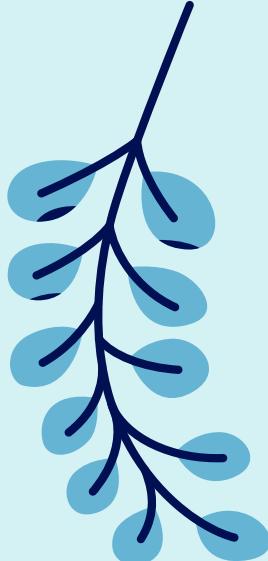
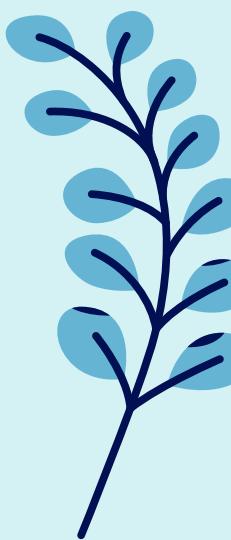


ANALYSIS ON LOAN DATASET IN EXCEL



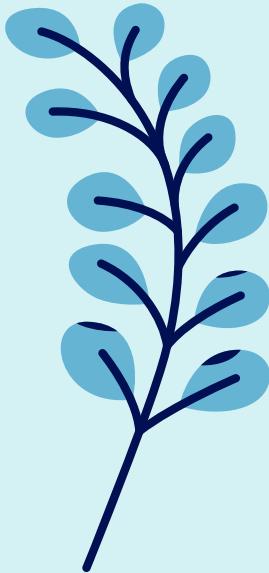
PROBLEM STATEMENT:

ASSESS LOAN ELIGIBILITY BY ANALYZING KEY FACTORS SUCH AS DEPENDENTS, INCOME, CREDIT HISTORY, AND PROPERTY AREA, ALONGSIDE OTHER VARIABLES IN THE DATASET. THIS ANALYSIS AIMS TO DETERMINE FINANCIAL STABILITY AND REPAYMENT CAPACITY TO MAKE INFORMED LOAN APPROVAL DECISIONS.





DATASET

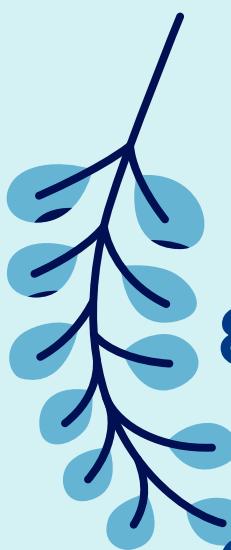


	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Loan_ID	Gender	Married	Dependents	Education	Self_Employed	ApplicantIncome	CoapplicantIncome	LoanAmount	Loan_Amount_Term	Credit_History	Property_Area	Loan_Status
2	LP001002	Male	No		0 Graduate	No	5849	0		360		1 Urban	Y
3	LP001003	Male	Yes		1 Graduate	No	4583	1508	128	360		1 Rural	N
4	LP001005	Male	Yes		0 Graduate	Yes	3000	0	66	360		1 Urban	Y
5	LP001006	Male	Yes		0 Not Gradu	No	2583	2358	120	360		1 Urban	Y
6	LP001008	Male	No		0 Graduate	No	6000	0	141	360		1 Urban	Y
7	LP001011	Male	Yes		2 Graduate	Yes	5417	4196	267	360		1 Urban	Y
8	LP001013	Male	Yes		0 Not Gradu	No	2333	1516	95	360		1 Urban	Y
9	LP001014	Male	Yes	3+	Graduate	No	3036	2504	158	360		0 Semiurban	N
10	LP001018	Male	Yes		2 Graduate	No	4006	1526	168	360		1 Urban	Y
11	LP001020	Male	Yes		1 Graduate	No	12841	10968	349	360		1 Semiurban	N
12	LP001024	Male	Yes		2 Graduate	No	3200	700	70	360		1 Urban	Y
13	LP001027	Male	Yes		2 Graduate		2500	1840	109	360		1 Urban	Y
14	LP001028	Male	Yes		2 Graduate	No	3073	8106	200	360		1 Urban	Y
15	LP001029	Male	No		0 Graduate	No	1853	2840	114	360		1 Rural	N
16	LP001030	Male	Yes		2 Graduate	No	1299	1086	17	120		1 Urban	Y
17	LP001032	Male	No		0 Graduate	No	4950	0	125	360		1 Urban	Y
18	LP001034	Male	No		1 Not Gradu	No	3596	0	100	240		Urban	Y
19	LP001036	Female	No		0 Graduate	No	3510	0	76	360		0 Urban	N
20	LP001038	Male	Yes		0 Not Gradu	No	4887	0	133	360		1 Rural	N
21	LP001041	Male	Yes		0 Graduate		2600	3500	115			1 Urban	Y
22	LP001043	Male	Yes		0 Not Gradu	No	7660	0	104	360		0 Urban	N



Here's a brief explanation of each column in loan dataset:

1. **Loan_ID**: A unique identifier for each loan application.
 2. **Gender**: The gender of the loan applicant (e.g., Male, Female).
 3. **Married**: The marital status of the applicant (e.g., Yes, No).
 4. **Dependents**: The number of dependents the applicant has (e.g., 0, 1, 2, 3+).
 5. **Education**: The educational qualification of the applicant (e.g., Graduate, Not Graduate).
 6. **Self_Employed**: Indicates whether the applicant is self-employed (e.g., Yes, No).
 7. **ApplicantIncome**: The income of the applicant.
- 



8. CoapplicantIncome: The income of the coapplicant (if any).

9. LoanAmount: The amount of loan requested by the applicant.

10. Loan_Amount_Term: The term of the loan in months (e.g., 360 months).

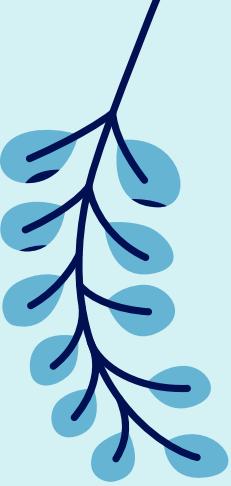
11. Credit_History: The applicant's credit history (e.g., 1 for good credit, 0 for poor credit).

12. Property_Area: The location or area where the property is situated (e.g., Urban, Semiurban, Rural).

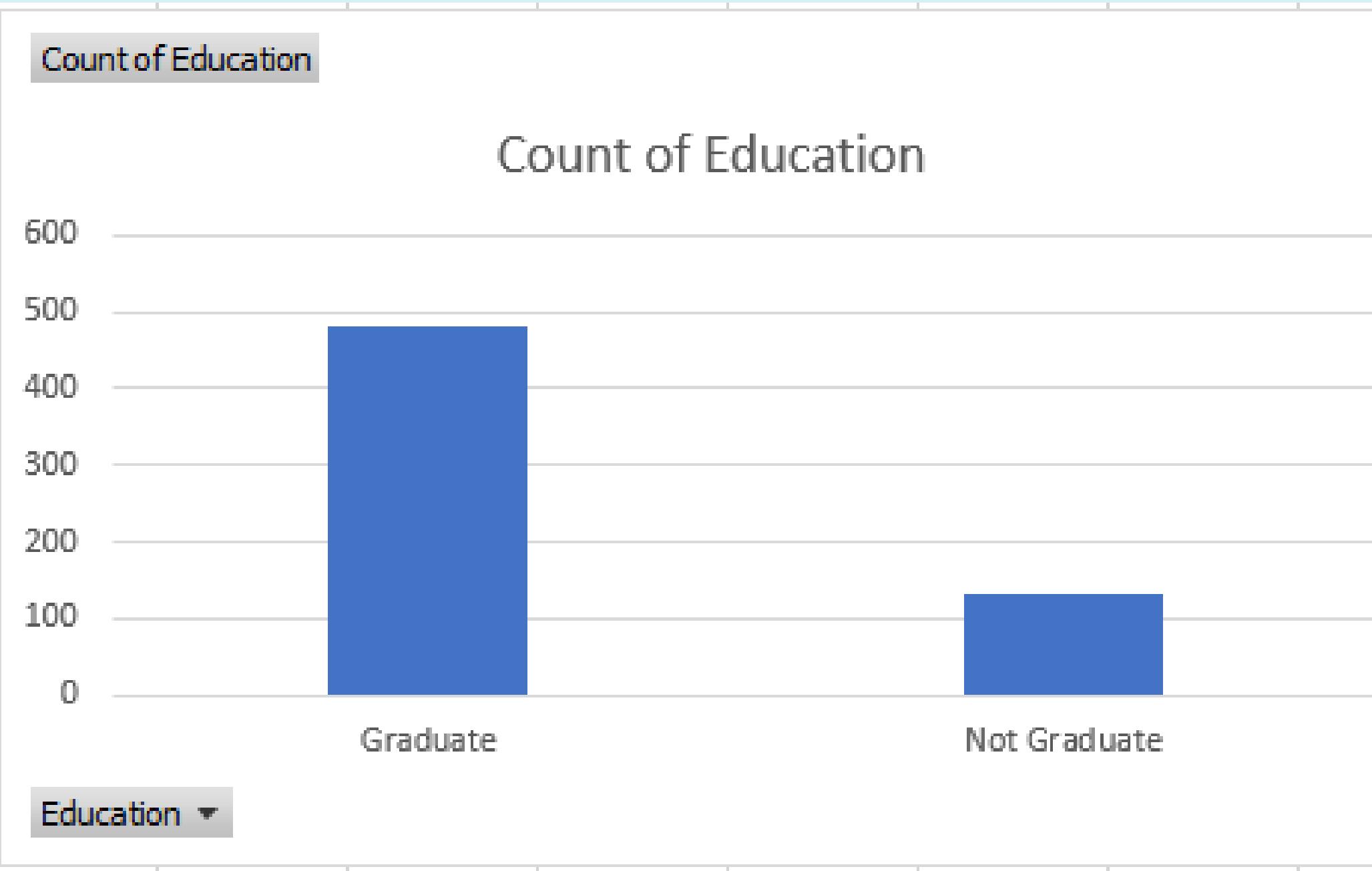
13. Loan_Status: The status of the loan application (e.g., Approved, Rejected).



14. Total of app and coapp: The total income combining both the applicant's and coapplicant's income.

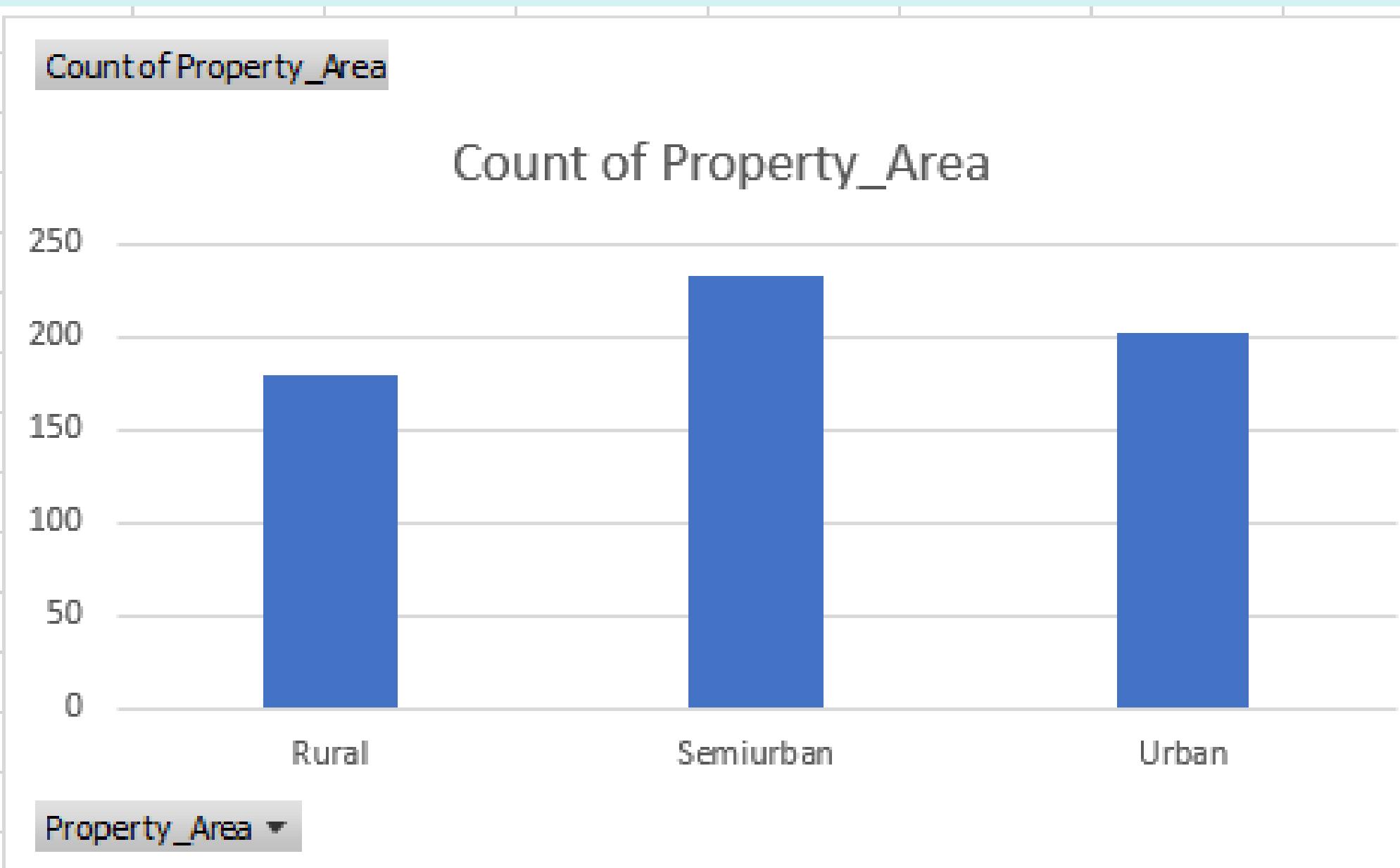
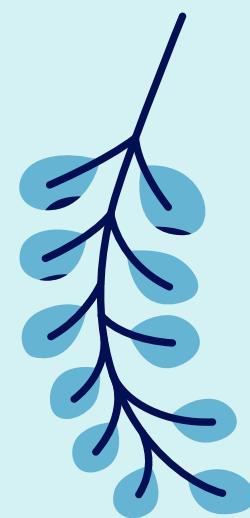


CREATING VISUALIZATIONS TO ANALYZE AND INTERPRET KEY TRENDS IN THE LOAN DATASET.

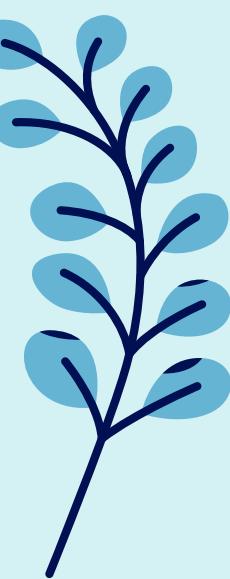


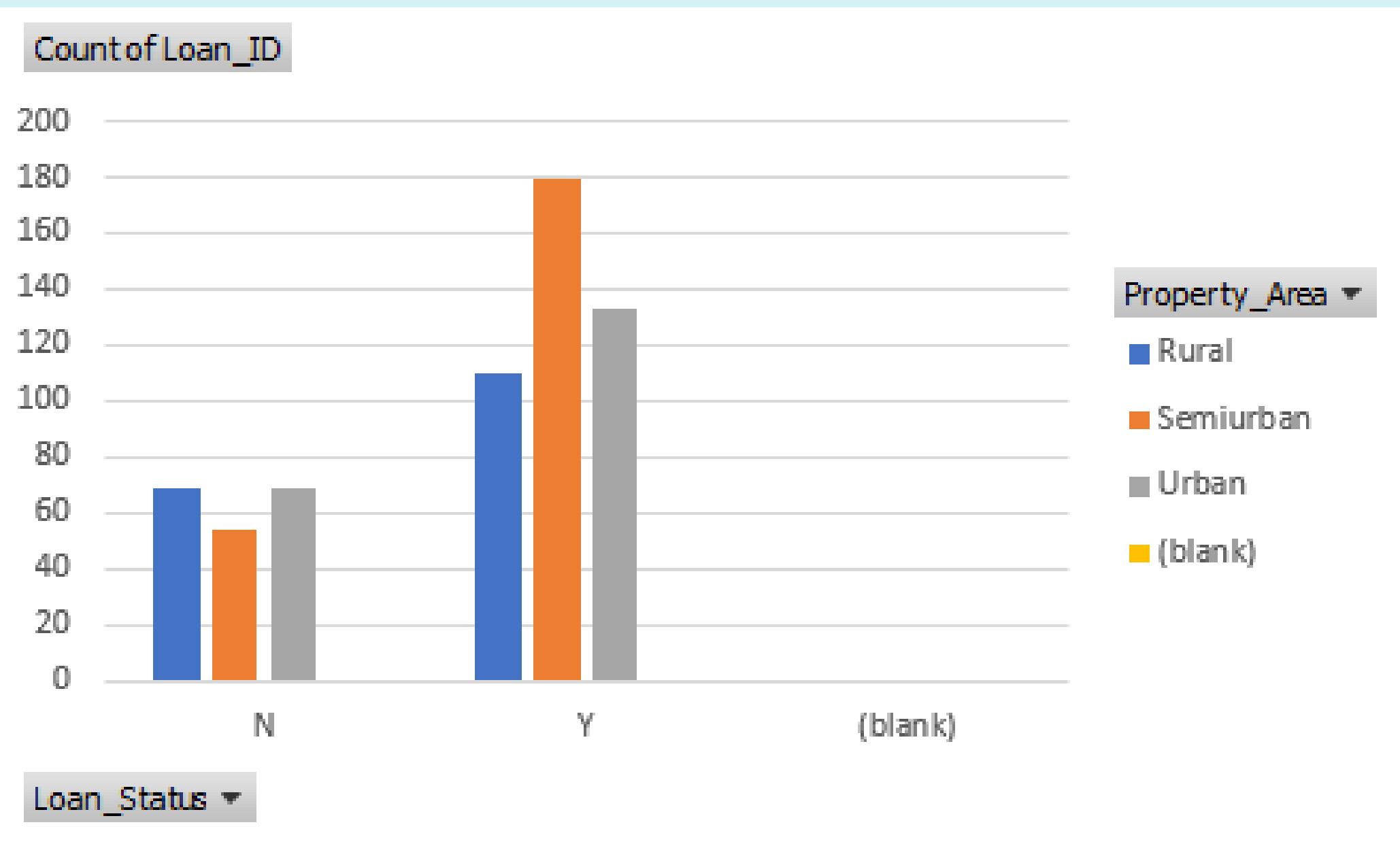
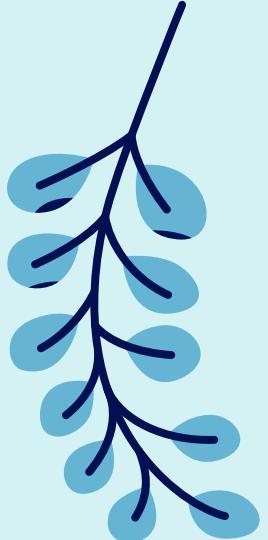
Graduates constitute a larger proportion of the loan applicants compared to non-graduates.



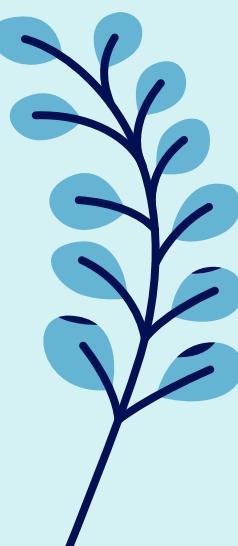


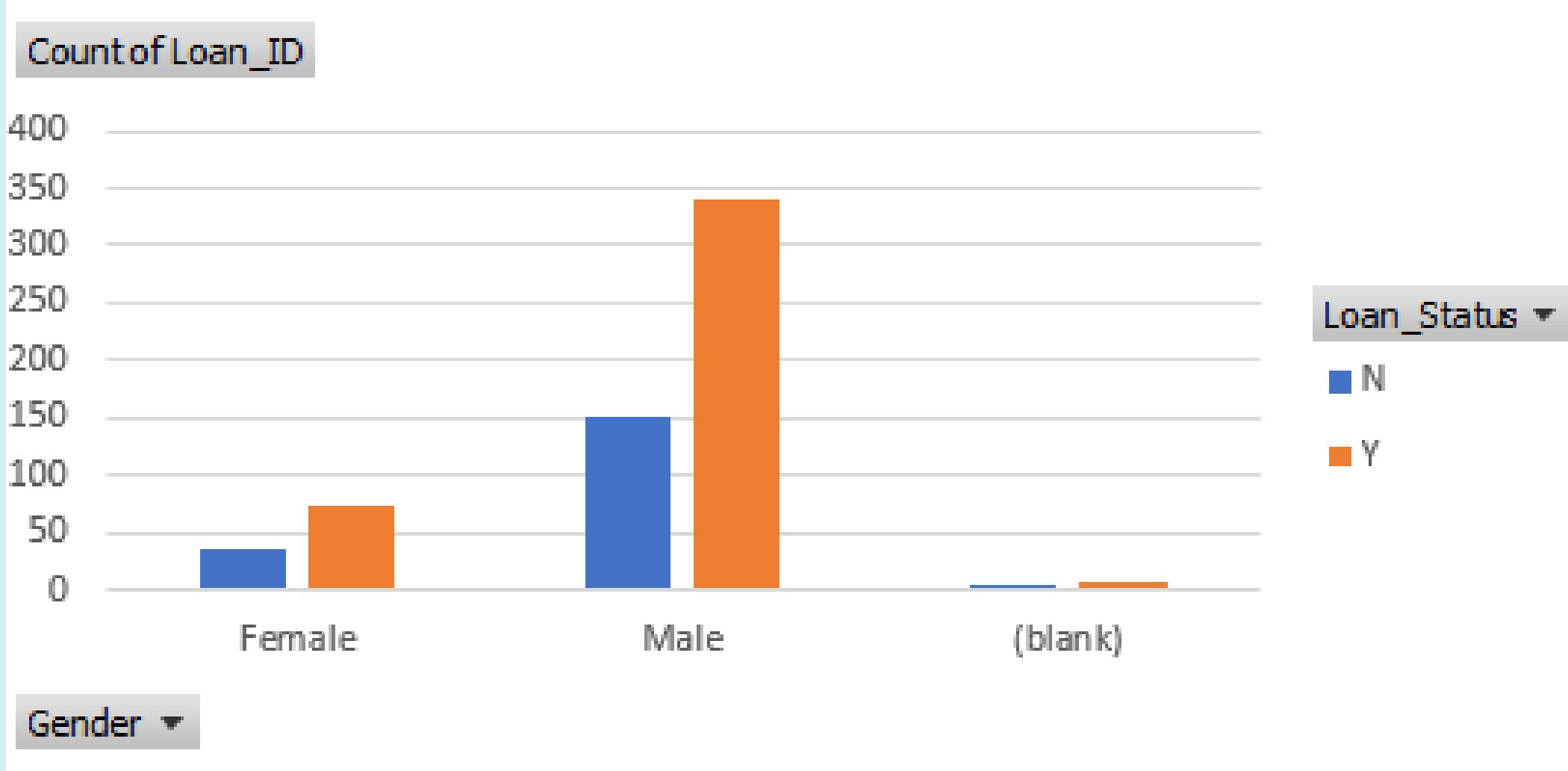
The dataset reveals
that individuals from
semi-urban areas
outnumber those from
urban and rural areas.





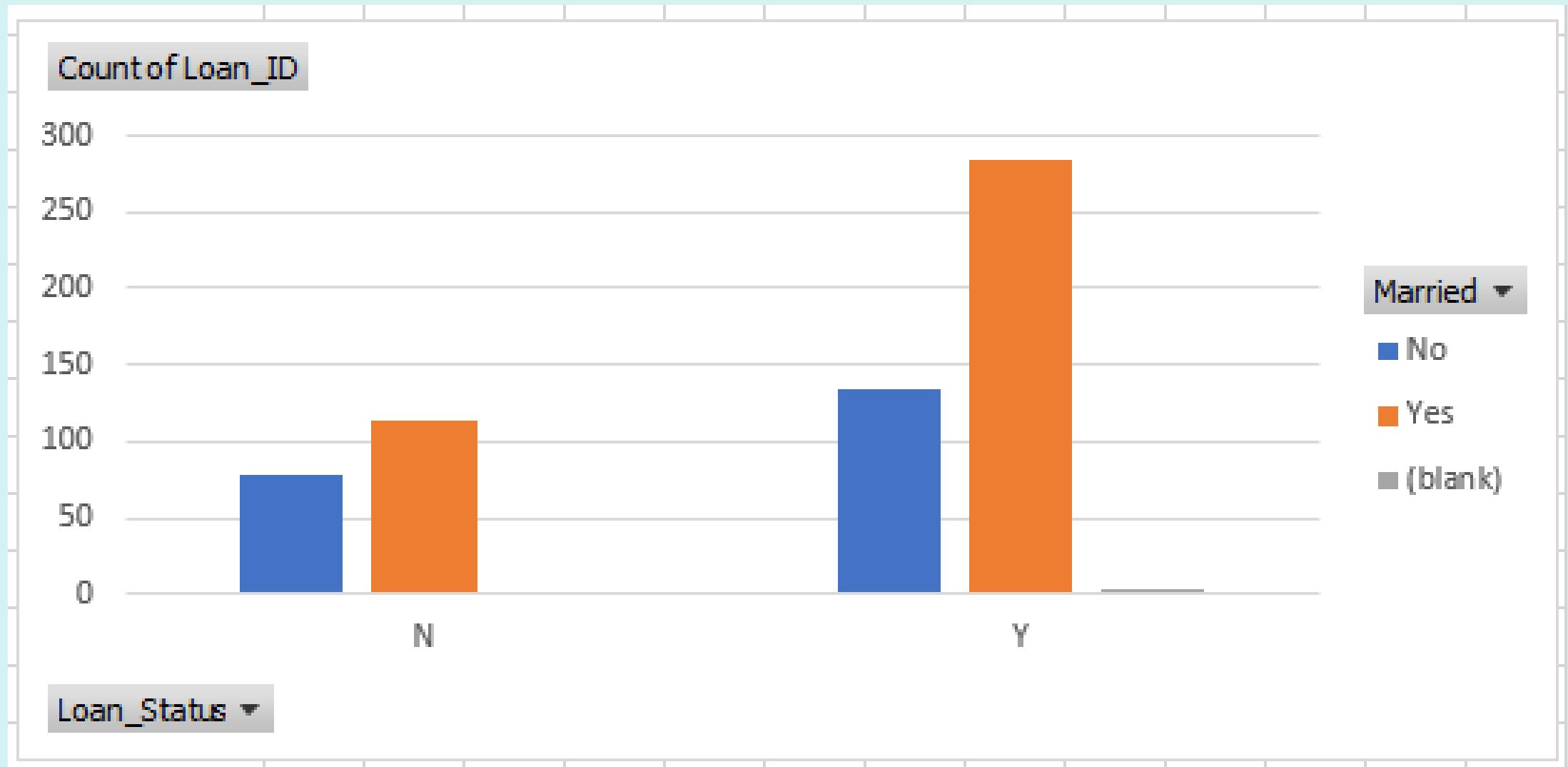
Loan approvals are more frequent among semi-urban applicants compared to those from urban and rural areas.





Loan approvals are more frequently granted to male applicants compared to female applicants.





Loan approvals are more commonly granted to married individuals compared to unmarried applicants.

Count of Loan_ID

400
350
300
250
200
150
100
50
0

N

Y

Self_Employed ▾

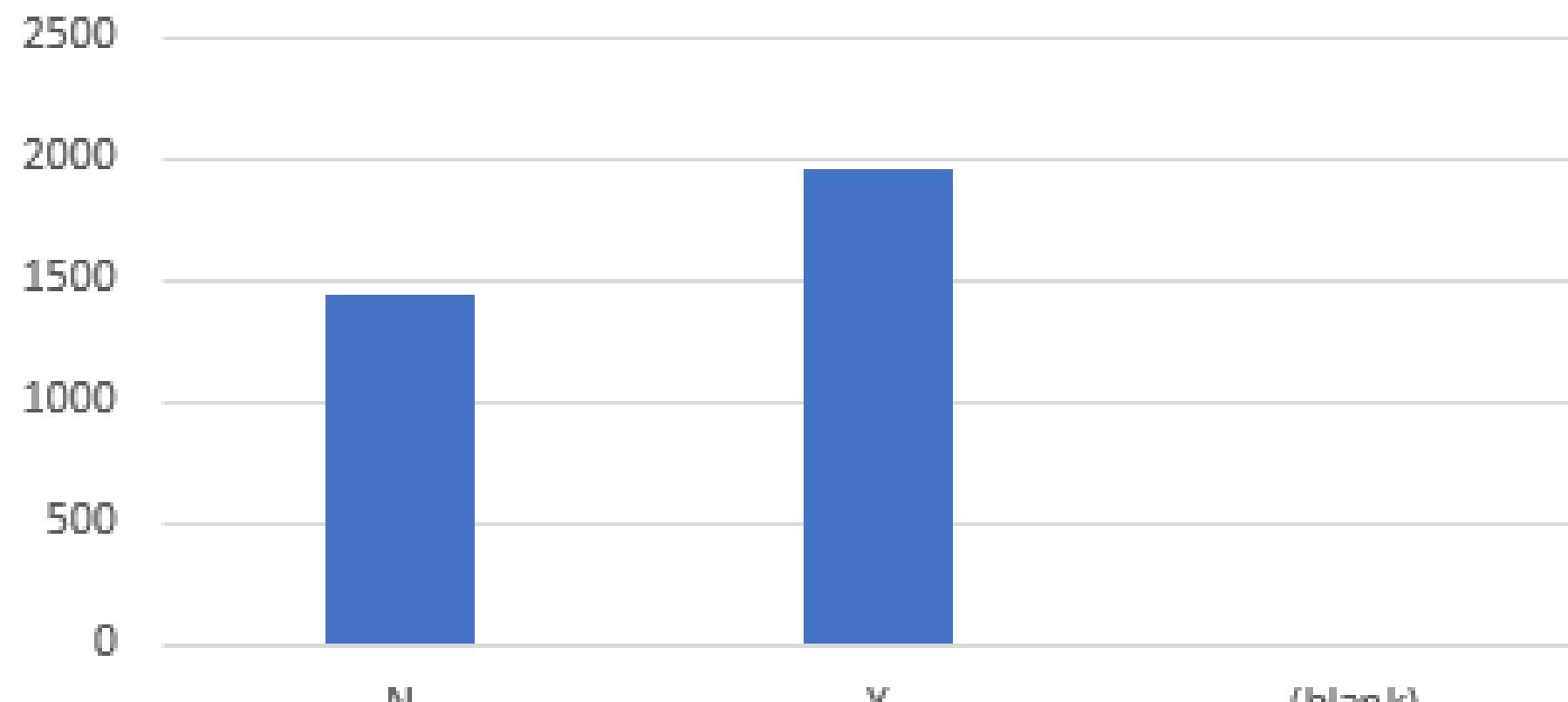
- No
- Yes
- (blank)

Loan_Status ▾

The majority of loan recipients are employed in jobs rather than being self-employed or running their own businesses.

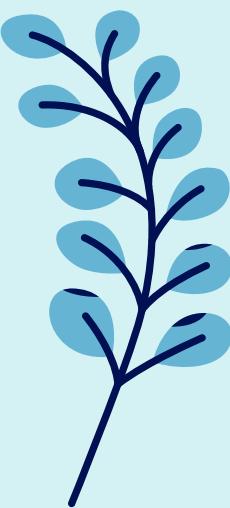
Min of Total of app and coapp

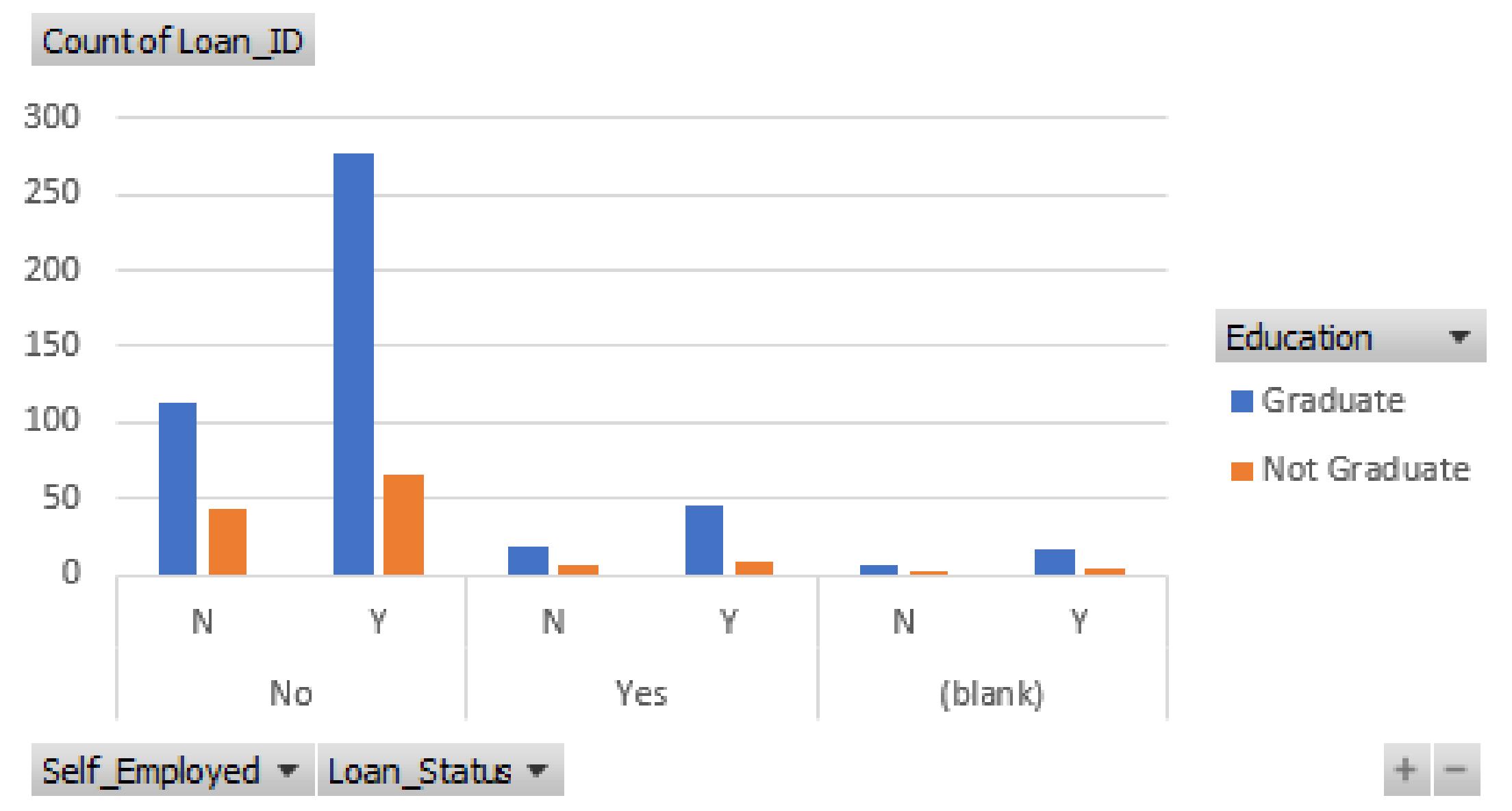
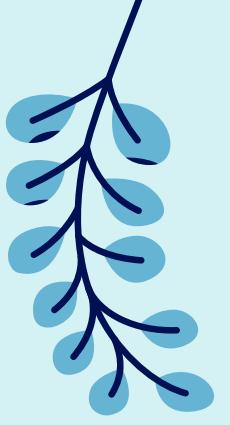
Total



Loan_Status ▾

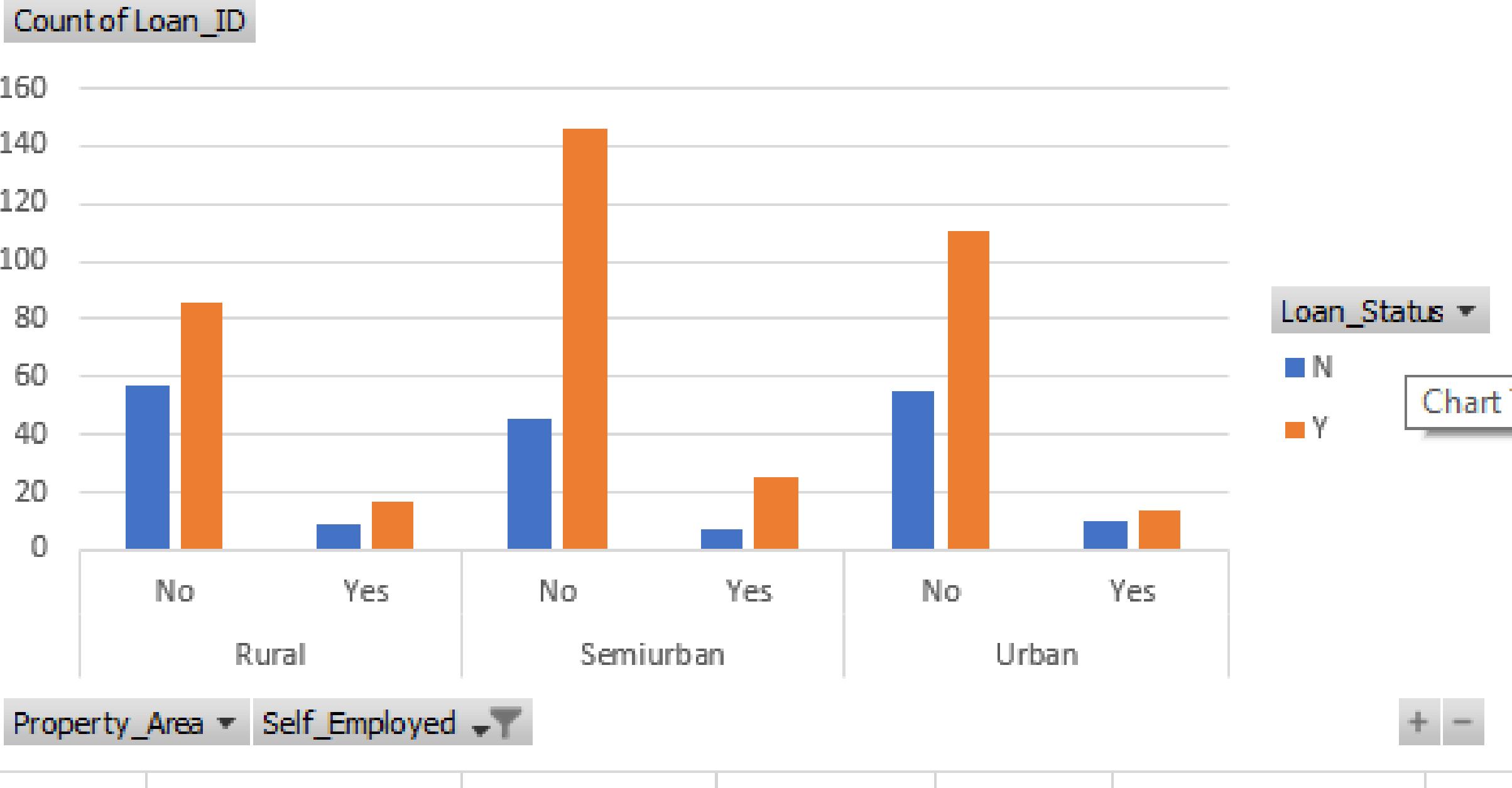
Loan approvals are predominantly granted to individuals with a minimum salary of \$2,000.



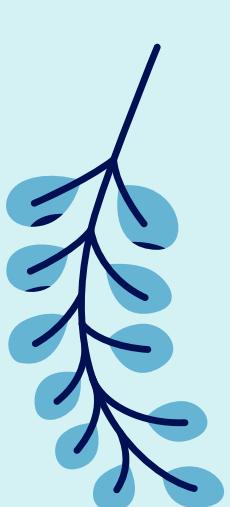


Loan approvals are preferentially granted to individuals who are employed and have graduated from higher education.

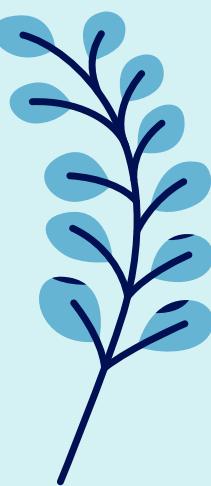




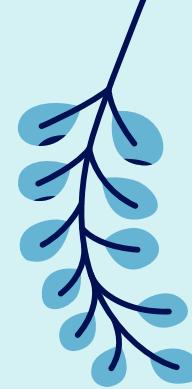
In urban areas, business owners are more likely to obtain loans, while in semi-urban areas, employed individuals have a higher rate of loan approvals.



CONCLUSION



Analysis of the loan data reveals that business owners in urban areas are more frequently approved for loans than those in semi-urban regions. Conversely, employed individuals in semi-urban areas have a higher approval rate than their urban counterparts. Applicants with a minimum salary of \$2,000 are more likely to secure loans, highlighting the importance of income in the approval process. Employed individuals, graduates, and married individuals also show higher loan approval rates, indicating that stable income, educational qualifications, and marital status are significant factors in loan decision-making.



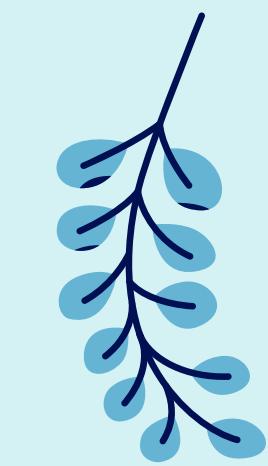
RECOMMENDATIONS

Expand Loan Criteria for Semi-Urban Areas: To promote balanced economic development, consider adapting the loan criteria to better support business owners and self-employed individuals in semi-urban areas, thereby fostering entrepreneurial growth.

Review Income Thresholds: Reassess the minimum income requirements to ensure they align with current economic conditions and support a broader range of applicants, especially those with slightly lower but stable incomes.

Support for Self-Employed Applicants: Develop tailored loan products and support services for self-employed individuals to improve their access to loans, possibly through different risk assessment models or lower interest rates.





Educational Incentives: Implement programs that offer favorable loan terms or incentives for individuals pursuing higher education or professional development, to encourage continued learning and qualifications.

Consider Marital Status Impact: Evaluate the impact of marital status on loan approvals and consider alternative ways to assess financial stability that do not solely rely on marital status.





THANK YOU