



LENDING CLUB CASE STUDY

PROBLEM STATEMENT

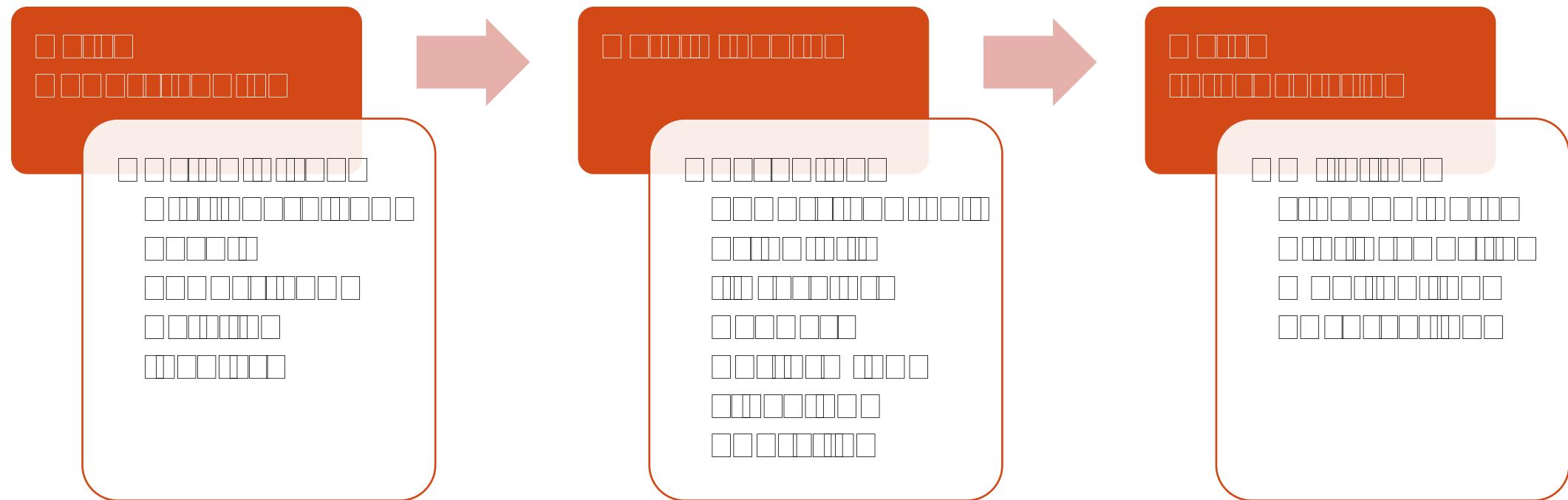
For a **consumer finance company** understand the **driving factors (or driver variables)** behind loan default | loan charged off.

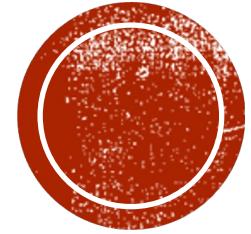
Given dataset which contains the complete loan data for all loans issued through the time period 2007 to 2011.

Each column meanings are defined a given data dictionary.

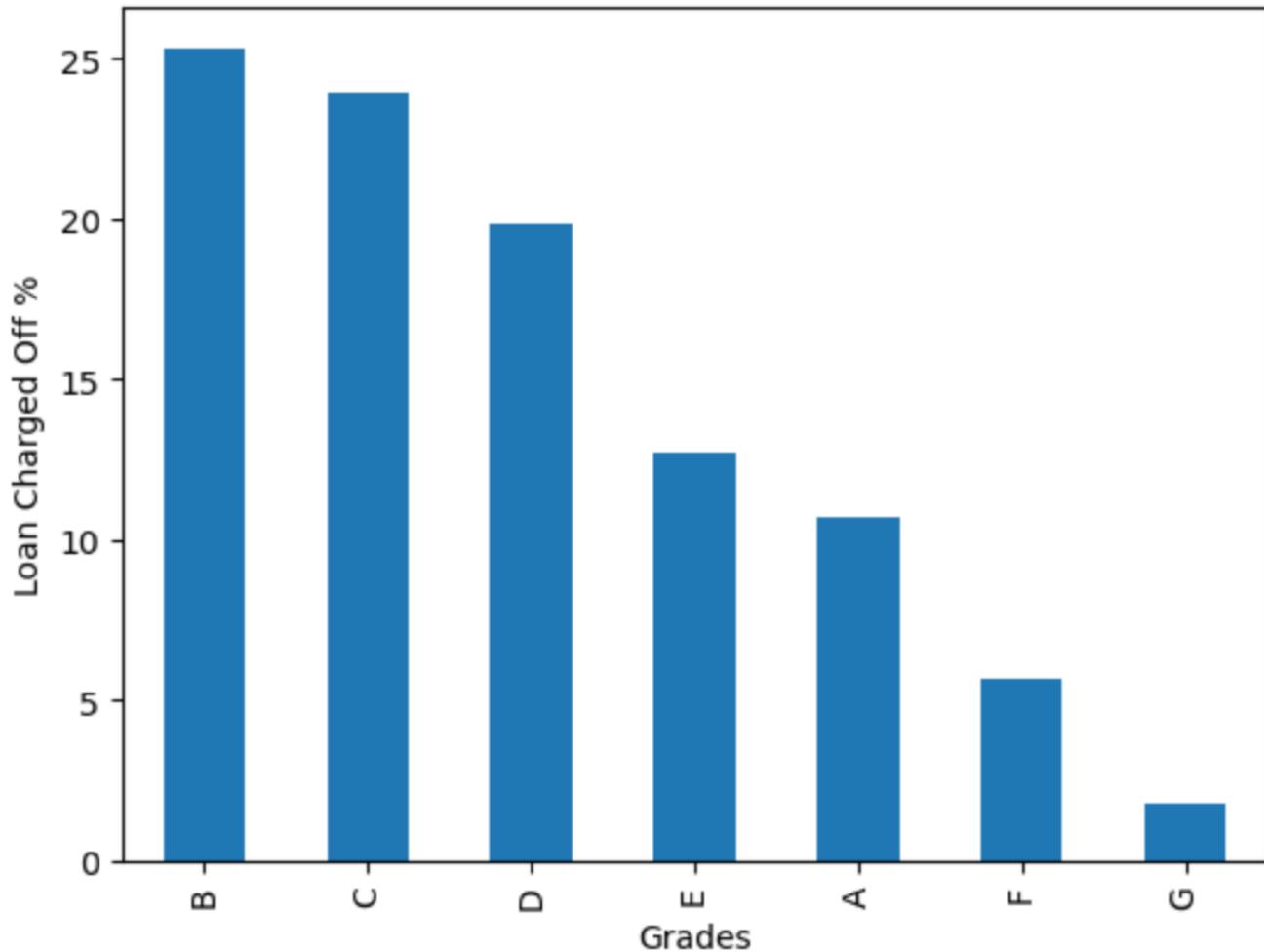


APPROACH



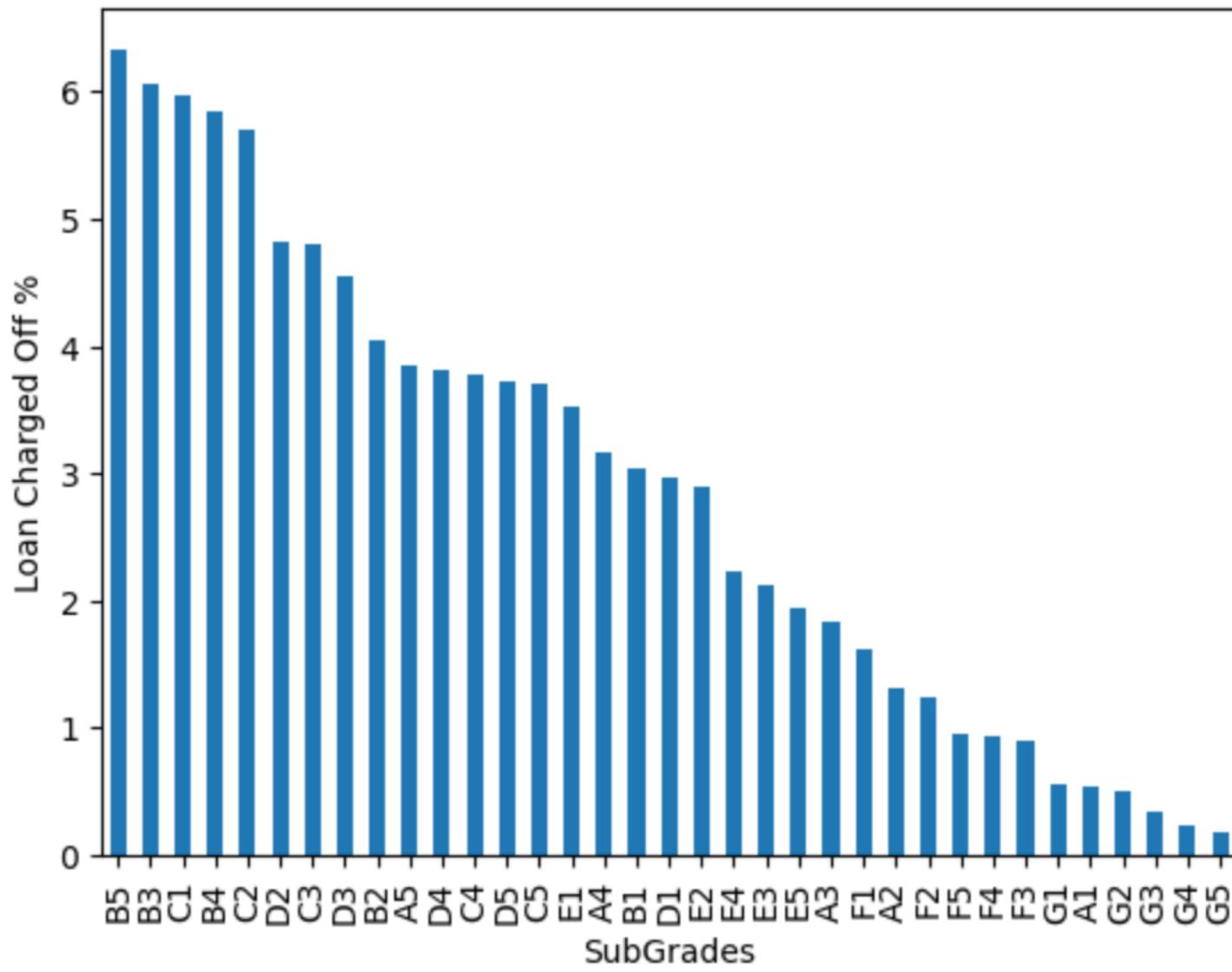


**LET US UNDERSTAND THE
FACTORS WHICH
INFLUENCE CHARGED OFF**



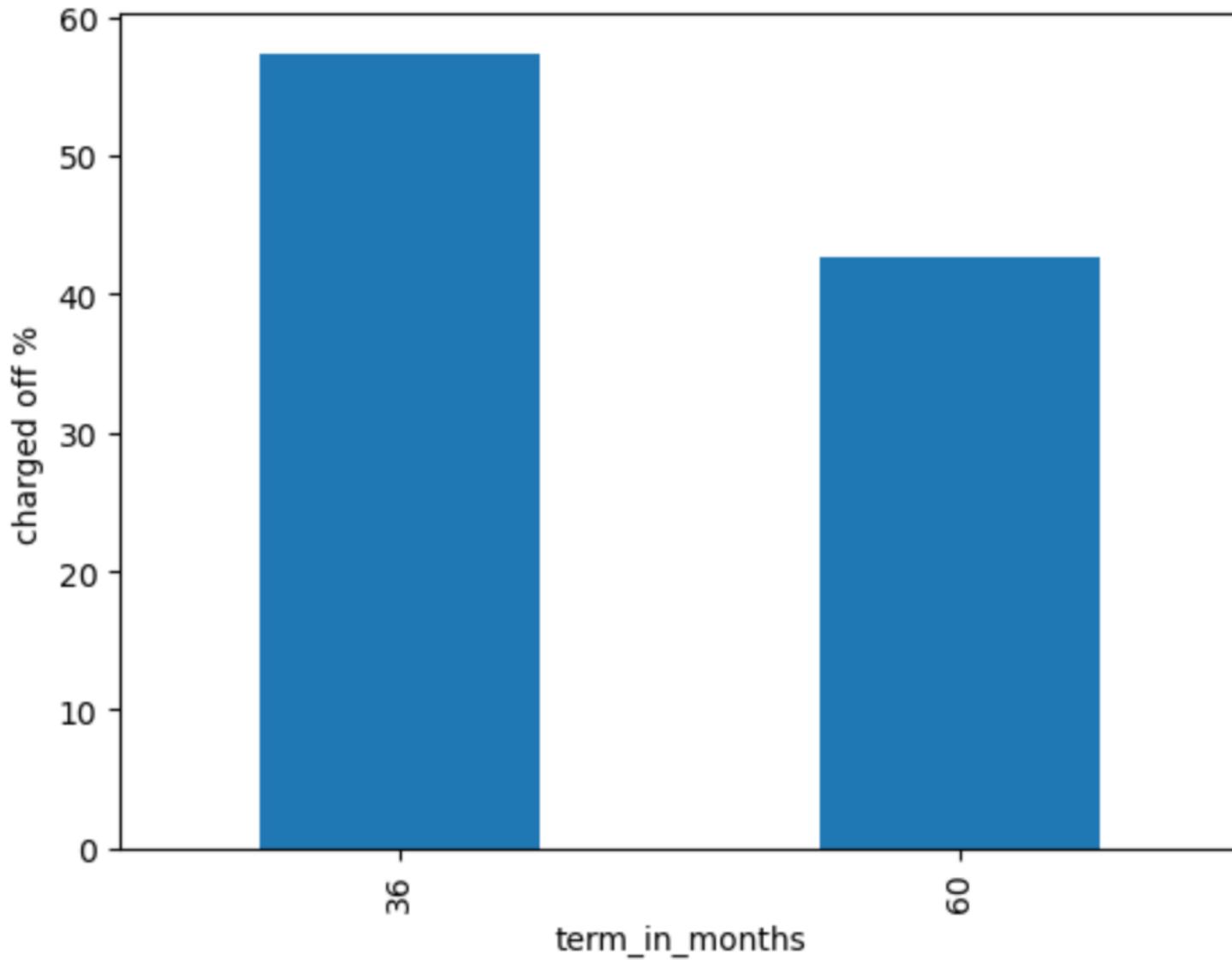
**MEMBERS IN
GRADE B ARE THE
ONES WHO
CHARGED OFF THE
MOST, FOLLOWED
BY GRADE C AND D**



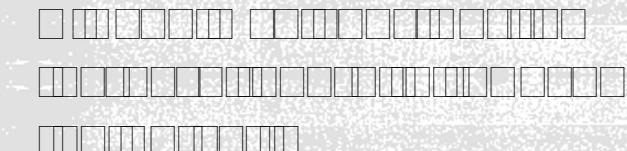


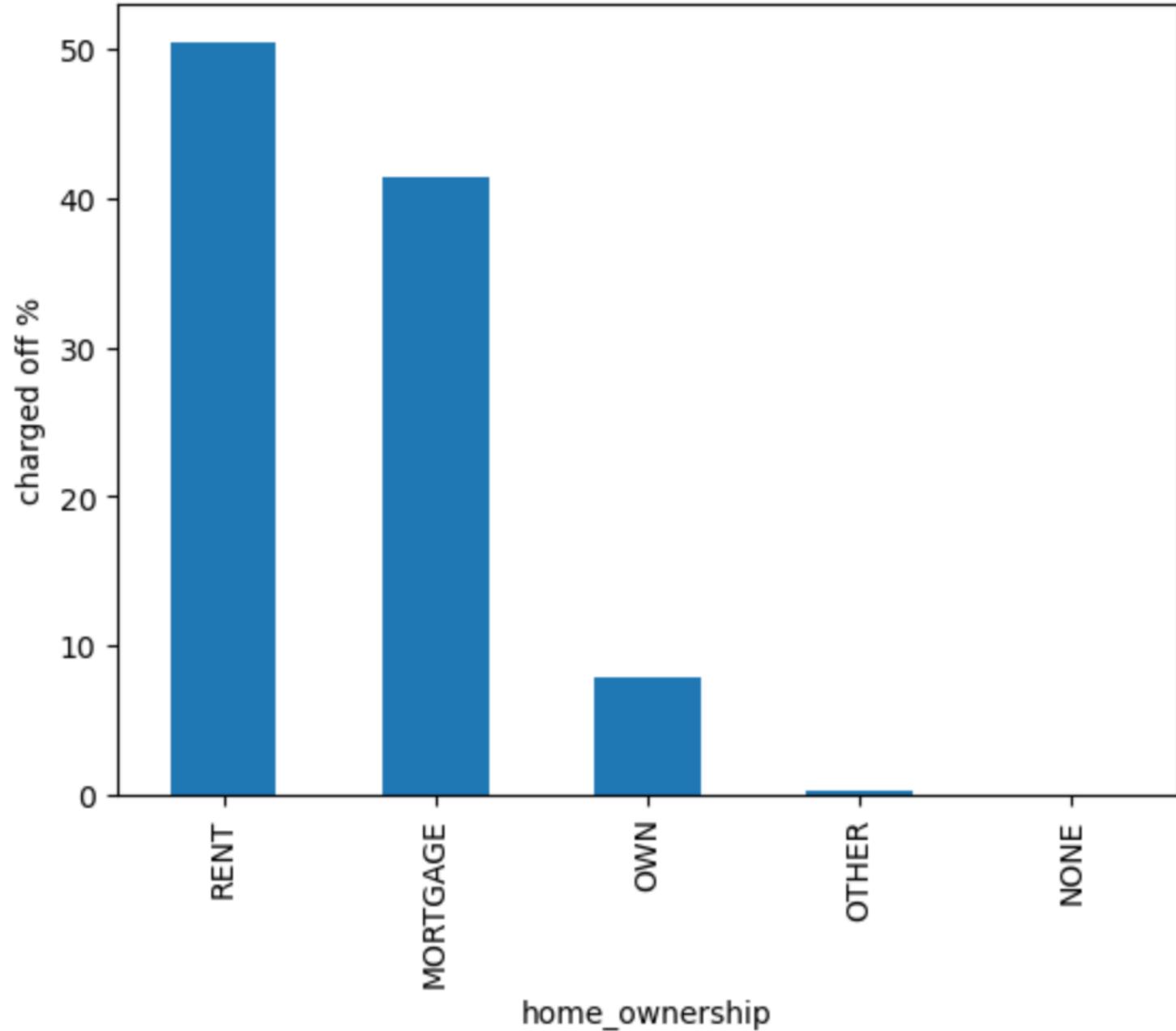
**MEMBERS WITH
SUB-GRADE B5 ARE
THE ONES WHO
CHARGED OFF THE
MOST, FOLLOWED
BY SUB-GRADE B3,
C1,B4, C2**



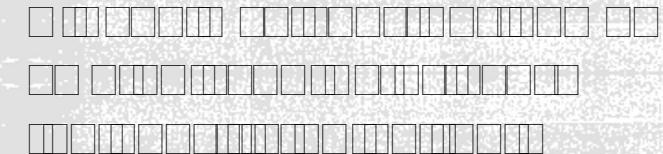


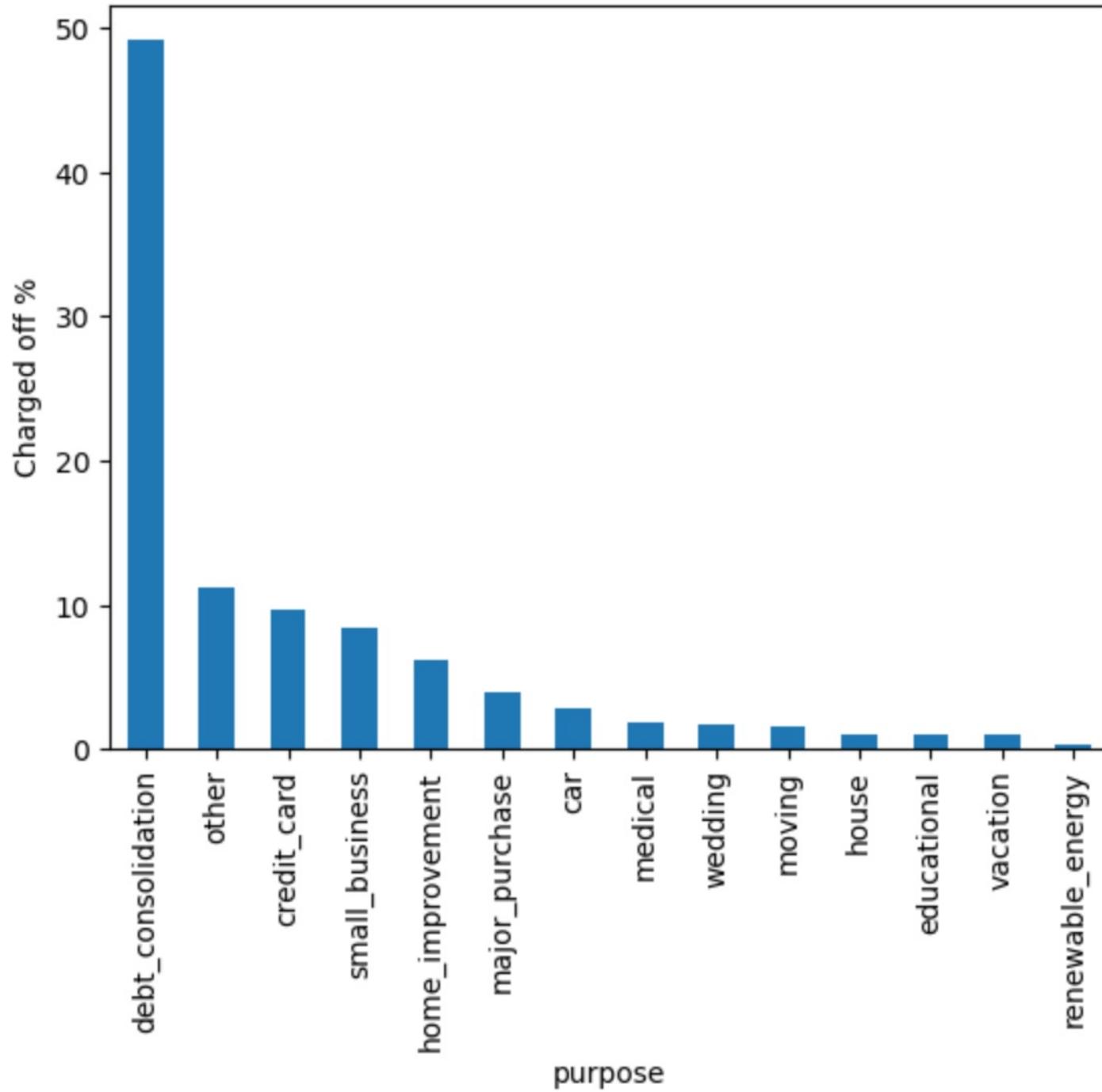
**PEOPLE WHO
THOUGHT TO
REPAY LOAN BY 36
MONTHS
DEFAULTED MORE
THAN THE ONES
WHO TOOK IT FOR
60 MONTHS.**



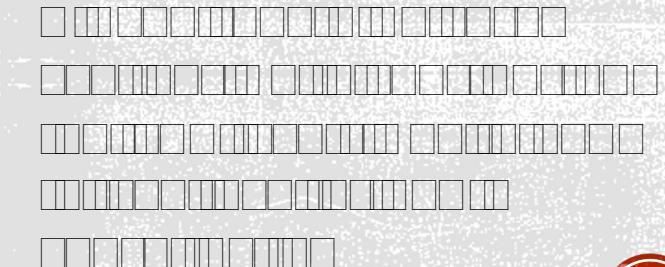


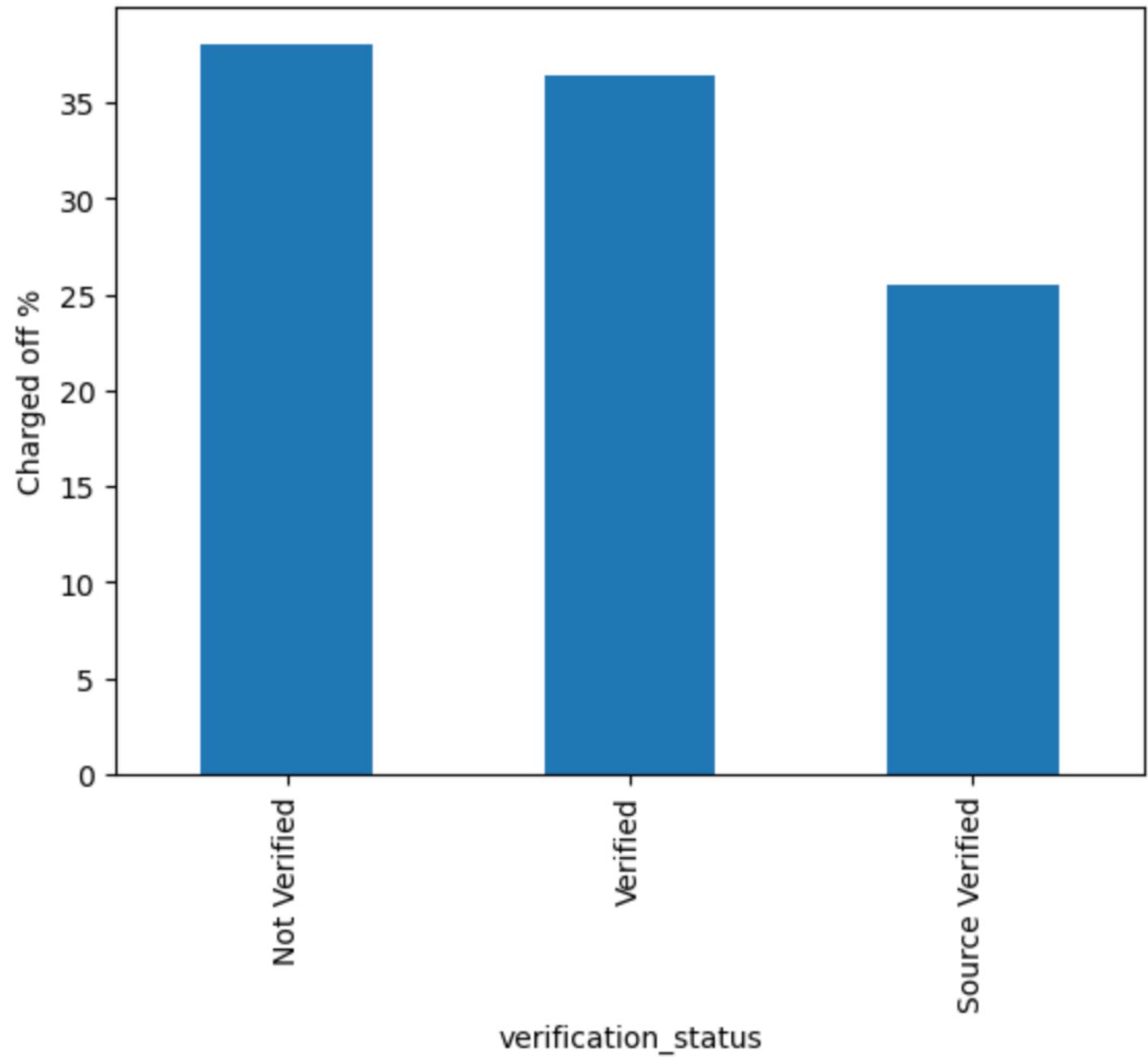
**PEOPLE WHO WERE
ON RENT SEEKS TO
HAVE DEFAULTED
THE MOST WHILE
THOSE WHO OWNED
HOME WERE
COMPARATIVELY
LESS IN %**



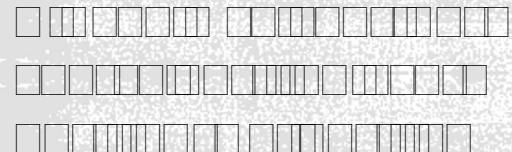


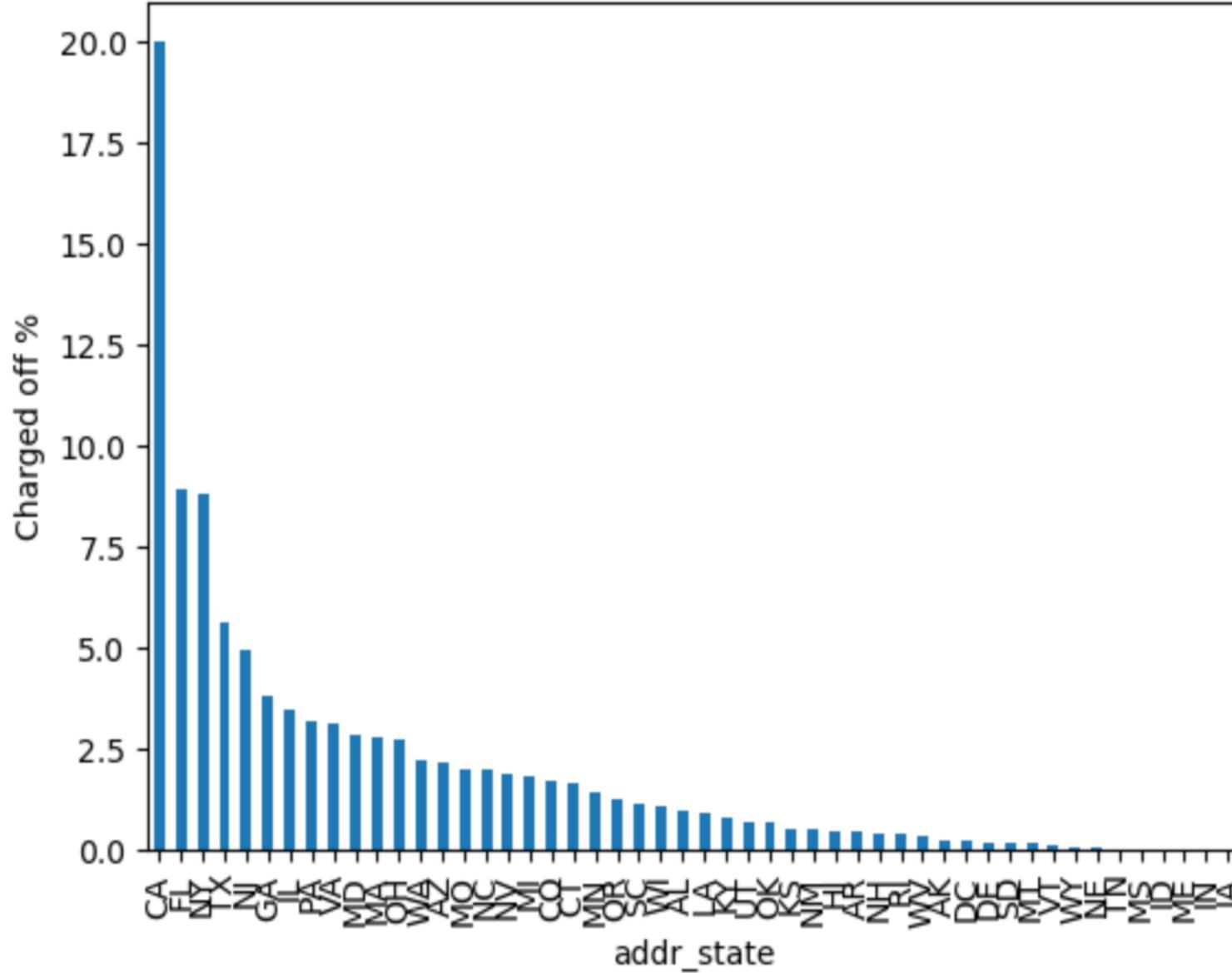
**LOAN SEEKERS,
WHOSE PURPOSE
WAS DET
CONSOLIDATION
DEFAULTED TO THE
MAX**



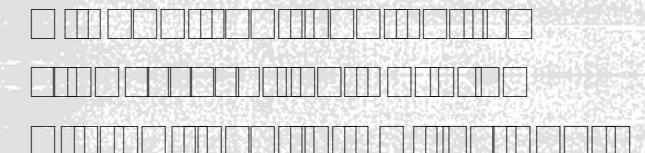


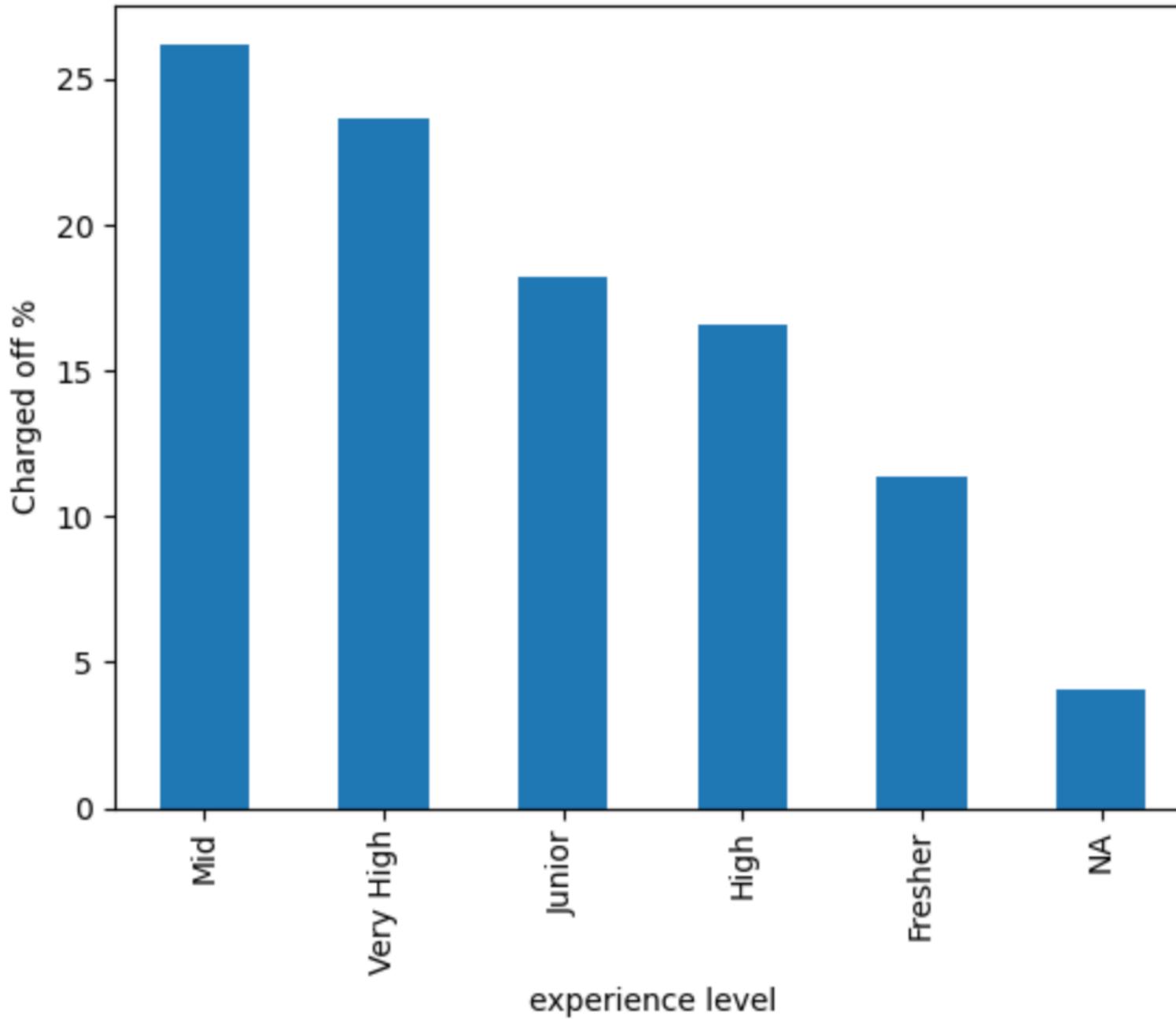
**APPLICANT'S
VERIFICATION
STATUS IF NOT
VERIFIED, THEN
MOST CHANGES
FOR DEFAULTING**



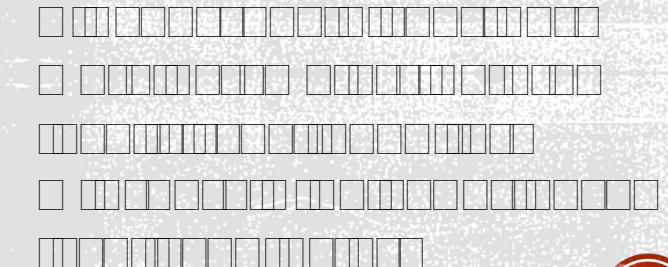


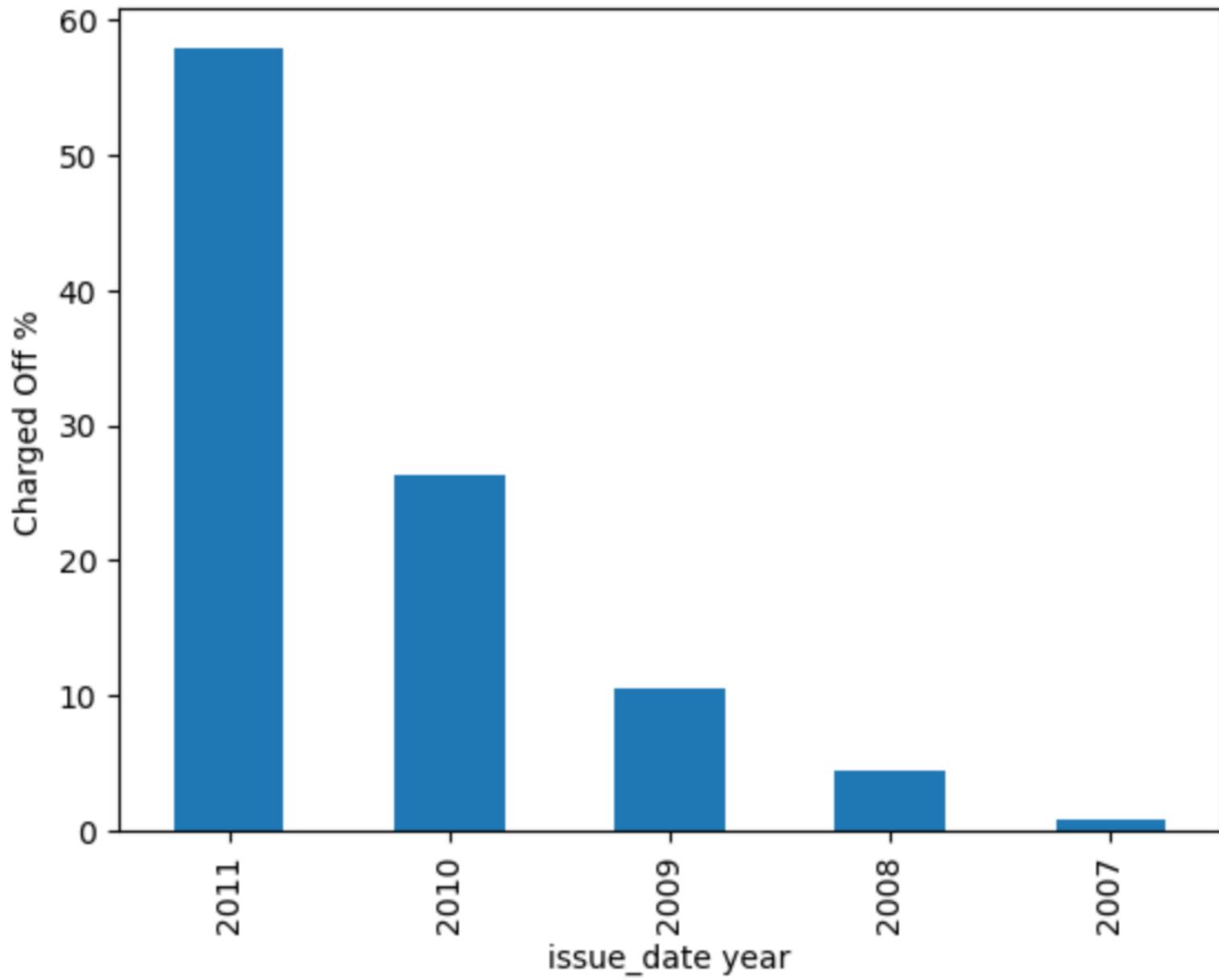
APPLICANTS' PROBABILITY OF DEFAULTING IS HIGH IF HE/SHE IS FROM CALIFORNIA STATE



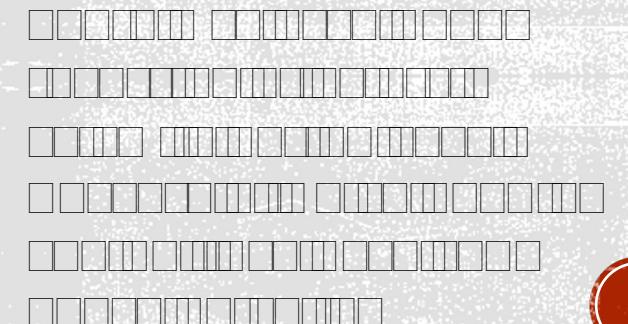


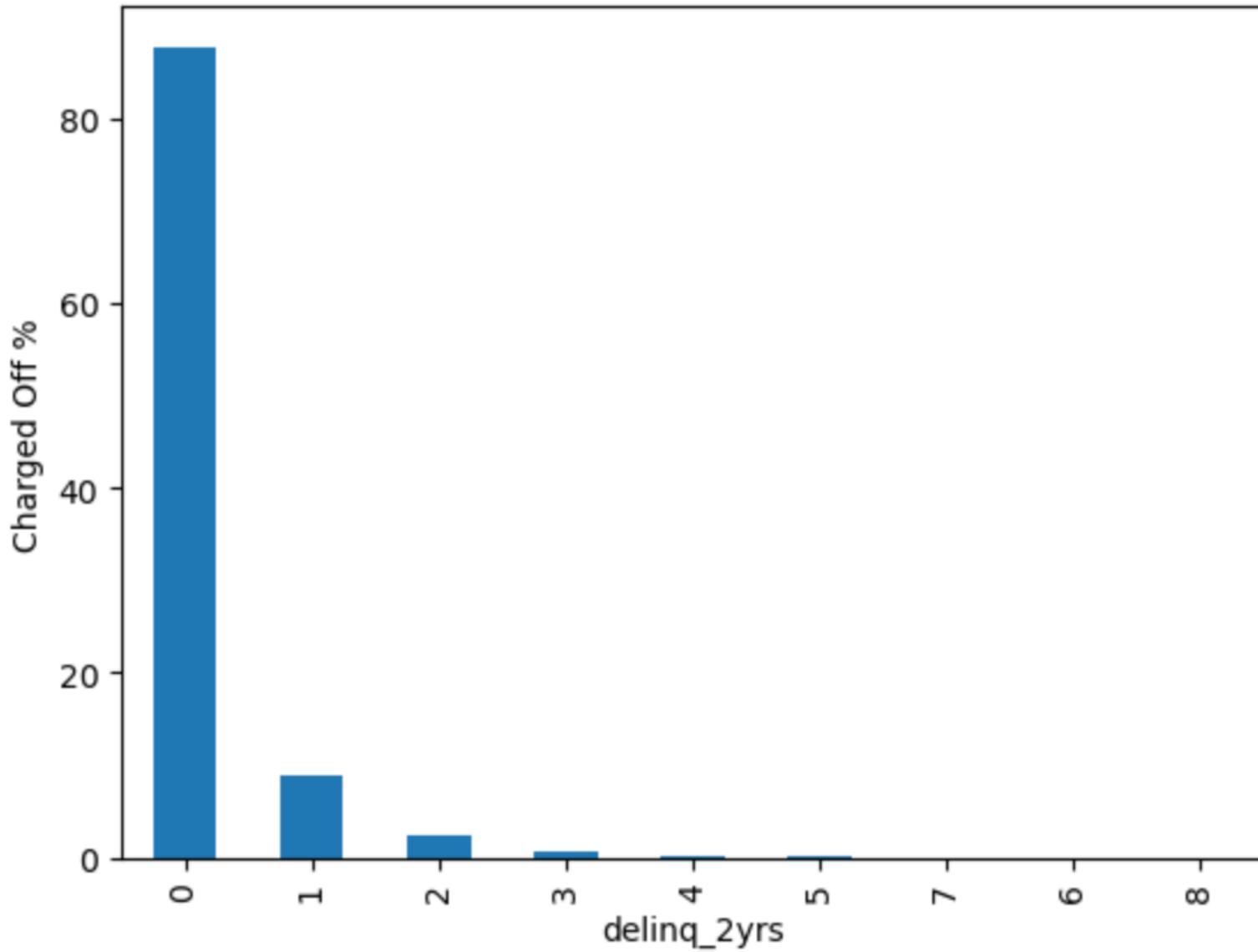
**BASED ON
EXPERIENCE
LEVEL, MID LEVEL
(3-6 YEARS)
APPLICANTS ARE
LIKELY TO
DEFAULT MORE
THAN THE REST.**





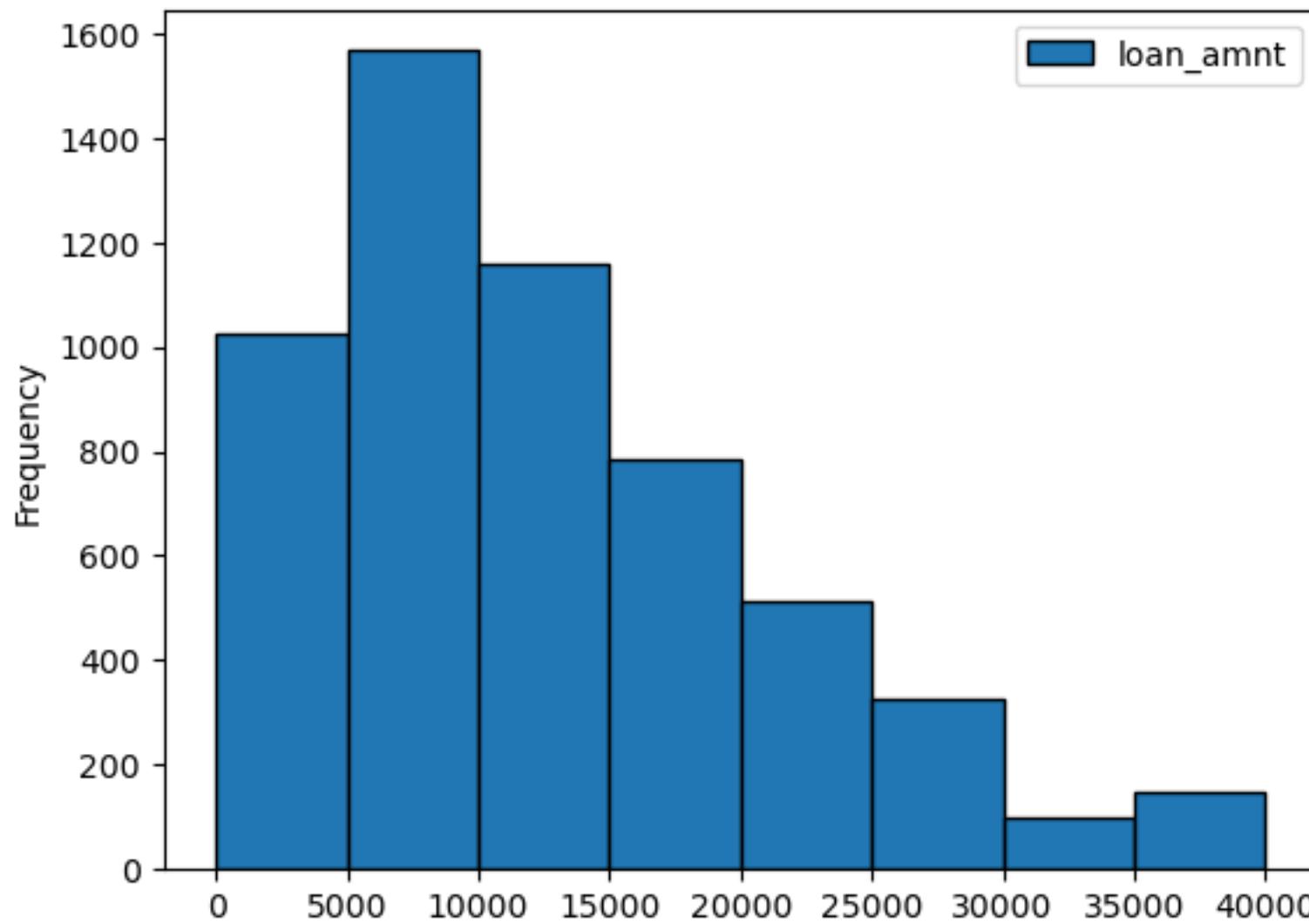
**BASED ON THE
AVAILABLE DATA,
APPLICANTS
DEFAULTS THE MOST
IN 2011 AND FELL
ALMOST BY 50%.
THOUGH THIS IS AN
INTERESTING
INSIGHT, DOESN'T
HELP CONCLUDE AS
IT IS ONE TIME
SPIKE**





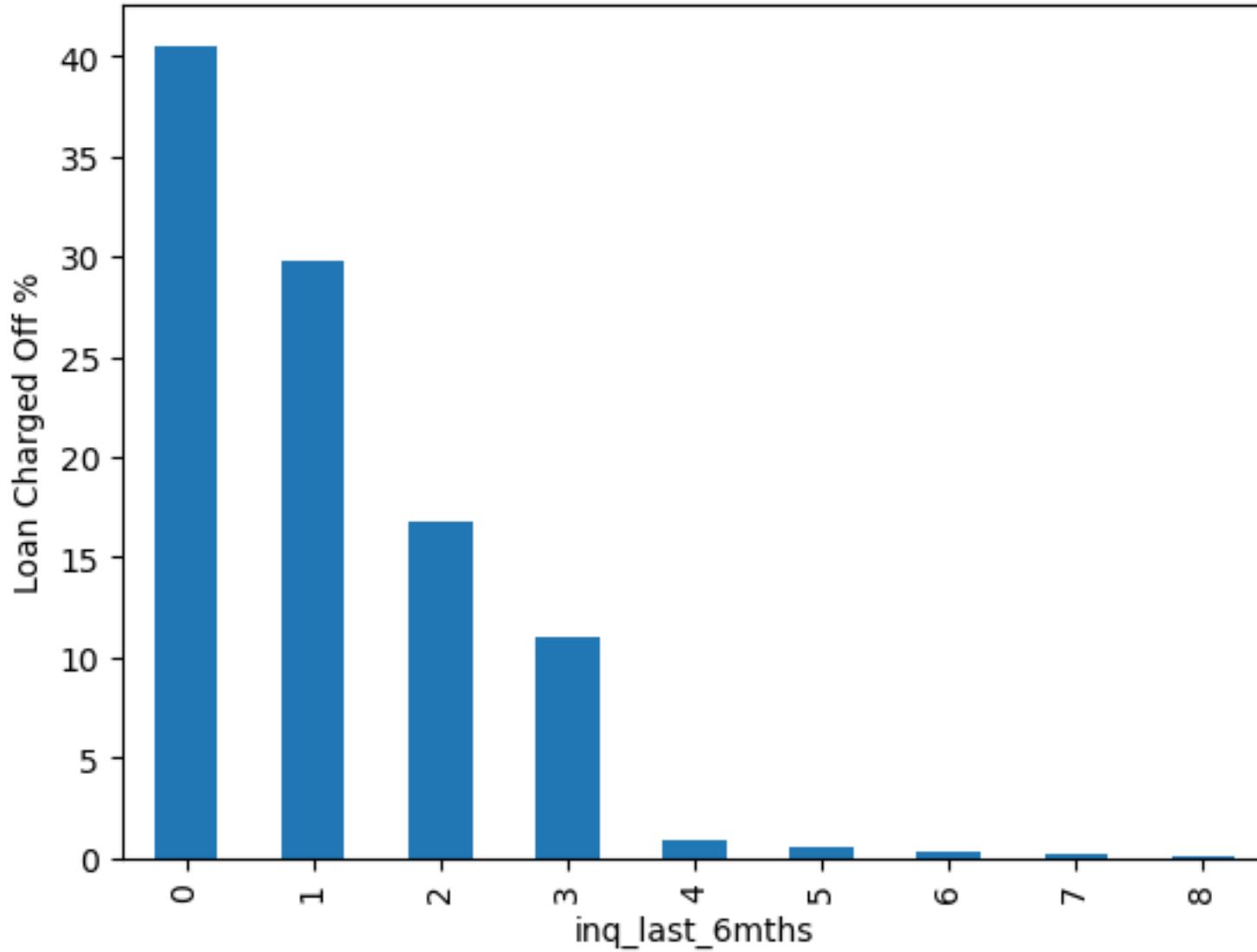
**BASED ON THE DATA,
IF AN APPLICANT
DELIQUATED FOR 2
YEARS IN CATEGORY
0 THEN HE/SHE IS
LIKELY TO DEFAULT
MORE THAN ANYONE
ELSE**





**FROM HISTOGRAM
WE CAN SEE MAX
PEOPLE WHO TOOK
LOAN OF AMOUNT
RANGING FROM 5K-
10K CHARGED OFF**

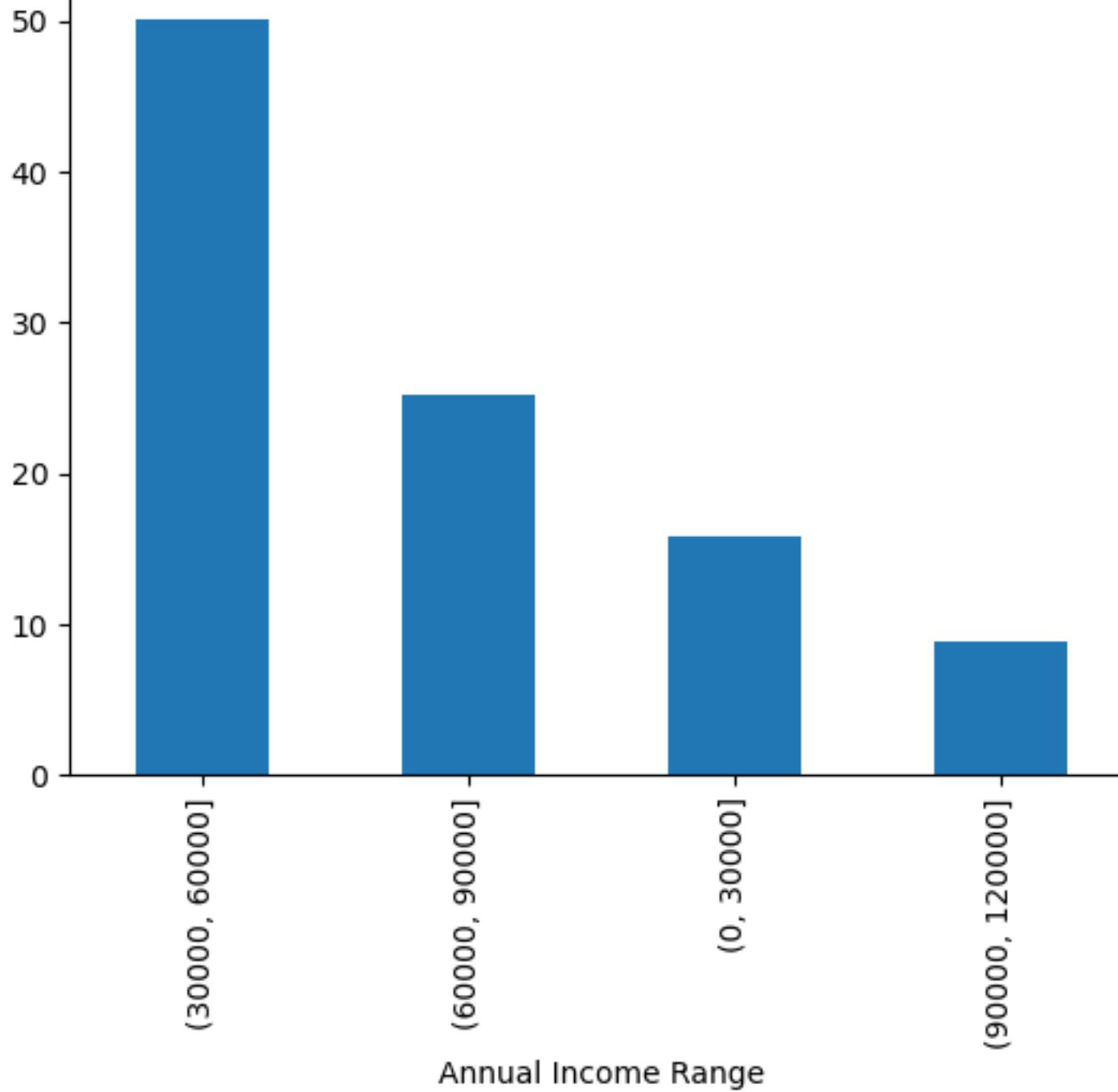




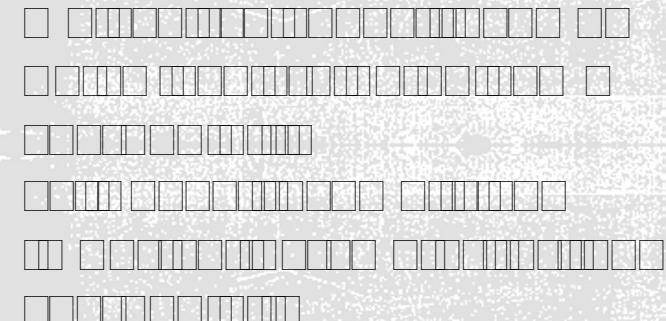
**PEOPLE WHO
DOESN'T ENQUIRE
IN LAST 6 MONTHS
HAVE CHARGED
OFF AROUND 90%**

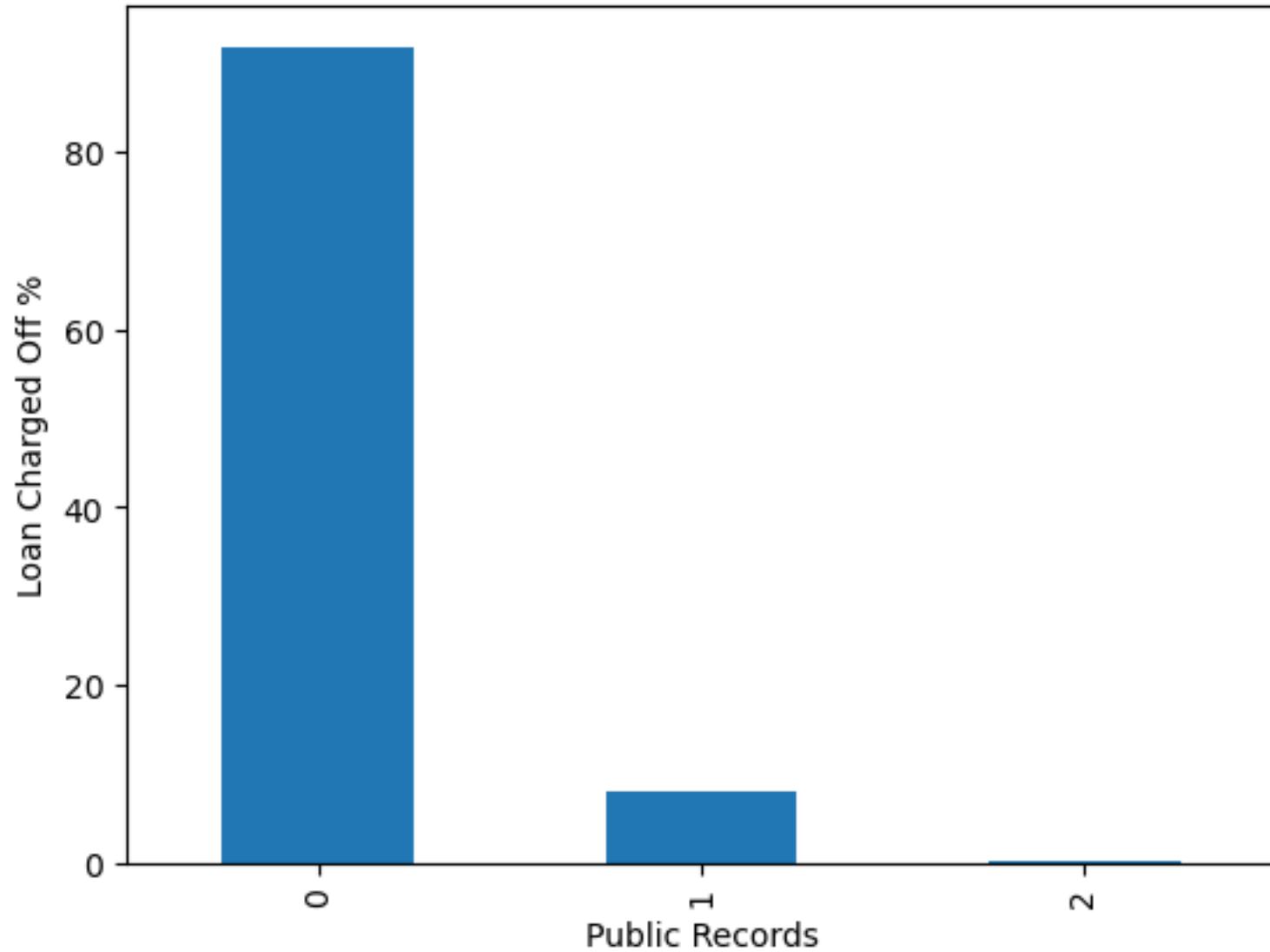


Loan Charged Off %



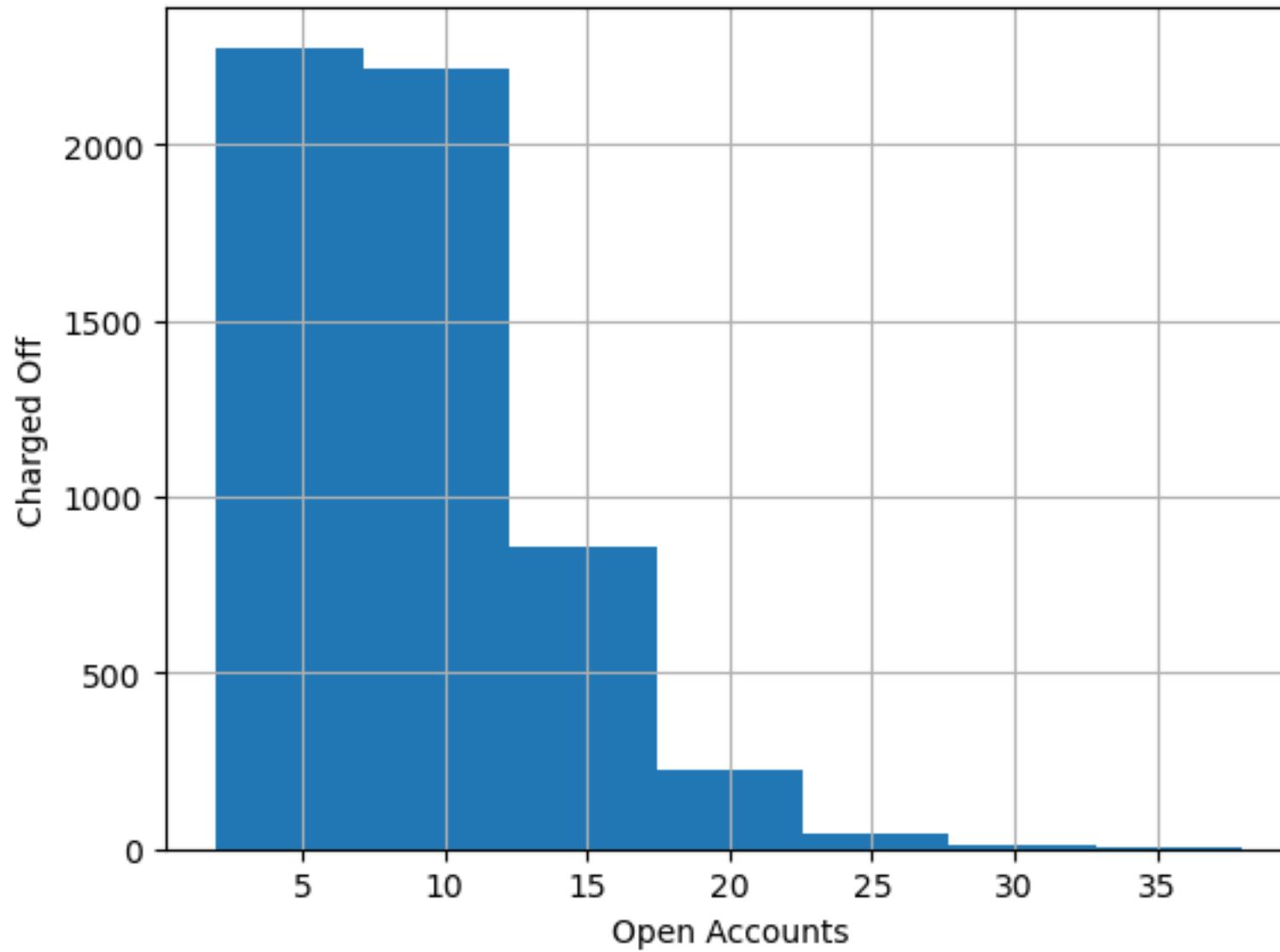
**WE CAN ANALYZE
THAT PEOPLE IN
RANGE OF 30-60K
ARE DOING 50%
CHARGED OFF**





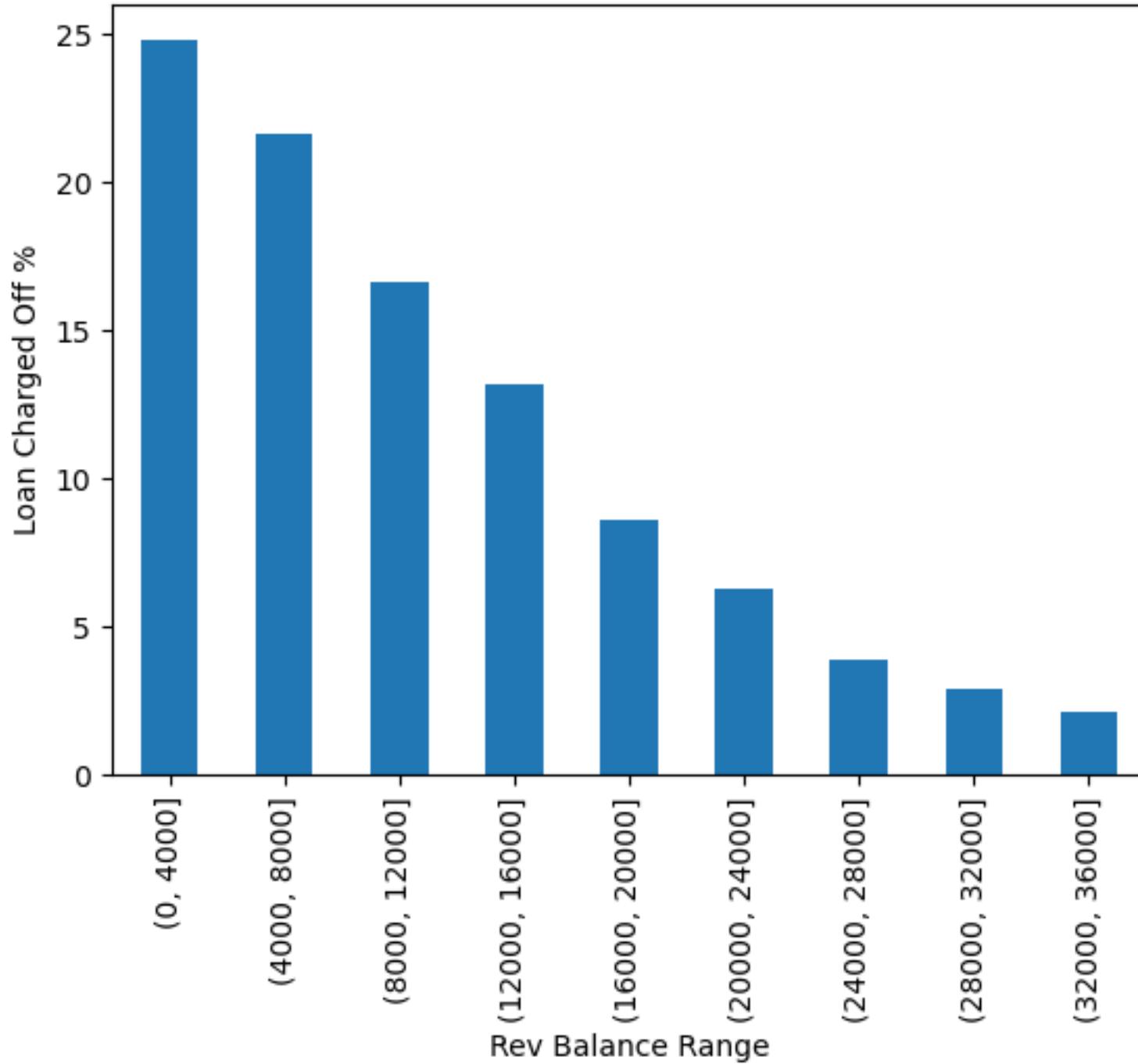
**ONE WHO DOESN'T
HAVE DEROGATORY
PUBLIC RECORDS
ARE DOING > 90%
CHARGED OFF**





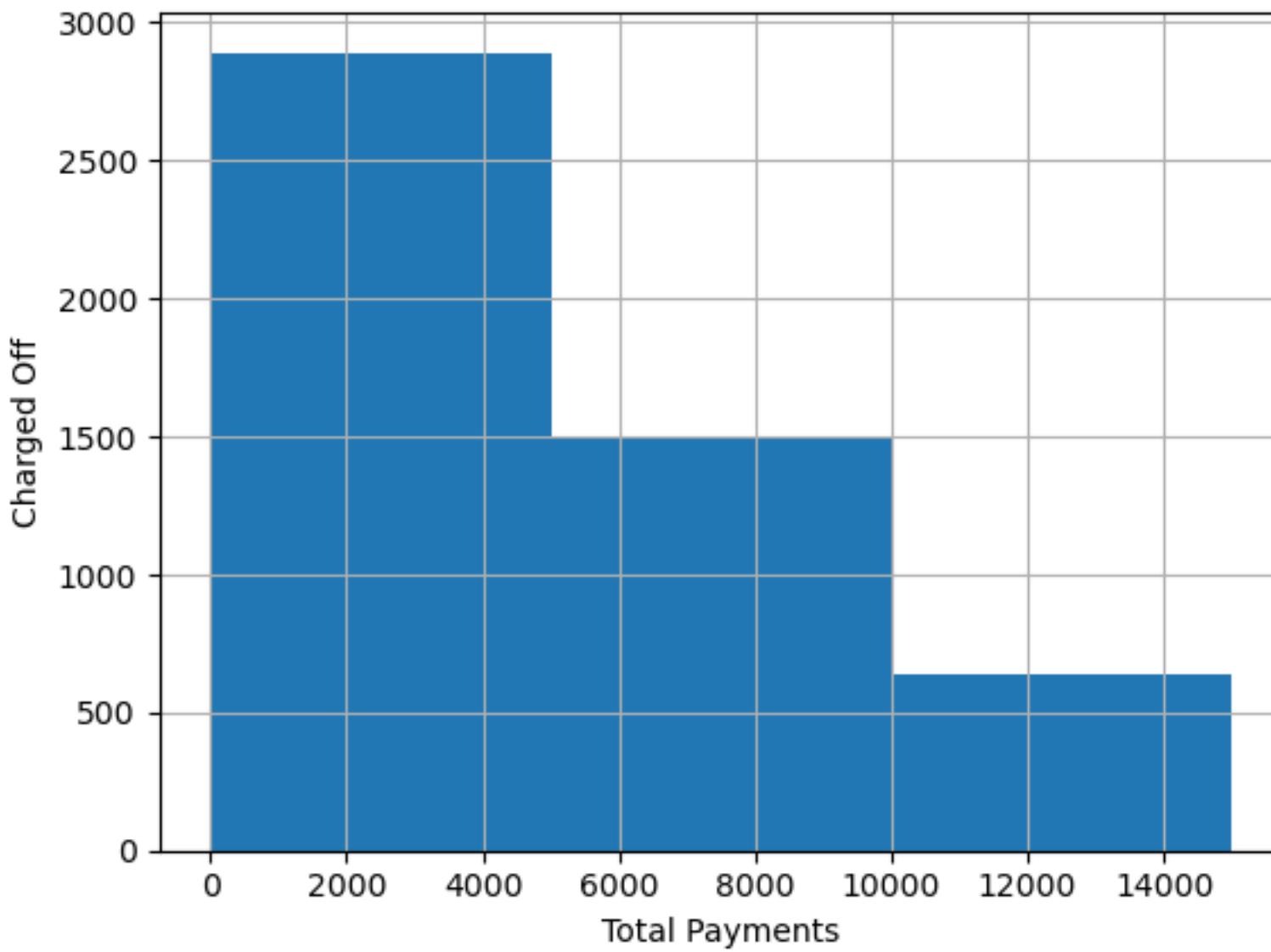
**PEOPLE WHO HAVE
AROUND 1-12 OPEN
ACCOUNTS ARE
DOING MORE
CHARGED OFF**





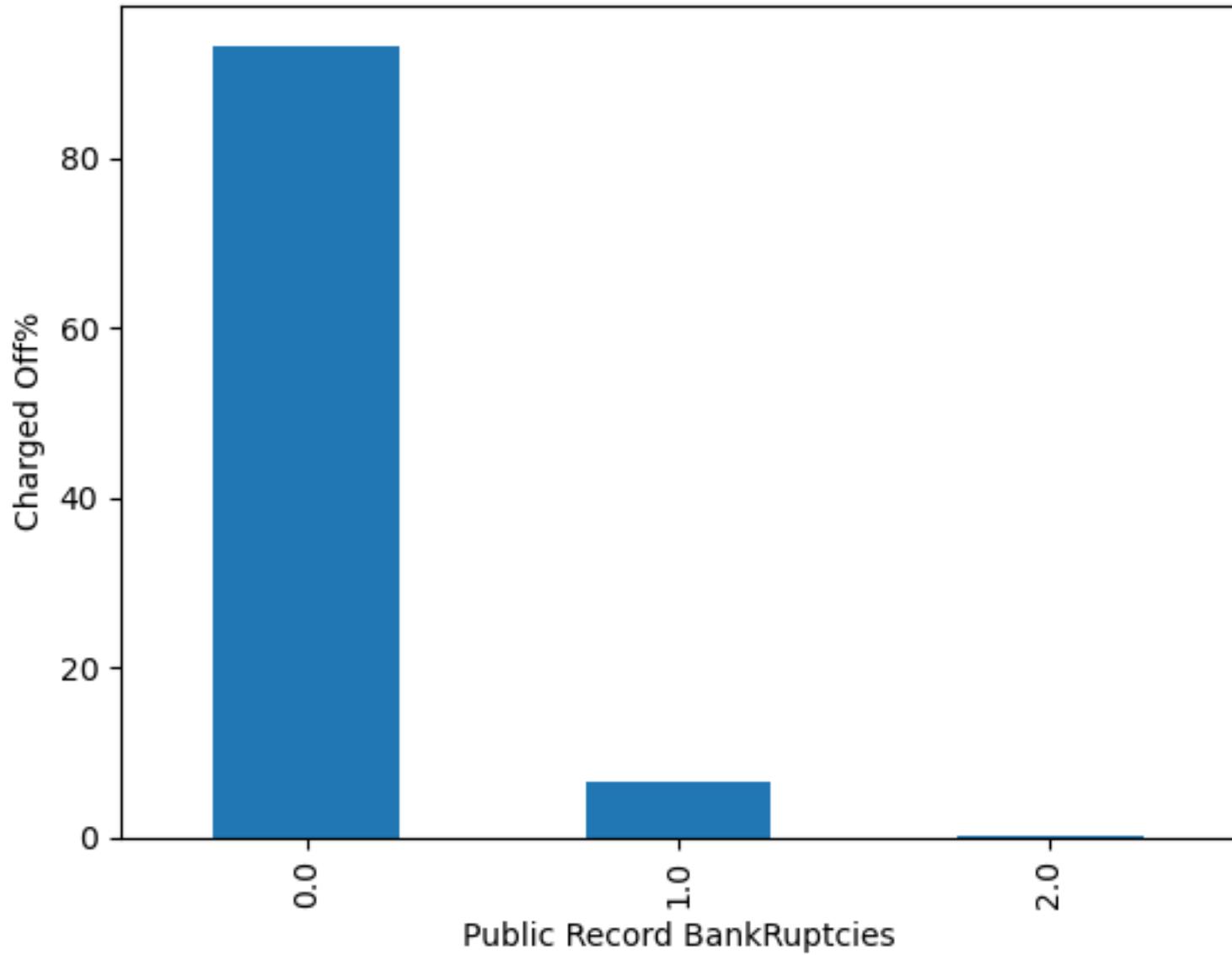
**AS REVOL BALANCE
INCREASES ,
CHARGED OFF
PERCENT DECREASES
I.E CHARGED OFF IS
MORE WHEN REV
BALANCE IS LOW I.E
IN RANGE OF 0-4000
AND 4000-8000**





**AS TOTAL PAYMENT
IS INCREASING
CHARGED OFF IS
DECREASING . FOR
LOW TOTAL
PAYMENT (0-5000)
CHARGED OFF IS
MORE**

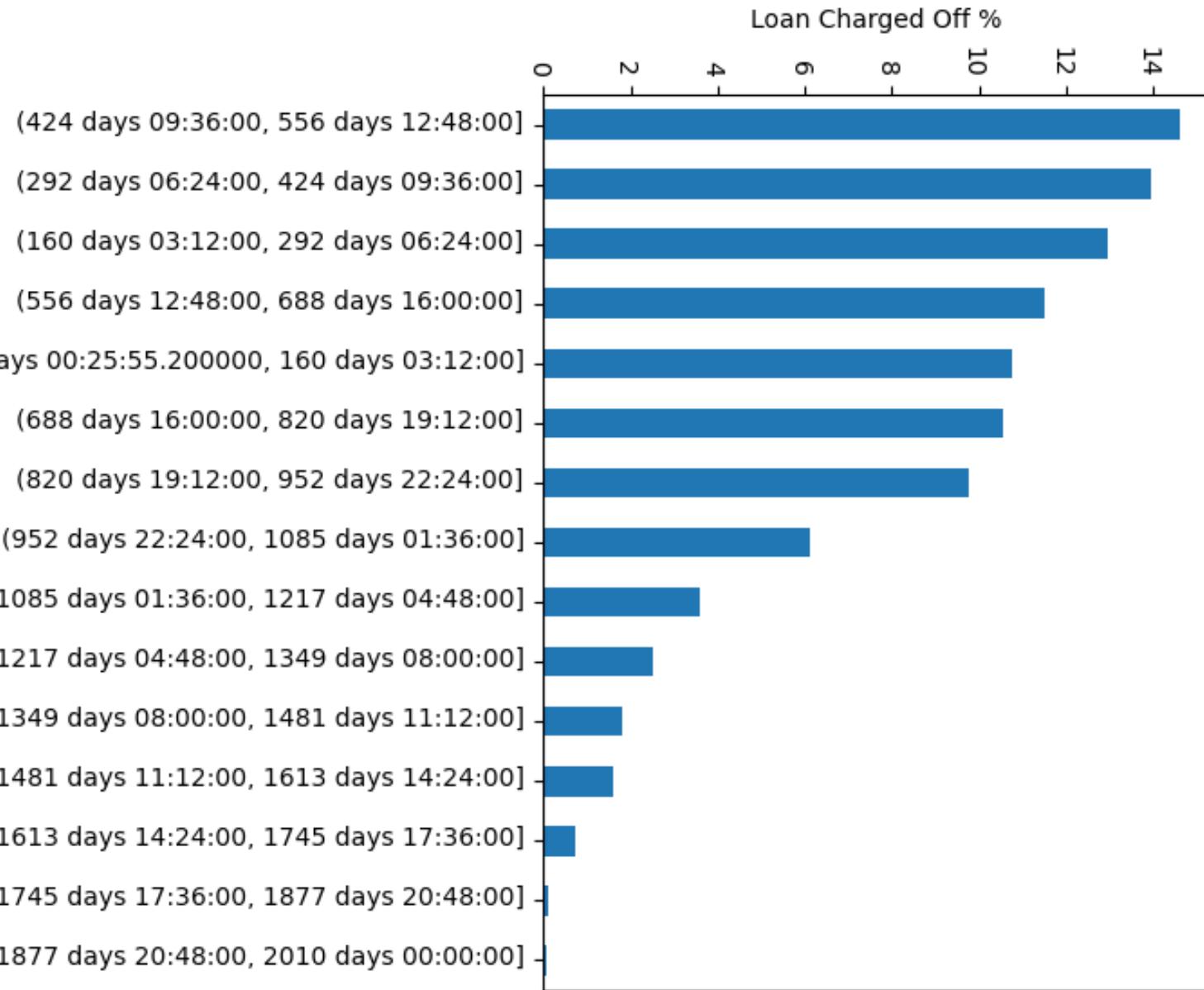




**PEOPLE WHO HAVE
0 PUBLIC RECORD
BANKRUPTCIES
HAVE DONE THE
MOST CHARGED
OFF**

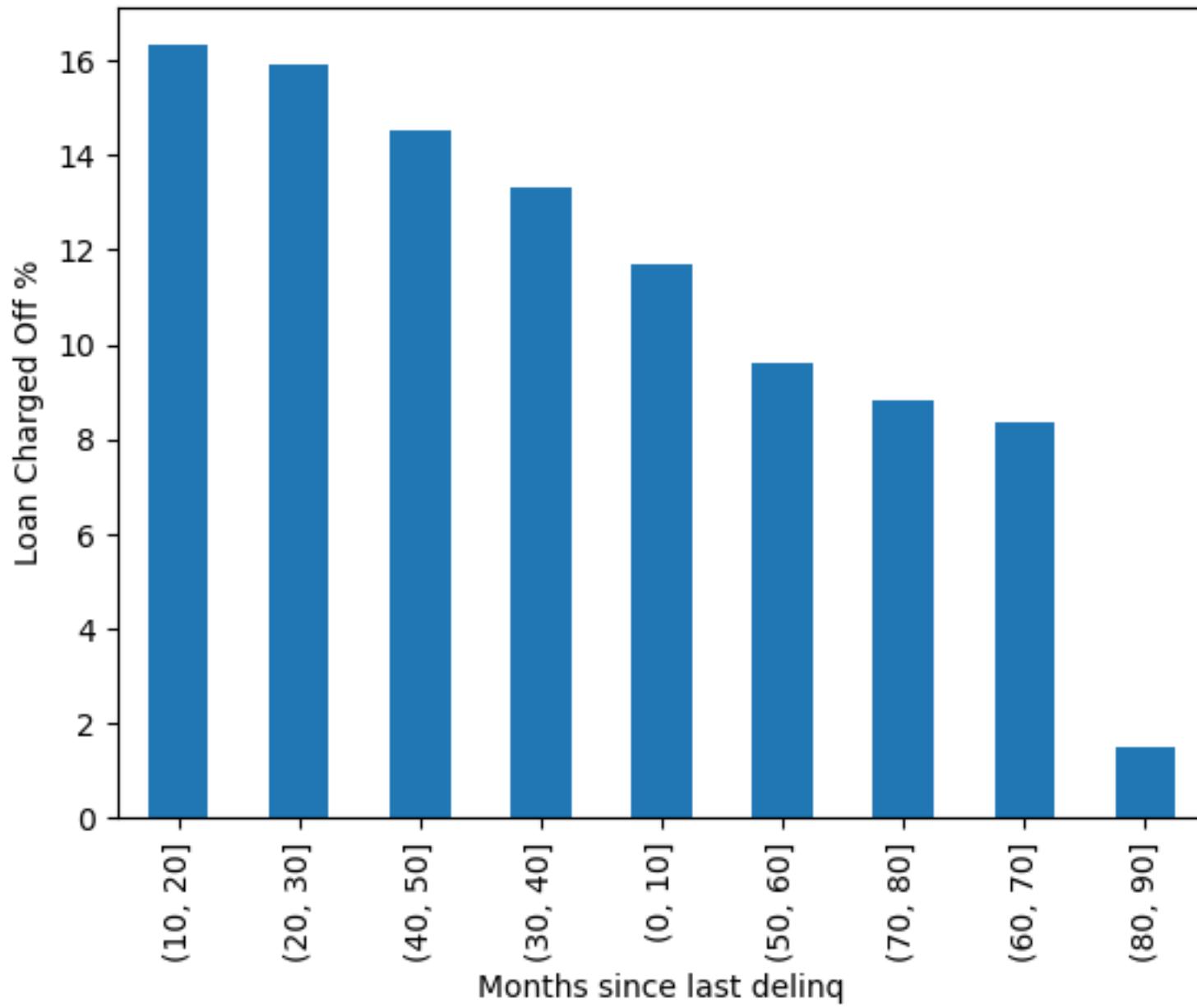


Diff Last Payment and issue Date



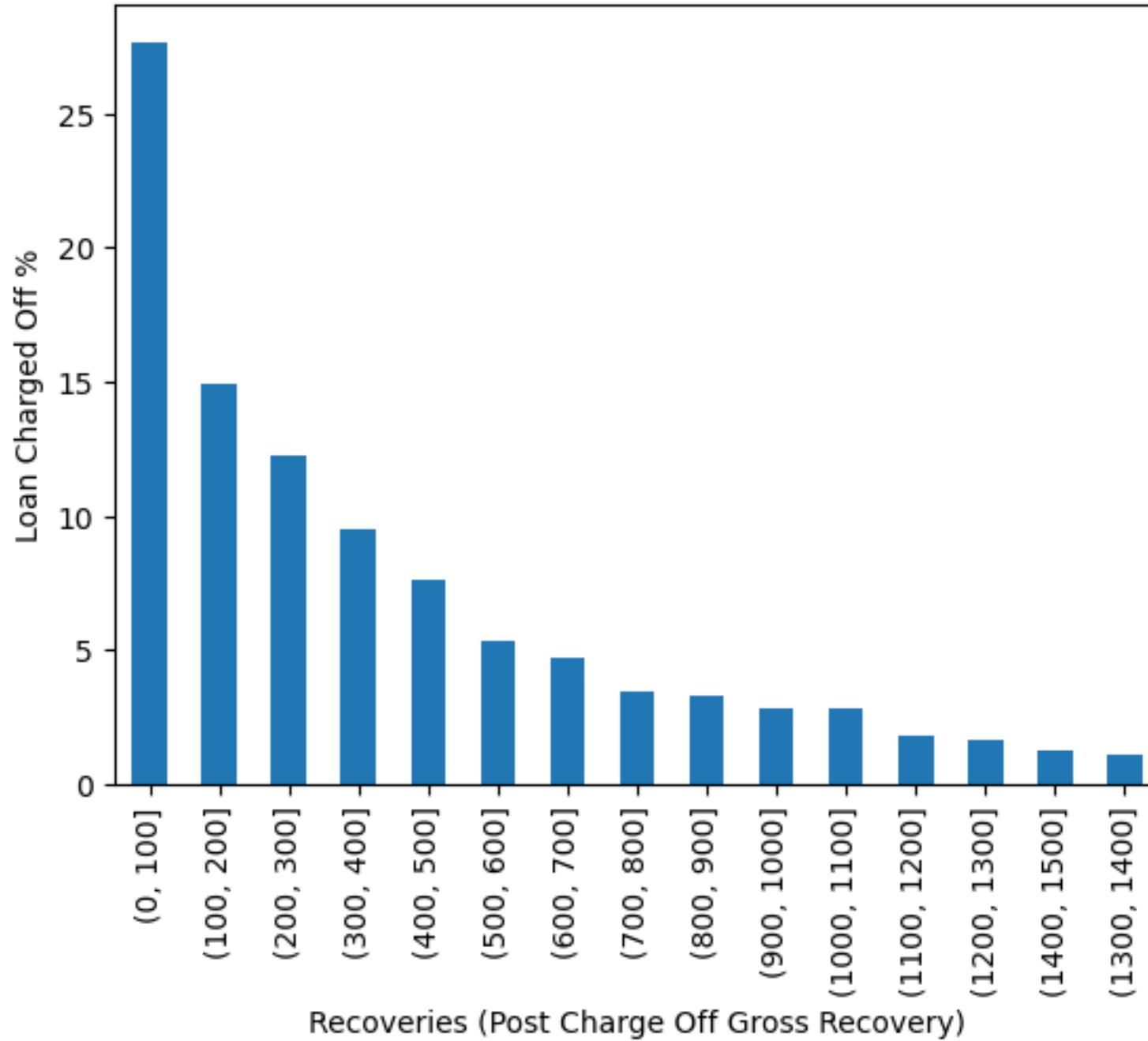
WE CAN OBSERVE FROM THIS THAT AS LAST PAYMENT IS DONE CLOSE TO ISSUE DATE THEN THERE IS MORE CHANCES OF CHARGED OFF LAST PAYMENT DATE IS WITHIN 2 YEARS OF ISSUE DATE THEN THERE IS MORE CHANCES OF DEFAULT .





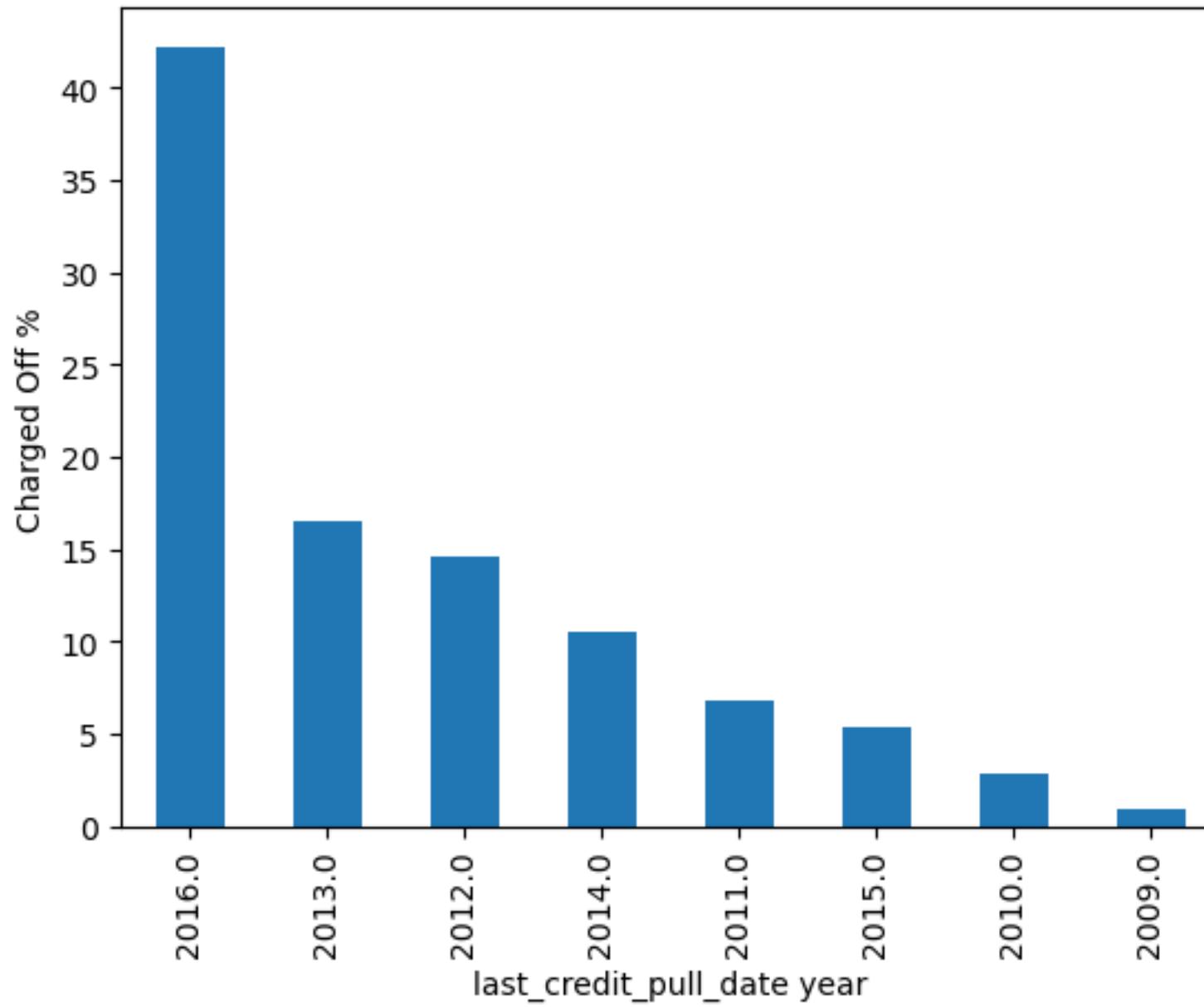
AS THE NUMBER OF MONTHS SINCE THE BORROWER'S LAST DELINQUENCY INCREASES THE CHARGED OFF PERCENT DECREASES . SO, IF BORROWER'S HAS DONE DELINQUENCY RECENTLY THEN CHARGED OFF CHANCE IS MORE .





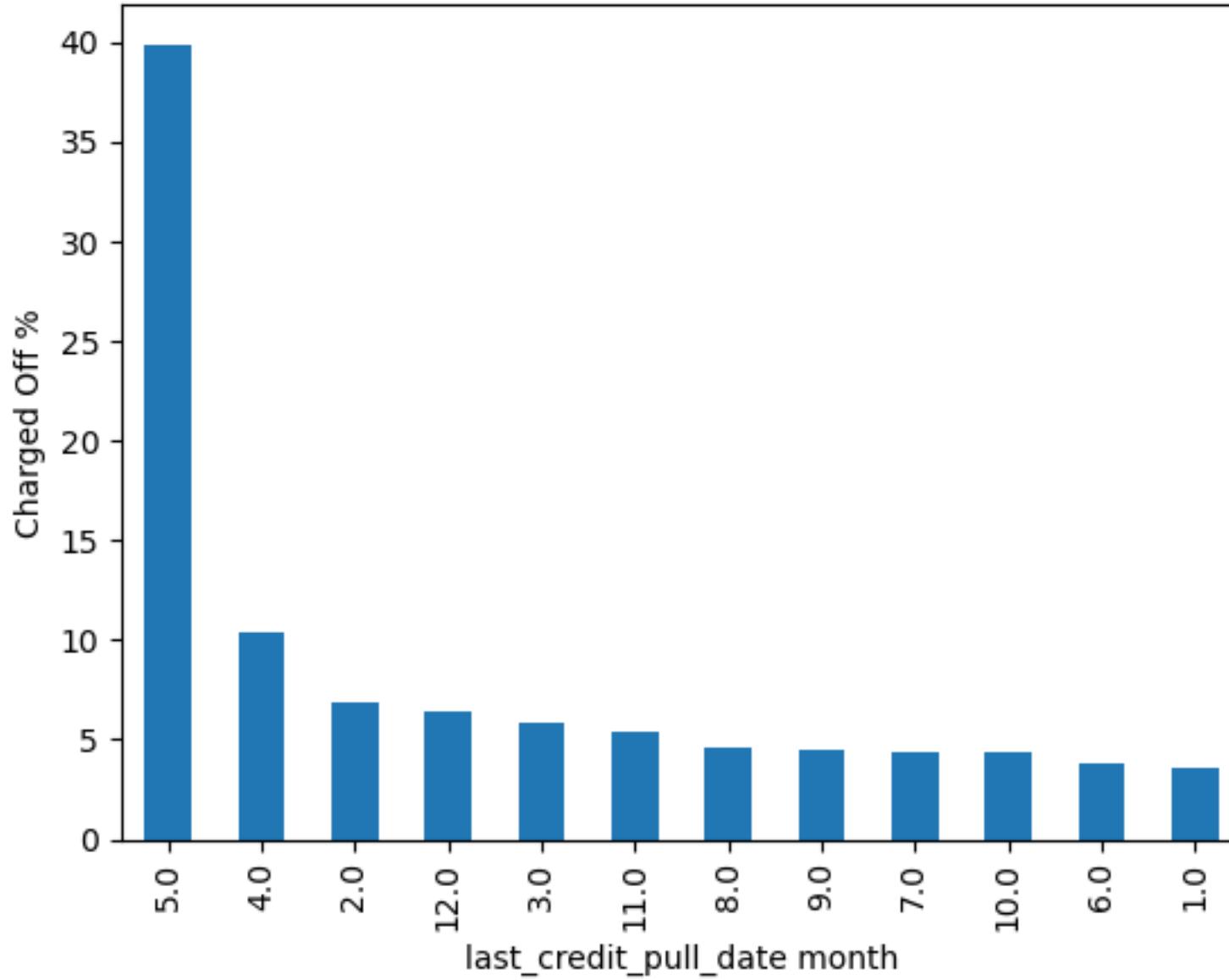
**AS RECOVERIES DECREASES CHARGED OFF PERCENT DECREASES .
RECOVERIES IN RANGE OF (0, 100) HAS THE MAX CHARGED OFF .**



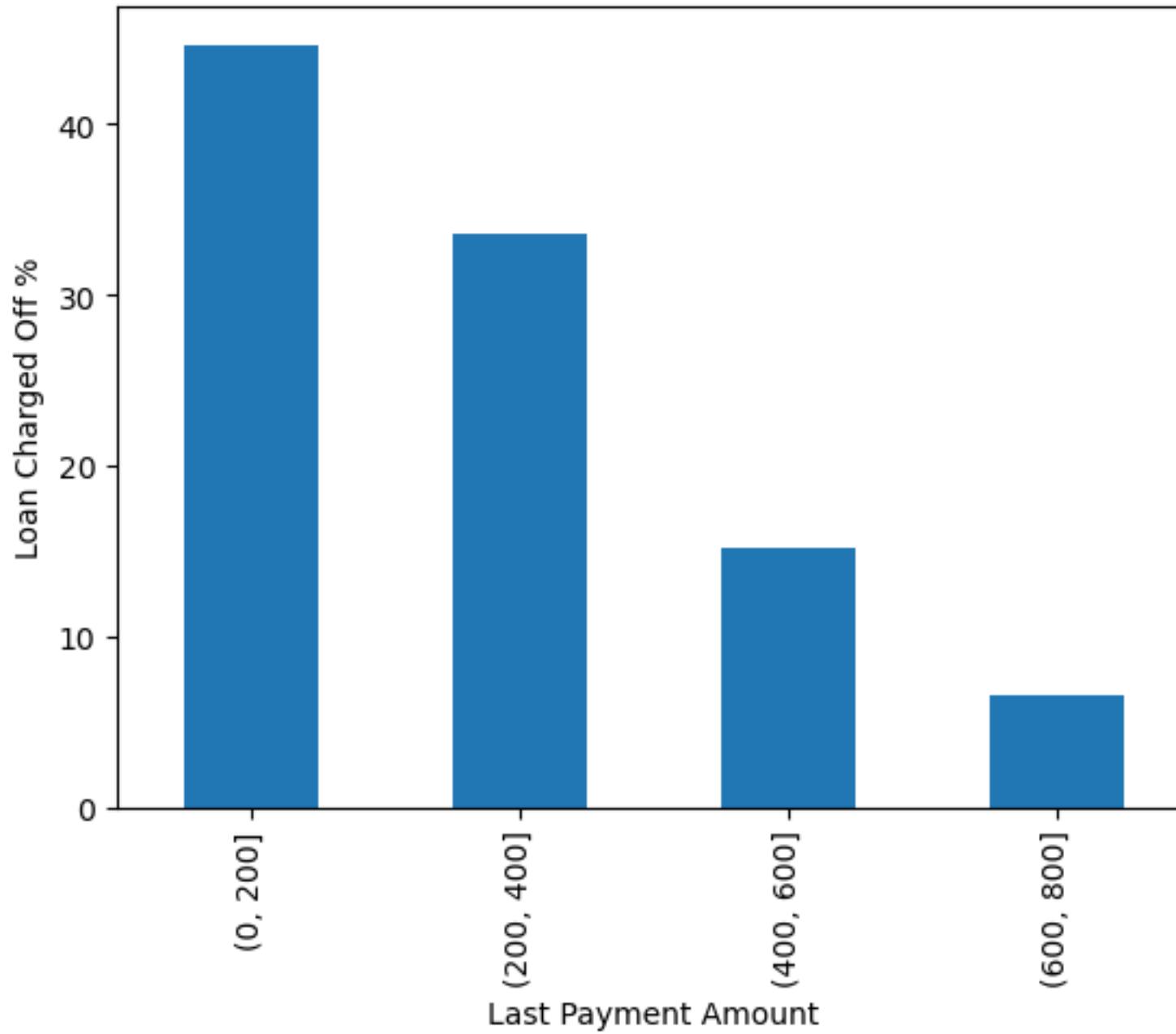


**IN 2016 LAST
CREDIT PULL DATE
YEAR CHARGED
OFF IS MAXIMUM .
WILL FIND OUT
PATTERNS IN
MONTH**





**IN MONTH 5 I.E
MAY
LAST_CREDIT_PUL
L_DATE MAXIMUM
CHARGED OFF**



AS LAST PAYMENT AMOUNT INCREASES CHARGED OFF PERCENT DECREASES.
LAST PAYMENT AMOUNT <200 MEANS VERY HIGH CHANCES OF CHARGED OFF . <400 CHANCES OF CHARGED OFF IS HIGH

