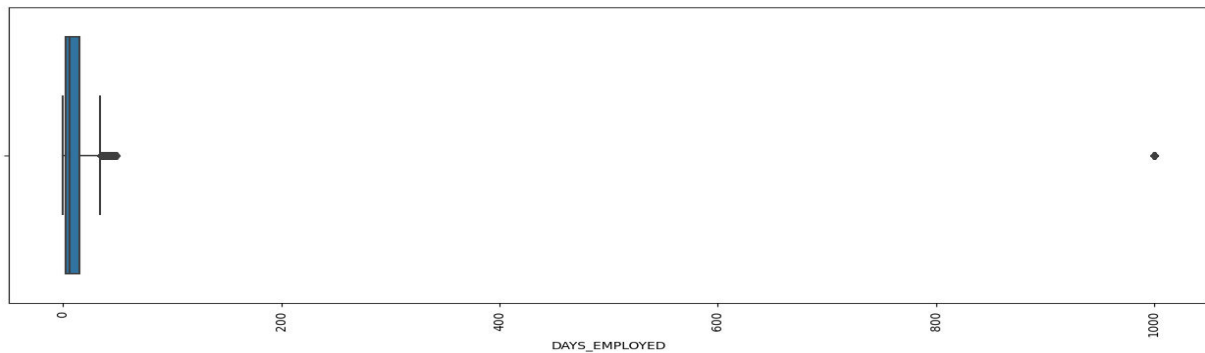
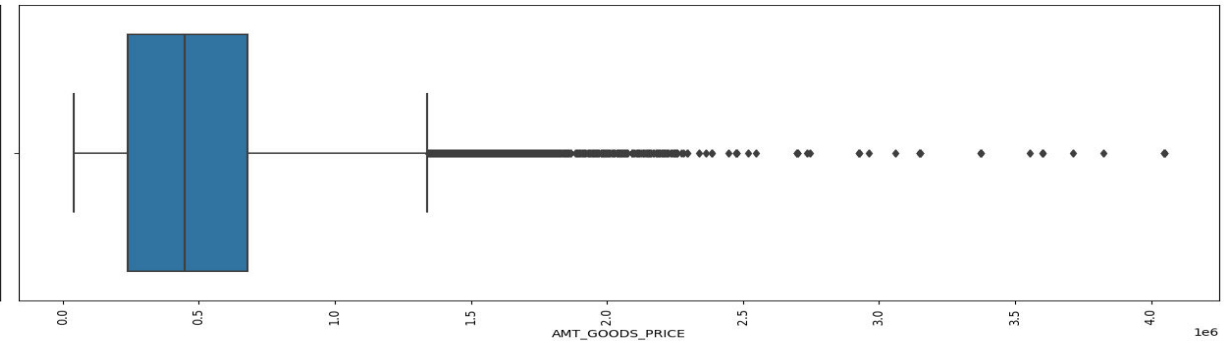
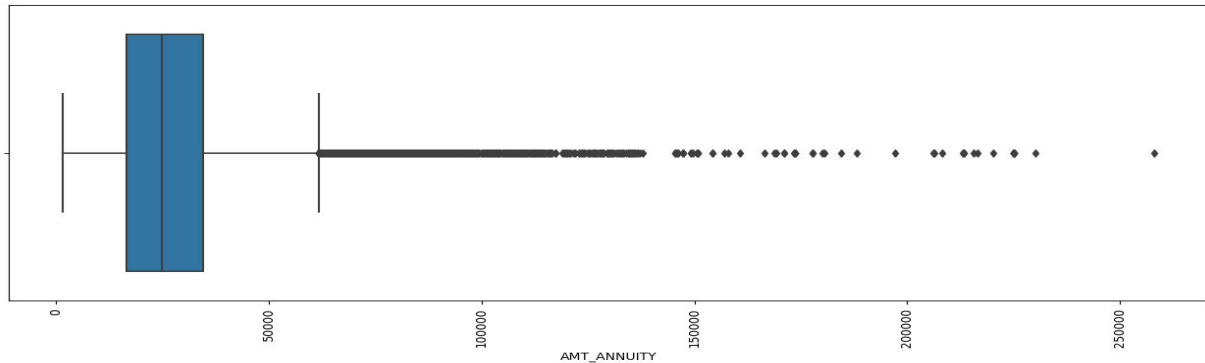
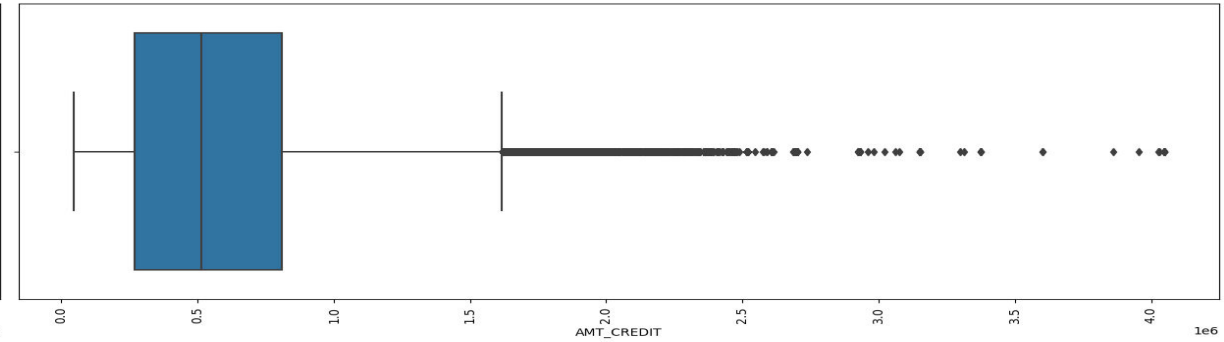
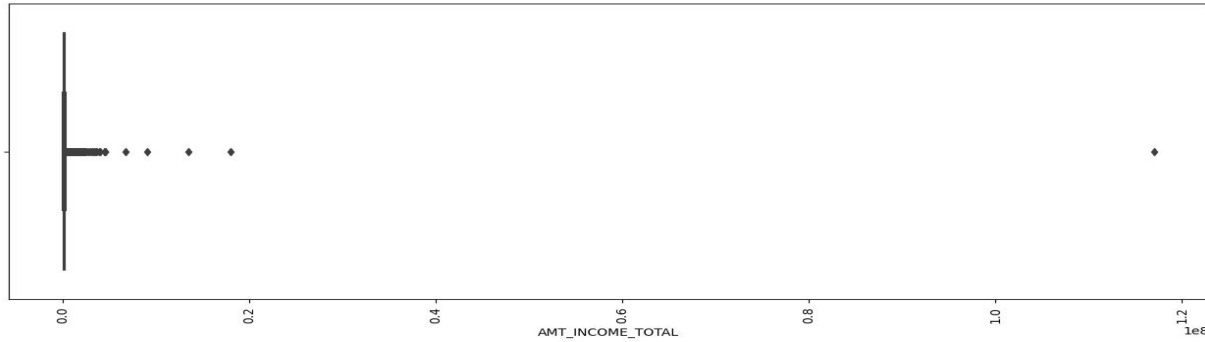


Credit EDA Assignment

BY AMIT KUMAR

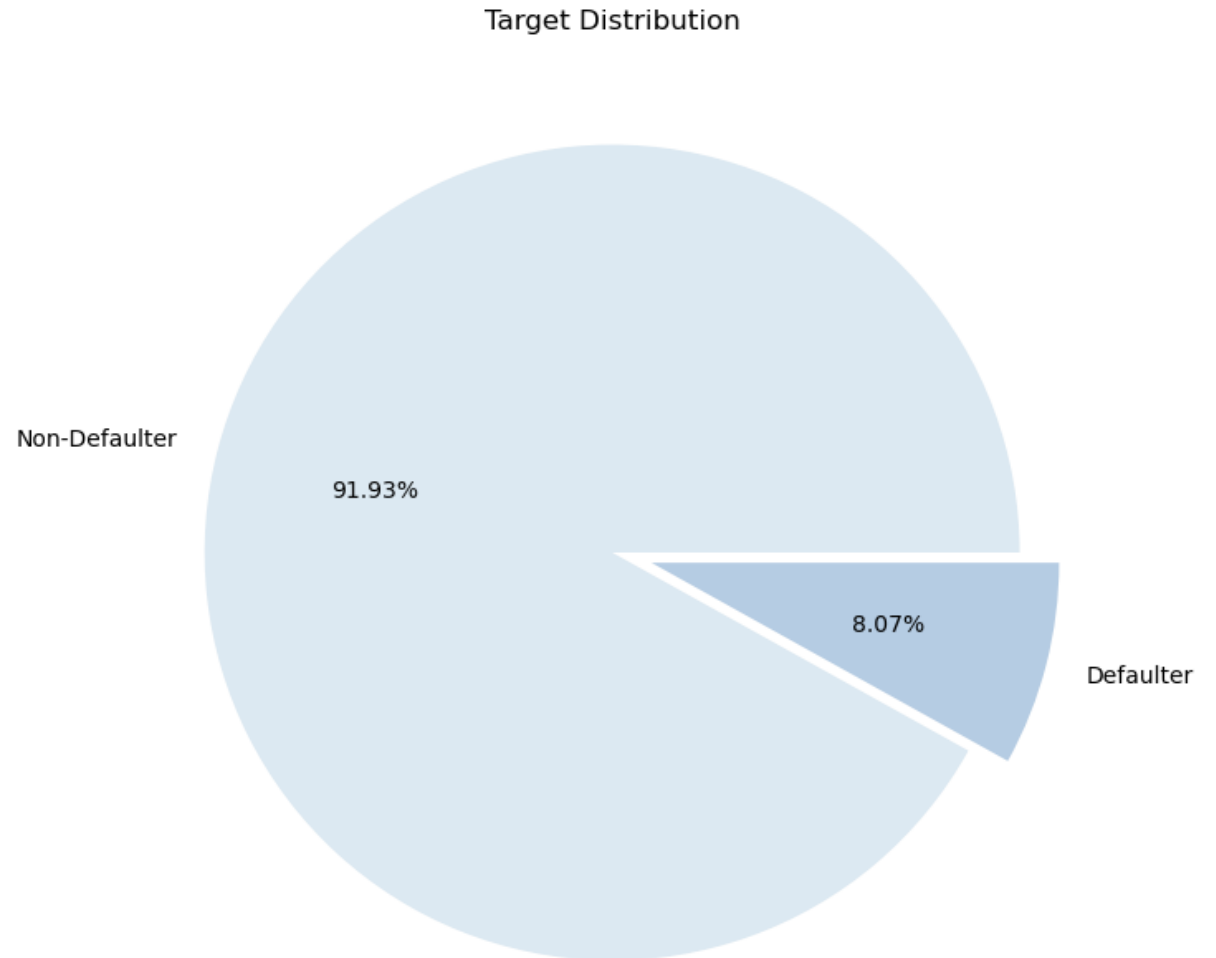
Outliers in Application Data



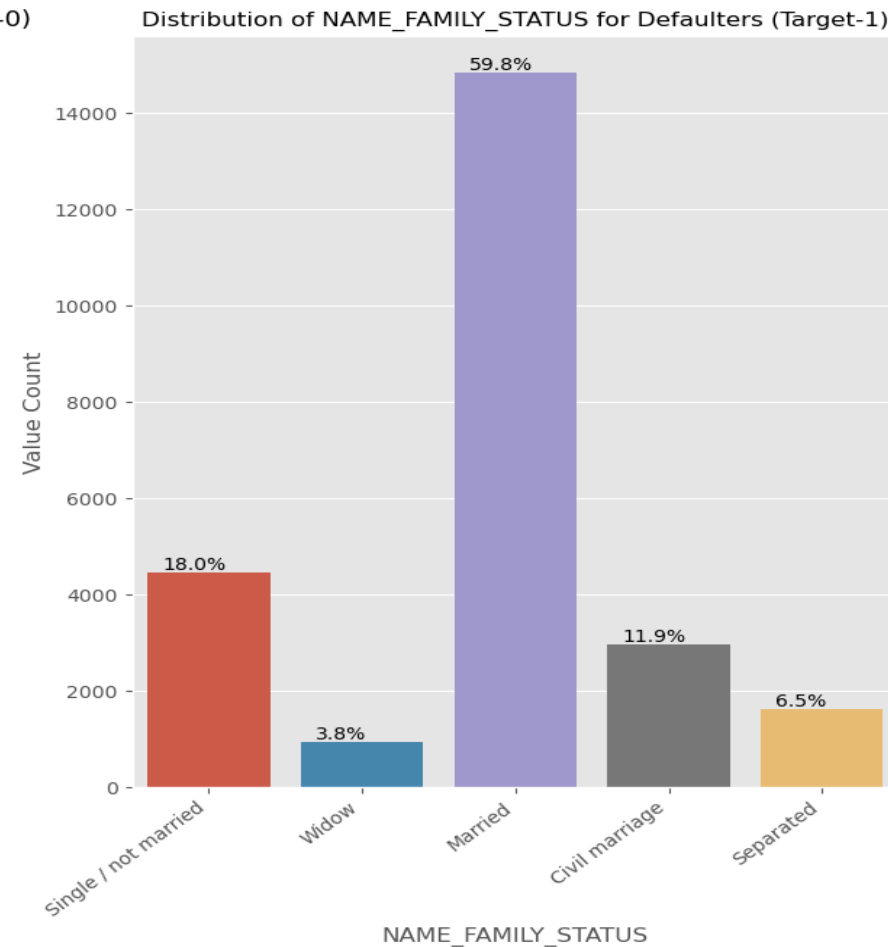
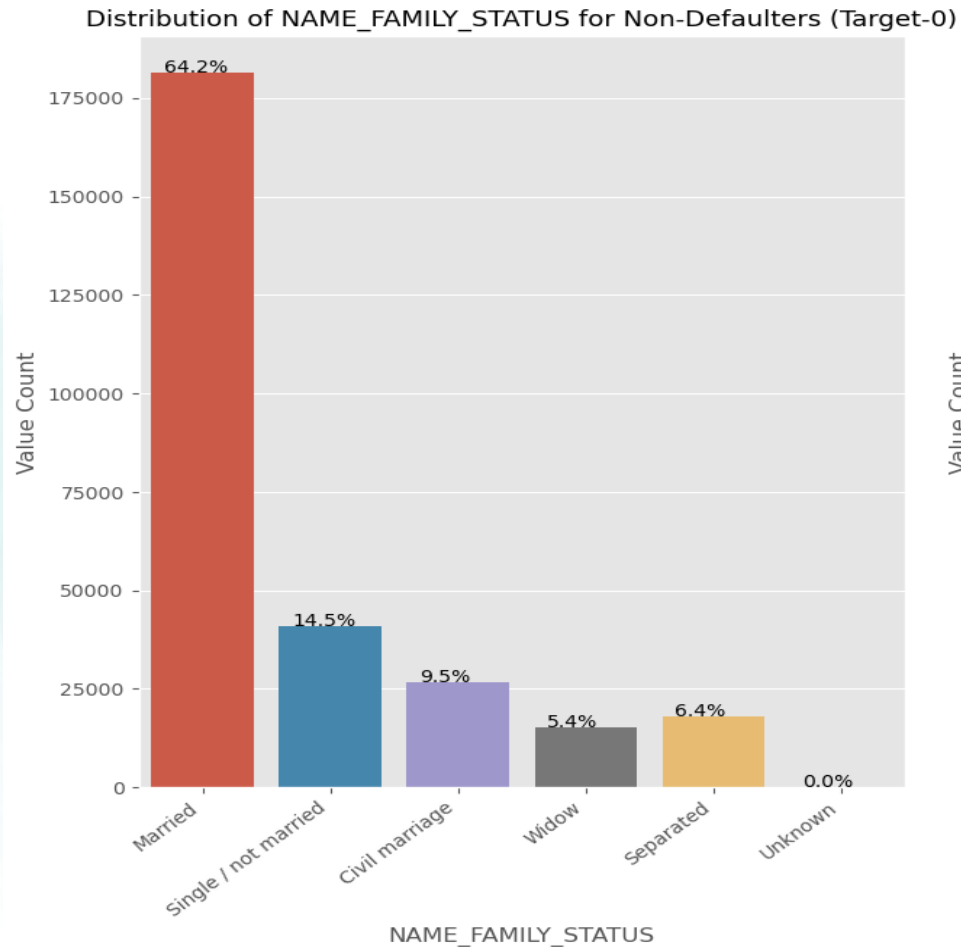
We can note the existence of outliers within the numerical columns.

Visualization for the distribution of the Target variable.

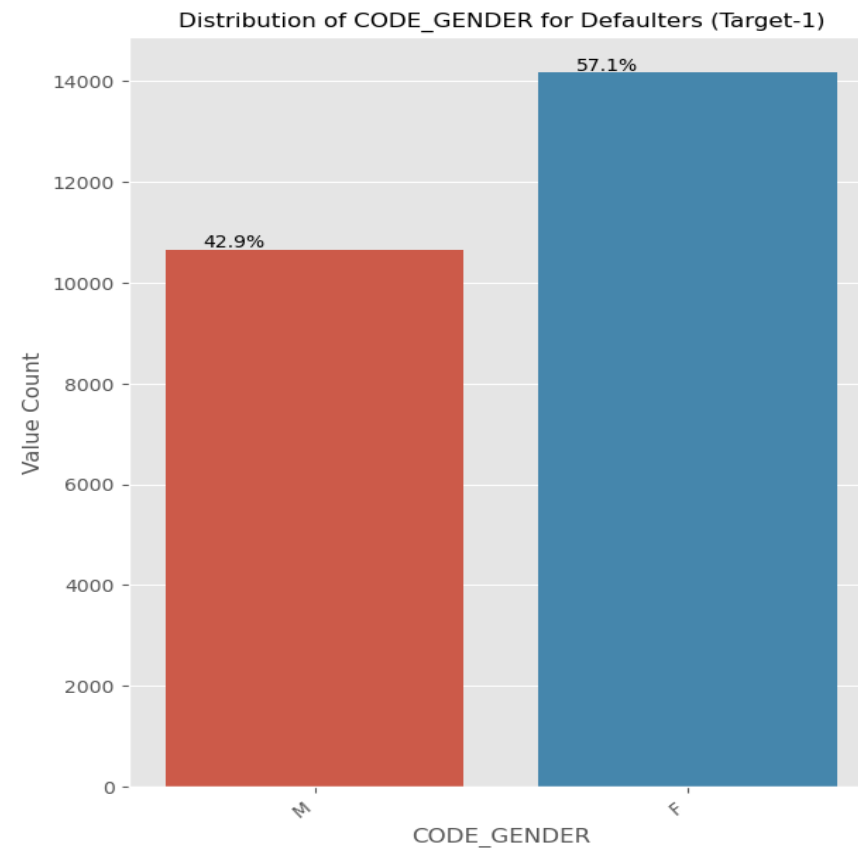
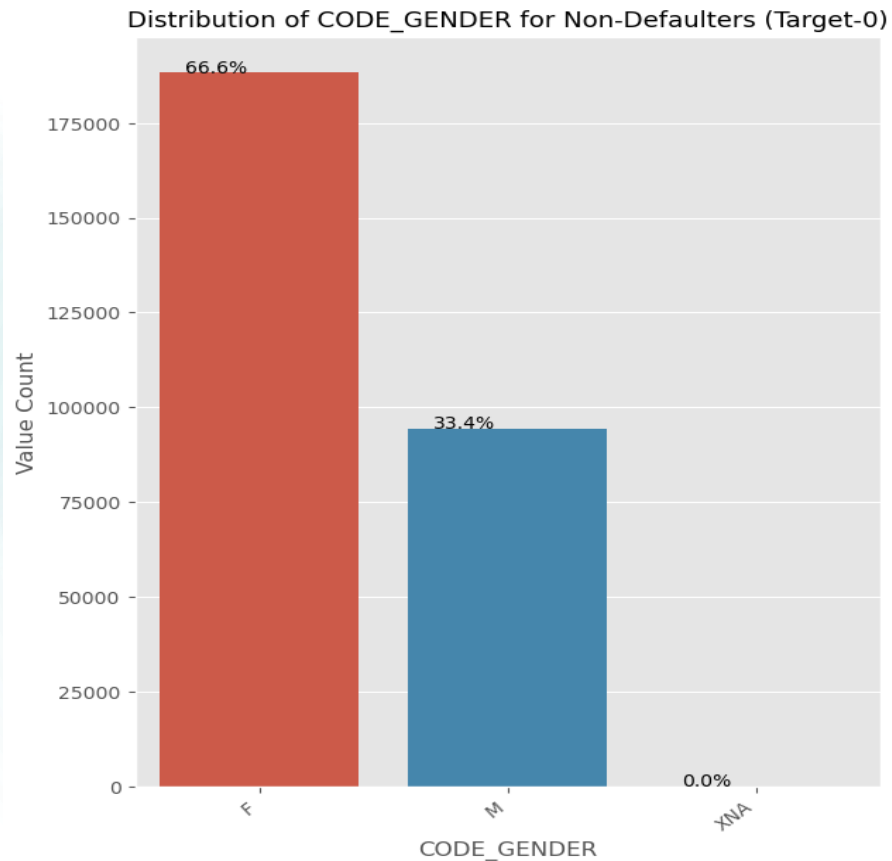
It is evident that the proportion of defaulters in the distribution of the target variable is low, specifically at 8.07%, while those who repay are predominant, constituting 91.93%.



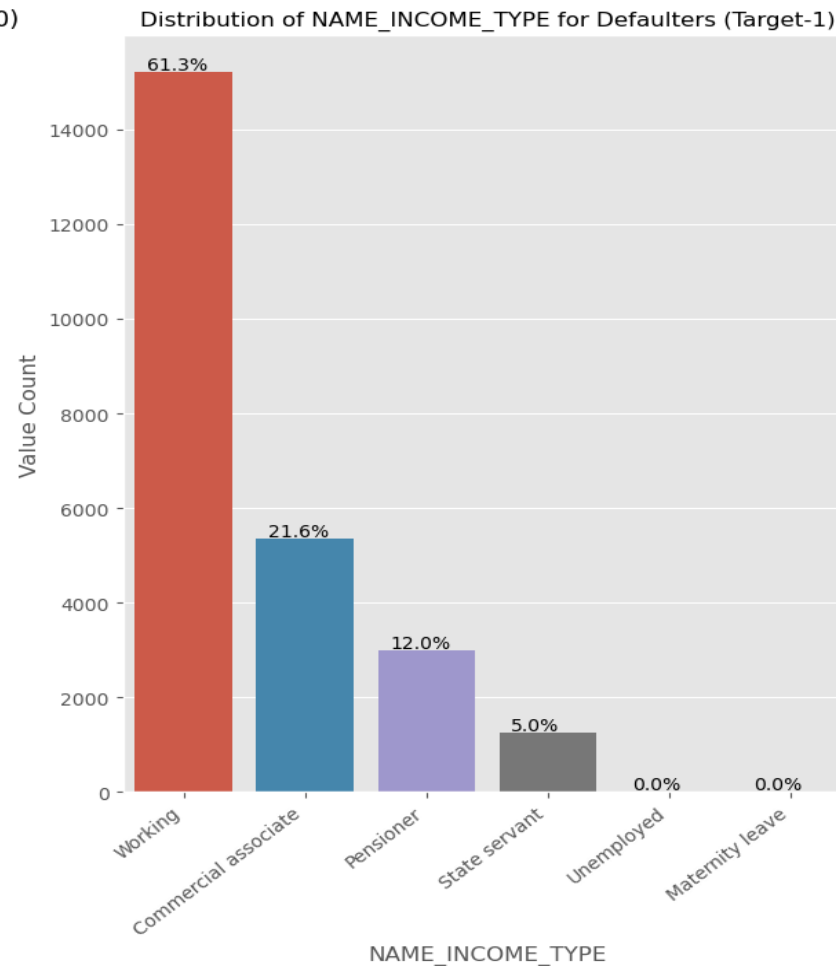
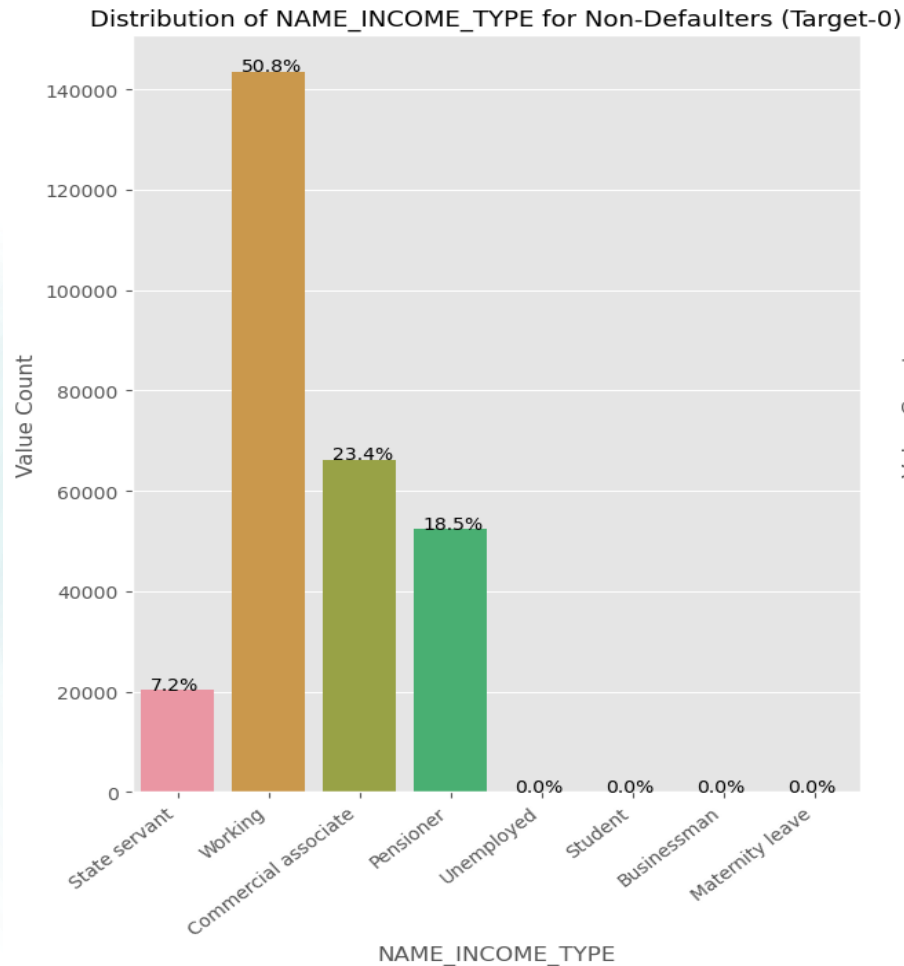
It is also noticeable that the percentage of defaulters among married individuals is elevated. Additionally, the observation reveals that there is a higher number of applicants who are married.



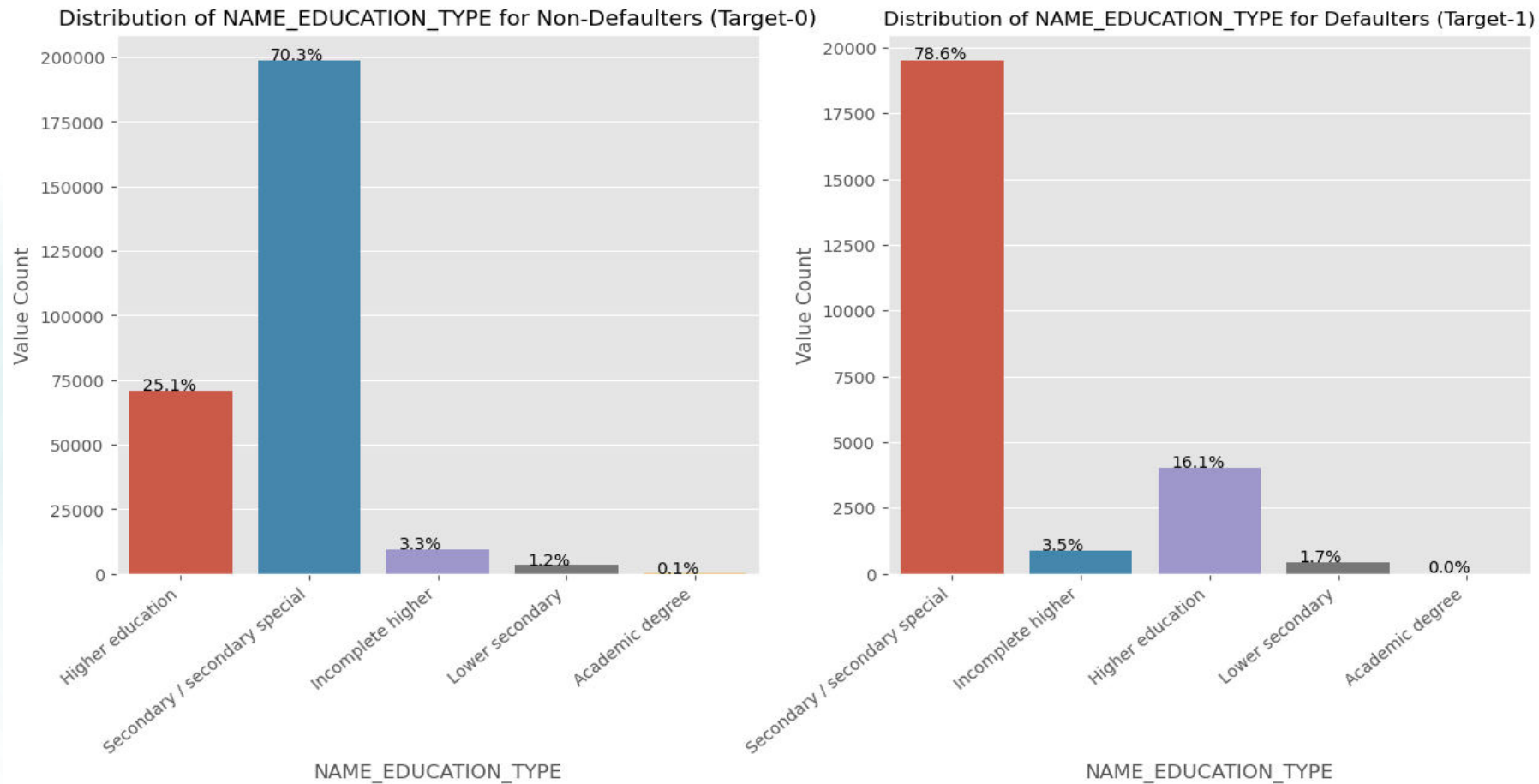
The graph above indicates a notable distribution among females in the non-defaulters group (Target_0), accounting for 66.6%. Similarly, in the defaulters group (Target_1), the distribution in females is relatively high at 57.1%, emphasizing that the percentage of non-defaulters is higher than that of defaulters.



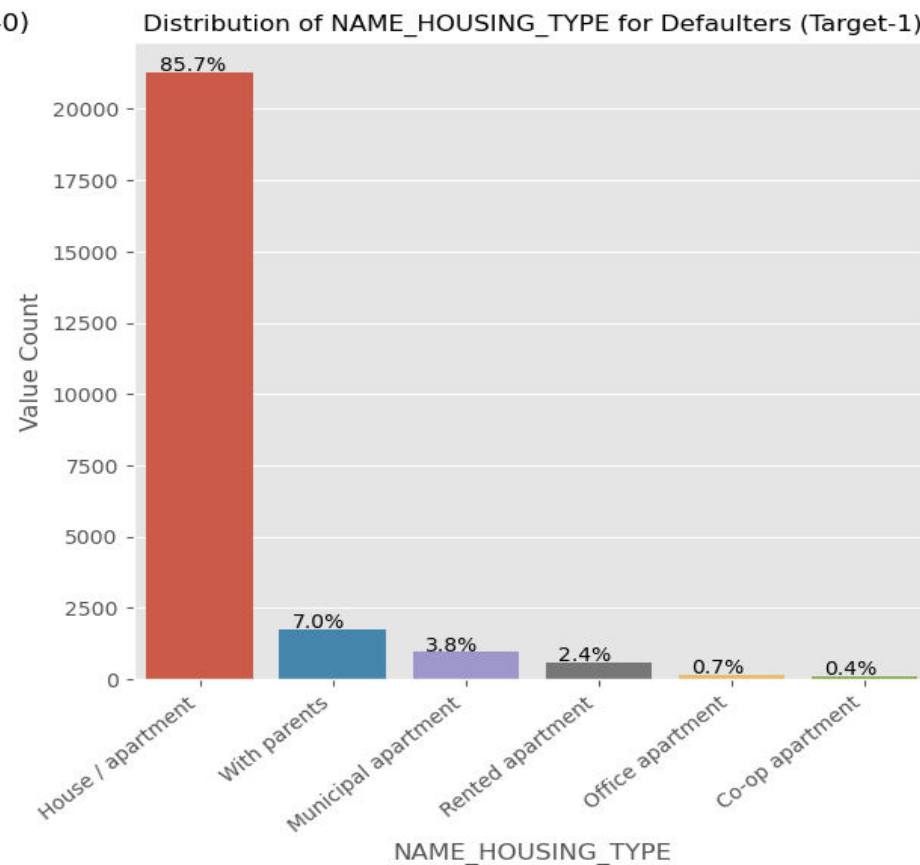
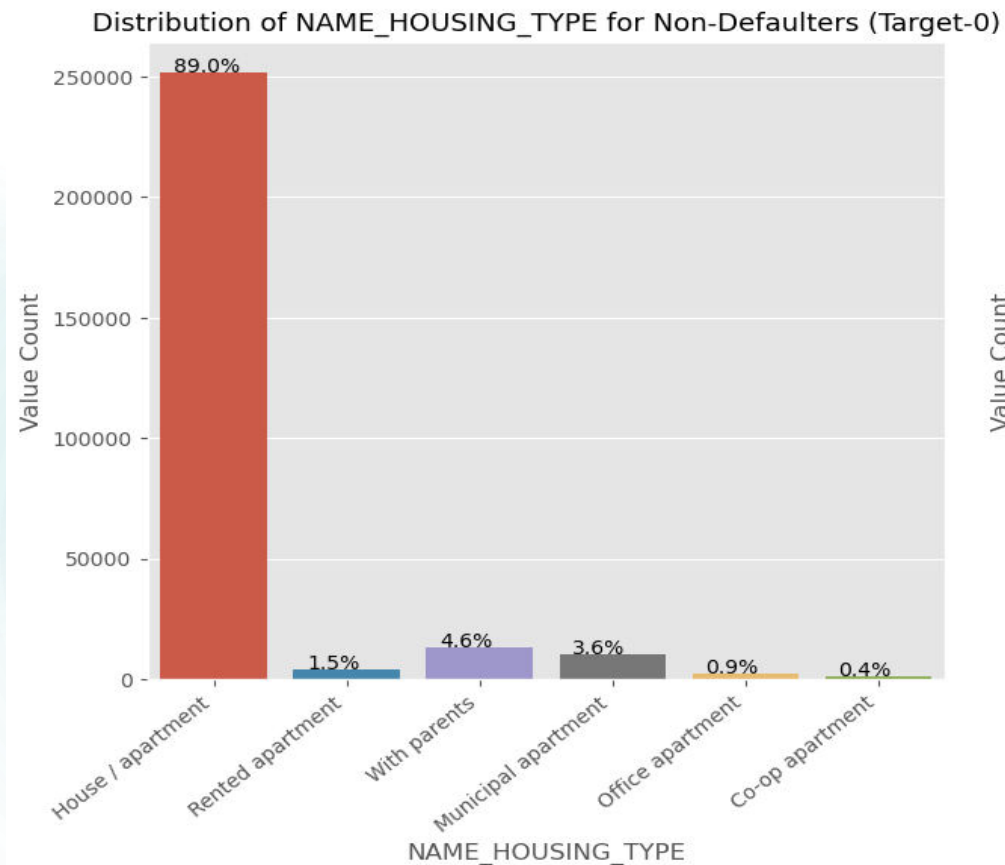
Based on the preceding analysis, it is evident that the majority of defaulters, specifically 61.3%, are employed. Additionally, individuals who are employed constitute the largest group among non-payers.



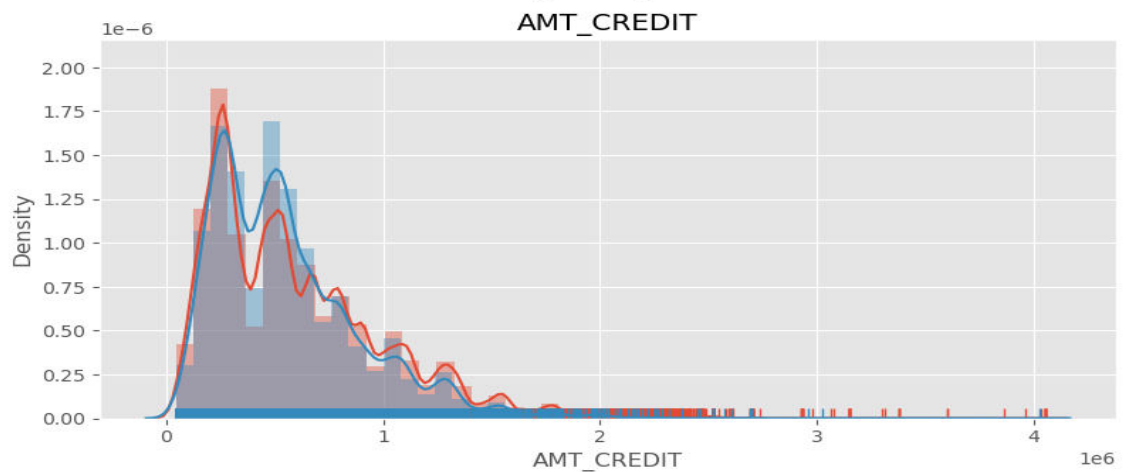
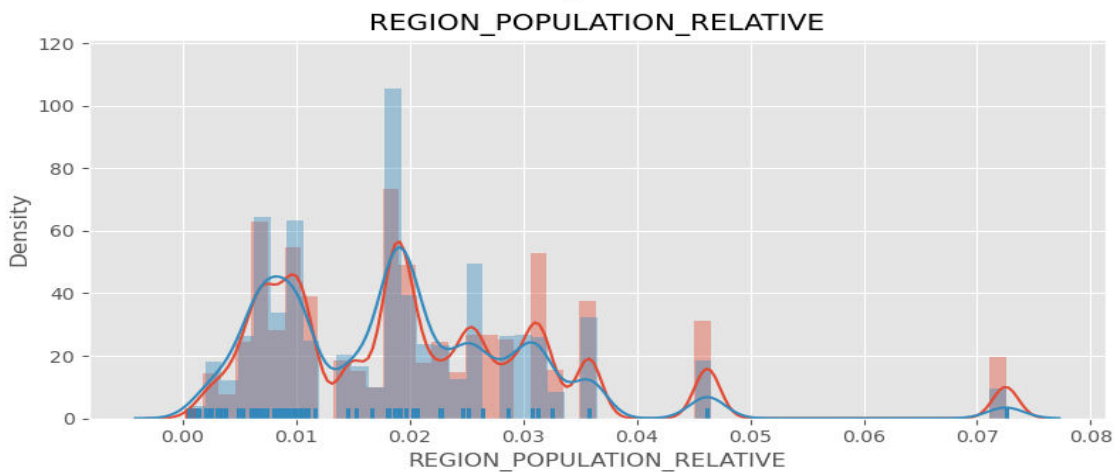
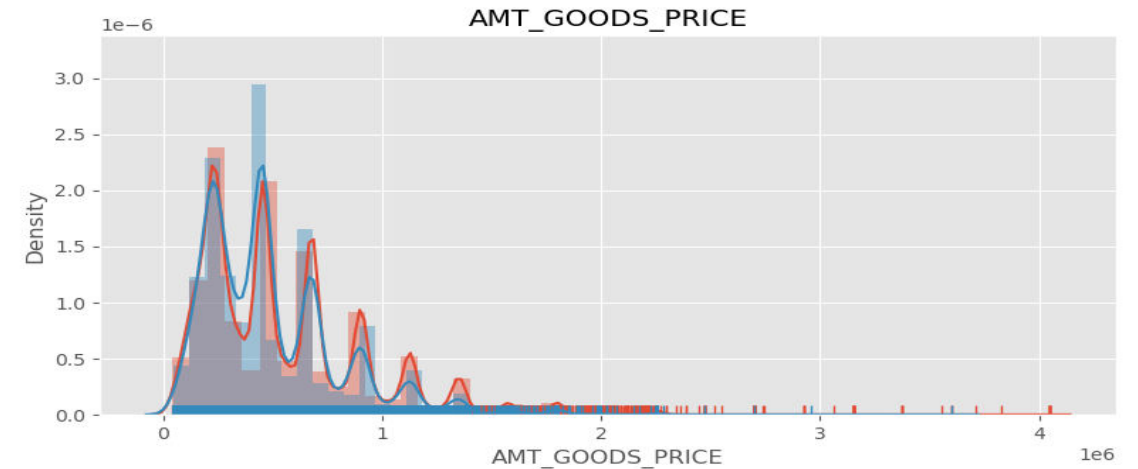
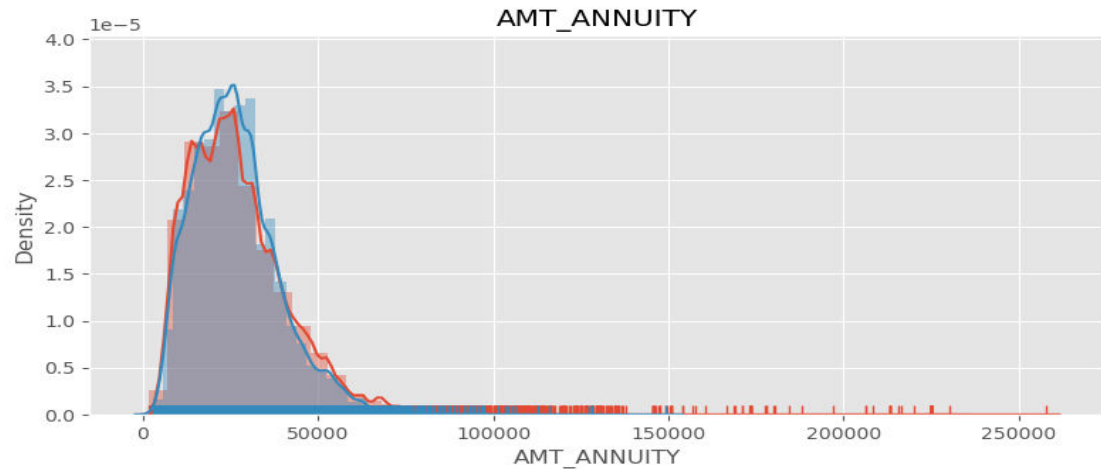
The graph above illustrates that the highest number of applicants come from the group of individuals with secondary/secondary special education levels. Furthermore, there is a significant proportion of defaulters within this category.



The information depicted in the graph suggests that a greater number of applicants reside in apartments. Specifically, 85.7% of defaulters are individuals living in houses or apartments, whereas the percentage of non-defaulters residing in houses or apartments is 89%.



The presented chart illustrates a significant frequency of values for both AMT_CREDIT and AMT_GOODS_PRICE. In the case of the variable REGION_POPULATION_RELATIVE, the frequency spans from low to moderate values.



For Target '1', it is evident that significant correlation is identified in the following variables.

- AMT_CREDIT and AMT_ANNUITY (0.75)
- AMT_CREDIT and AMT_GOODS_PRICE (0.98)
- AMT_ANNUITY and AMT_GOODS_PRICE (0.75)

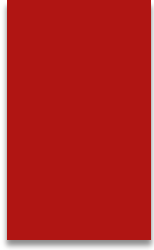


For Target '0', it is evident that significant correlation is identified in the following variables.

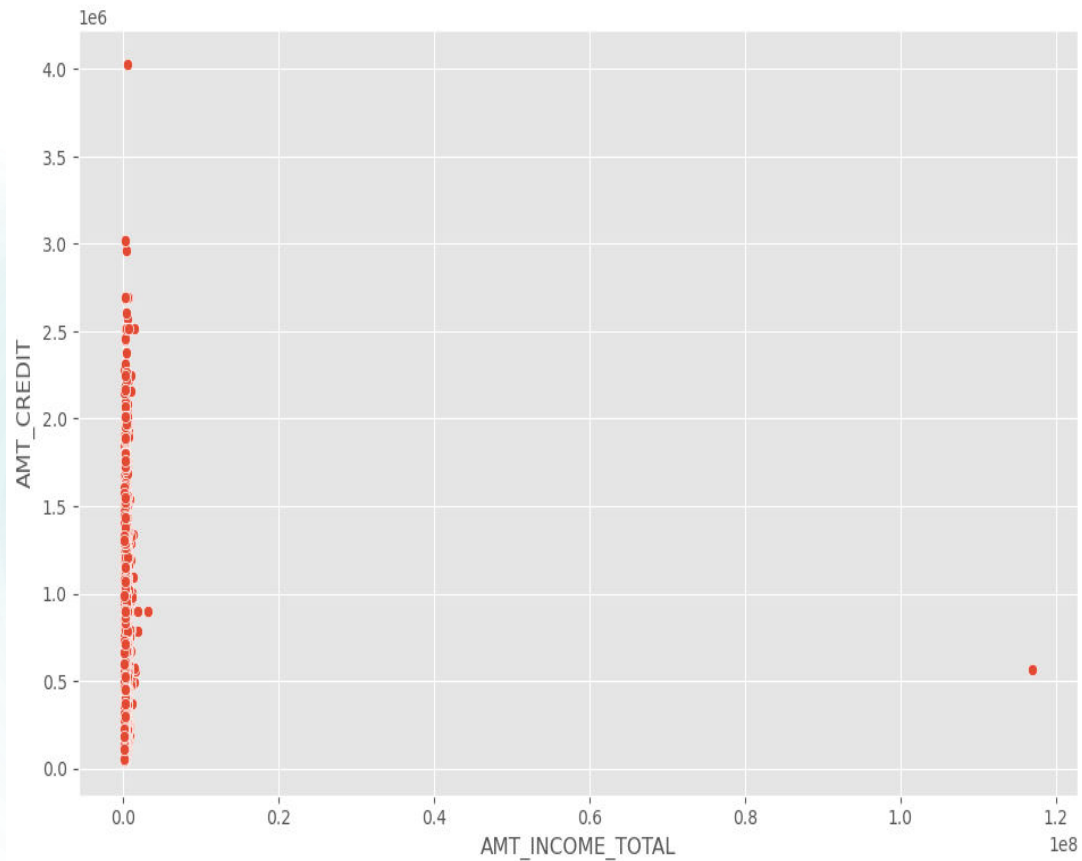
- AMT_CREDIT and AMT_ANNUITY (0.77)
- AMT_CREDIT and AMT_GOODS_PRICE (0.99)
- AMT_ANNUITY and AMT_GOODS_PRICE (0.78)



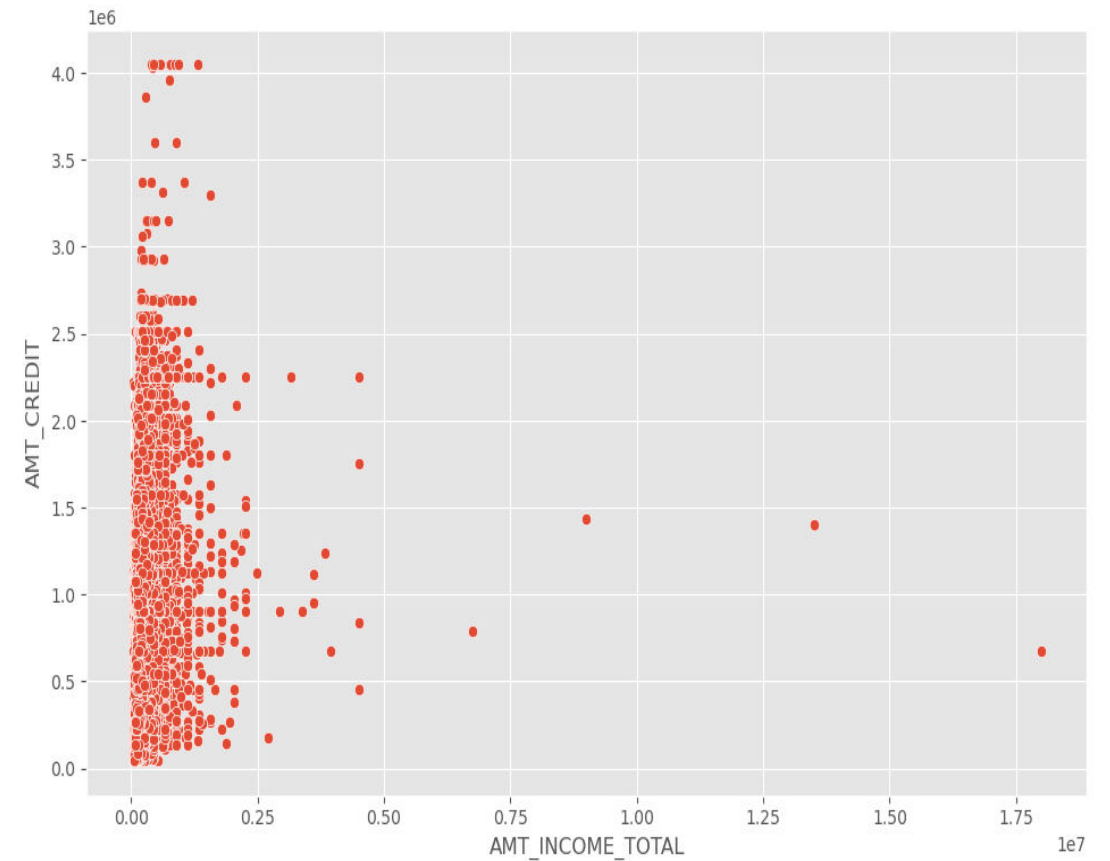
The majority of individuals in the lower AMT_INCOME group have availed most of the AMT_CREDITS.



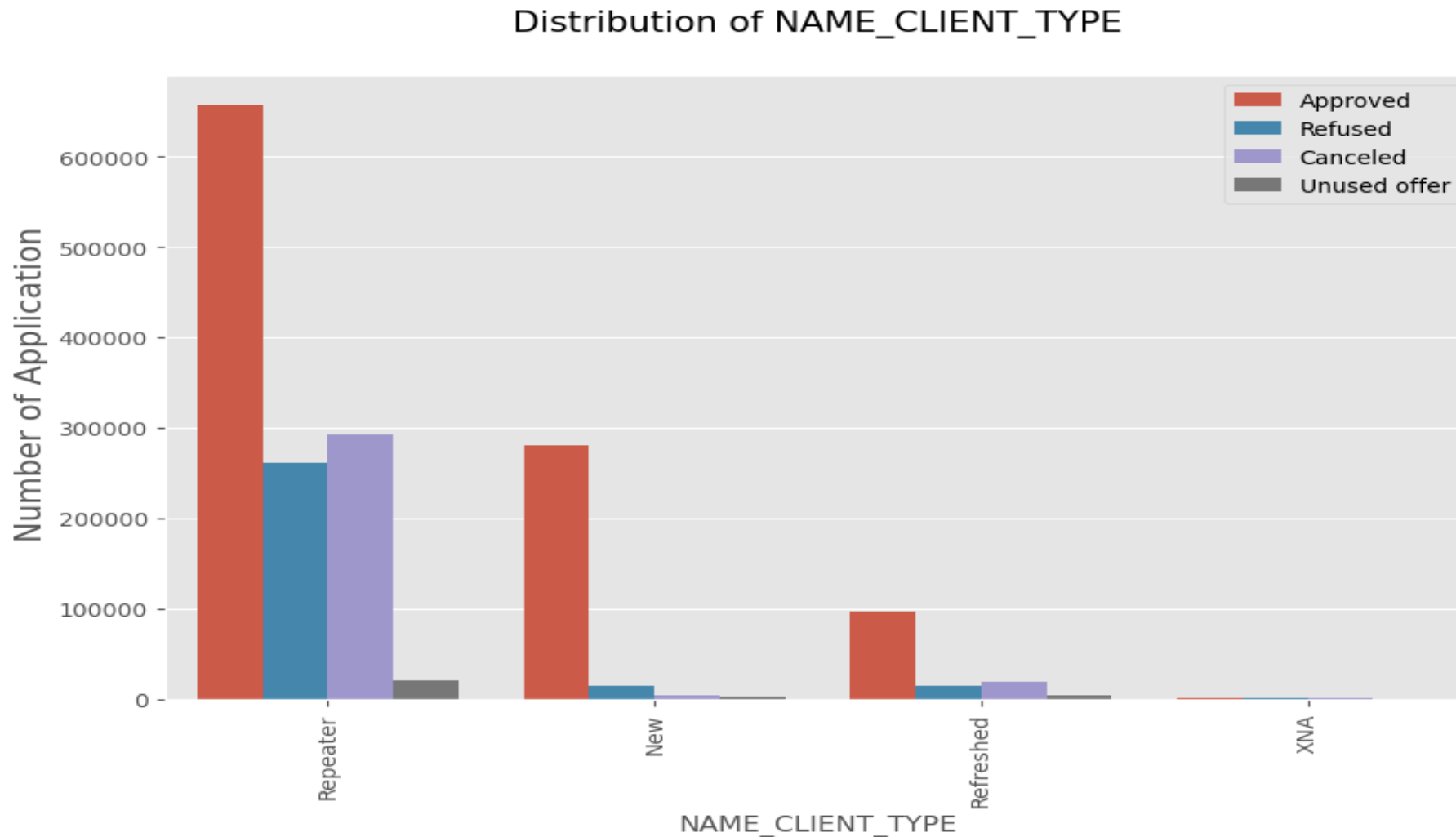
Relationship Between Income Total and Credit Amount for Defaulters (Target_1)



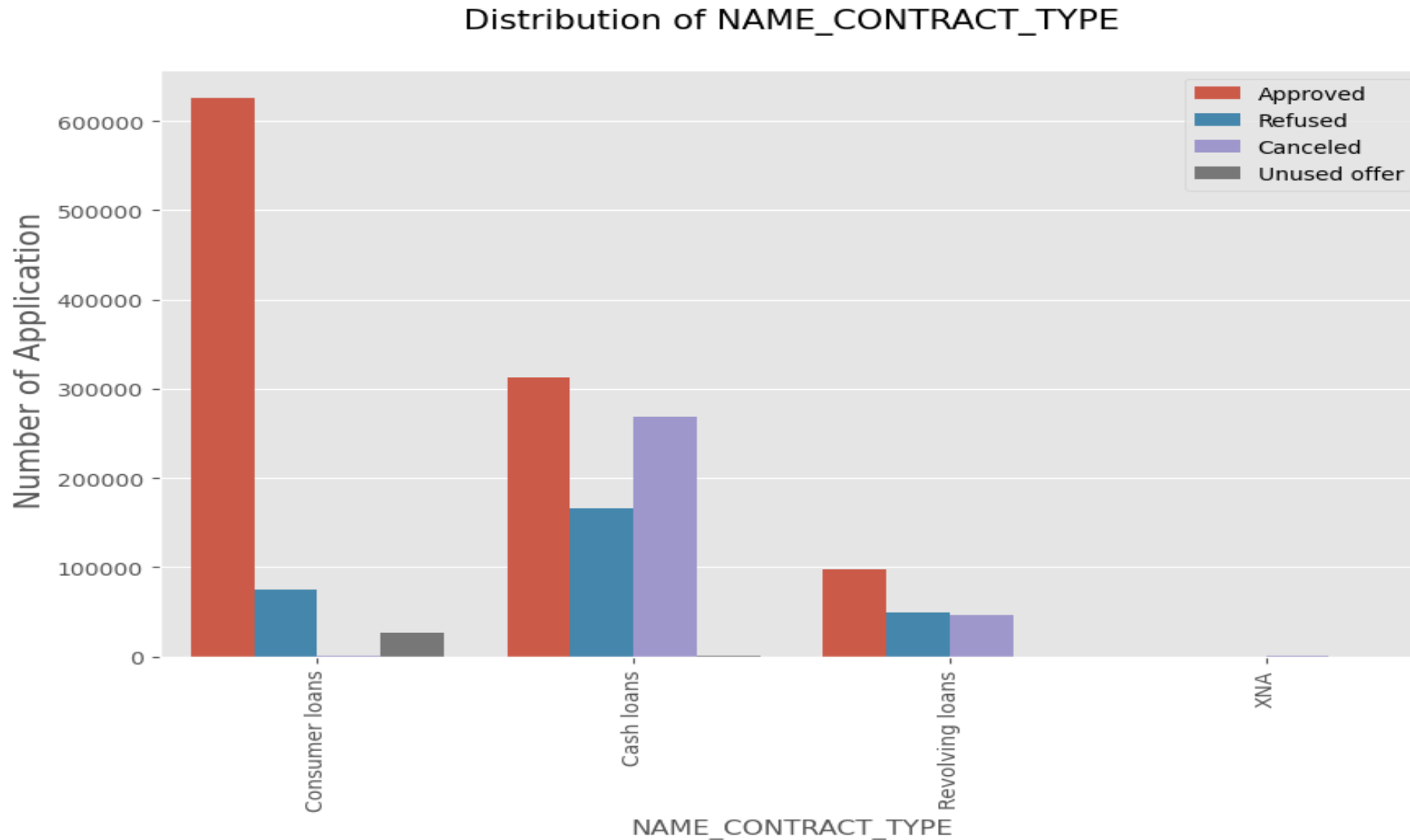
Relationship Between Income Total and Credit Amount for Non-Defaulters (Target_0)



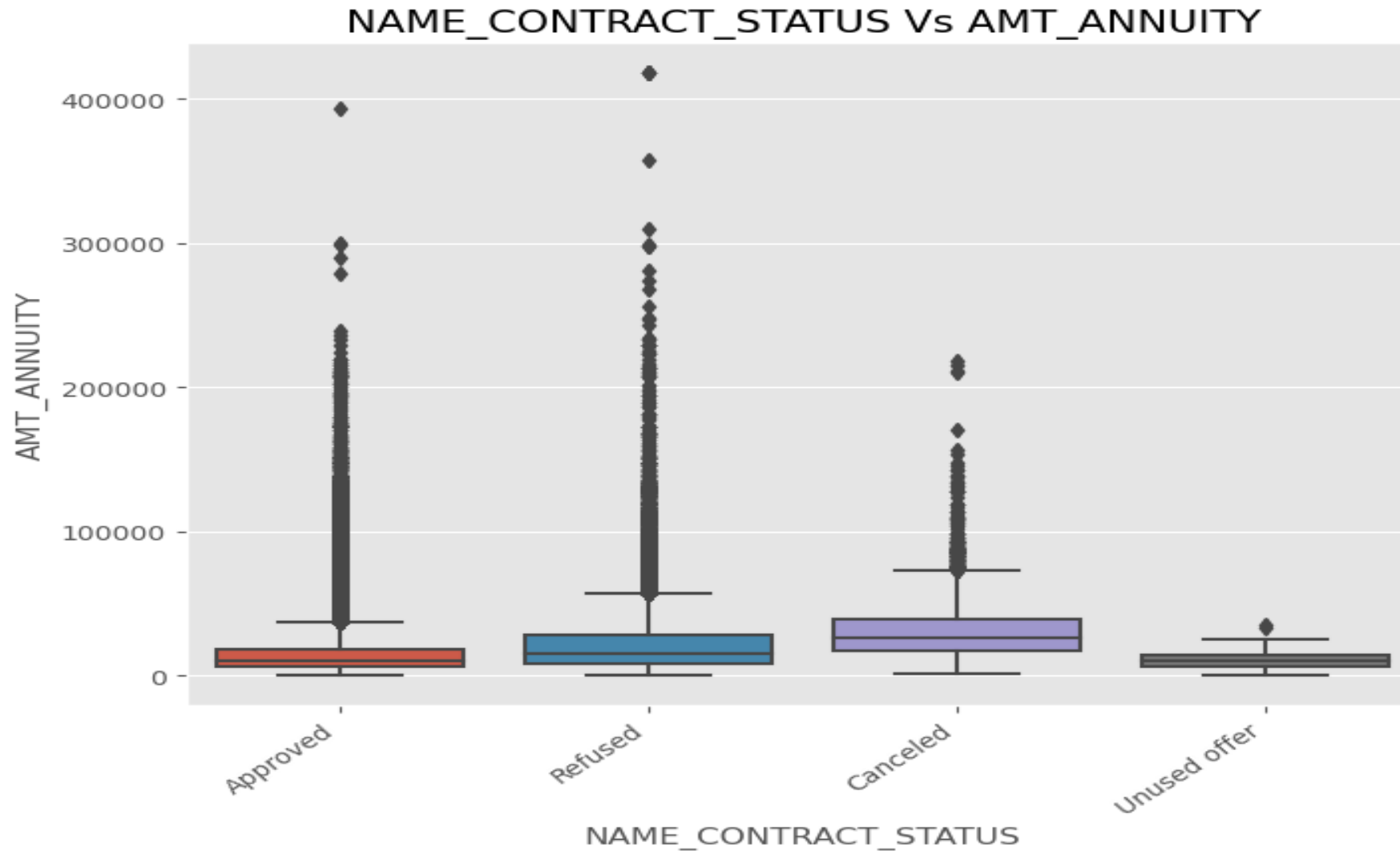
The plot reveals that a higher number of loans have been sanctioned to repeat applicants compared to new and refreshed applicants.



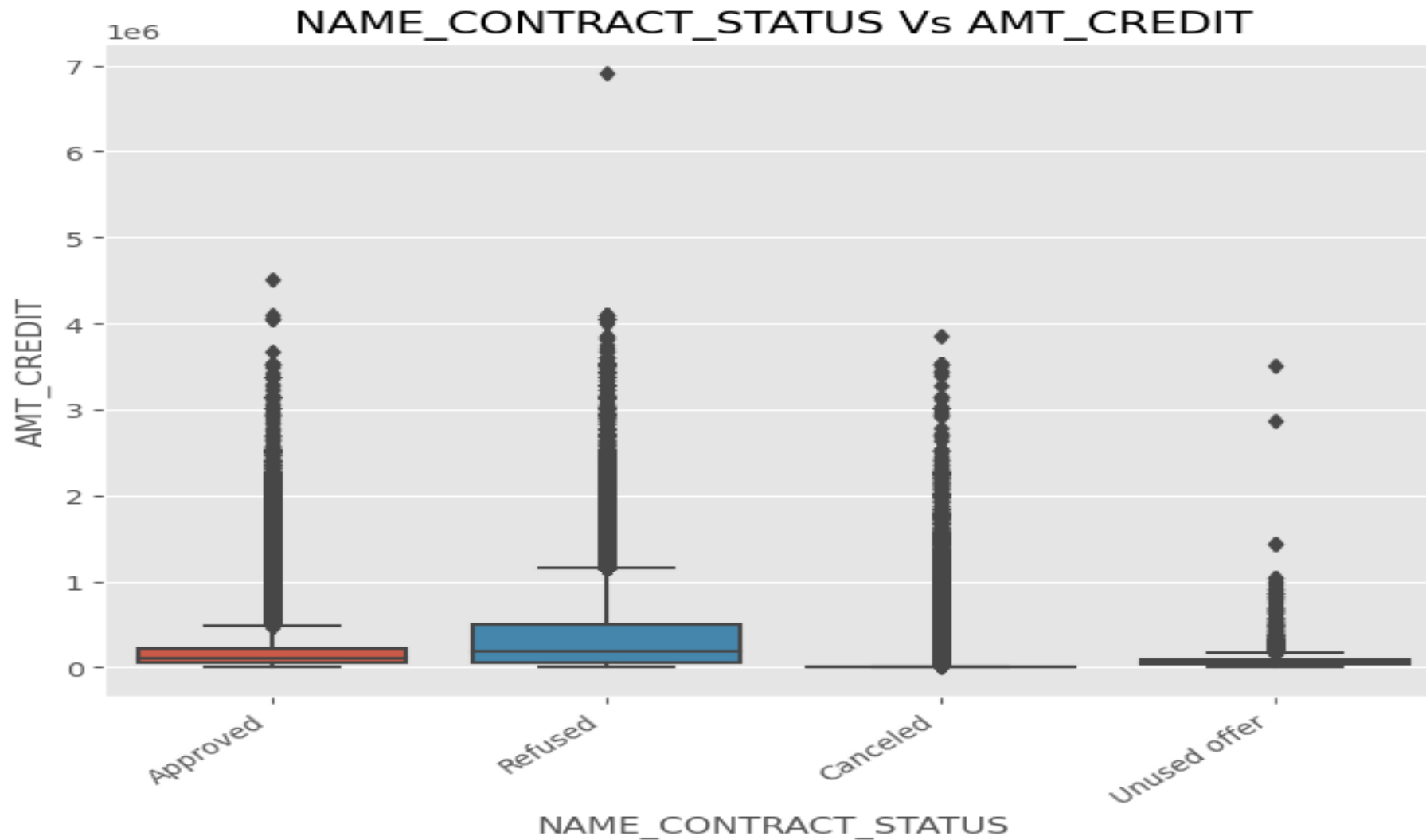
The plot above indicates a higher number of approved consumer loans in comparison to both cash loans and revolving loans.



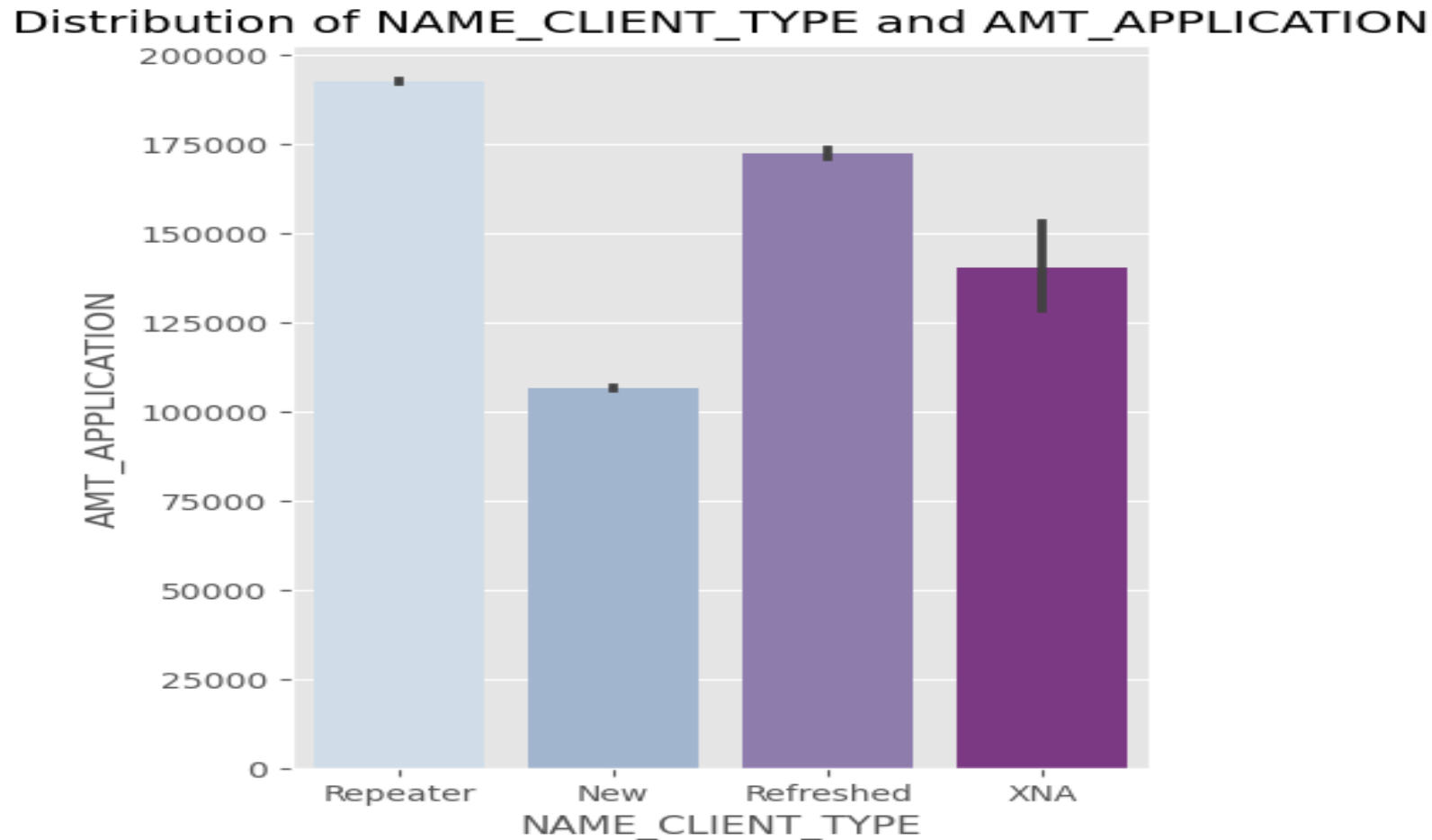
The bivariate analysis reveals a notable increase in the "refused" category within the relationship of NAME_CONTRACT_STATUS and AMT_ANNUITY.



The bivariate analysis comparing NAME_CONTRACT_STATUS and AMT_CREDIT indicates a minimal percentage of unused offers and a significant increase in refusals.



The bivariate analysis conducted on NAME_CLIENT_TYPE and AMT_APPLICATION demonstrates a noticeable increase in the percentage of repeaters compared to NEW, refreshed, and XNA categories.



Case Summary

- ▶ 1. Financial institutions should reconsider the emphasis on applicants with 'Working' income types due to a higher rate of unsuccessful payments associated with this category.
- ▶ 2. A strategic focus on business individuals is recommended, given the notable 0.0% non-default rate observed within this group.



Thank You