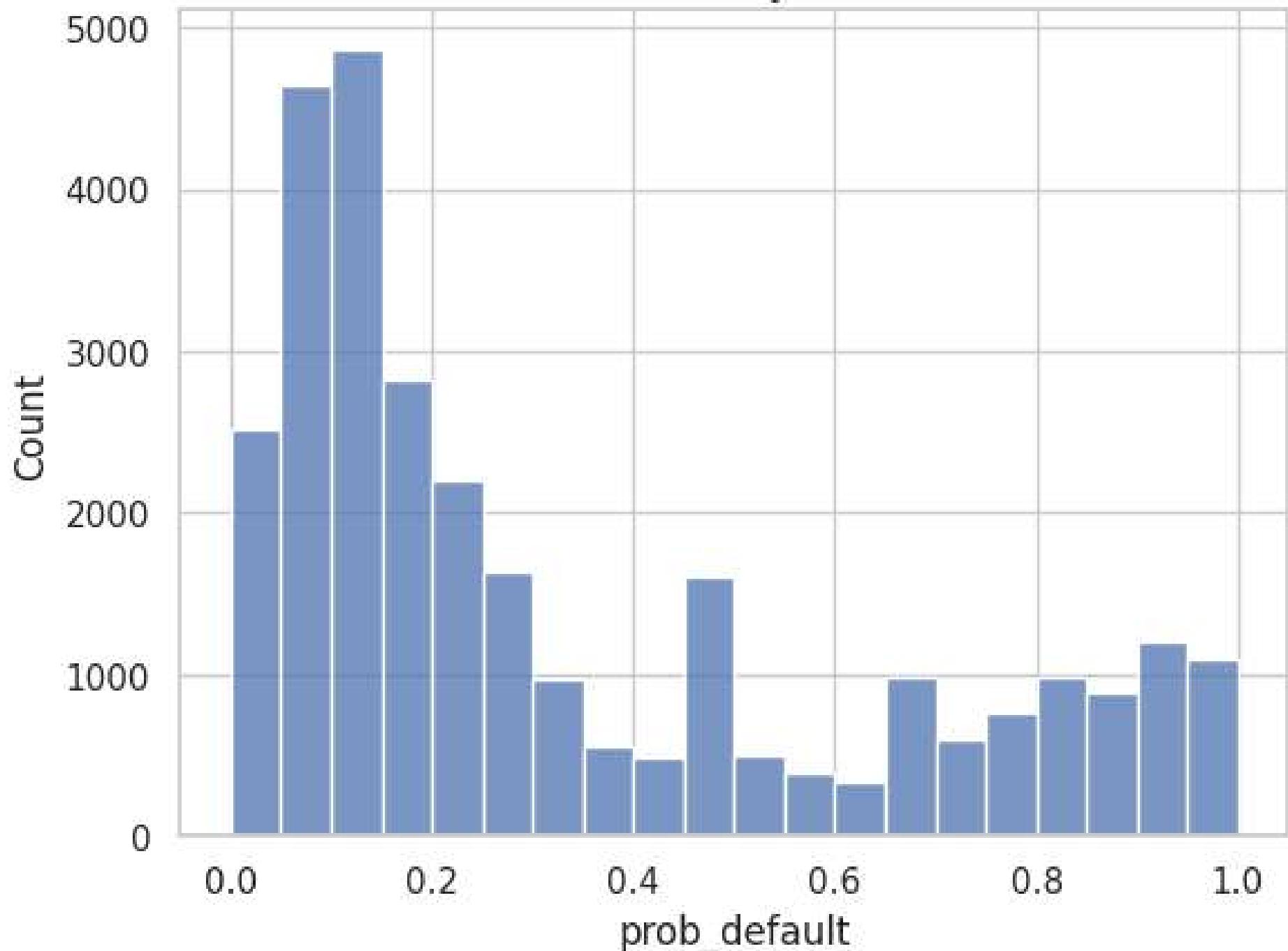


```
... Before: default
    0    23364
    1    6636
Name: count, dtype: int64
After SMOTE: default
    1    23364
    0    23364
Name: count, dtype: int64
```

## Default Probability Distribution



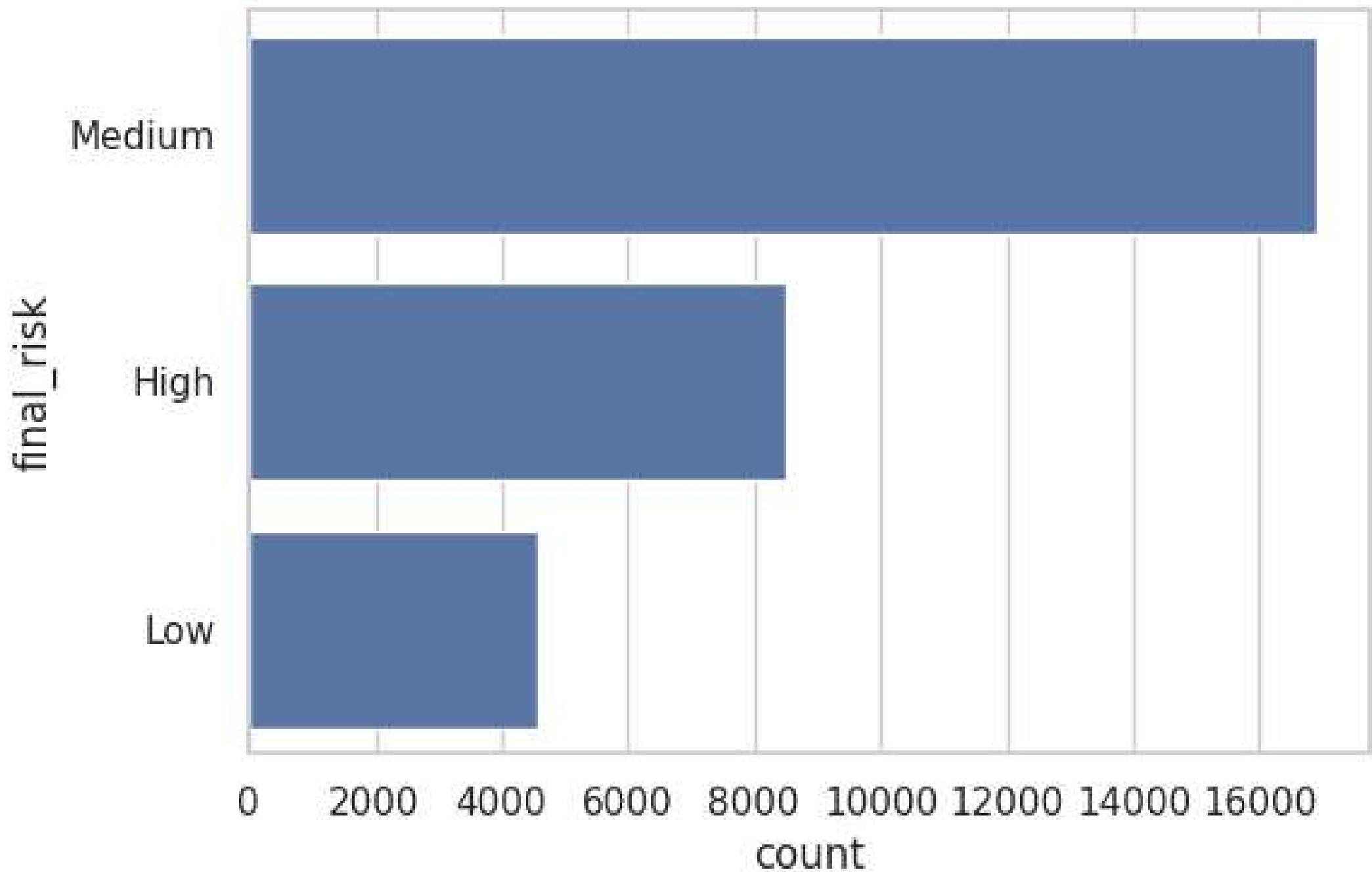
	<b>id</b>	<b>limit_bal</b>	<b>sex</b>	<b>education</b>	<b>marriage</b>	<b>age</b>	<b>pay_0</b>	<b>pay_2</b>	<b>pay_3</b>	<b>pay_4</b>	...	<b>bill_amt4</b>	<b>bill_amt5</b>	<b>bill_amt6</b>	<b>pay_amt1</b>	<b>pay_amt2</b>	<b>pay_amt3</b>	<b>pay_amt4</b>	<b>pay_amt5</b>	<b>pay_amt6</b>	<b>default</b>	
<b>0</b>	1	200000.0	2	2	1	24	2	2	-1	-1	...	0.0	0.0	0.0	0.0	689.0	0.0	0.0	0.0	0.0	0.0	1
<b>1</b>	2	120000.0	2	2	2	26	-1	2	0	0	...	3272.0	3455.0	3261.0	0.0	1000.0	1000.0	1000.0	0.0	2000.0	0.0	1
<b>2</b>	3	90000.0	2	2	2	34	0	0	0	0	...	14331.0	14948.0	15549.0	1518.0	1500.0	1000.0	1000.0	1000.0	5000.0	0.0	0
<b>3</b>	4	50000.0	2	2	1	37	0	0	0	0	...	28314.0	28959.0	29547.0	2000.0	2019.0	1200.0	1100.0	1069.0	1000.0	0.0	0
<b>4</b>	5	50000.0	1	2	1	57	-1	0	-1	0	...	20940.0	19146.0	19131.0	2000.0	36681.0	10000.0	9000.0	689.0	679.0	0.0	0

5 rows × 25 columns

	<b>id</b>	<b>limit_bal</b>	<b>sex</b>	<b>education</b>	<b>marriage</b>	<b>age</b>	<b>pay_0</b>	<b>pay_2</b>	<b>pay_3</b>	<b>pay_4</b>	...	<b>util_6</b>	<b>pay_ratio_4</b>	<b>pay_ratio_5</b>	<b>pay_ratio_6</b>	<b>pay_drop</b>	<b>util_change</b>	<b>spike</b>	<b>delay_trend</b>	<b>ers_score</b>	<b>ers_flag</b>
0	1	20000.0	2	2	1	24	2	2	-1	-1	...	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0	2	Medium
1	2	120000.0	2	2	2	26	-1	2	0	0	...	0.027175	0.305623	0.000000	0.613309	0.613309	-0.001617	0.979475	-3	0	Low
2	3	90000.0	2	2	2	34	0	0	0	0	...	0.172767	0.069779	0.066899	0.321564	0.254666	0.006678	1.040577	0	2	Medium
3	4	50000.0	2	2	1	37	0	0	0	0	...	0.590940	0.038850	0.036914	0.033844	-0.003070	0.011760	1.020974	0	2	Medium
4	5	50000.0	1	2	1	57	-1	0	-1	0	...	0.382620	0.429799	0.035987	0.035492	-0.000494	-0.000300	0.969198	-1	2	Medium

5 rows × 37 columns

## Final Credit Risk Distribution



... LR AUC: 0.589208550263379  
RF AUC: 0.8396317069272359

1 to 5 of 5 entries

index:  
 to

id:  
 to

prob\_default:  
 to

ml\_bucket:

Search by all fields:

index	id	prob_default	ml_bucket
0	1	0.4988389623876179	Medium
1	2	0.49	Medium
2	3	0.15	Low
3	4	0.16	Low
4	5	0.42	Medium

count

final\_risk

Medium 16904

High 8521

Low 4575

dtype: int64

## templates

```
{'soft': 'Hi , your bill of ₹-- is due on --. Please pay on time.',  
 'insight': 'Hi , your utilization is --%. Paying early can save interest!',  
 'loss': 'Hi , missing due date may add ₹-- late fee. Pay by --.',  
 'urgent': 'Hi , your account shows high risk. Call support immediately.'}
```