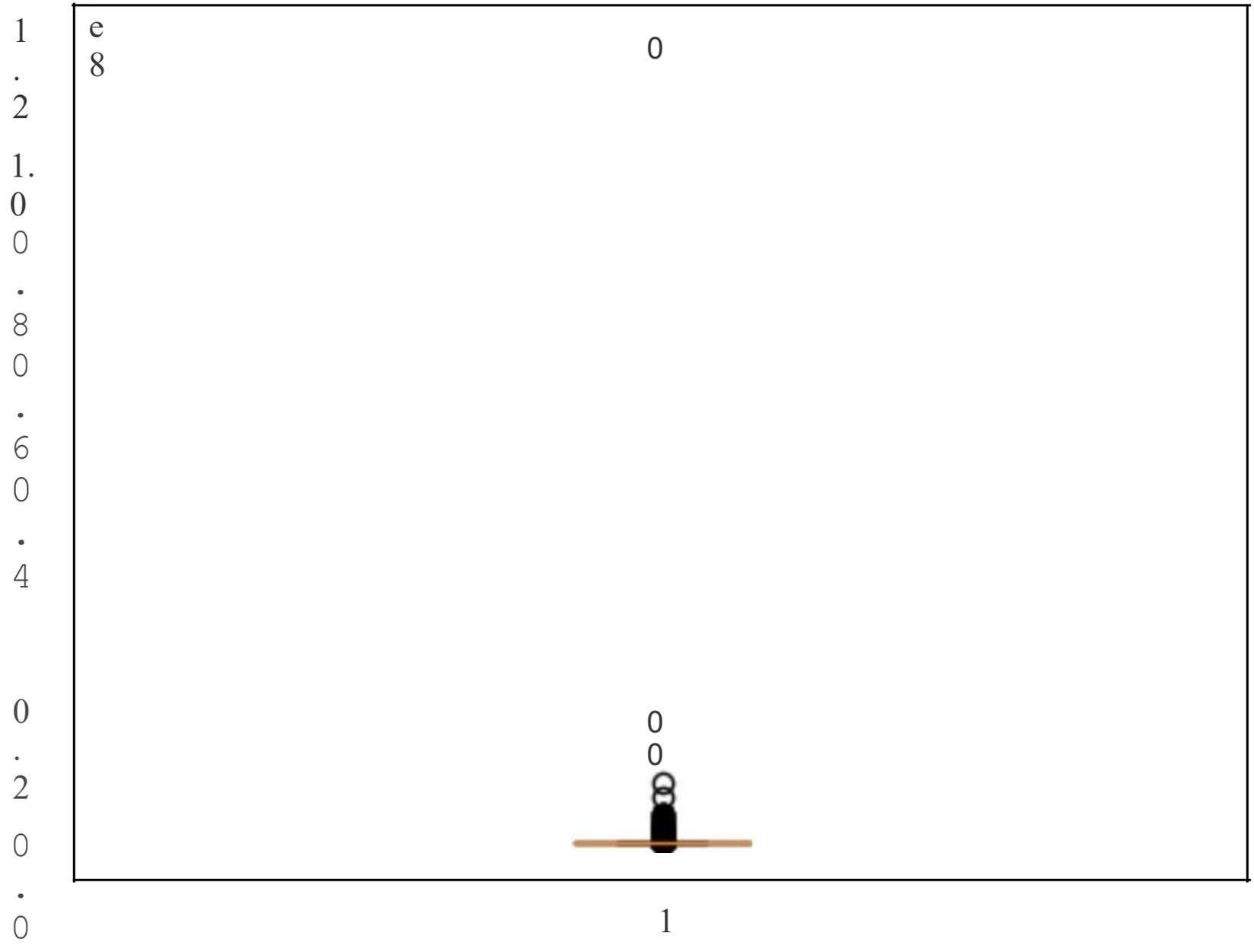
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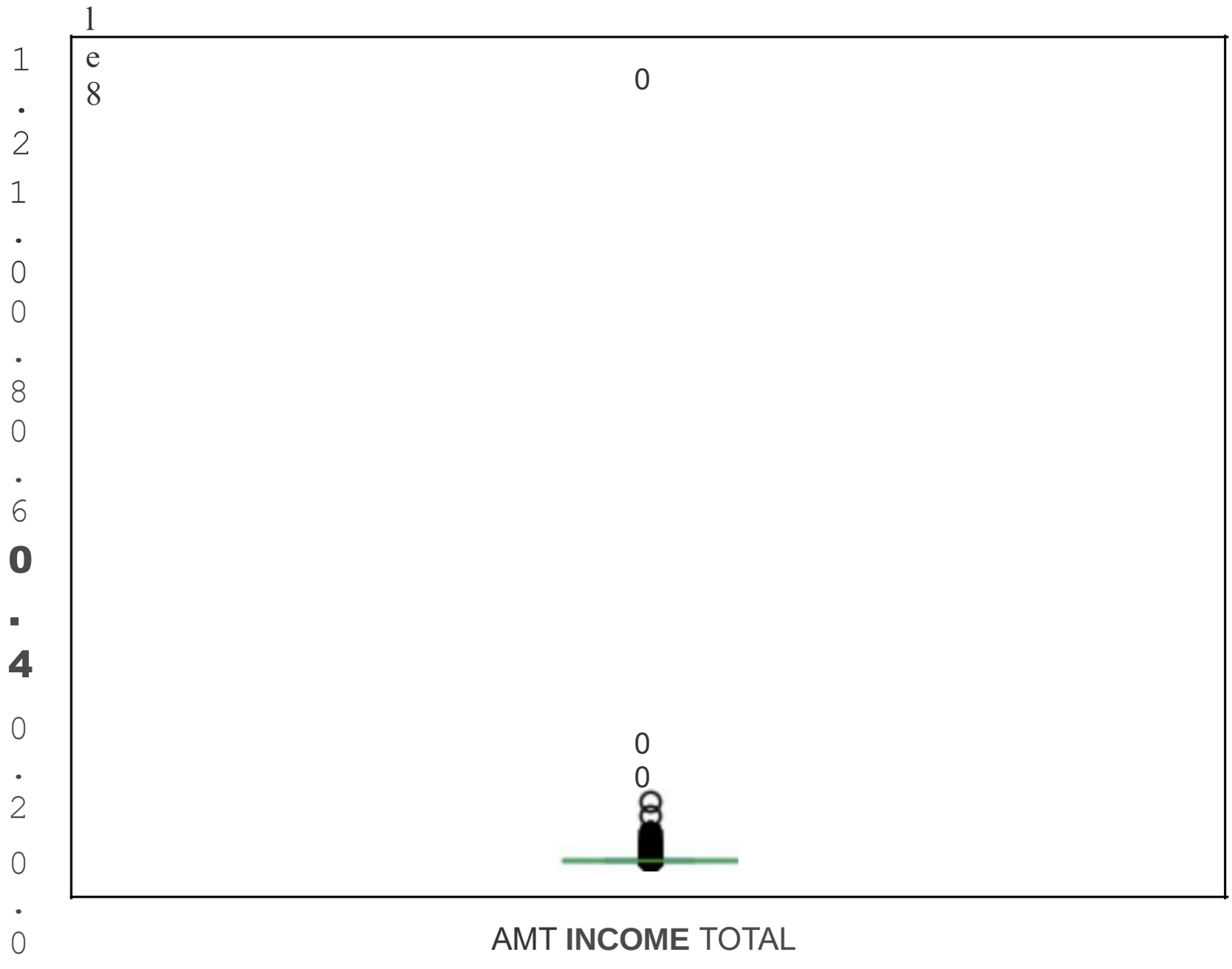
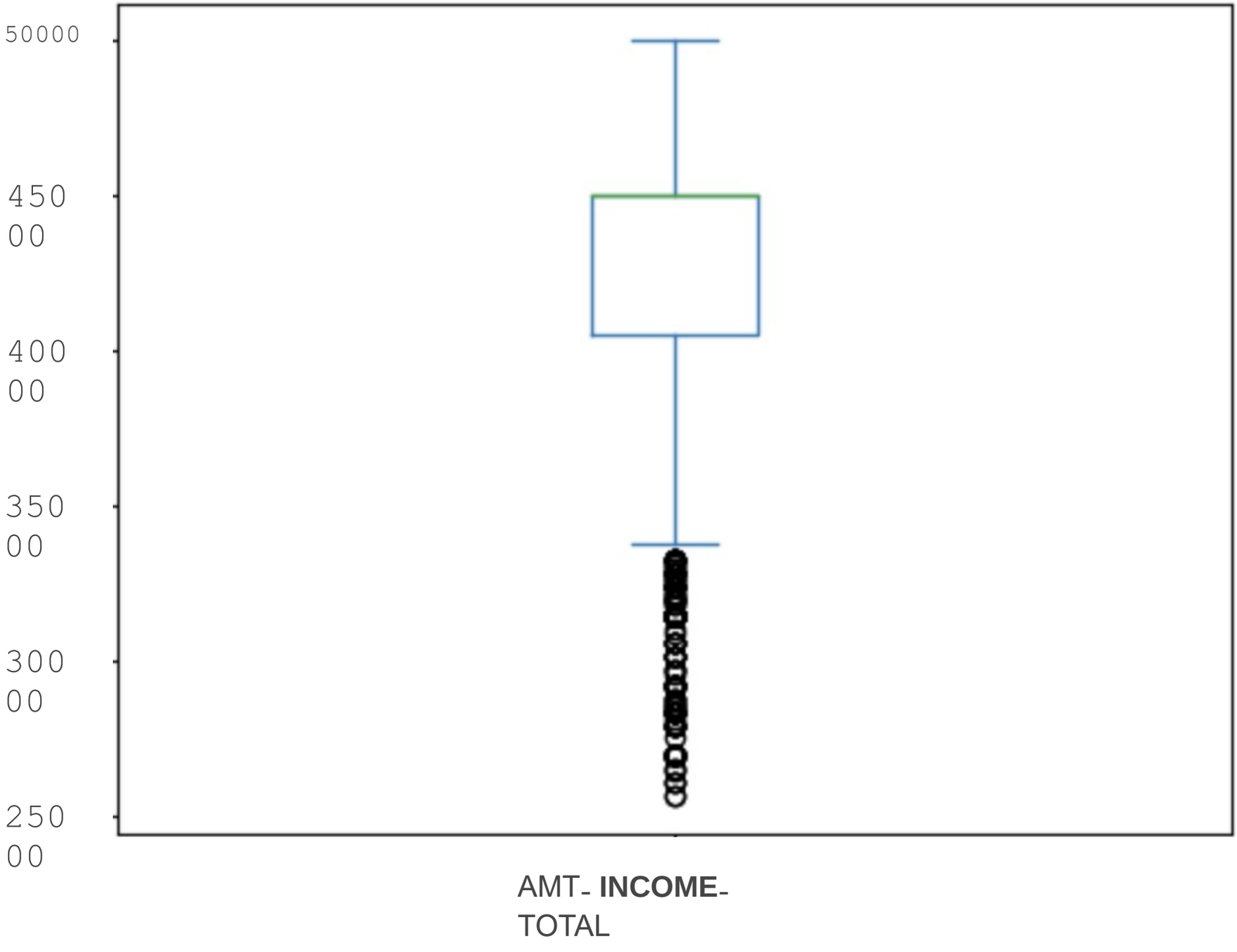
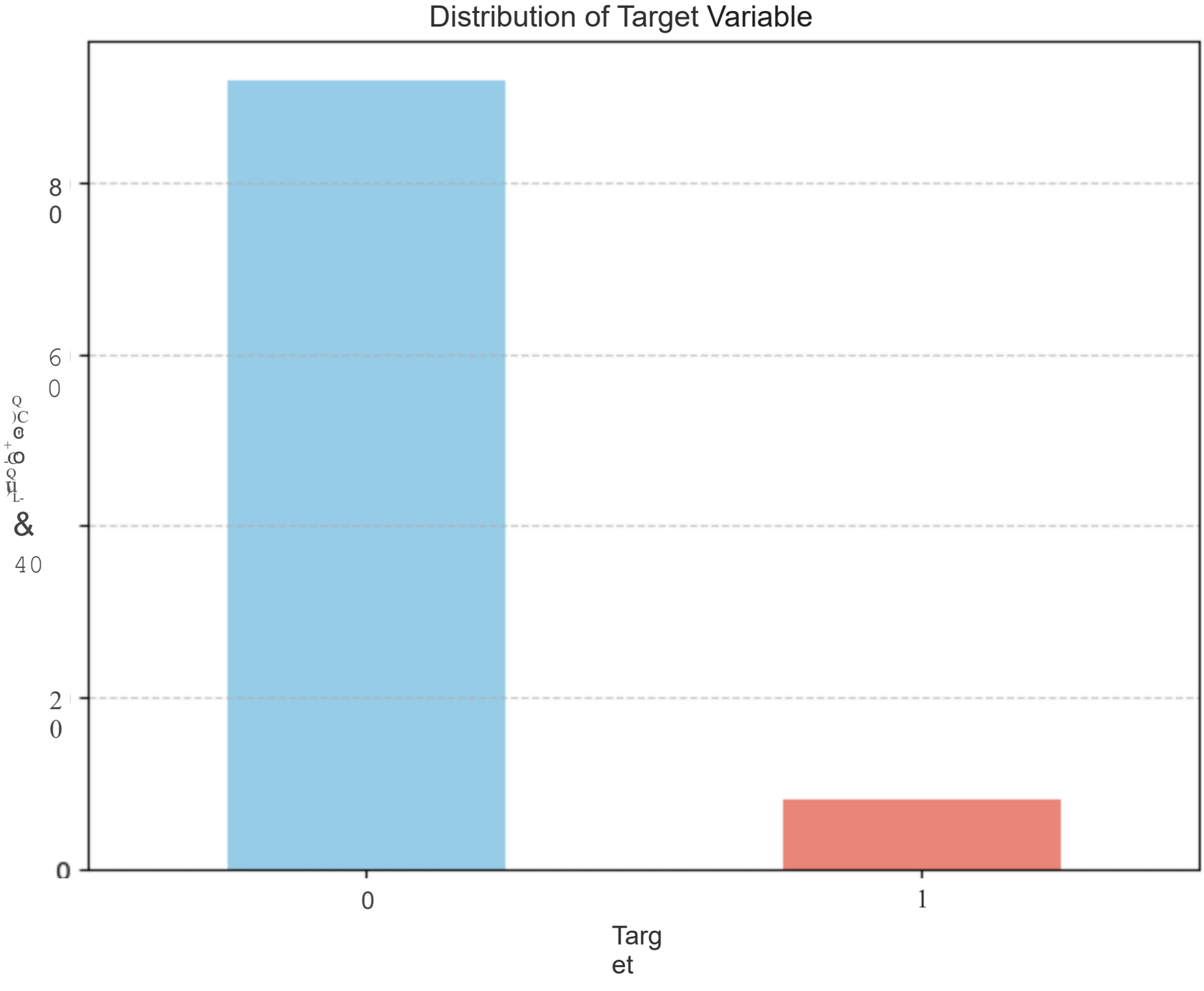
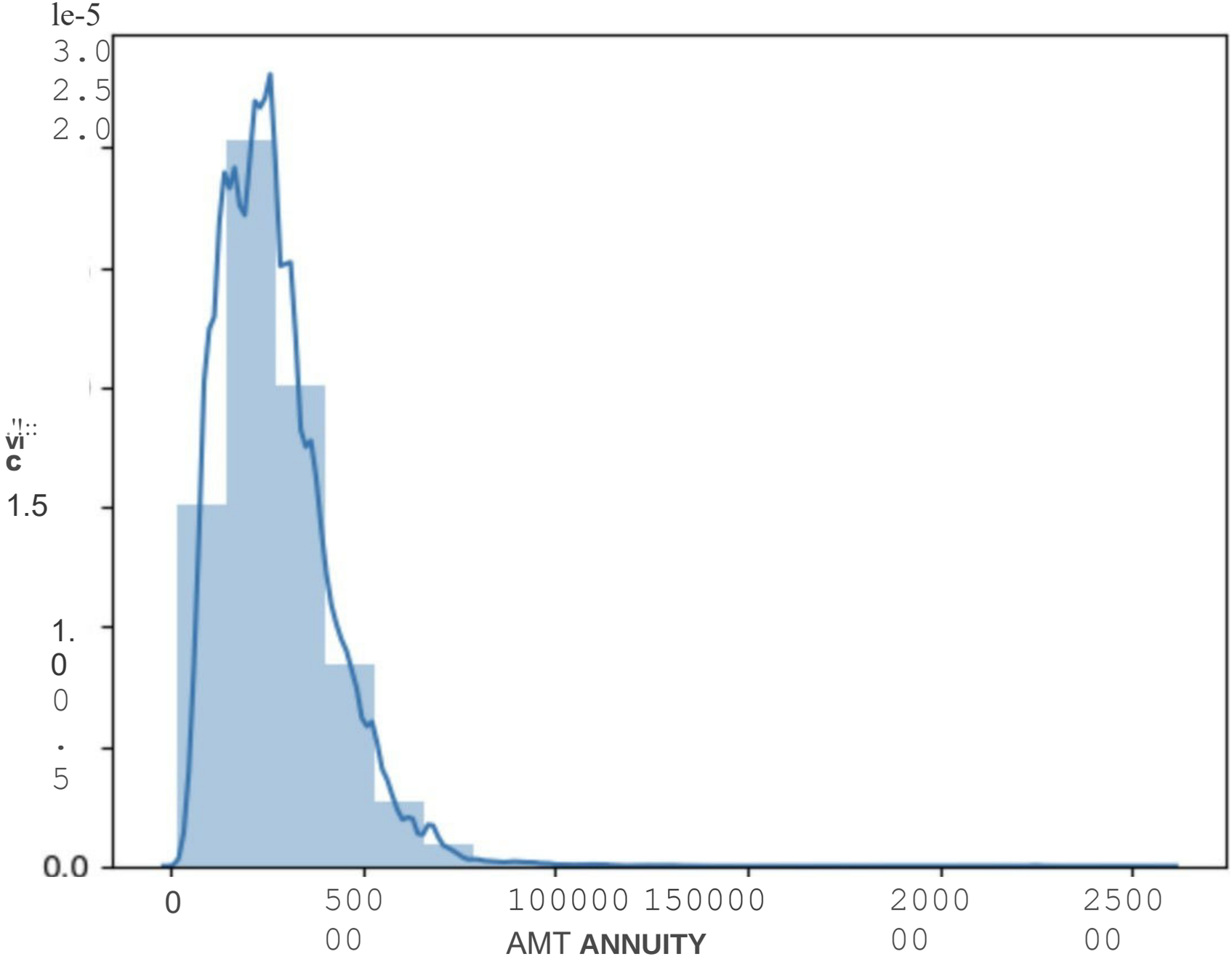
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0
0
1

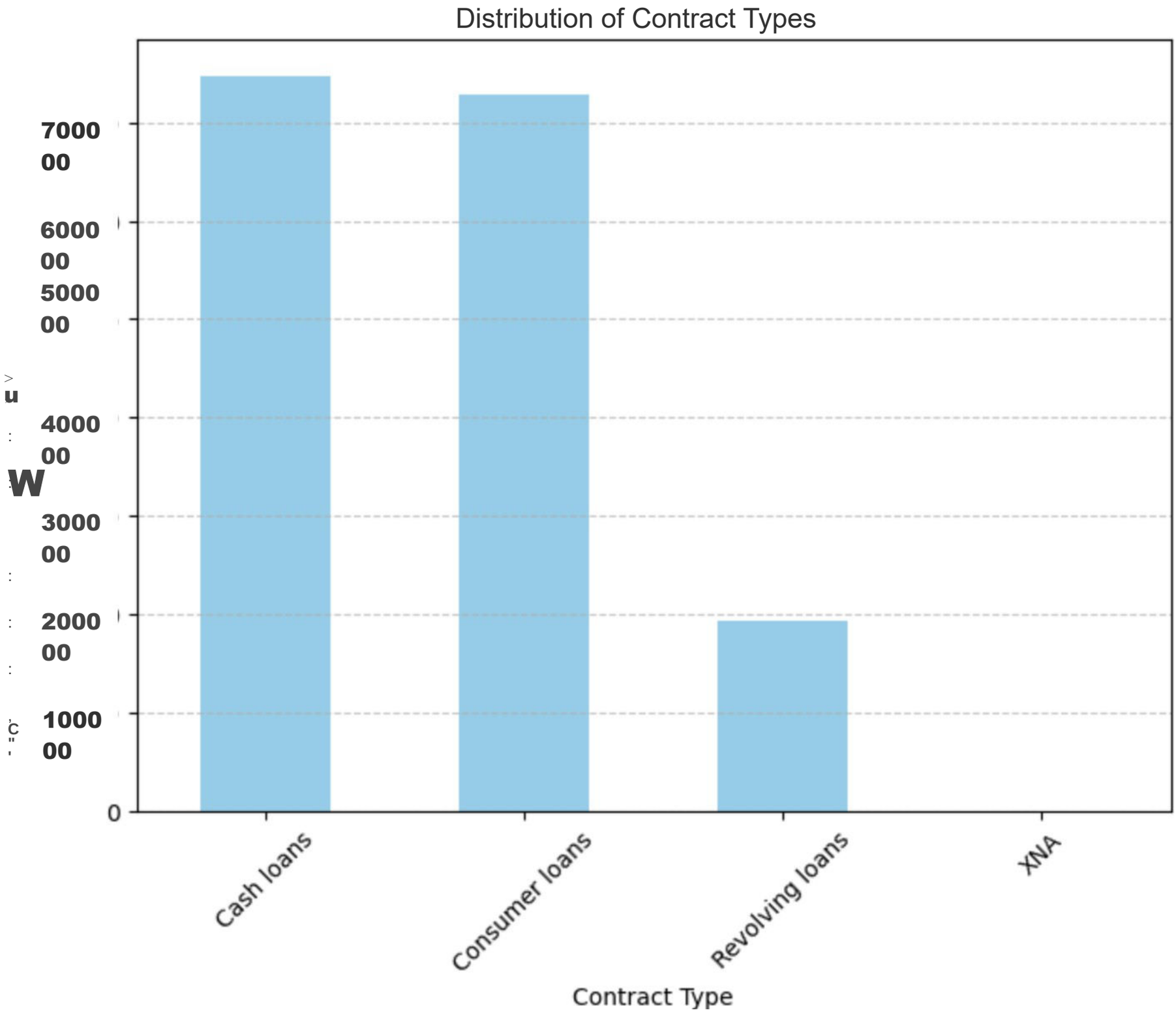

1e8
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0
0
0
AMT INCOME TOTAL

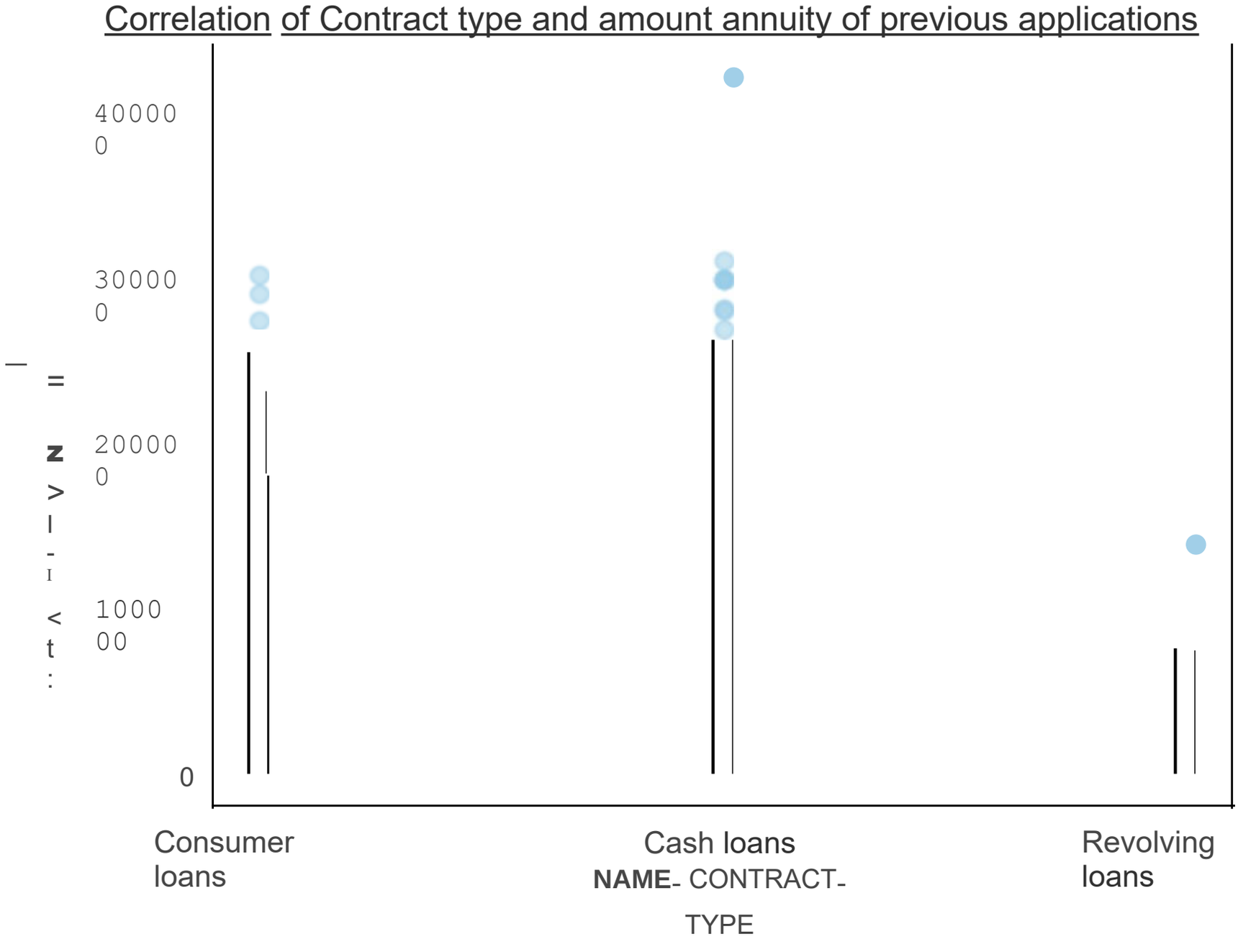

50000
45000
40000
35000
30000
25000
AMT_INCOME_TOTAL

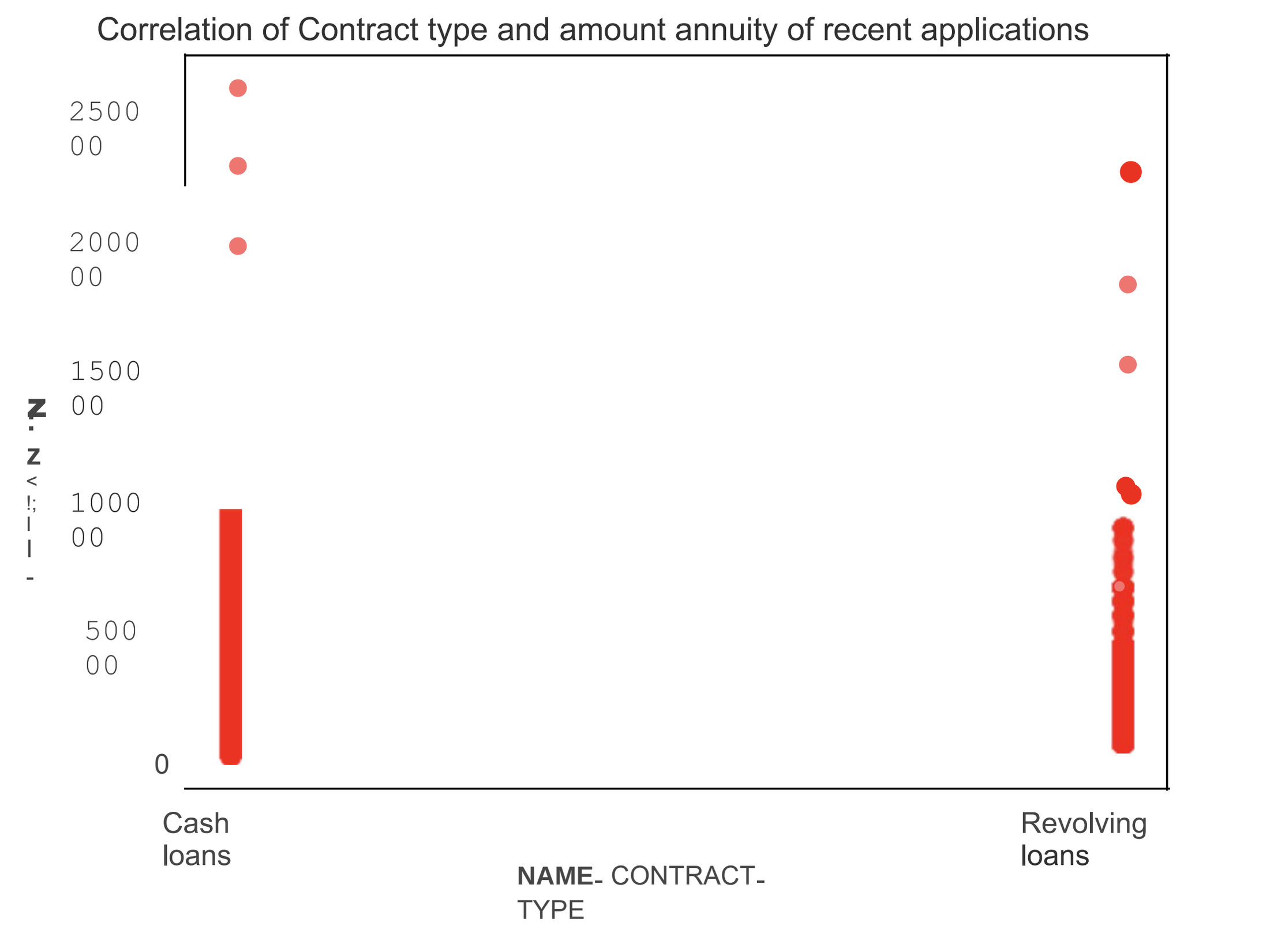

Distribution of Target Variable
80
60
40
20
0
0
1
Target

Cash loans
Revolving loans
Contract

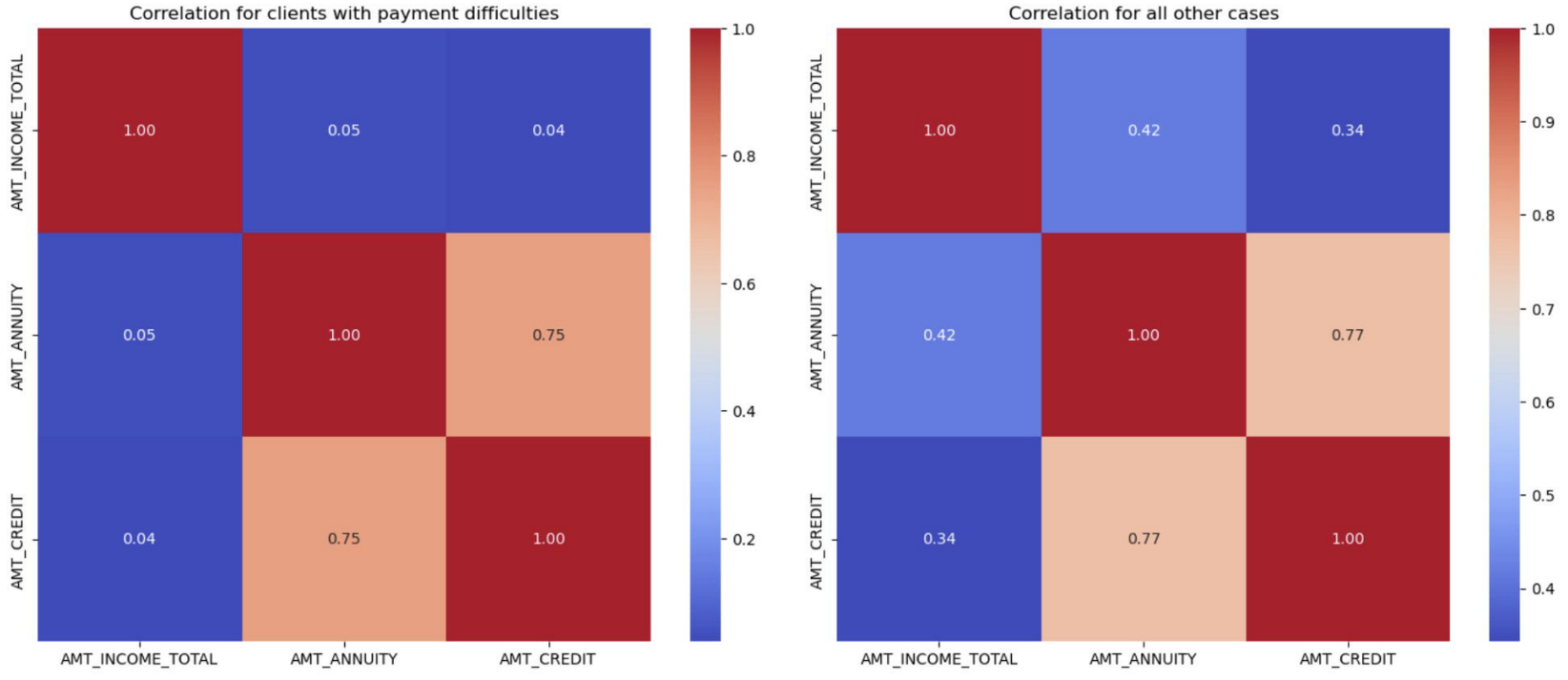

le-5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
500
00
100000
150000
2000
00
2500
00
AMT ANNUITY


Distribution of Contract Types
700000
600000
500000
400000
300000
200000
100000
0
Cash loans
Consumer loans
Revolving loans
XNA
Contract Type


Correlation of Contract type and amount annuity of previous applications
400000
300000
200000
100000
0
AMT_ANNUITY
Consumer loans
Cash loans
Revolving loans
NAME_CONTRACT_TYPE


Correlation of Contract type and amount annuity of recent applications
250000
200000
150000
100000
50000
0
Cash loans
Revolving loans
NAME_CONTRACT_TYPE

307511 rows x 4 columns



Summary of Correlations:

1. Clients with Payment Difficulties:
   - AMT_INCOME_TOTAL and AMT_CREDIT show a strong positive correlation of 0.04.
   - AMT_CREDIT and AMT_ANNUITY exhibit a moderate positive correlation of 0.75.
   - AMT_INCOME_TOTAL and AMT_ANNUITY have a weak positive correlation of 0.05 .
   - No significant negative correlations were observed.
2. All Other Cases:
   - AMT_INCOME_TOTAL and AMT_CREDIT show a strong positive correlation of 0.34 .
   - AMT_CREDIT and AMT_ANNUITY exhibit a moderate positive correlation of 0.77.
   - AMT_INCOME_TOTAL and AMT_ANNUITY have a weak positive correlation of 0.42 .
   - No significant negative correlations were observed.

Overall, clients with payment difficulties show distinct patterns of correlation compared to all other cases. AMT_INCOME_TOTAL and AMT_CREDIT appear to be closely related for clients with payment difficulties, while AMT_CREDIT and AMT_INCOME_TOTAL are strongly correlated in all other cases. These insights could inform targeted strategies for addressing payment difficulties and improving overall business performance.