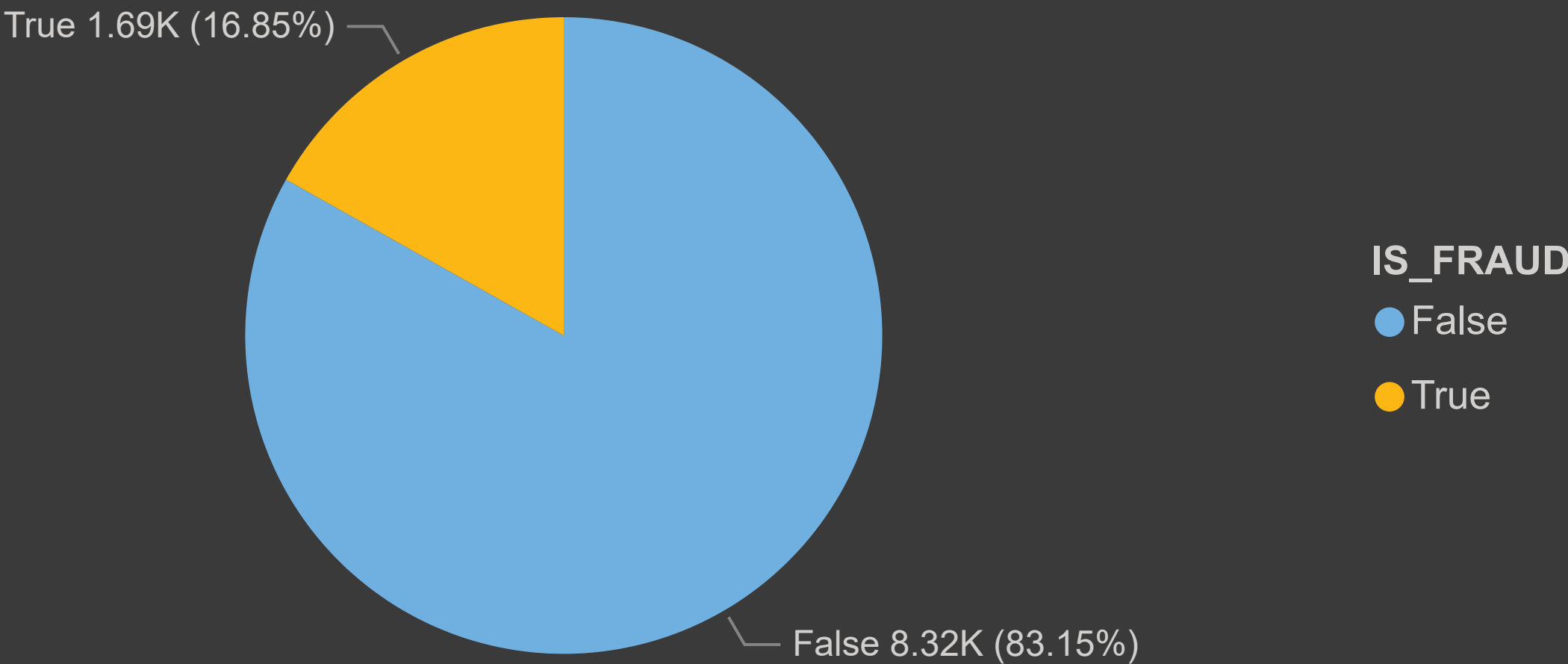
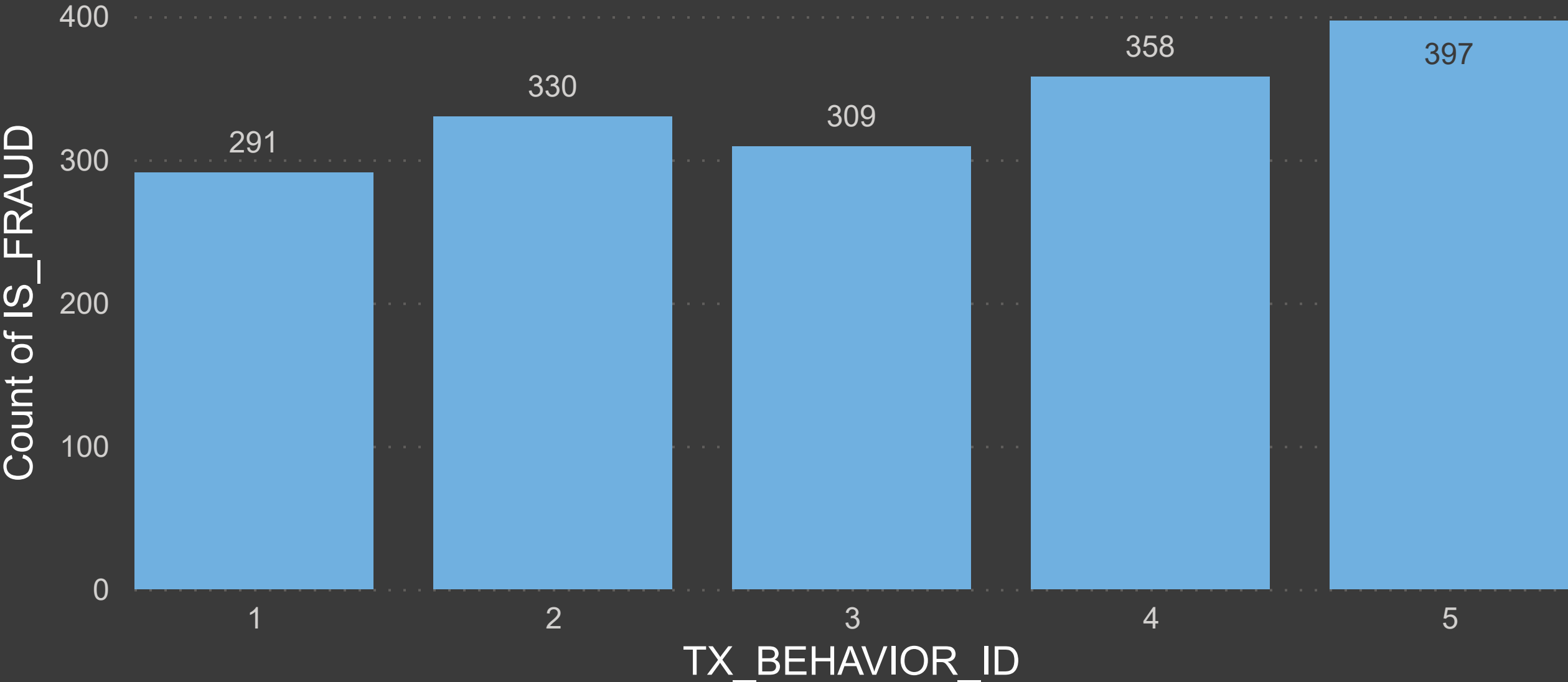


Financial Crime Analysis

Accounts with Fraudulent Activity



Categories of TX_BEHAVIOR_ID



Fraud Slicer

- ☐ Select all
- ☐ False
- ☒ True

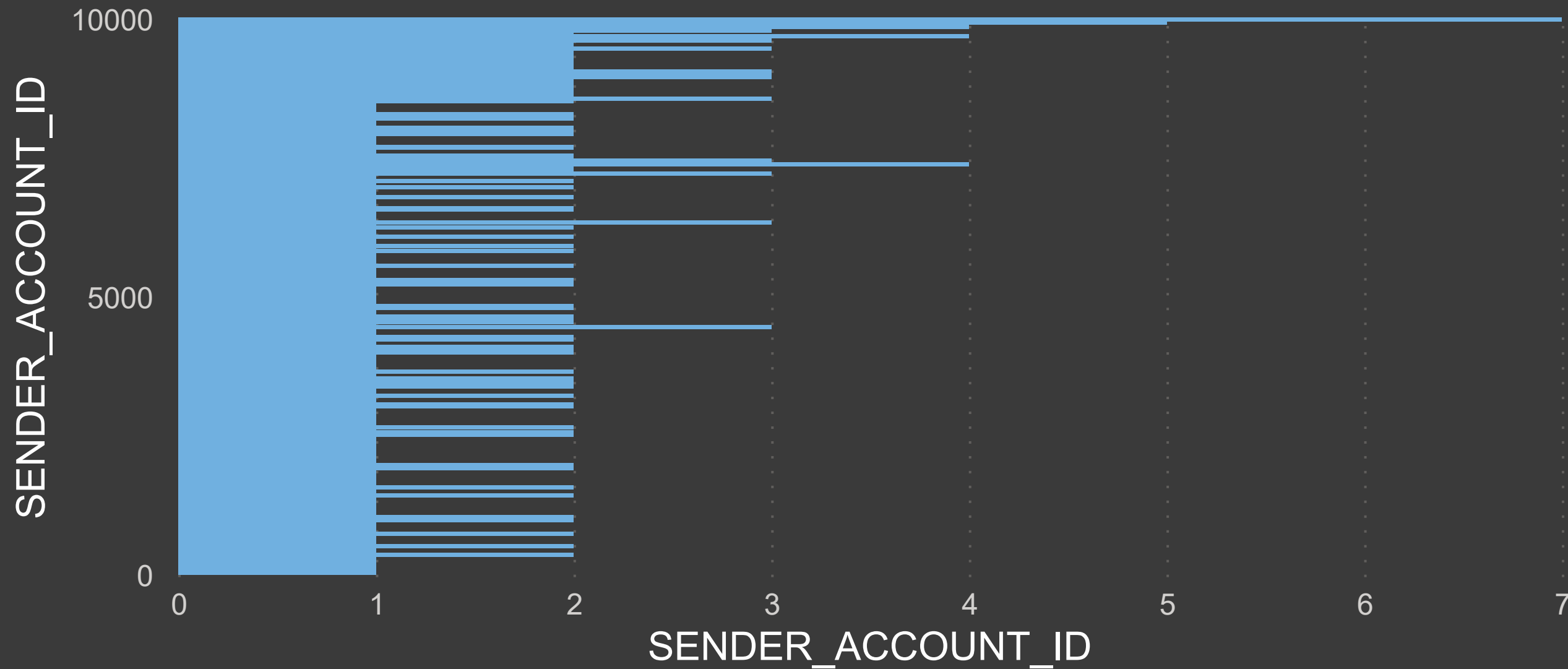
ACCOUNT_ID	INIT_BALANCE	TX_BEHAVIOR_ID
49	196.75	1
67	138.49	1
86	181.16	1
91	157.97	1
113	157.39	1
138	135.03	1
153	167.62	1
177	128.79	1
182	171.56	1
189	123.94	1
236	279.34	1
258	331.07	1
314	297.72	1
316	335.86	1
344	281.18	1
Total	468,698.48	1685

Observation:

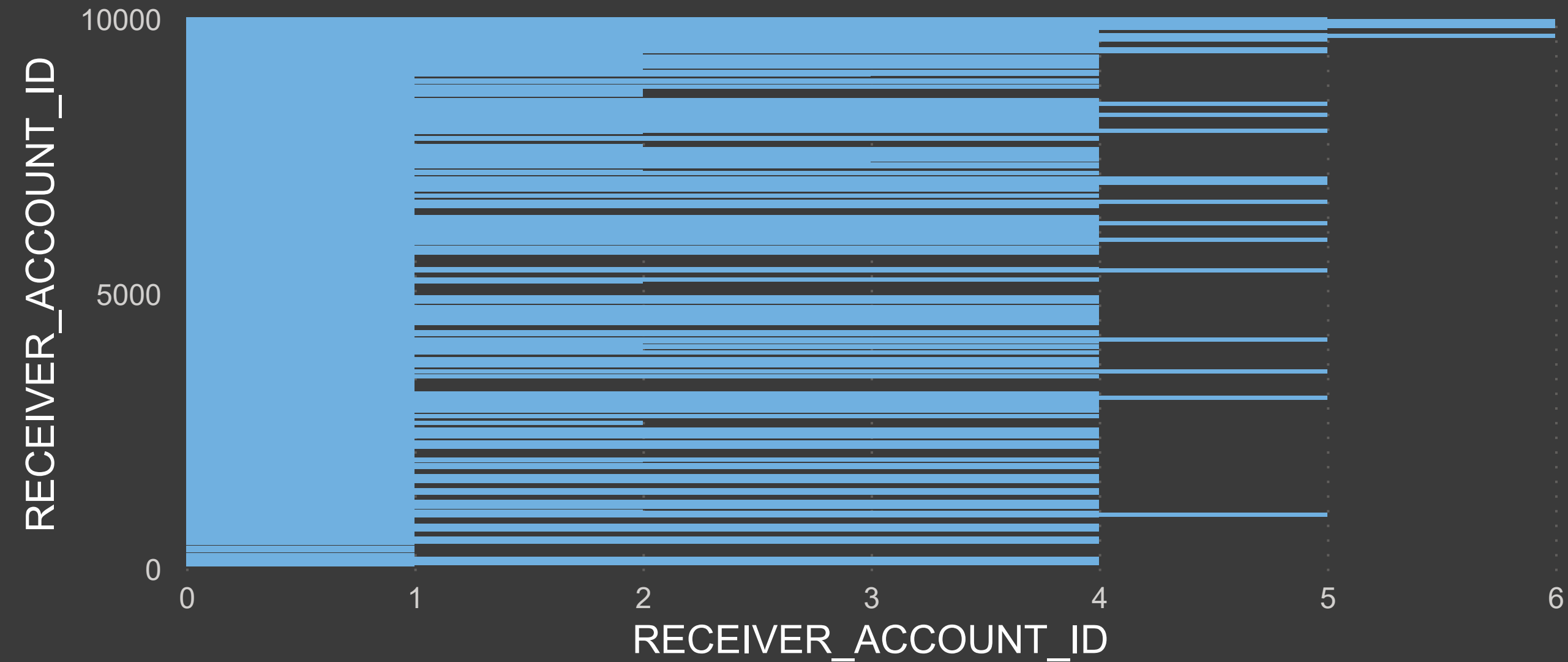
- Out of 10k accounts, 1.69k accounts are flagged with Fraudulent Activity
- TX_BEHAVIOR_ID has 5 categories and the highest number of accounts with Fraudulent activity is under the 5th category

Financial Crime Analysis

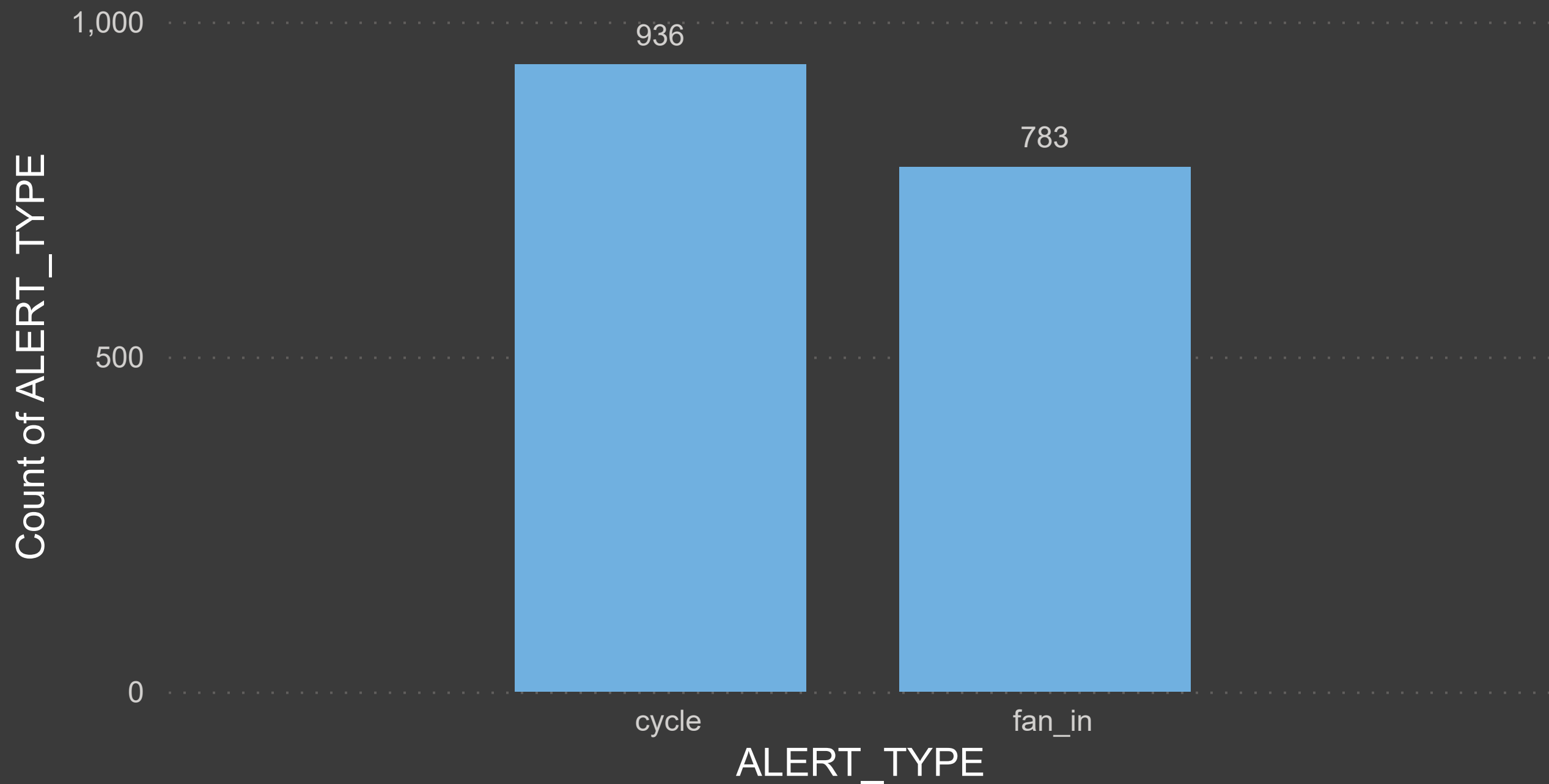
No. of times a Fraudulent Transaction done by Sender



No. of times a Fraudulent Transaction done by Receiver



Types of Alert

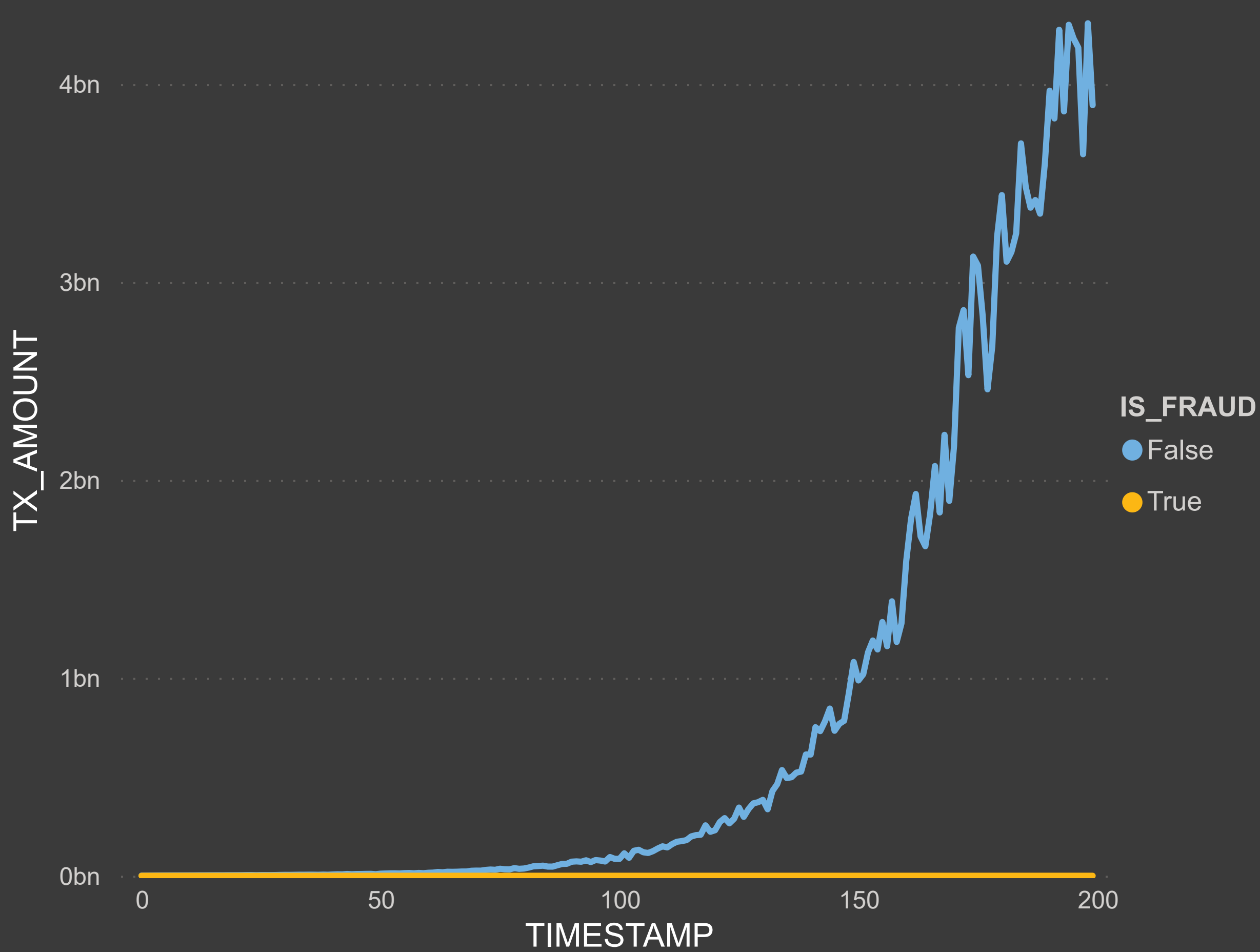


Observation:

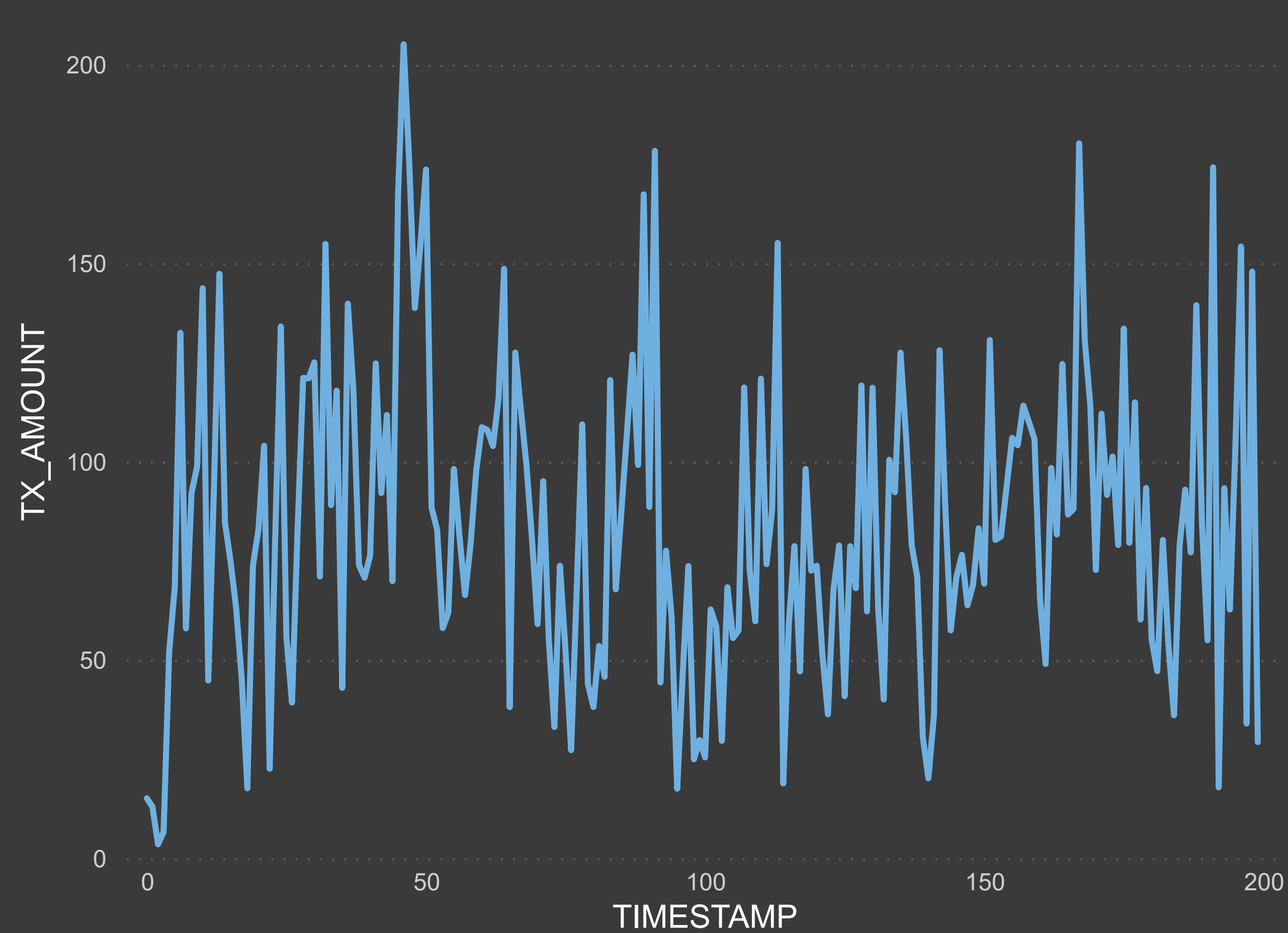
- The maximum times an account is involved in fraudulent activity while sending an amount is 7
- The maximum times an account is involved in fraudulent activity while receiving an amount is 8

Financial Crime Analysis

Transaction Amount by Timestamp



Transaction Amount by Timestamp (Only Fraudulent)



Observation:

- Compared to normal transactions the amount involved in Fraudulent activity is very tiny
- The maximum transaction amount being 205.17

Financial Crime Analysis

Fraud Slicer

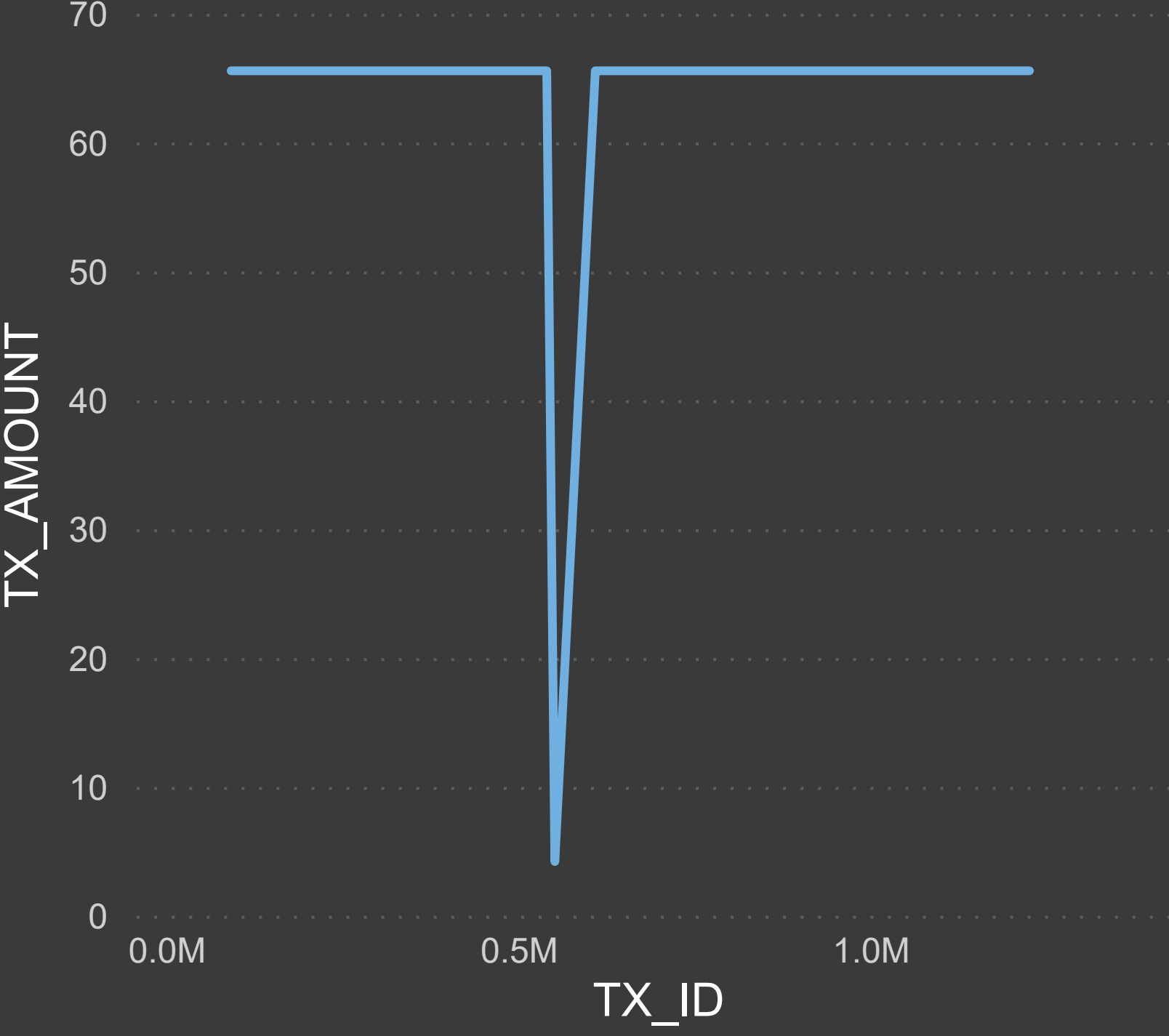
- ☐ Select all
- ☒ False
- ☒ True

Sender A/c Slicer

- ☐ Select all
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ 9
- ☐ 10
- ☐ 11
- ☐ 12
- ☐ 13
- ☐ 14
- ☐ 15

SENDER_ACCOUNT_ID	RECEIVER_ACCOUNT_ID	TIMESTAMP	TX_AMOUNT	IS_FRAUD
49	2910	14	65.58	False
49	2910	15	65.58	False
49	2910	26	65.58	False
49	2910	34	65.58	False
49	2910	35	65.58	False
49	2910	46	65.58	False
49	2910	53	65.58	False
49	2910	56	65.58	False
49	2910	76	65.58	False
49	2910	82	65.58	False
49	2910	84	4.21	True
49	2910	92	65.58	False
49	2910	95	65.58	False
49	2910	113	65.58	False
49	2910	123	65.58	False
49	2910	153	65.58	False
49	2910	155	65.58	False
49	2910	156	65.58	False

TX_AMOUNT by TX_ID



Observation:

- The Fraud Algorithm filters transactions that are abnormal or small compared to the normal course of transactions
- So if a transaction is out of the ordinary the same is flagged by the system as fraudulent

Ways to identify or mitigate financial crimes

- Developing an AML transaction monitoring and remediation process and continuous updating of such policies based on new trends and laws.
- Matching KYC Data against Watchlists and Databases of Known or Suspected Fraudulent Activities.
- Continuous Monitoring of transactions.
- Usage of Machine Learning Techniques to learn patterns between normal and abnormal transactions can help in predicting financial crimes before they take place.
- Usage of Cloud Computing to help manage data for aspects like performing know your customer AML activities, risk-scoring, etc.
- Usage of Automation as most financial crimes are performed when human interaction is involved. Removal of human interaction by automation can greatly reduce financial crimes.
- Usage of Graph Analytics to analyse and find hidden linkages.