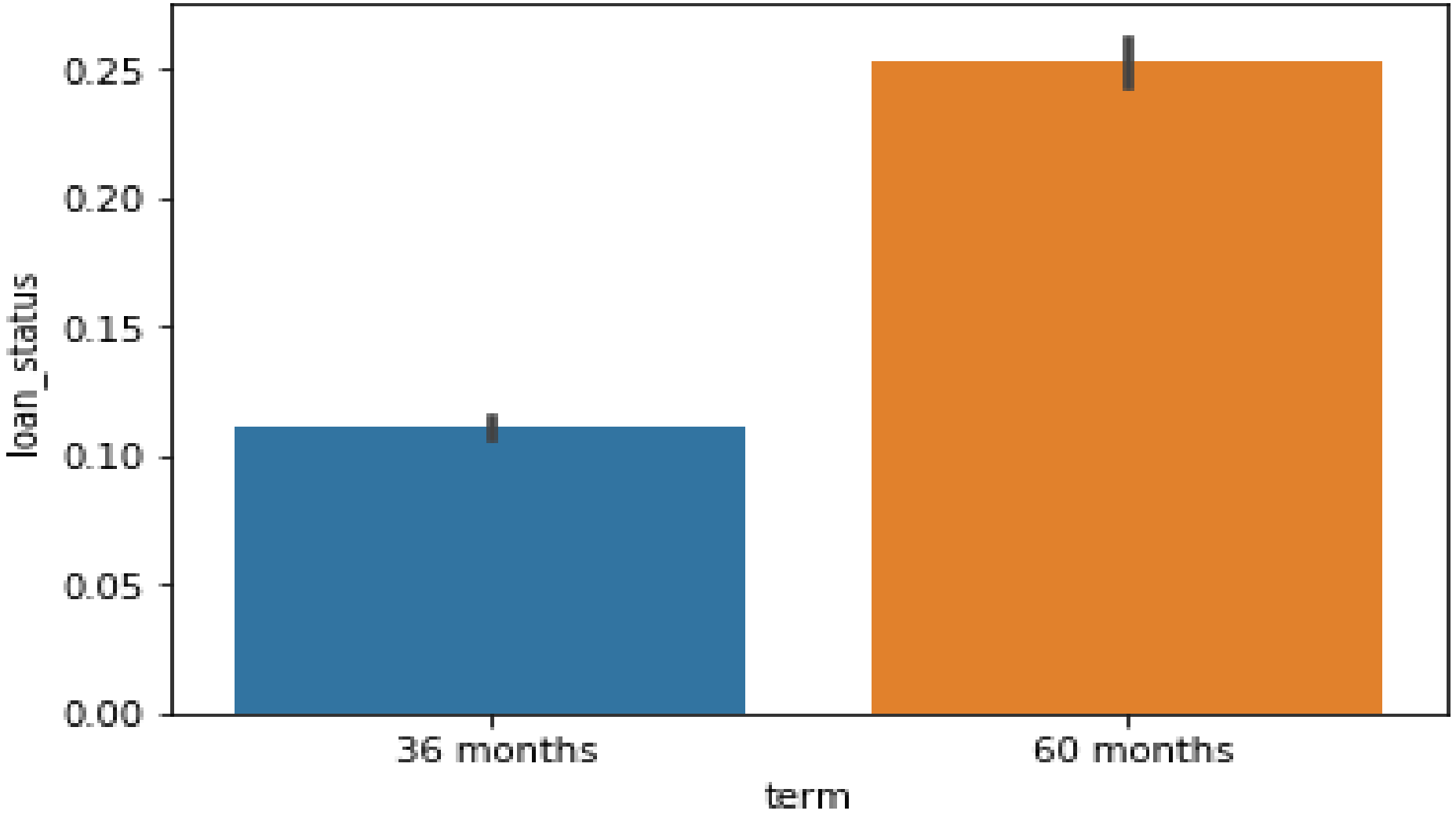


As the grade decreases the default rate increase

Default rates across years

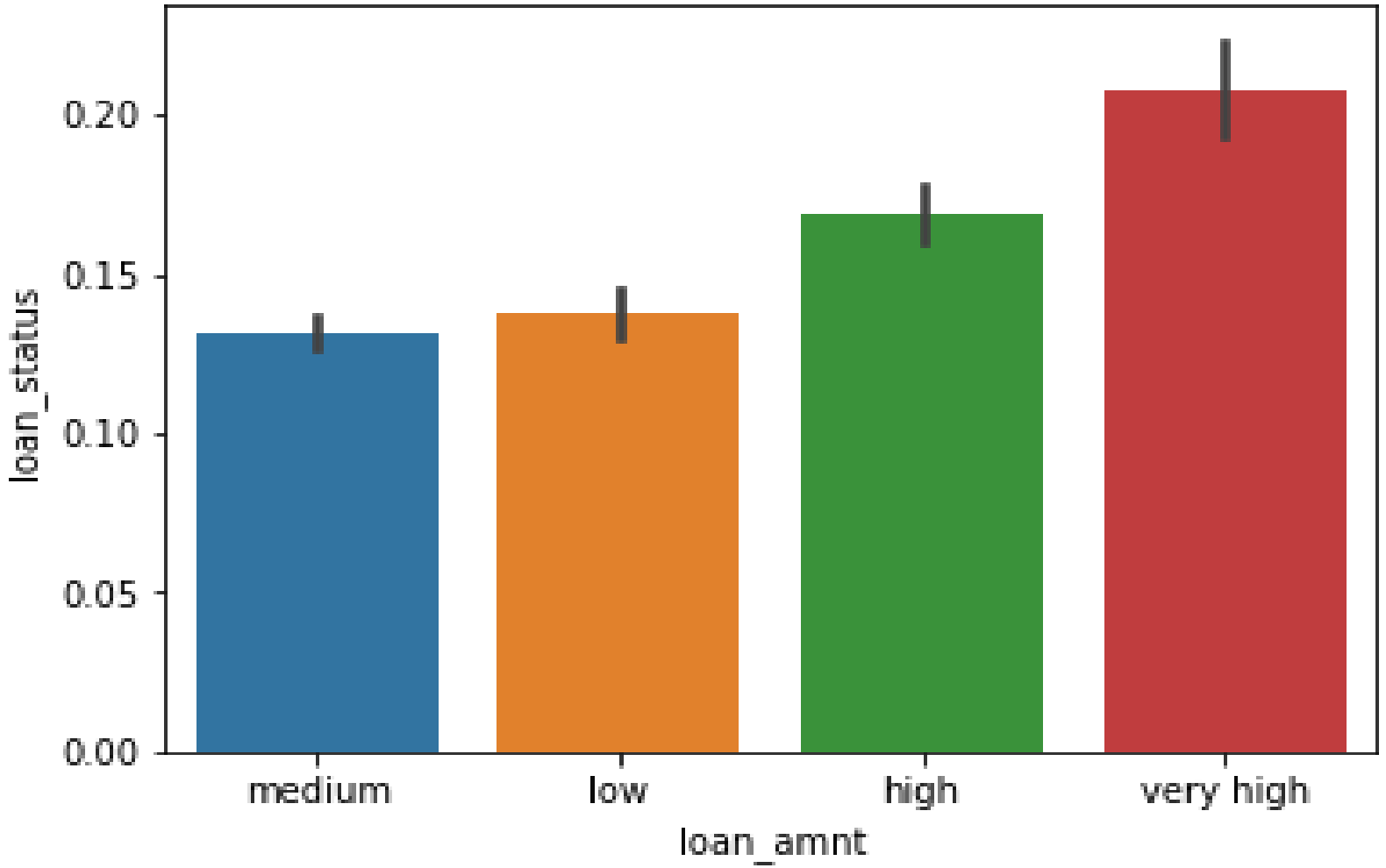


Loan default rate in term period



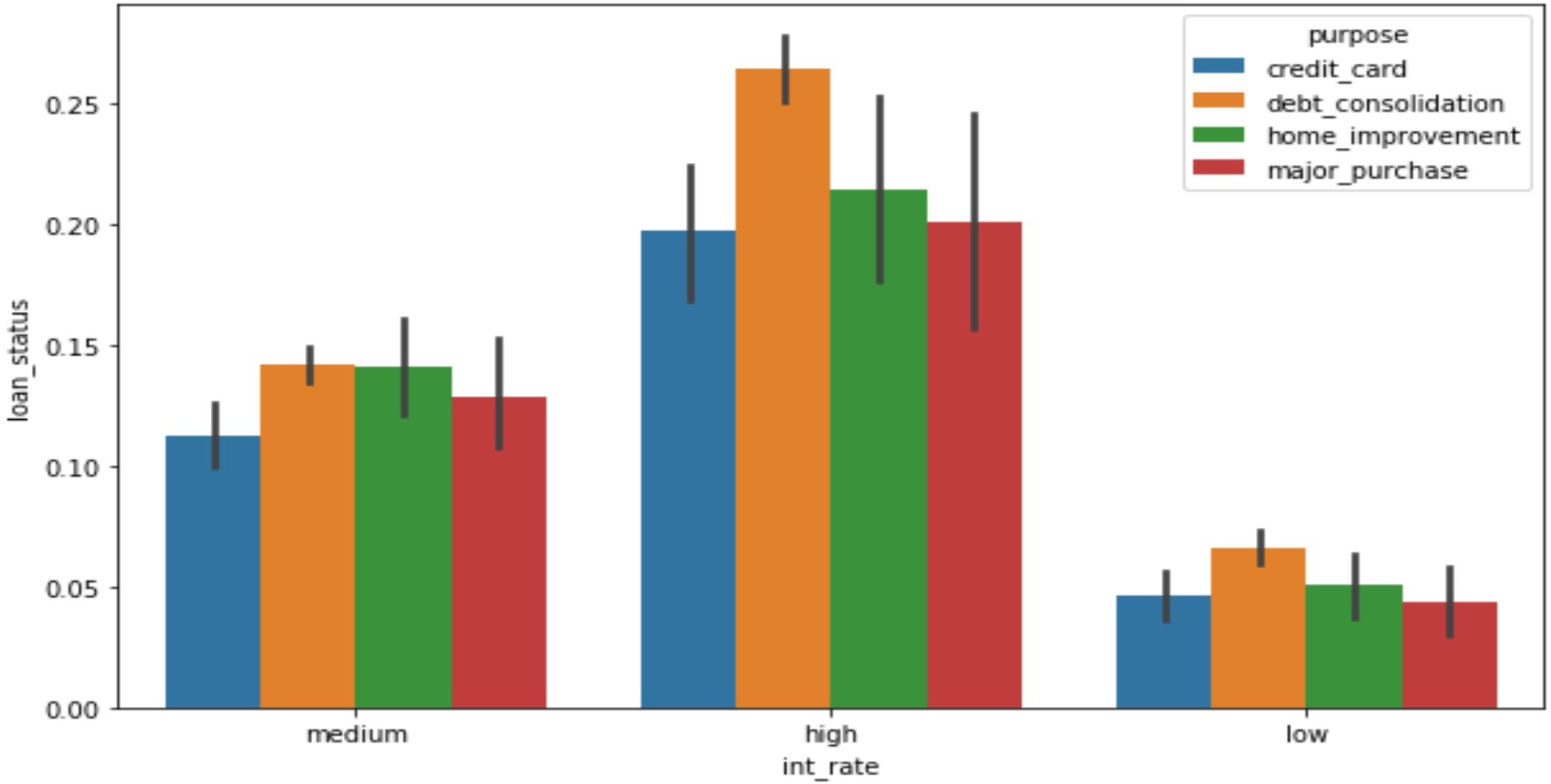
As term period increases
Loan default rate increases

Loan amount vs default rate



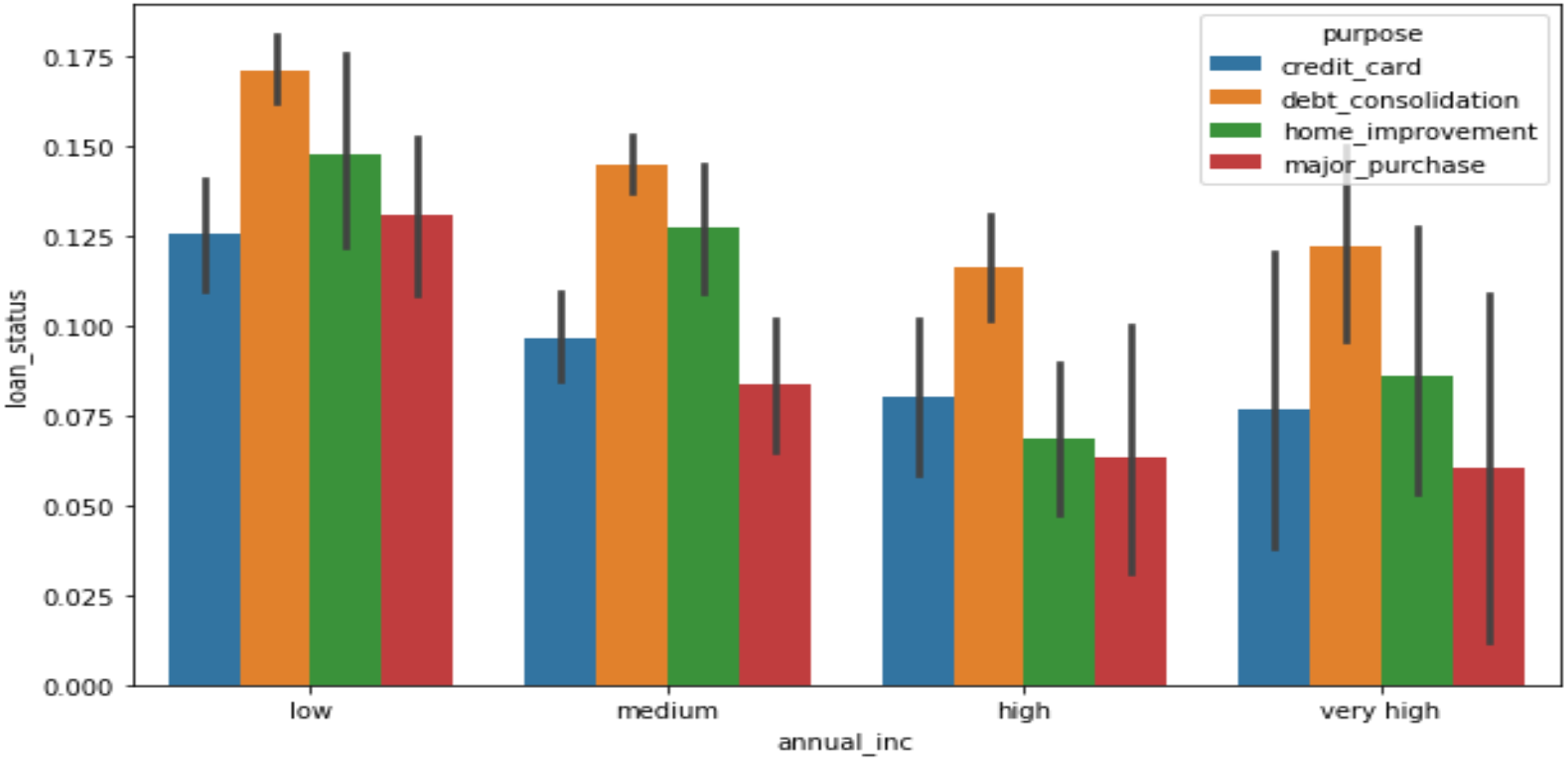
Higher the loan amount higher the default rate

Interest rate vs loan default in popular loans



Higher the interest higher the default rate

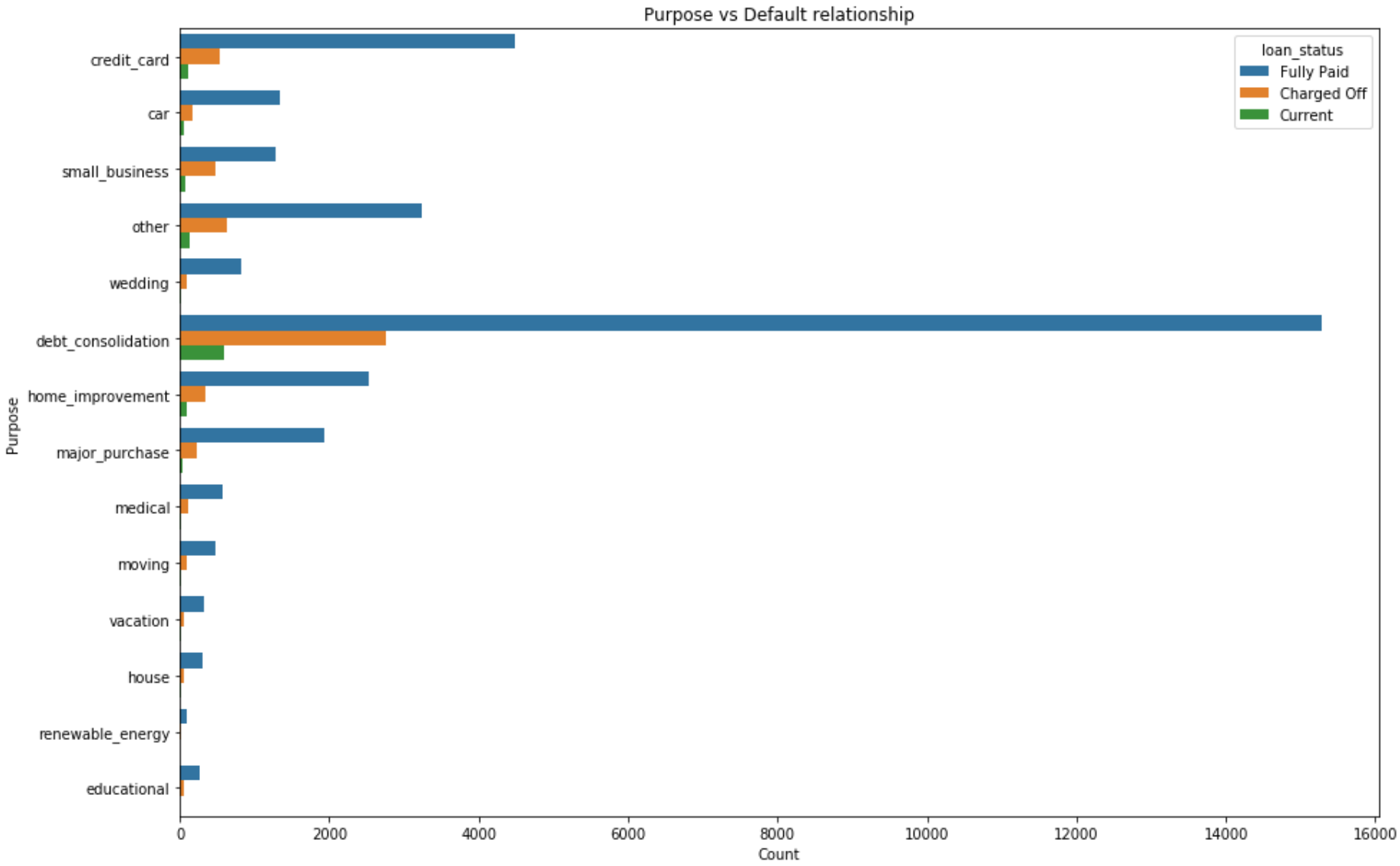
Annual income vs loan default among popular loans



Higher the annual income lower the default rates

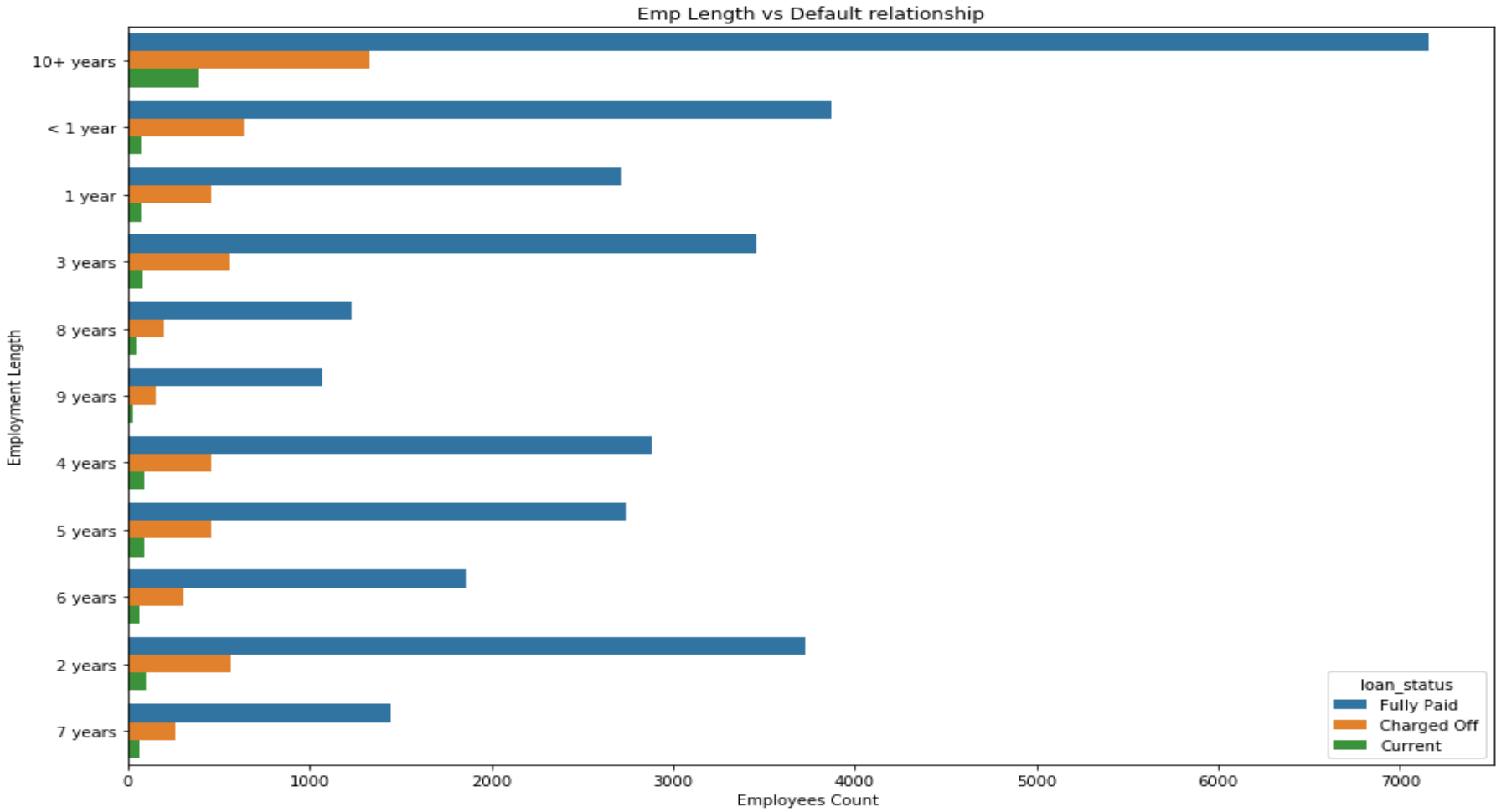
UpGrad

Purpose vs default relationship



Organization should look after the purpose it affects more the default rate of the loan and increase loans for which are having less default rates

Employee length vs default rate



More the employee length less default rate