CREDIT CARD CUSTOMER SEGMENTATION

MADHURIMA NATH

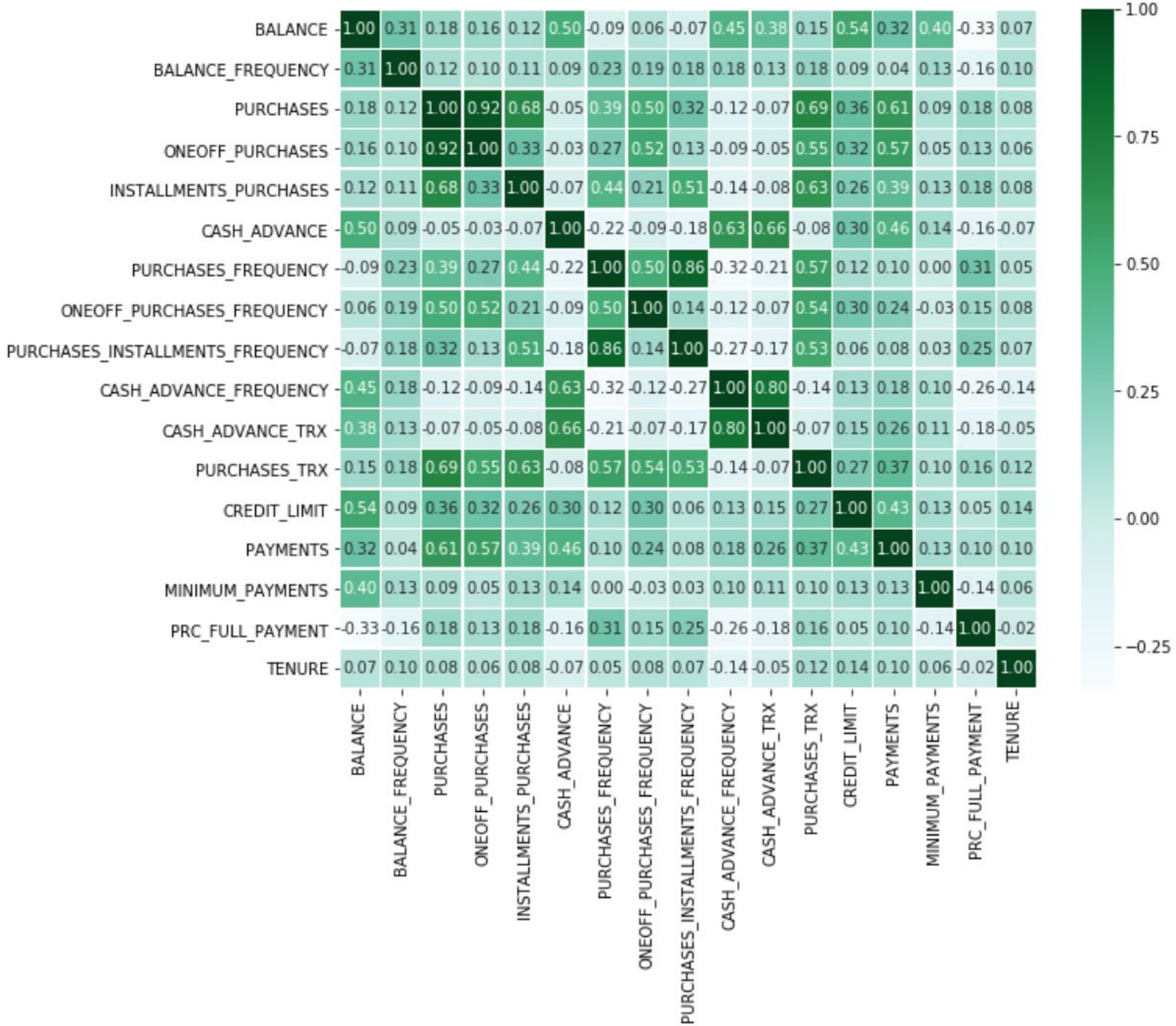
Goal:

Which benefits to associate with each new card offering by understanding the various kinds of users who use the company's products.

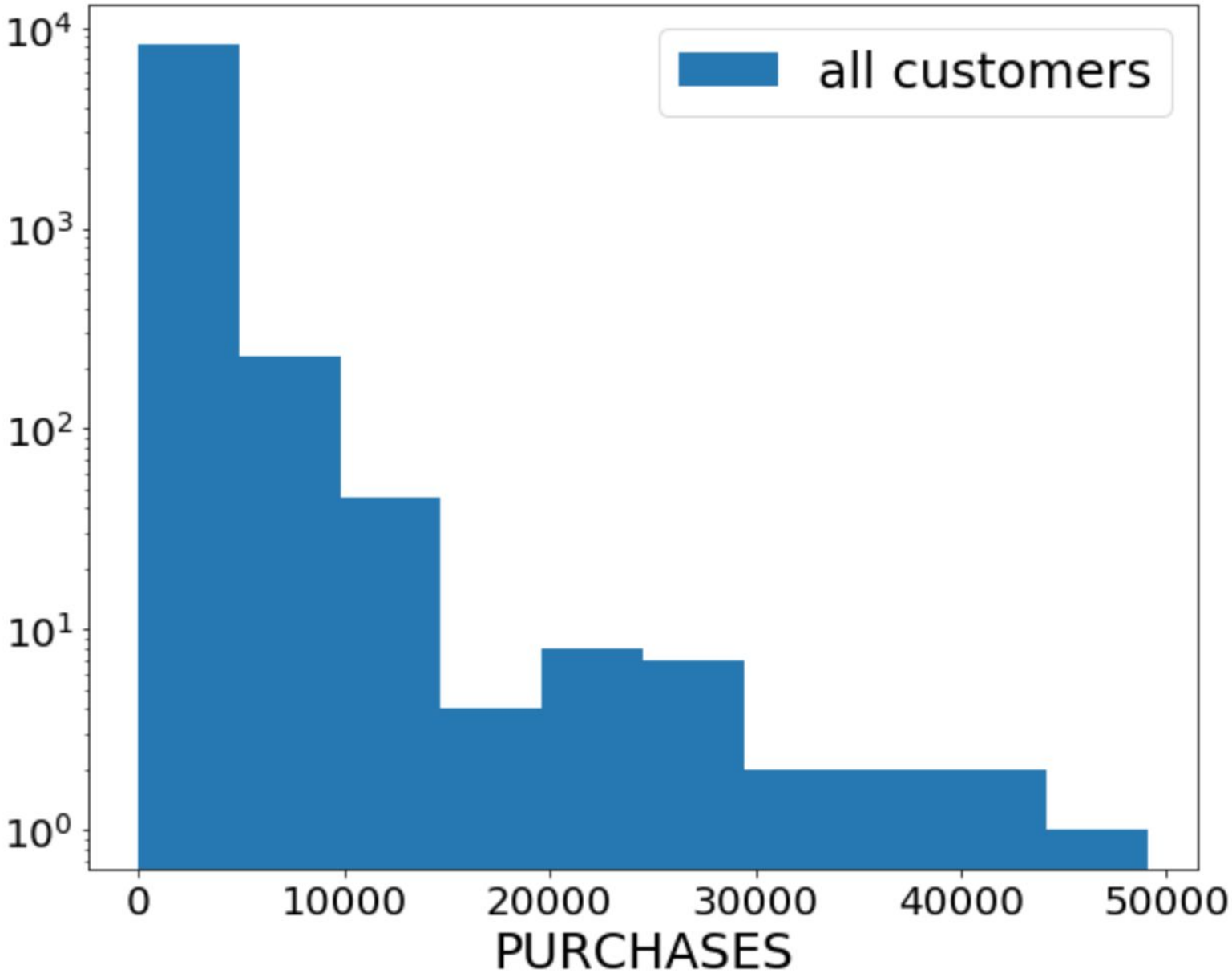
Data:

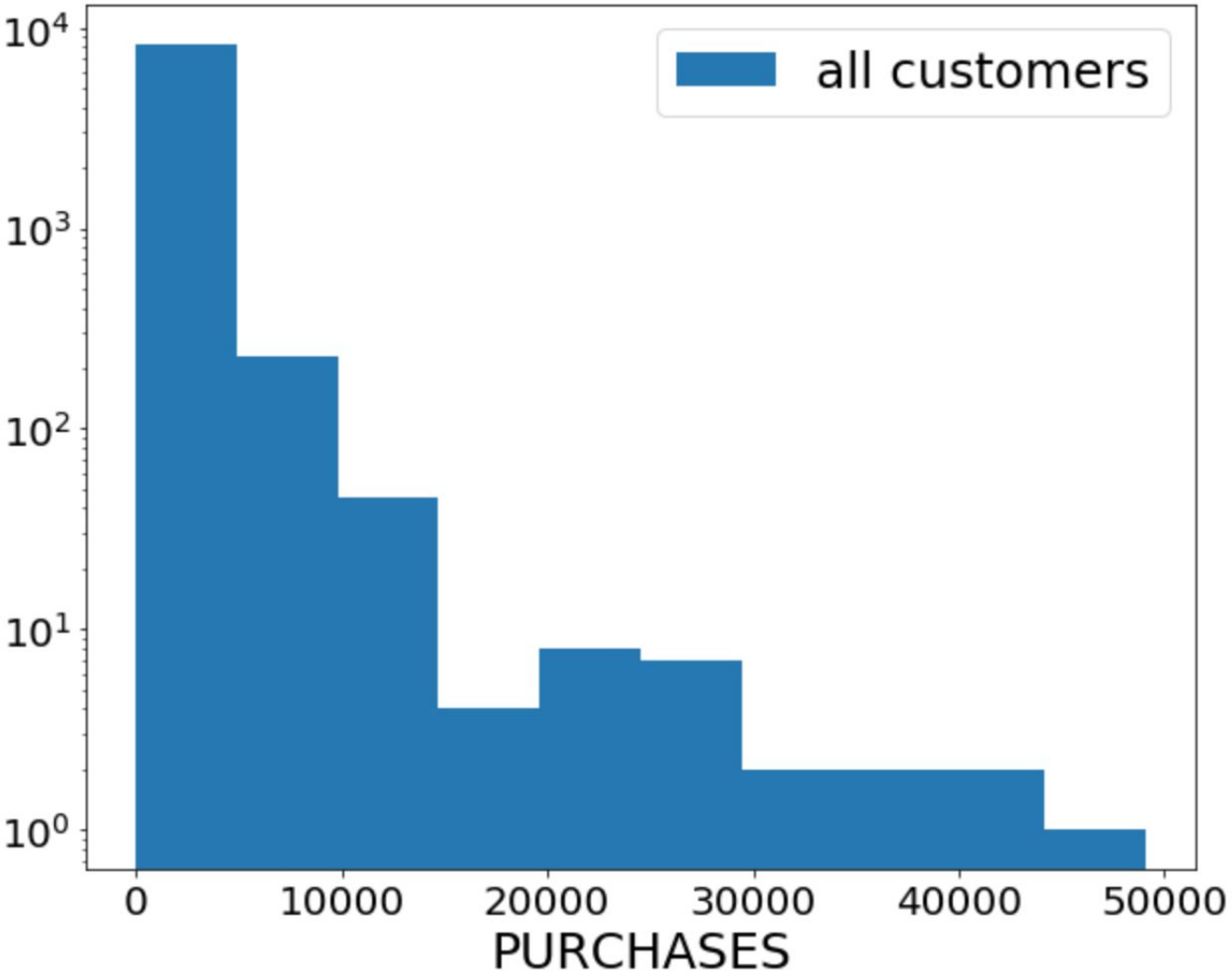
- credit card history for 8950 customers: balance, purchases, cash advances, payments etc.

- most quantities show a sharp decline in number of customers as the amount increases.


BALANCE 1.00 0.31 0.18 0.16 0.12 0.50 -0.09 0.06 -0.07 0.45 0.38 0.15 0.54 0.32 0.40 -0.33 0.07
BALANCE_FREQUENCY 0.31 1.00 0.12 0.10 0.11 0.09 0.23 0.19 0.18 0.18 0.13 0.18 0.09 0.04 0.13 -0.16 0.10
PURCHASES 0.18 0.12 1.00 0.92 0.68 -0.05 0.39 0.50 0.32 -0.12 -0.07 0.69 0.36 0.61 0.09 0.18 0.08
ONEOFF_PURCHASES 0.16 0.10 0.92 1.00 0.33 -0.03 0.27 0.52 0.13 -0.09 -0.05 0.55 0.32 0.57 0.05 0.13 0.06
INSTALLMENTS_PURCHASES 0.12 0.11 0.68 0.33 1.00 -0.07 0.44 0.21 0.51 -0.14 -0.08 0.63 0.26 0.39 0.13 0.18 0.08
CASH_ADVANCE 0.50 0.09 -0.05 -0.03 -0.07 1.00 -0.22 -0.09 -0.18 0.63 0.66 -0.08 0.30 0.46 0.14 -0.16 -0.07
PURCHASES_FREQUENCY -0.09 0.23 0.39 0.27 0.44 -0.22 1.00 0.50 0.86 -0.32 -0.21 0.57 0.12 0.10 0.00 0.31 0.05
ONEOFF_PURCHASES_FREQUENCY 0.06 0.19 0.50 0.52 0.21 -0.09 0.50 1.00 0.14 -0.12 -0.07 0.54 0.30 0.24 -0.03 0.15 0.08
PURCHASES_INSTALLMENTS_FREQUENCY -0.07 0.18 0.32 0.13 0.51 -0.18 0.86 0.14 1.00 -0.27 -0.17 0.53 0.06 0.08 0.03 0.25 0.07
CASH_ADVANCE_FREQUENCY 0.45 0.18 -0.12 -0.09 -0.14 0.63 -0.32 -0.12 -0.27 1.00 0.80 -0.14 0.13 0.18 0.10 -0.26 -0.14
CASH_ADVANCE_TRX 0.38 0.13 -0.07 -0.05 -0.08 0.66 -0.21 -0.07 -0.17 0.80 1.00 -0.07 0.15 0.26 0.11 -0.18 -0.05
PURCHASES_TRX 0.15 0.18 0.69 0.55 0.63 -0.08 0.57 0.54 0.53 -0.14 -0.07 1.00 0.27 0.37 0.10 0.16 0.12
CREDIT_LIMIT 0.54 0.09 0.36 0.32 0.26 0.30 0.12 0.30 0.06 0.13 0.15 0.27 1.00 0.43 0.13 0.05 0.14
PAYMENTS 0.32 0.04 0.61 0.57 0.39 0.46 0.10 0.24 0.08 0.18 0.26 0.37 0.43 1.00 0.13 0.10 0.10
MINIMUM_PAYMENTS 0.40 0.13 0.09 0.05 0.13 0.14 0.00 -0.03 0.03 0.10 0.11 0.10 0.13 0.13 1.00 -0.14 0.06
PRC_FULL_PAYMENT -0.33 -0.16 0.18 0.13 0.18 -0.16 0.31 0.15 0.25 -0.26 -0.18 0.16 0.05 0.10 -0.14 1.00 -0.02
TENURE 0.07 0.10 0.08 0.06 0.08 -0.07 0.05 0.08 0.07 -0.14 -0.05 0.12 0.14 0.10 0.06 -0.02 1.00
BALANCE
BALANCE_FREQUENCY
PURCHASES
ONEOFF_PURCHASES
INSTALLMENTS_PURCHASES
CASH_ADVANCE
PURCHASES_FREQUENCY
ONEOFF_PURCHASES_FREQUENCY
PURCHASES_INSTALLMENTS_FREQUENCY
CASH_ADVANCE_FREQUENCY
CASH_ADVANCE_TRX
PURCHASES_TRX
CREDIT_LIMIT
PAYMENTS
MINIMUM_PAYMENTS
PRC_FULL_PAYMENT
TENURE
1.00
0.75
0.50
0.25
0.00
−0.25

75% of the customers spend less than ~ $1200 in purchases





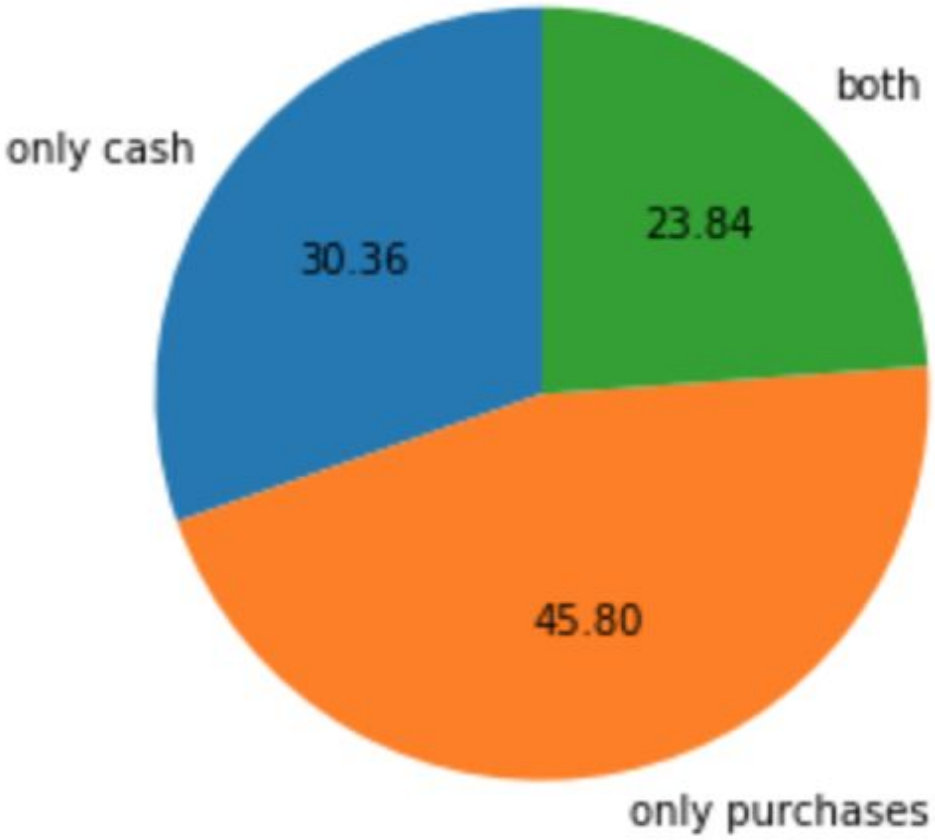
Types of customers based on purchases:

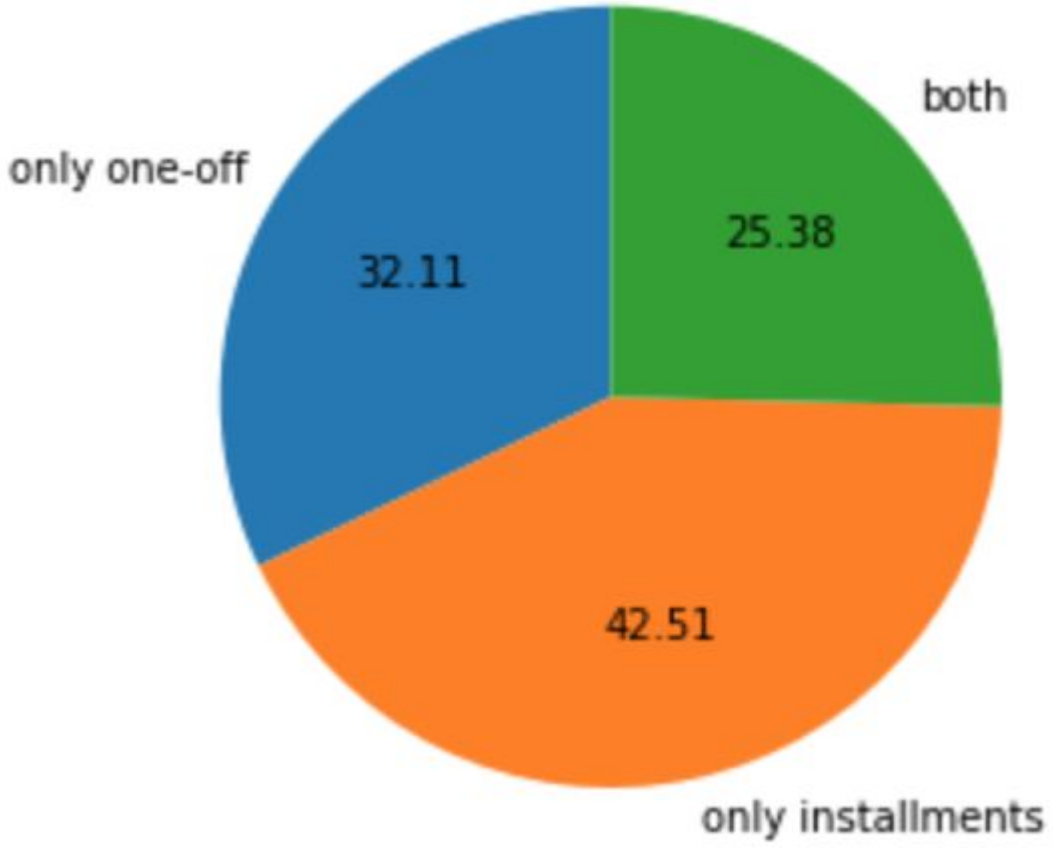
- low spenders (75%)
- high spenders (25%)

Questions:

- cash advances vs purchases
- payment of minimum amount due
- one-off payments vs installments

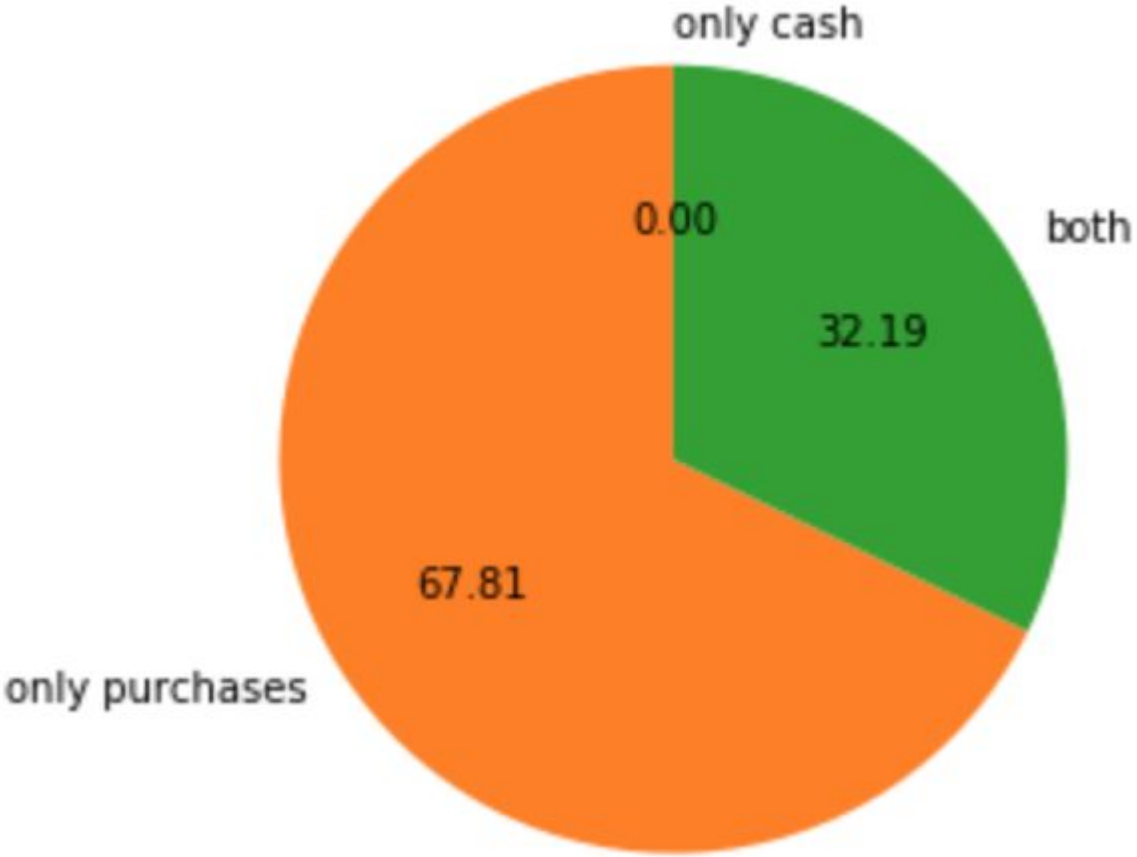
Low spenders:

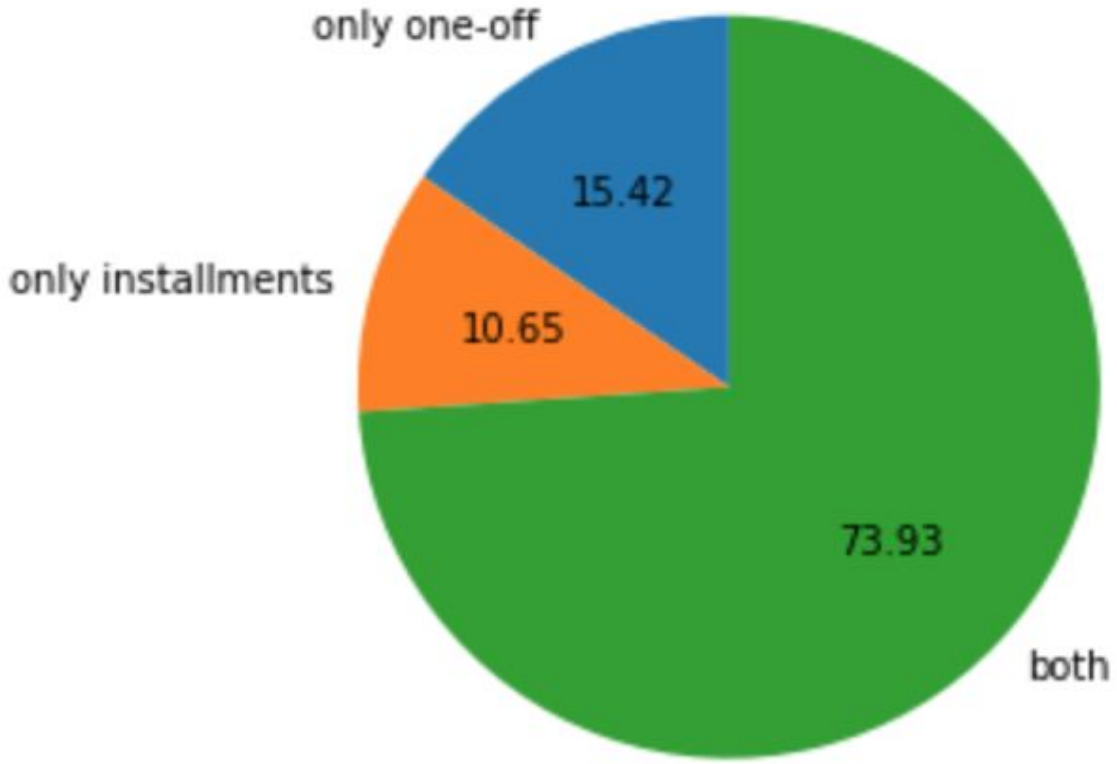




- 68% pay more than their minimum amount due

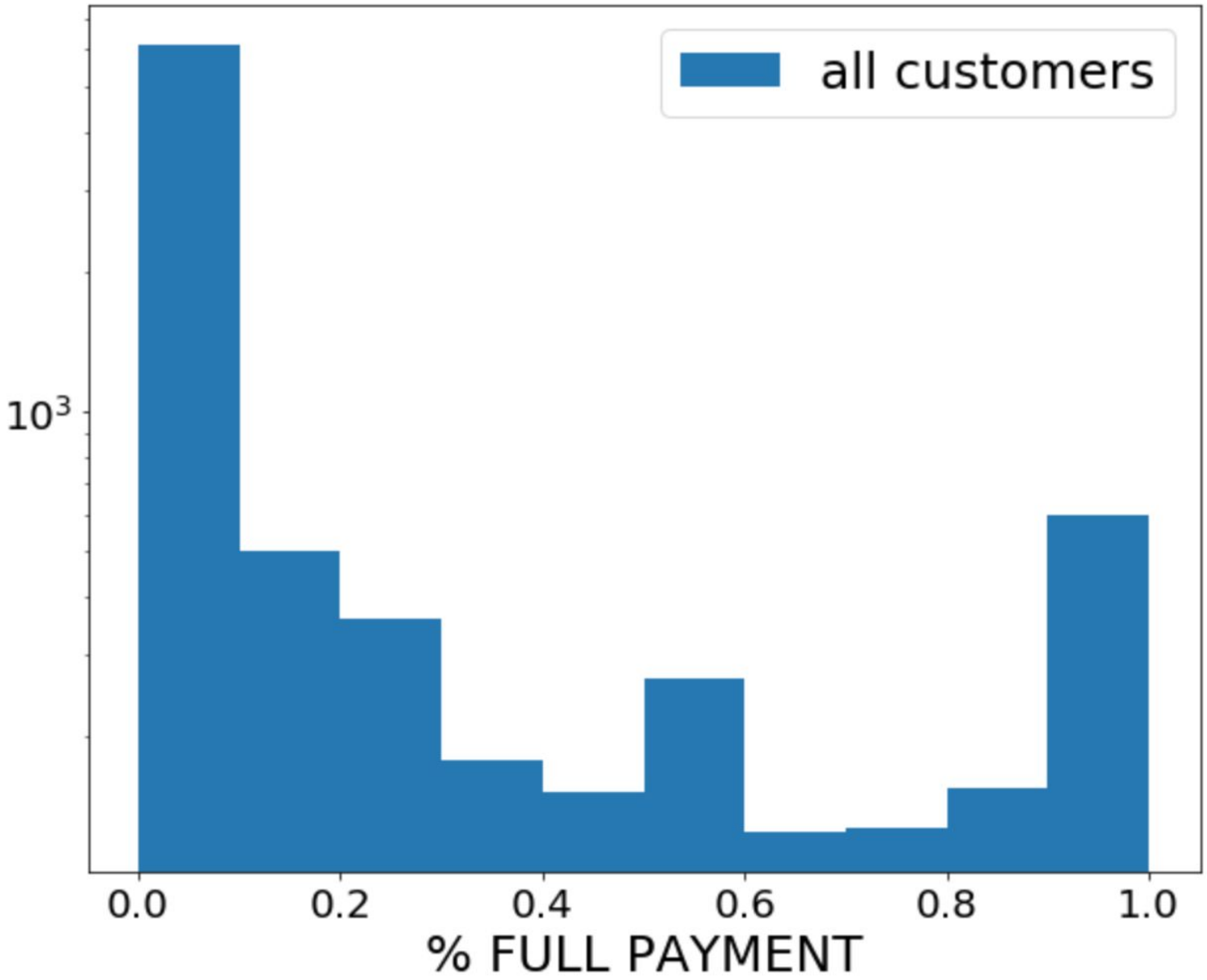
High spenders:



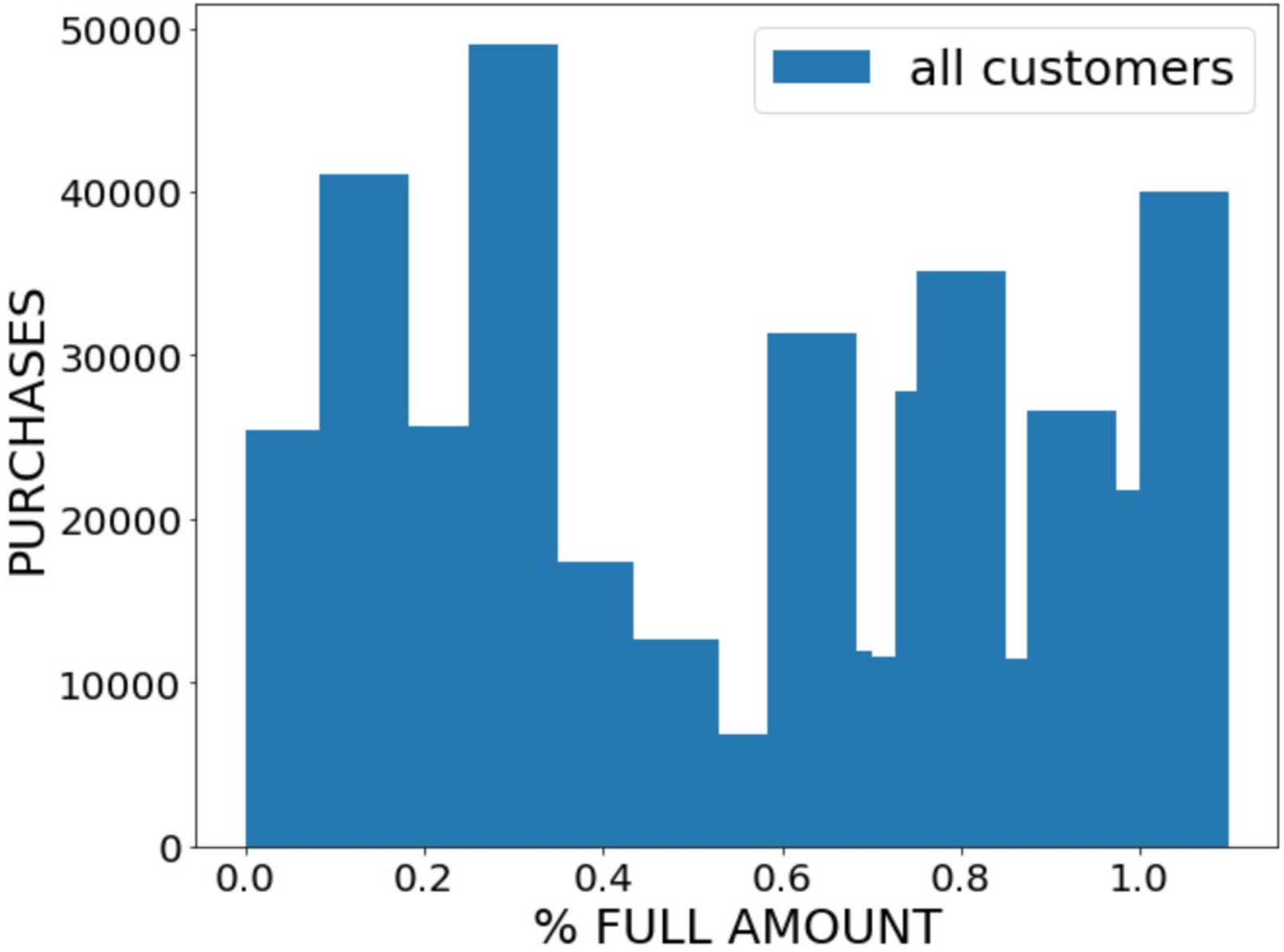


- 86% pay more than their minimum amount due

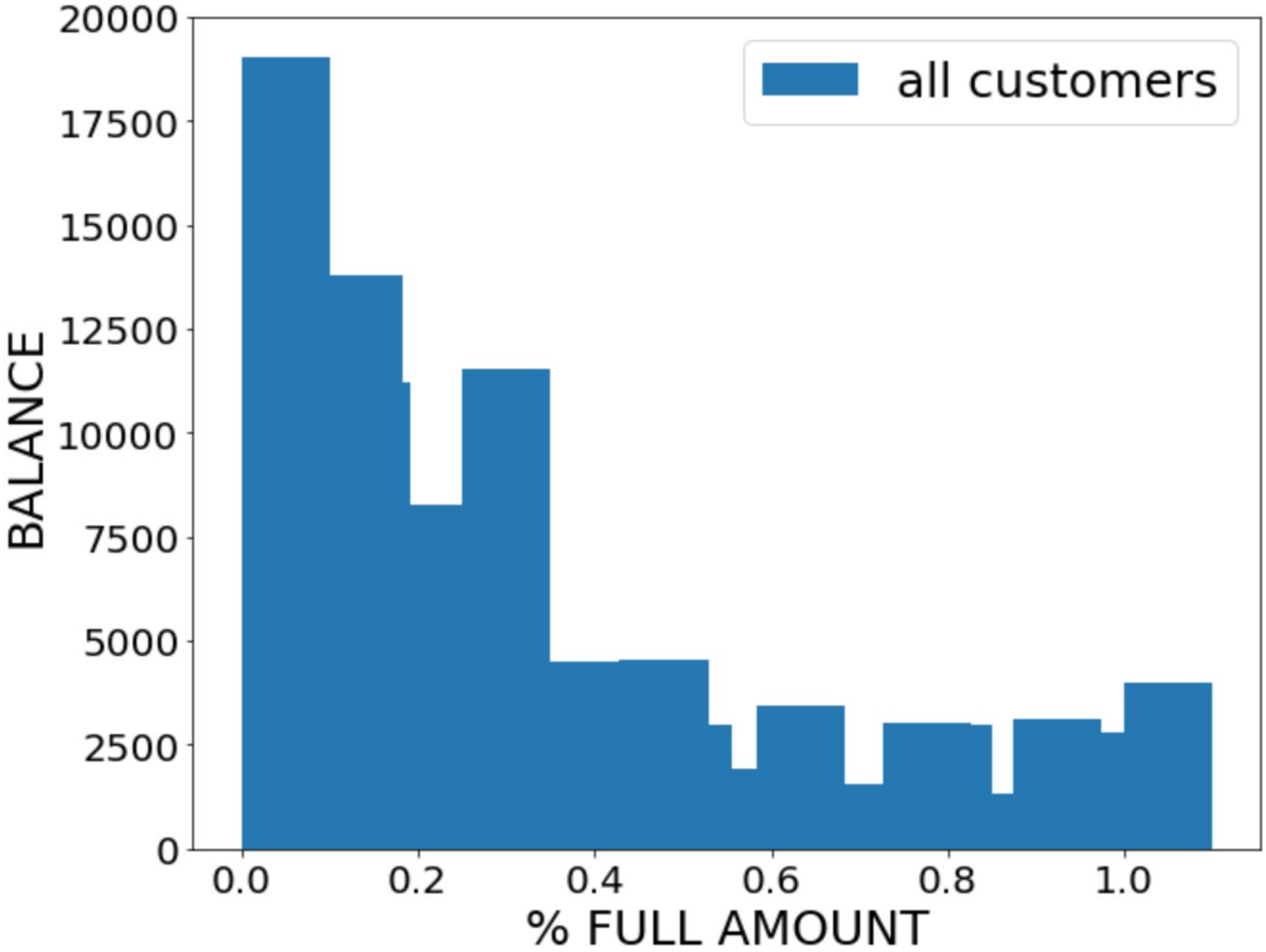
~94% of customers fail to pay the full amount due



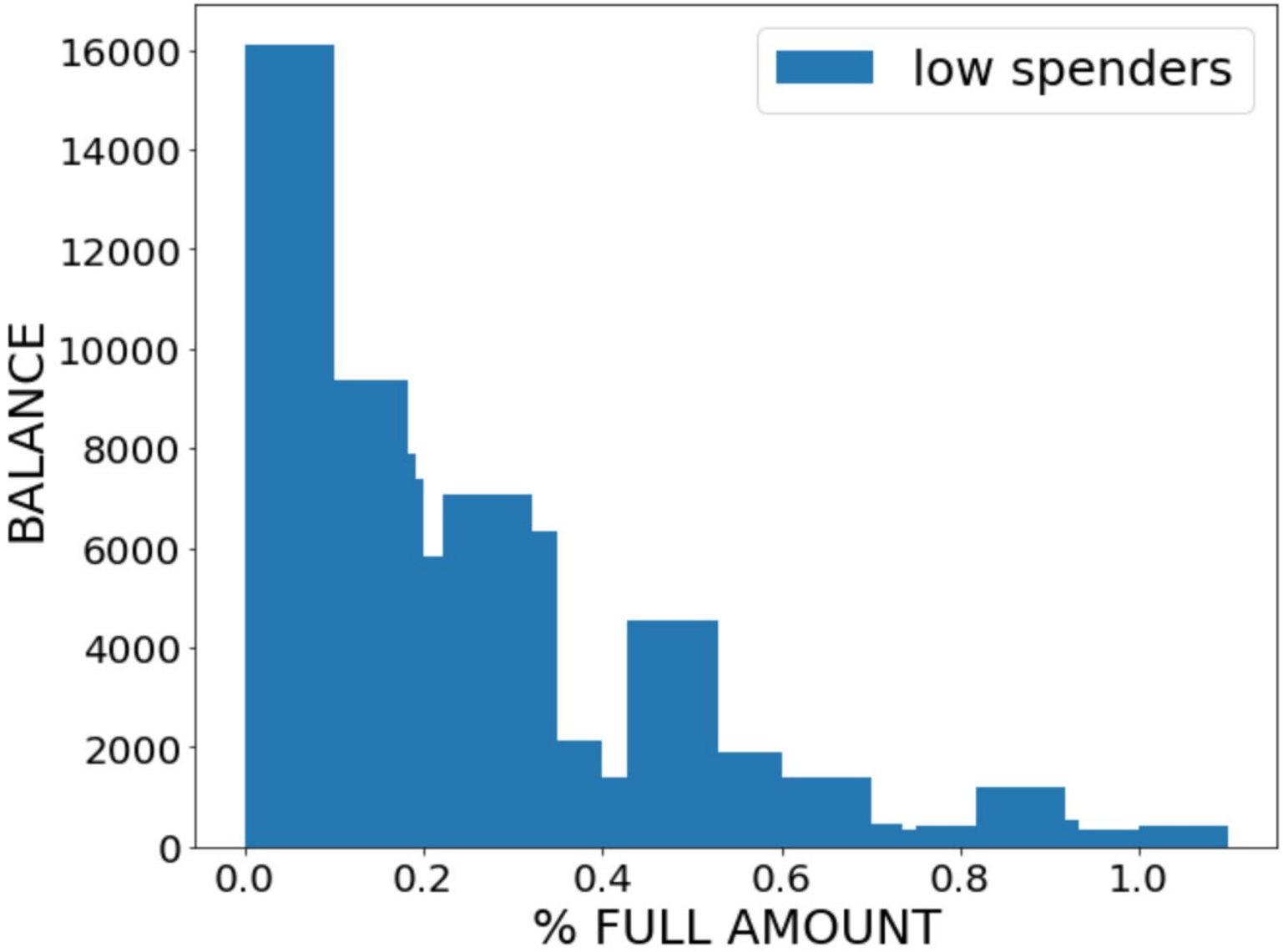
no significant relationship between purchases and payment of full amount



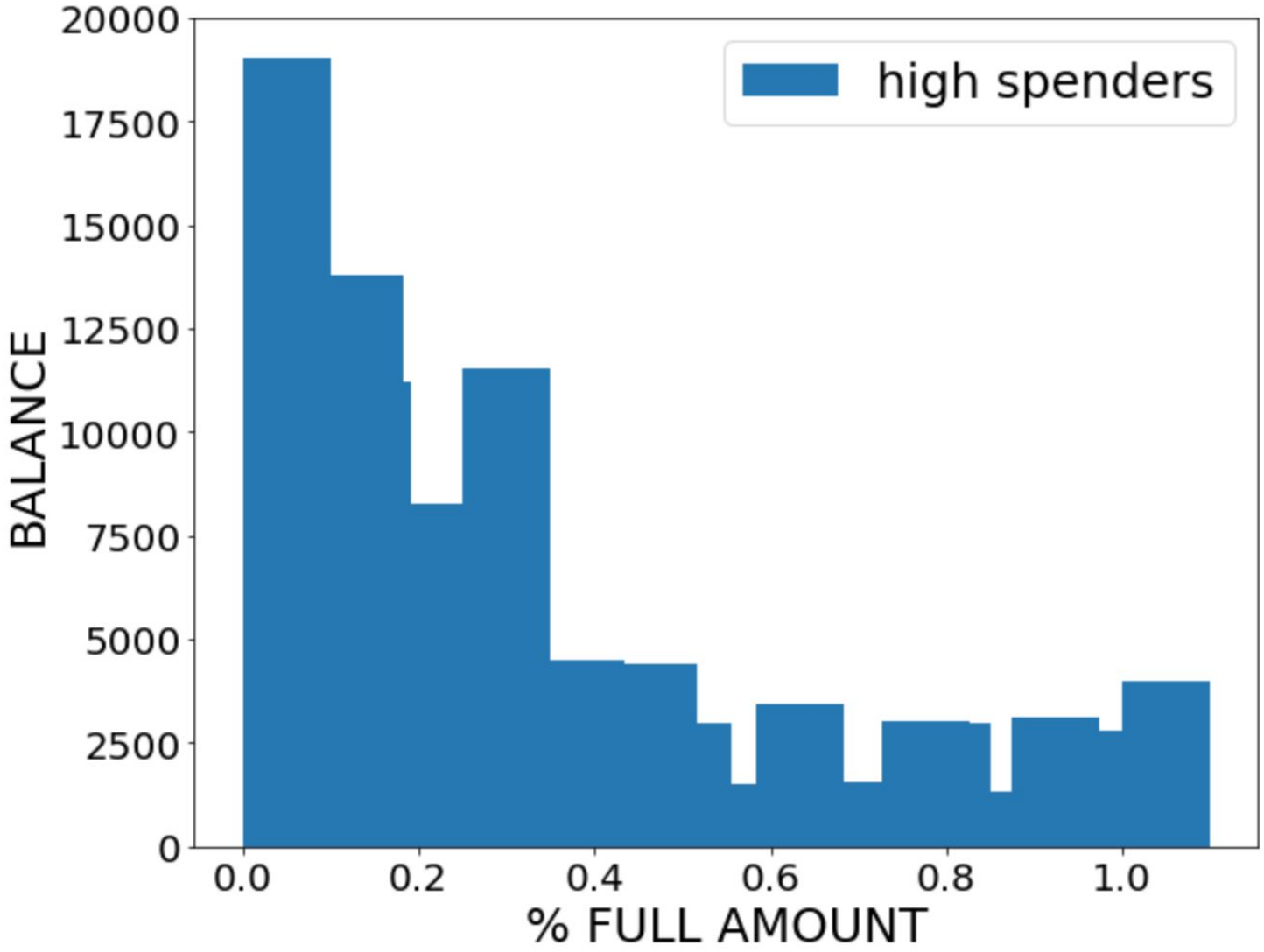
customers pay full amount when balance amount is low



majority of low spenders do not pay the full amount due, even for smaller balance amounts



majority of high spenders do not pay the full amount due, although for lower balances the amount due is paid in full



Summary:

- Cash advances and installment payments are important for low spenders unlike high spenders.

- Low spenders may tend to get into credit card debt compared to high spenders.