



# Credit EDA Case Study

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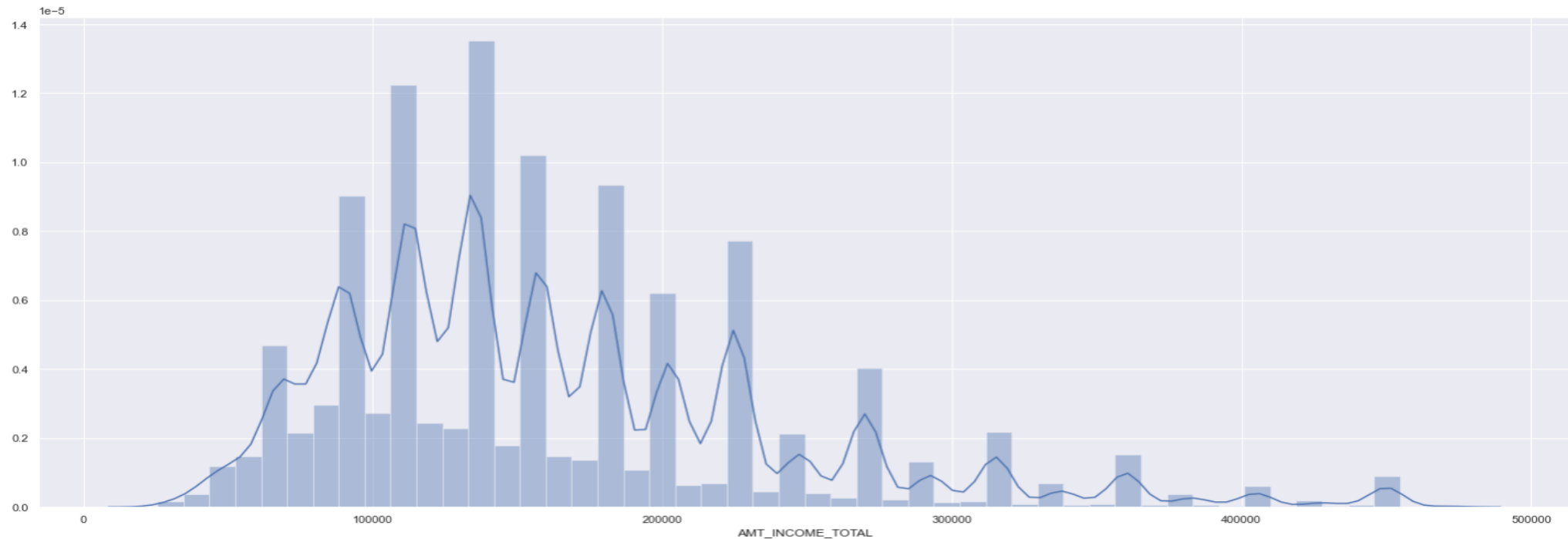
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# Problem Statement

- ▶ This case study aims to identify patterns which indicate if a client has difficulty paying their installments which may be used for taking actions such as denying the loan, reducing the amount of loan, lending (to risky applicants) at a higher interest rate, etc. This will ensure that the consumers capable of repaying the loan are not rejected. Identification of such applicants using EDA is the aim of this case study.

# Average income group

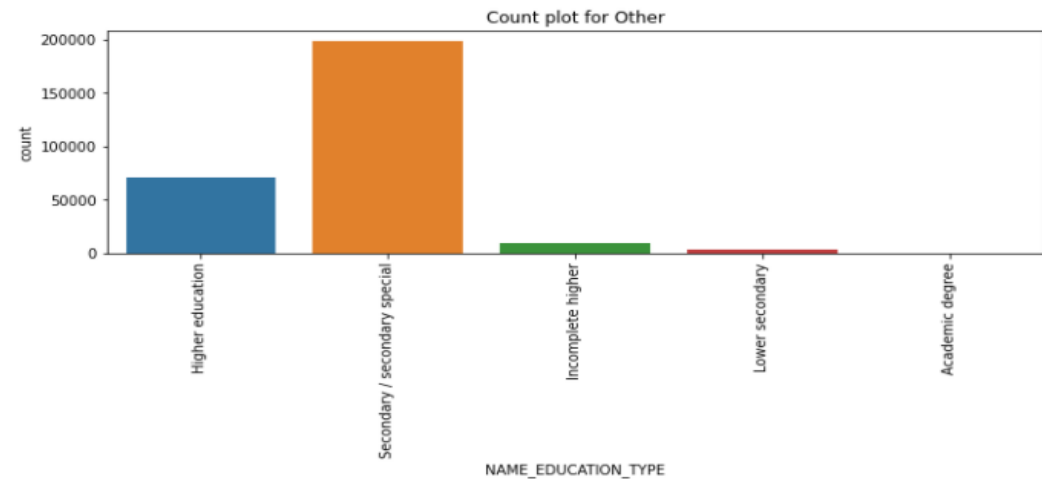
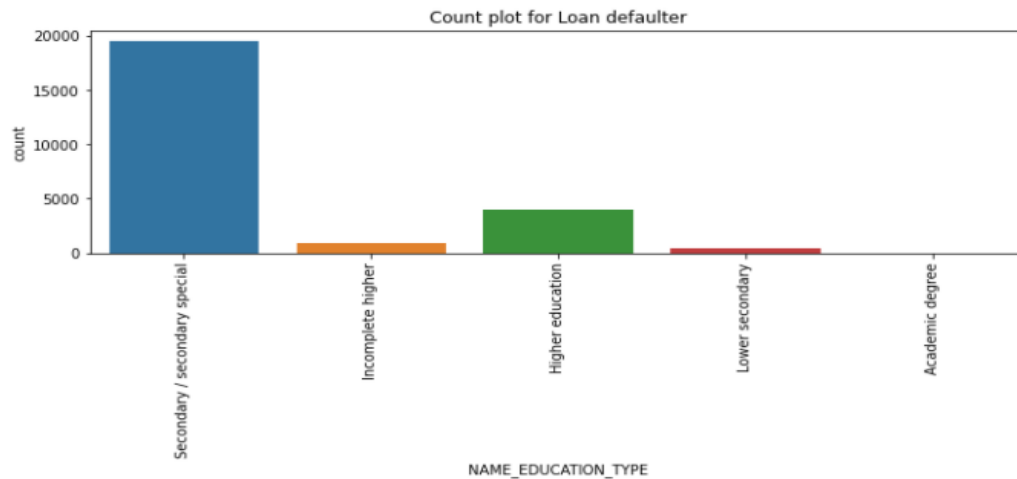
- ▶ Common income group lies between 100000 to 200000



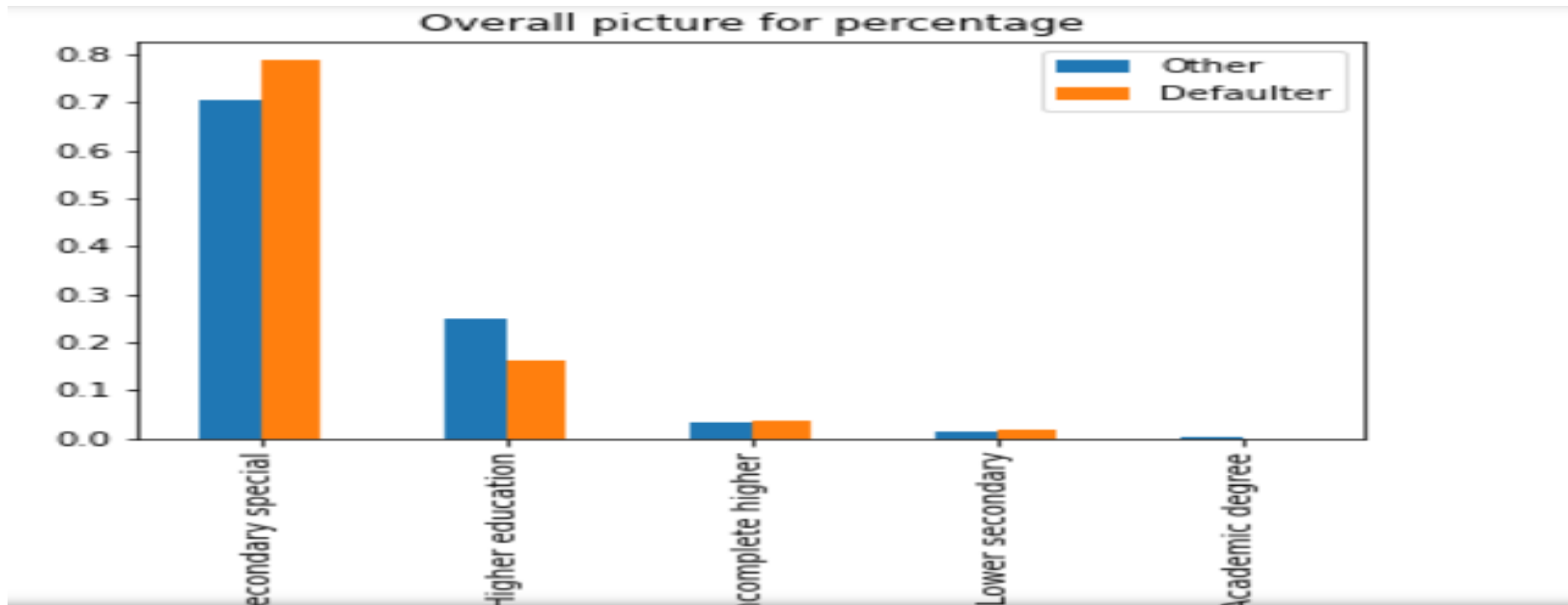
# Loan Criteria Consideration : EDUCATION

- ▶ For Higher education Defaulters are less. But loan taken for secondary education is more and more defaulters are there for the same.
- ▶ These stats tell us its safer to provide loan to people with higher education and they repay as well.

COUNTPLOT for NAME\_EDUCATION\_TYPE

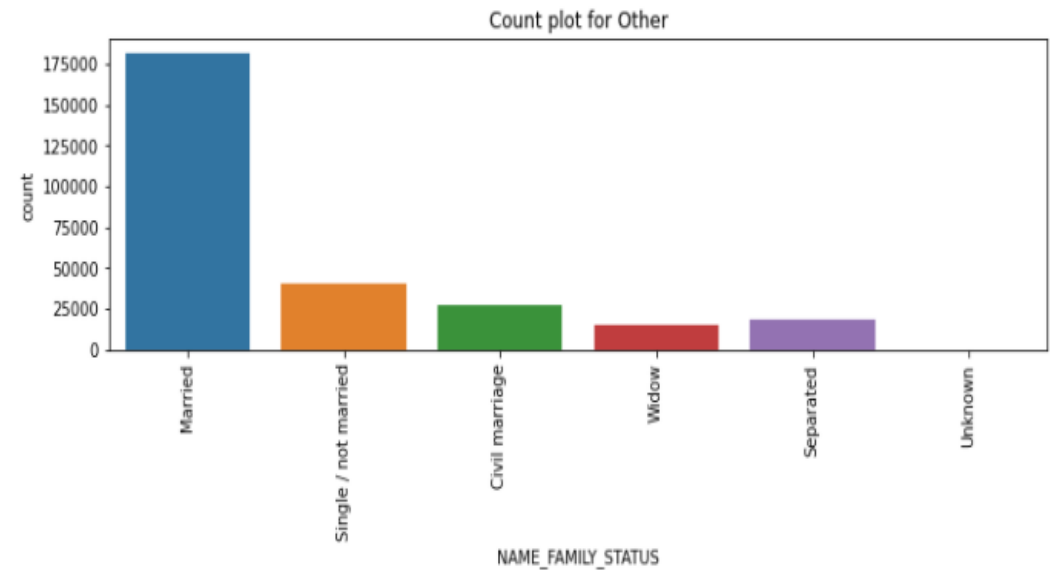
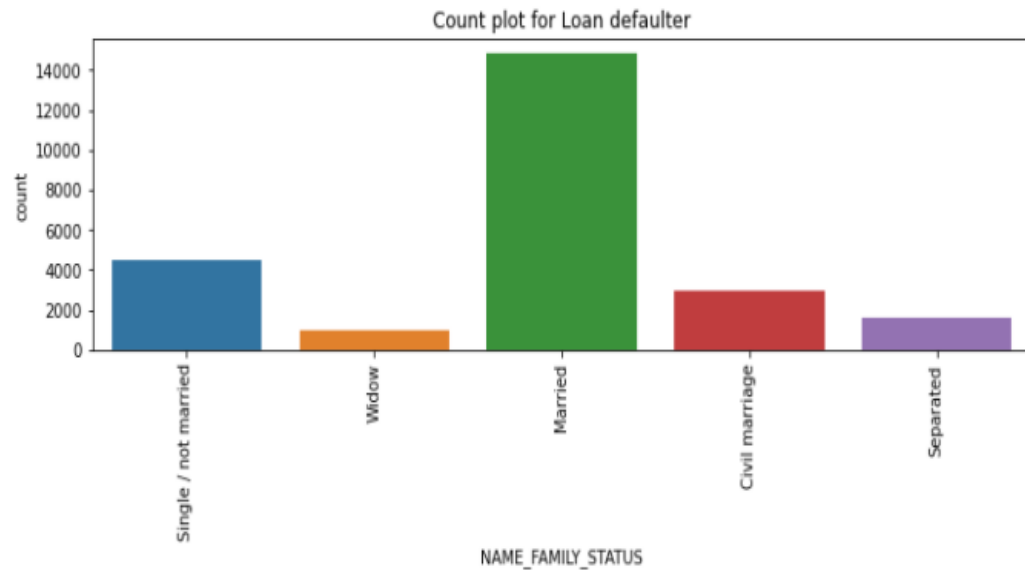


# Loan Criteria Consideration : EDUCATION

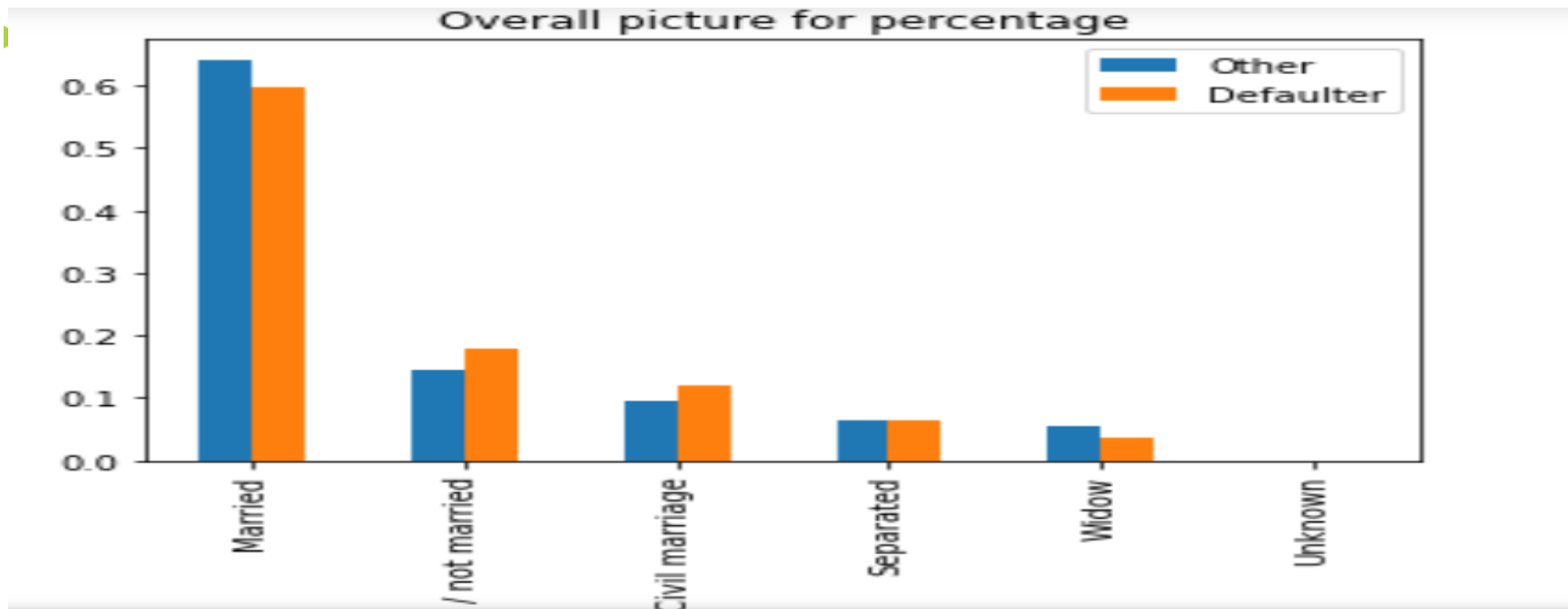


# Loan Criteria Consideration : Family Status

- ▶ Married people have taken most loan but the percentage of defaulters are more in single/civil marriage.
- ▶ Loans provide to married people proven to be safe.



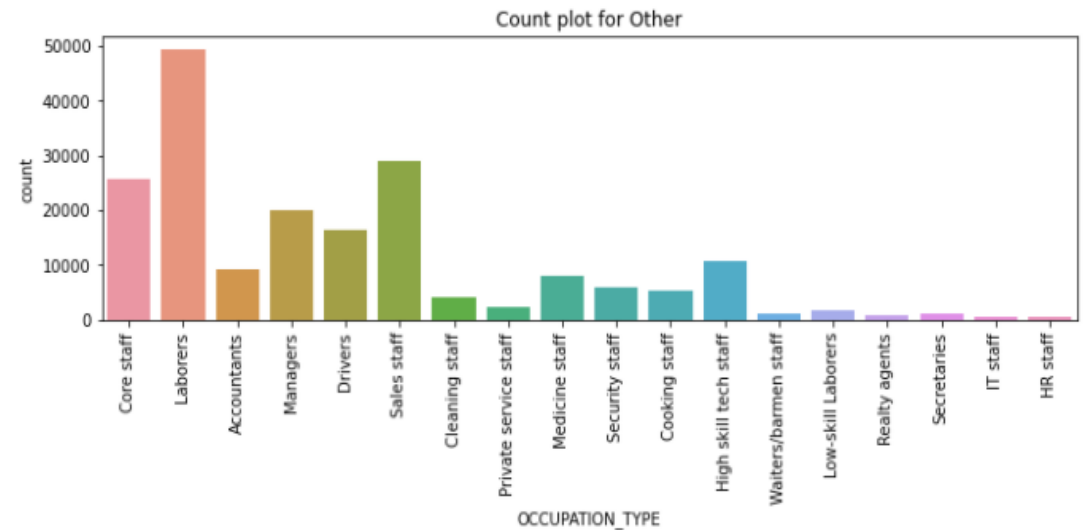
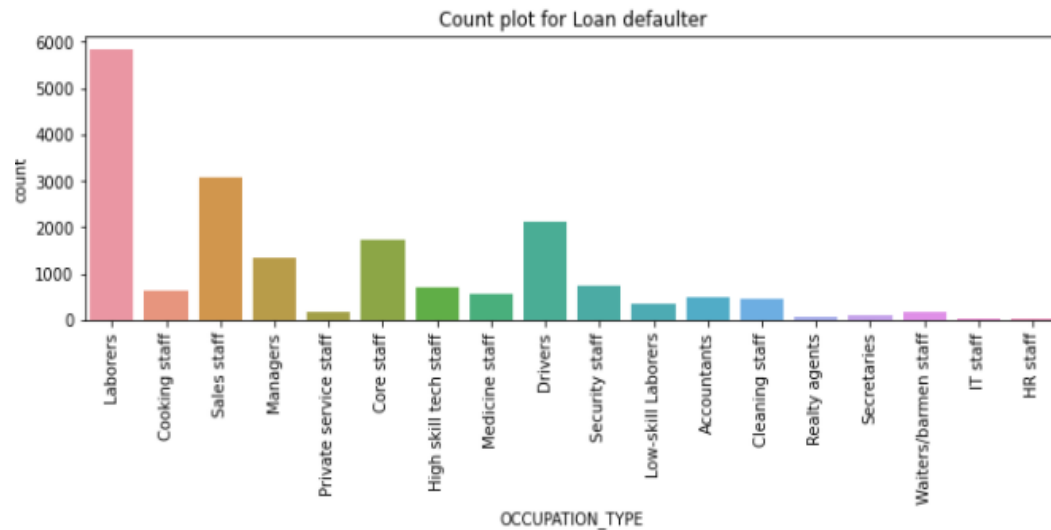
# Loan Criteria Consideration : Family Status



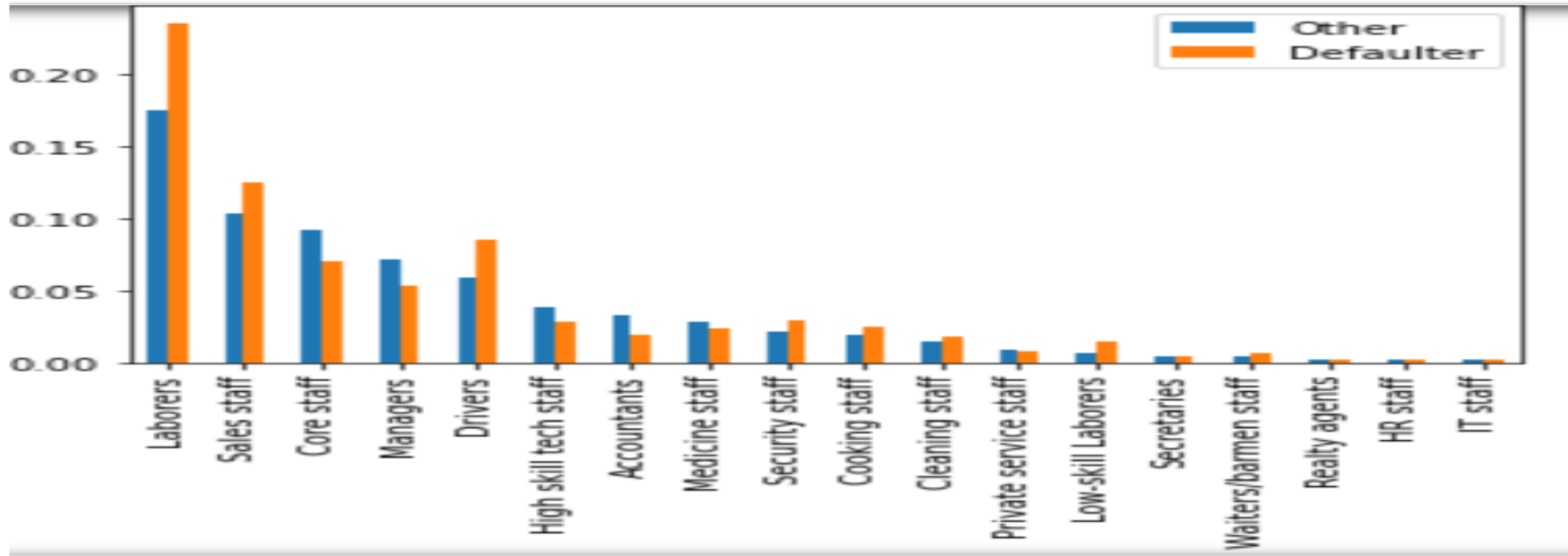


# Loan Criteria Consideration : OCCUPATION

- ▶ By seeing this laborers and sales staff have taken maximum loans but they are not trusted.
- ▶ As number of defaulters are more. Some class which can be trusted are managers, accountants, High skilled, tech staff.

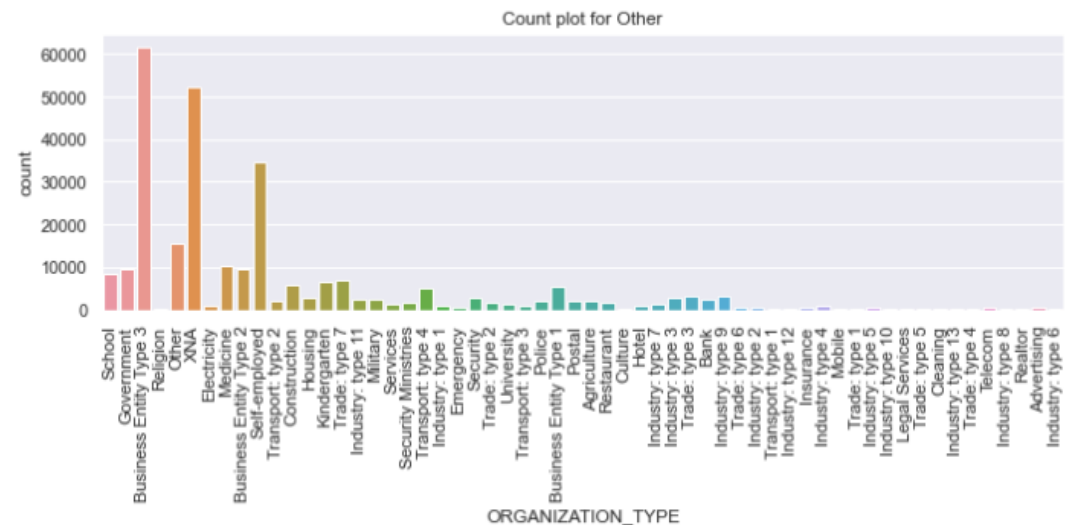
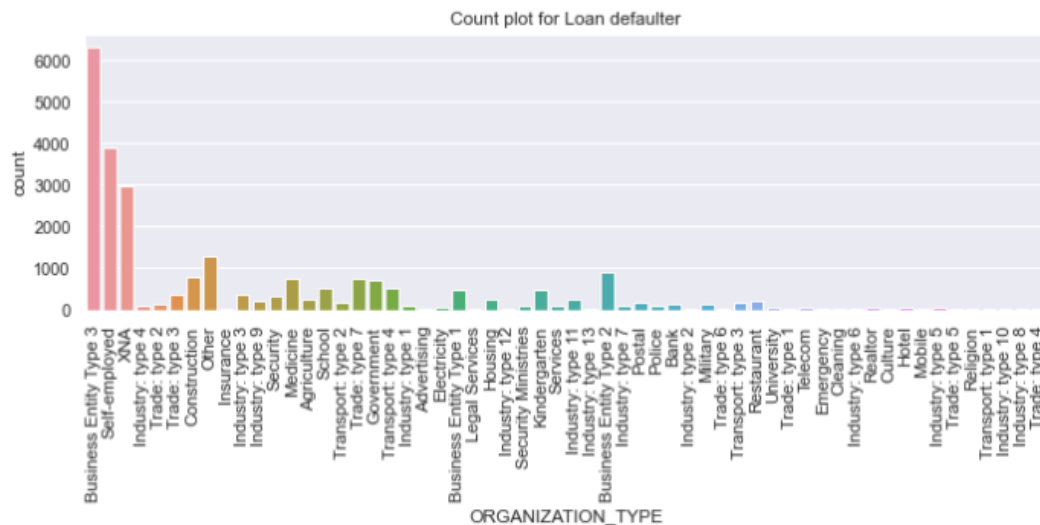


# Loan Criteria Consideration : OCCUPATION

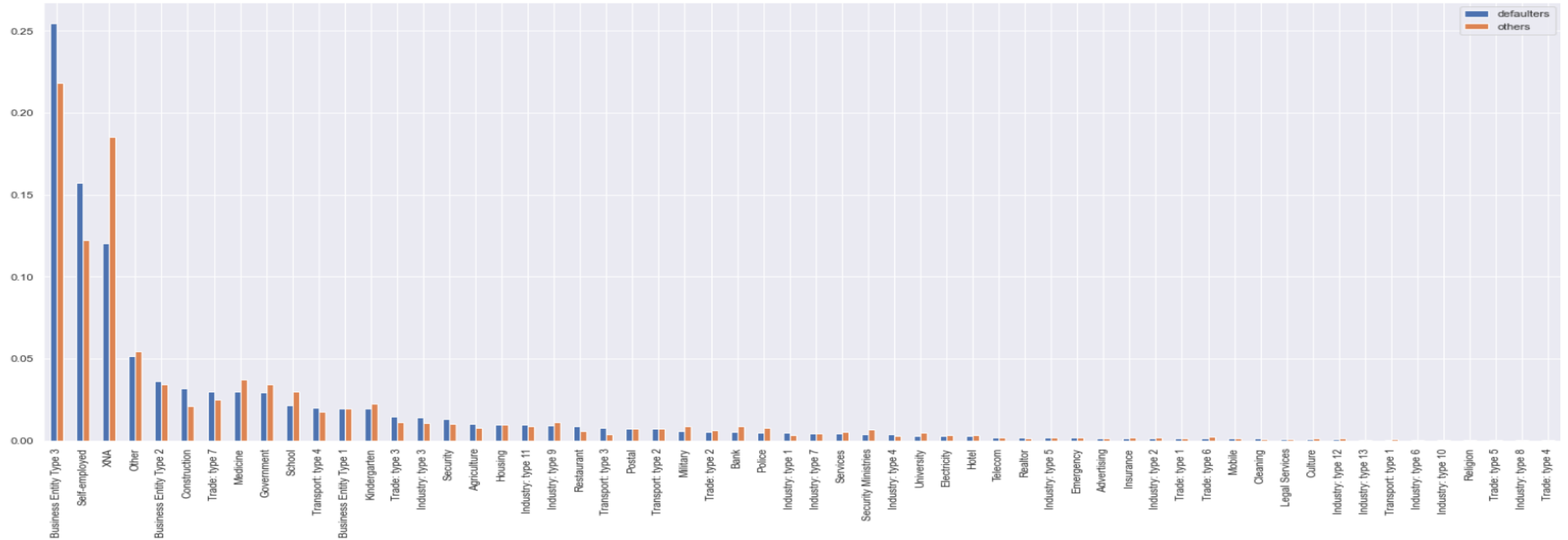


# Loan Criteria Consideration : Organization

- ▶ When we analyzed the data we can see class business entity type 3 and self employed are the highest defaulter
- ▶ We can say giving loan to people who classes are business entity type 3 and who are self employed is risks.

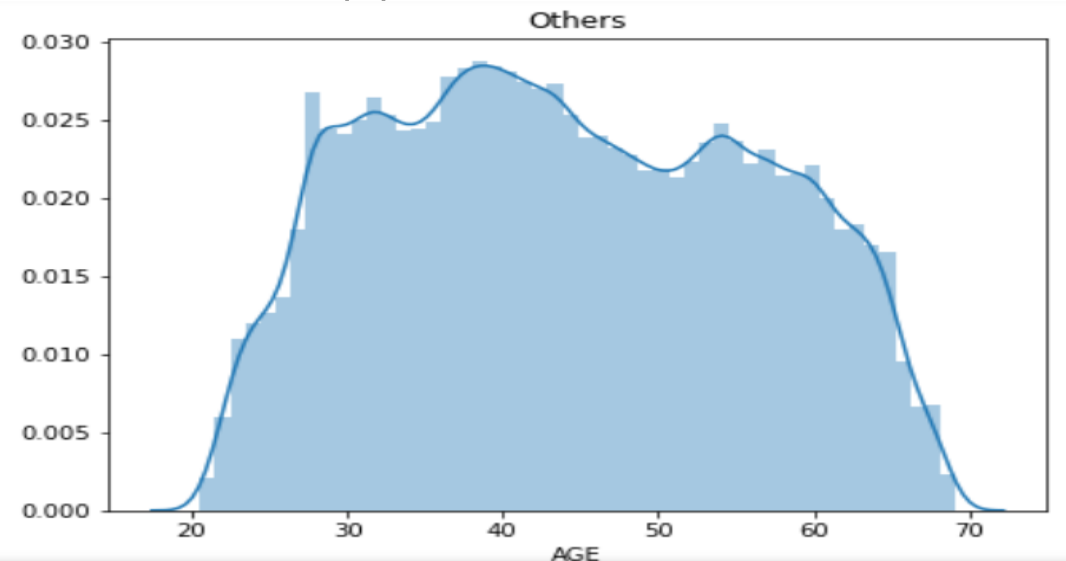
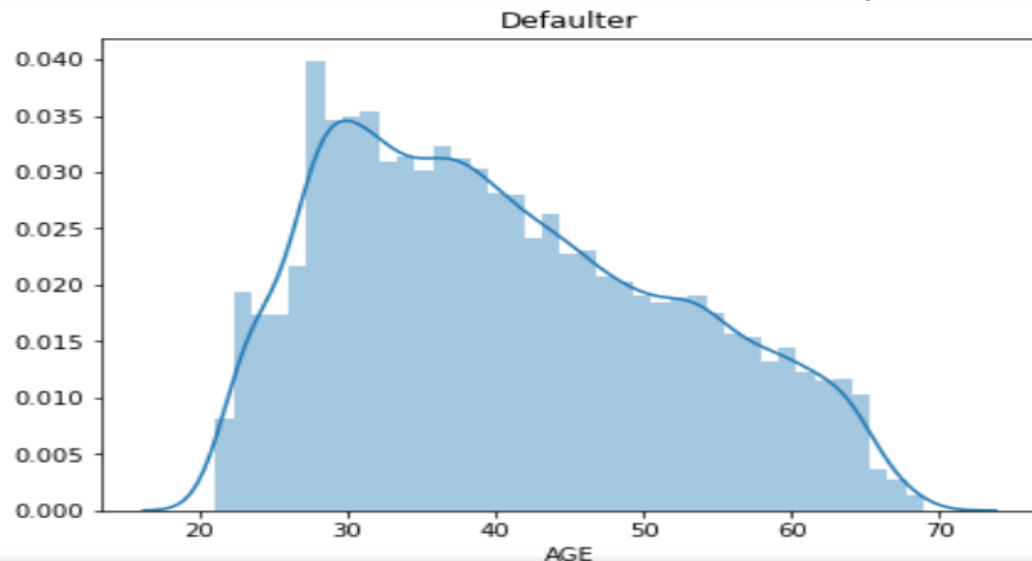


# Loan Criteria Consideration : Organization



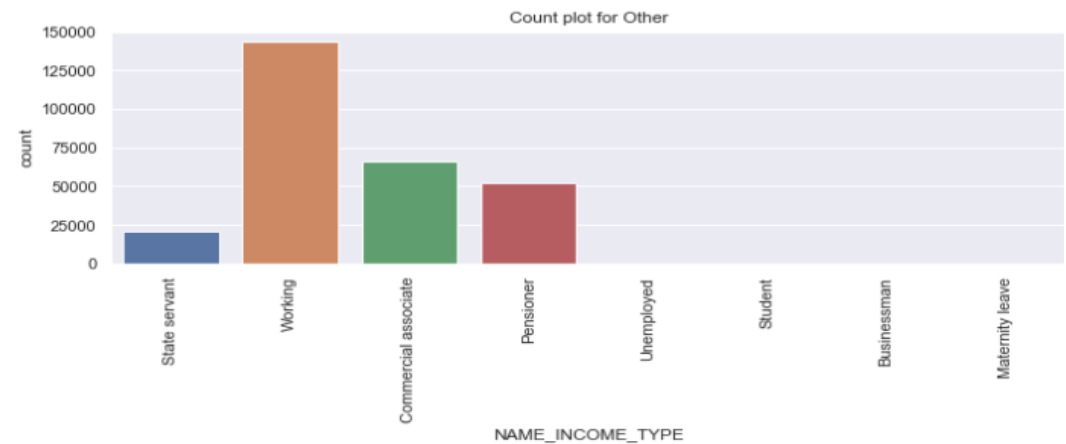
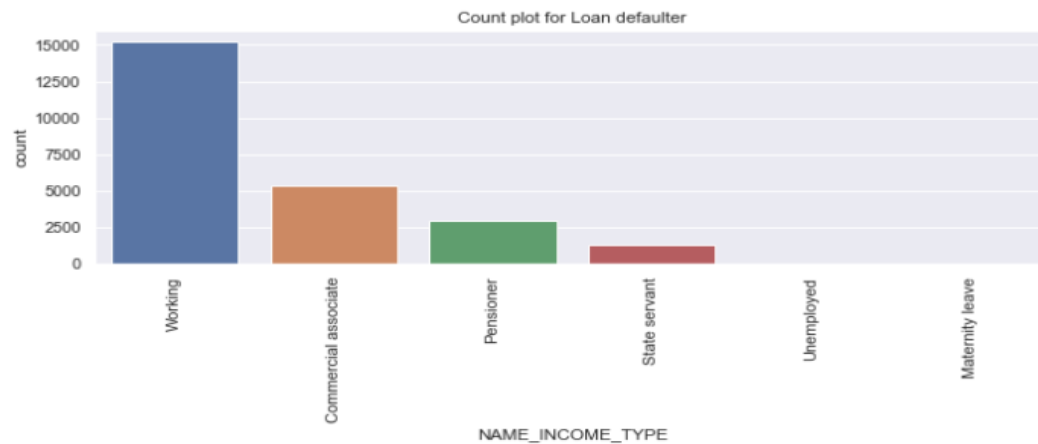
# Loan Criteria Consideration : Age

- ▶ We observe that the people who has difficulties in repaying loan in range of 20-30 it means their might be cases they are not well settled.
- ▶ Hence we need to check this parameter in case of approvals.

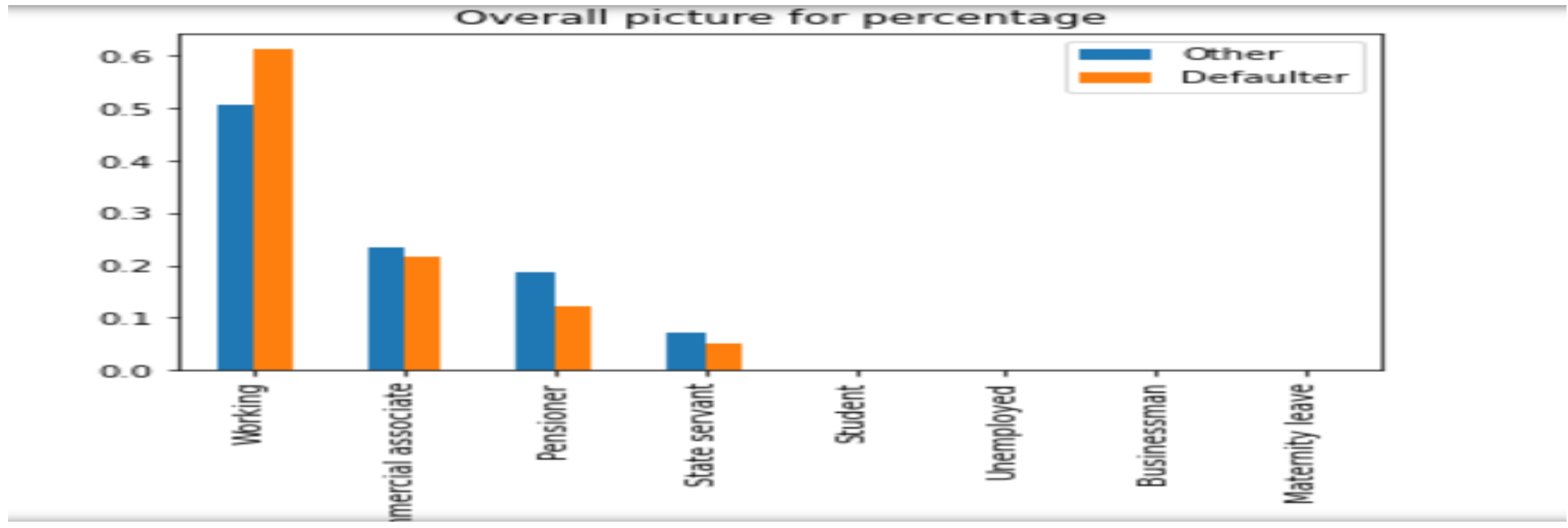


# Loan Criteria Consideration : Income Type

- ▶ We can see the defaulters are more in case of people who are working , their might be cases they faces issues in job( loss of job ).
- ▶ On other side people who has fixed income coming every month ( pensioner ) are less defaulters.



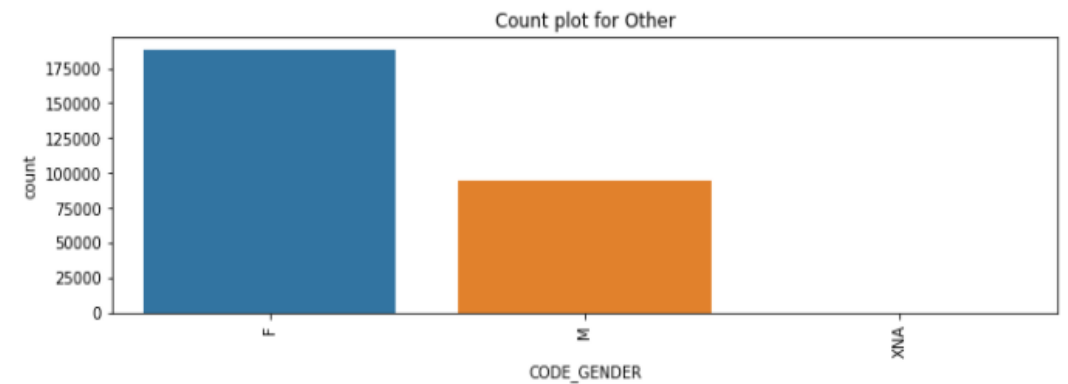
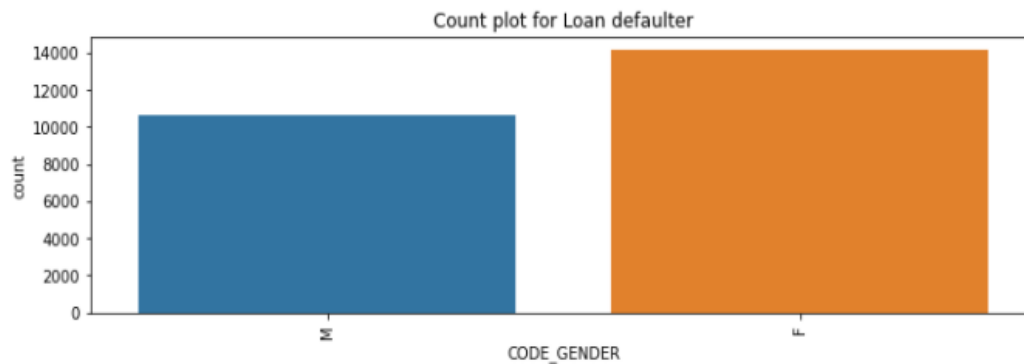
# Loan Criteria Consideration : Income Type



# Loan Criteria Consideration : Gender

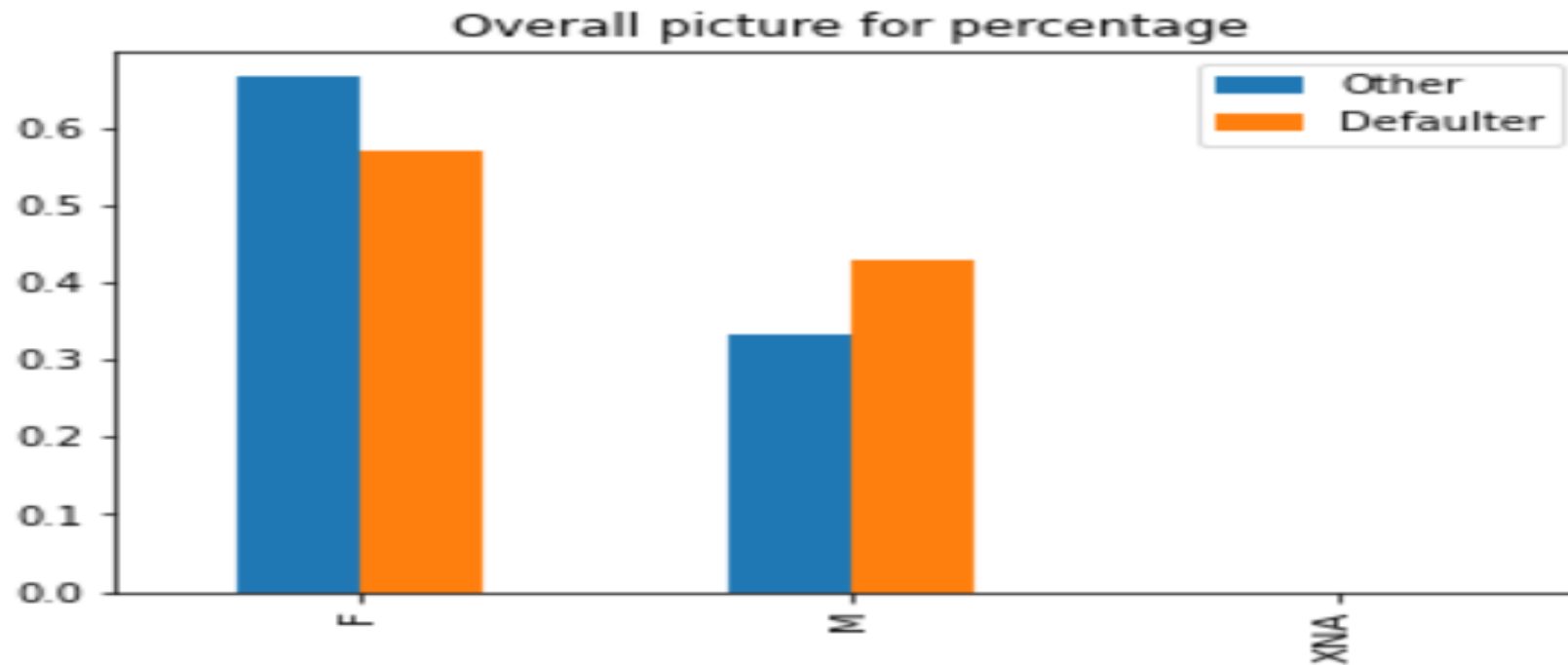
- ▶ We can see the females has got more number of loans.
- ▶ Males have got less number but default percentage in males are high and needs to be scrutinize.

COUNTPLOT for CODE\_GENDER





# Loan Criteria Consideration : Gender



# Conclusion

Hence to minimize risks we need to look into few factors like  
EDUCATION,FAMILY\_STATUS,OCCUPATION,ORGANIZATION,AGE,IN  
COME\_TYPE,GENDER .

The role of above facts are very important to decide whether the applications should be rejected or approved or the rate of interest can be high.