Card User Segmentation

Date
1/1/2010   31/10/2019

Age
All

Gender
All

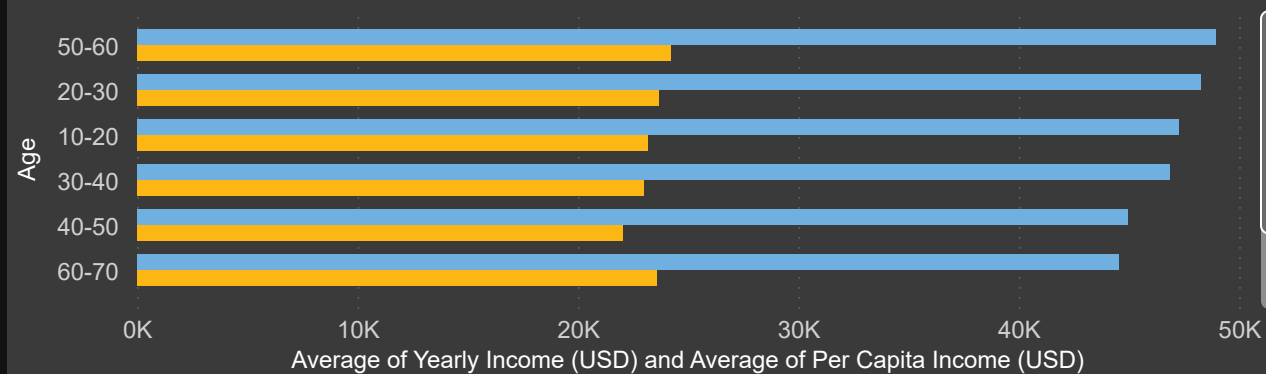| 2.00K	45	709.73	$63.71K	$45.72K	$23.14K
Total of users	Average of Age	Average of Credit Score	Average of Debt	Average of Yearly Income	Average of Percapita Income

Average of Users' Yearly Income and Per Capita Income (USD) by Age or Gender

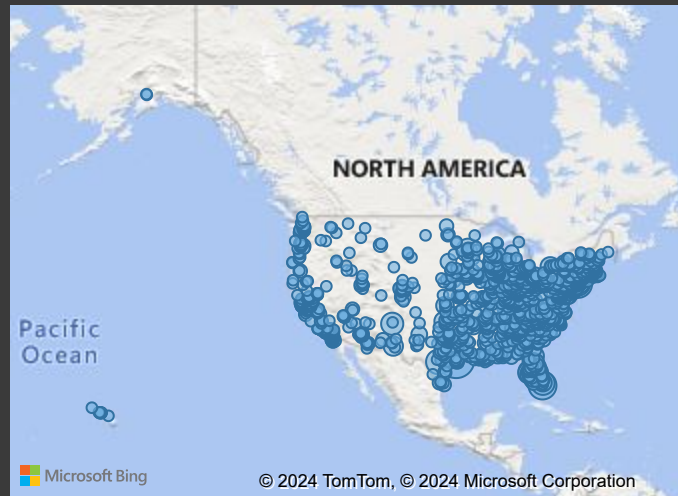● Average of Yearly Income (USD) ● Average of Per Capita Income (USD)

Average of Yearly Income (USD) and Average of Per Capita Income (USD)

Average of Credit Score by Age or Gender

User Map

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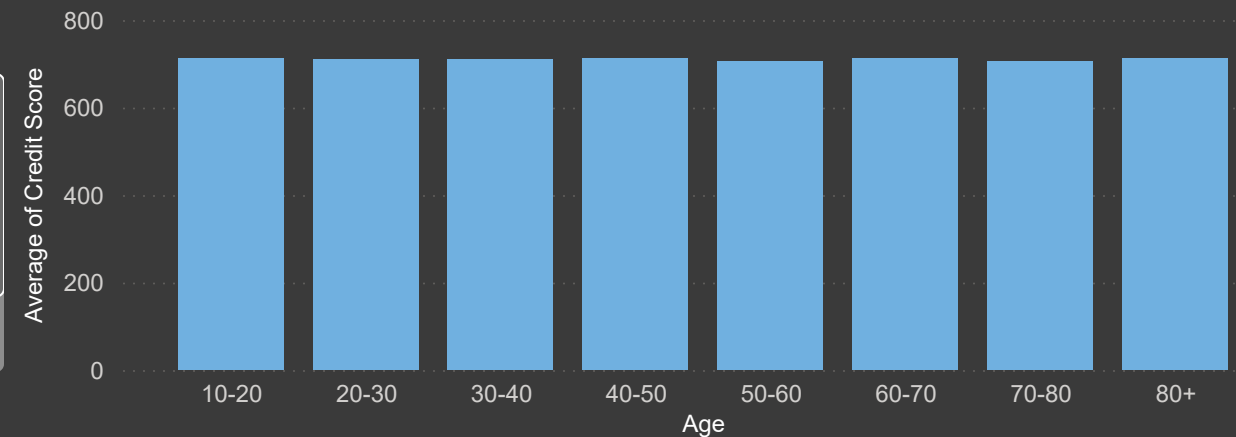
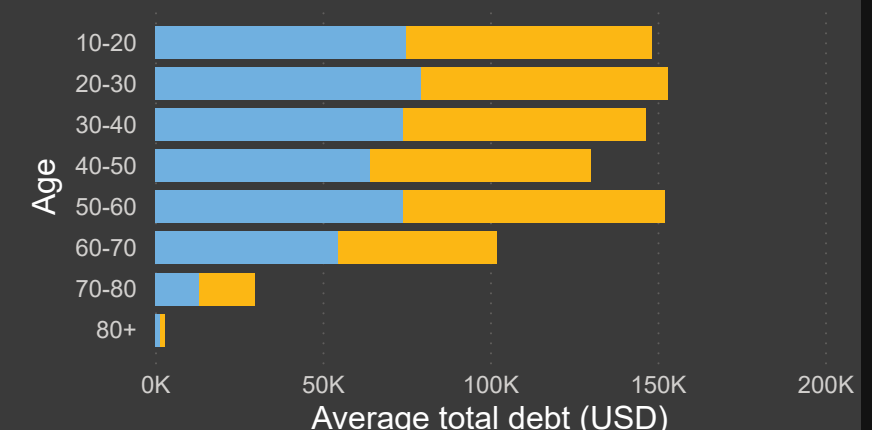## Average people spending by Year and Gender

Gender ● Female ● Male

Average total debt (USD) by Age and Gender

Gender ● Female ● Male

Average total debt (USD)

Monthly Card Transaction Behavior

Date	Type	State	City
2019-10	All	All	All

117.37K	115.47K	$4.99M	1905
Total Transaction	Count of Success	Total Amount	Count of Failure

Number of Success and Failure by Day

Legend: Number of Success, Failure
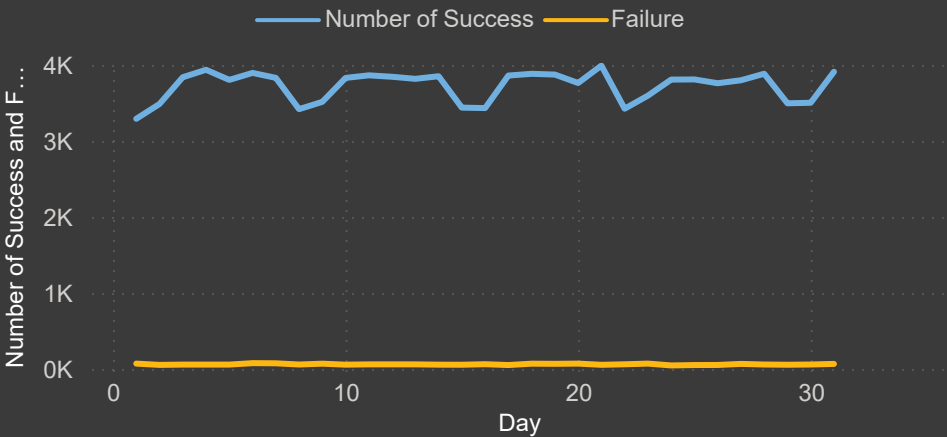
Total amount (USD) by Day
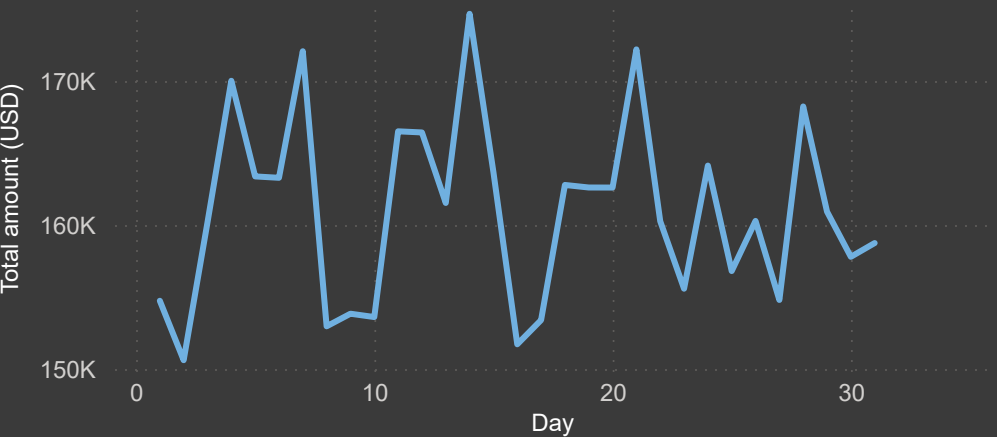
Status	Count of id
Success	115469
Insufficient Balance	1175
Bad PIN	278
Technical Glitch	237
Bad Expiration	68
Bad Card Number	65
Bad CVV	64
Bad Zipcode	8
Bad PIN,Insufficient Balance	5
Bad PIN,Technical Glitch	3
Insufficient	2
Total	**117374**

Total of transaction by Day of week and Type

Type: Chip Transaction, Online Transaction, Swipe Transaction
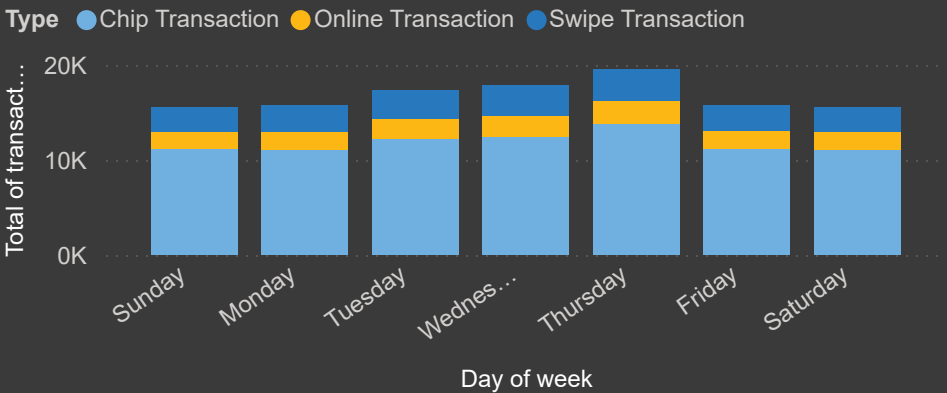
Total amount (USD) by Day of week and Type

Type: Chip Transaction, Online Transaction, Swipe Transaction
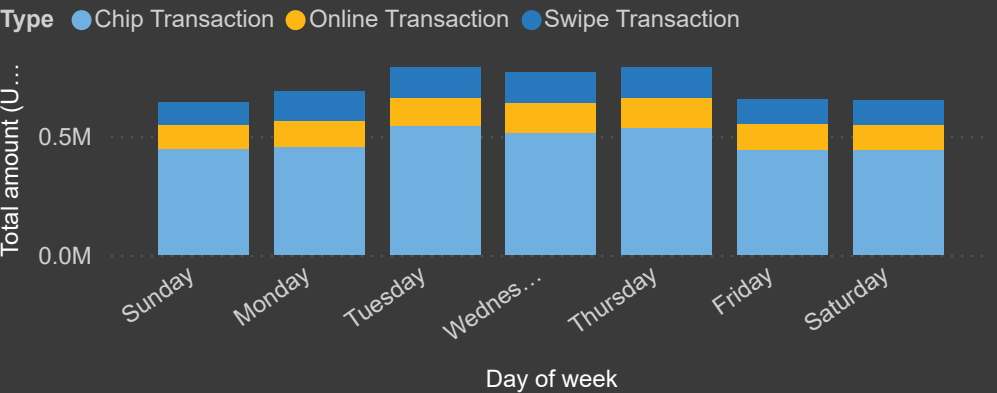
State	Total
	14309
CA	12395
TX	8737
NY	7477
FL	6194
OH	4227
IL	4033
NC	3735
PA	3556
MI	3481
GA	3074
Total	**117374**

Geographic and Demographic analysis

Type
All ▼

Age
All ▼

Gender
☐ Female
☐ Male

2M	Total users
709.73	Average of Credit score
$23.14K	Average of per capita income
$45.72K	Average of yearly income
66.24	Average of retirement age

Average of yearly income by latitude and longitude

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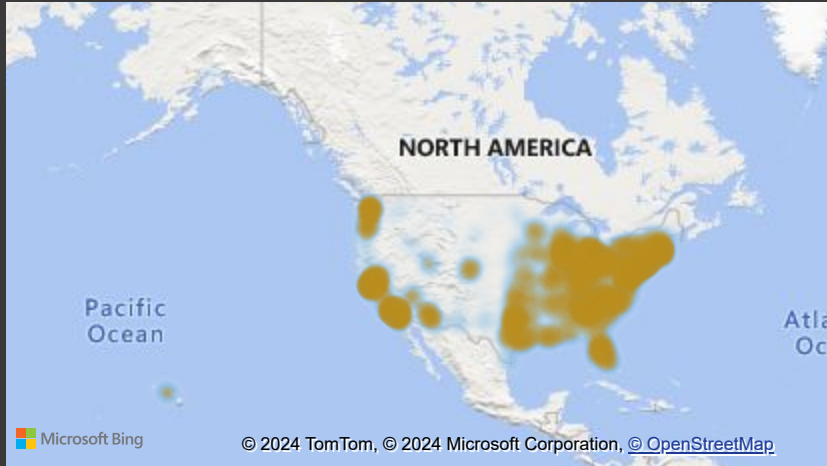
Average of per capita income by latitude and longitude

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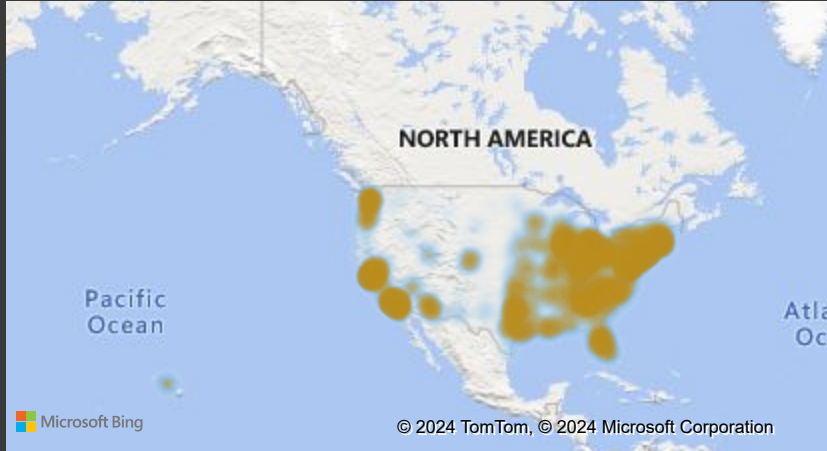
Average of yearly income by Age and Gender

Gender ● Female ● Male

Average of yearly income

100K
50K
0K

10-20 20-30 30-40 40-50 50-60 60-70 70-80 80+
Age

Count by card brand

0.4K (6.54%)

card brand
● Mastercard
● Visa
● Amex
● Discover

2.33K (37.85%)
3.21K (52.21%)
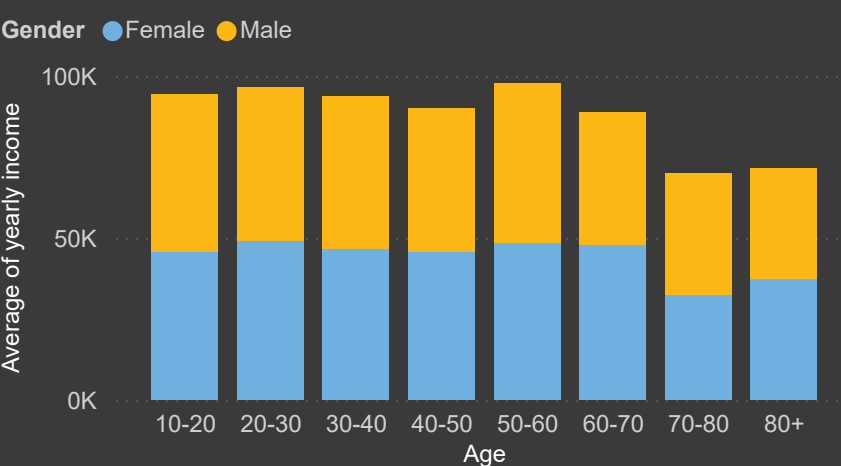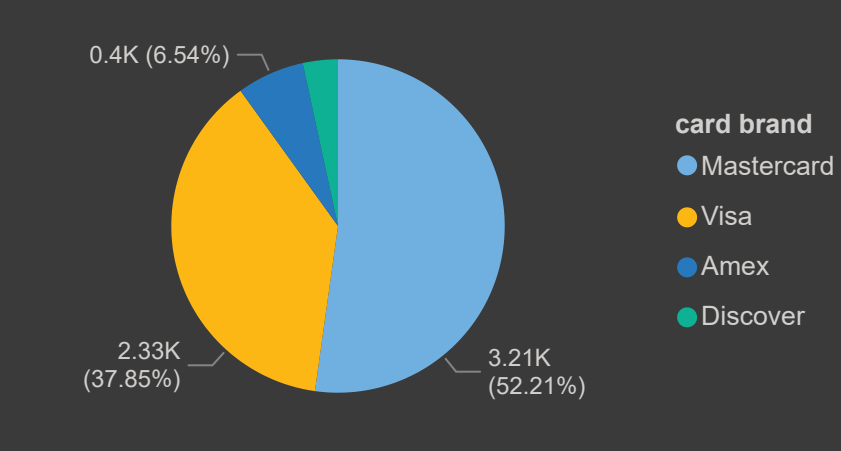
Sum of Total transaction amount (USD) by state

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State	Count of Success	Sum of Amount USD ▼
⊞	1528138	88,896,665.09
⊞ CA	1403738	59,084,616.19
⊞ TX	995185	42,477,208.43
⊞ NY	845358	39,721,647.77
⊞ FL	689894	28,603,402.23
⊞ IL	461198	19,500,277.78
Total	**13094522**	**571,835,522.28**

Merchant	Sum of Amount USD ▼
Money Transfer	53,158,515.64
Grocery Stores, Supermarkets	40,970,754.15
Wholesale Clubs	37,697,546.74
Drug Stores and Pharmacies	35,113,527.69
Service Stations	29,570,426.66
Utilities - Electric, Gas, Water, Sanitary	27,650,038.08
Department Stores	27,031,968.70
Eating Places and Restaurants	26,348,095.47
Total	**571,835,522.28**

Before Prediction

After Prediction
Model: (sklearn-RandomForestClassifier)

13.31M
Count of Transactions

Count of Transactions by Labels

0.01M (0.1%)

4.39M (33%)

8.9M (66.9%)

Labels
- No
- (Blank)
- Yes

Count of Transactions by Labels

0.77M (5.79%)

12.53M (94.21%)
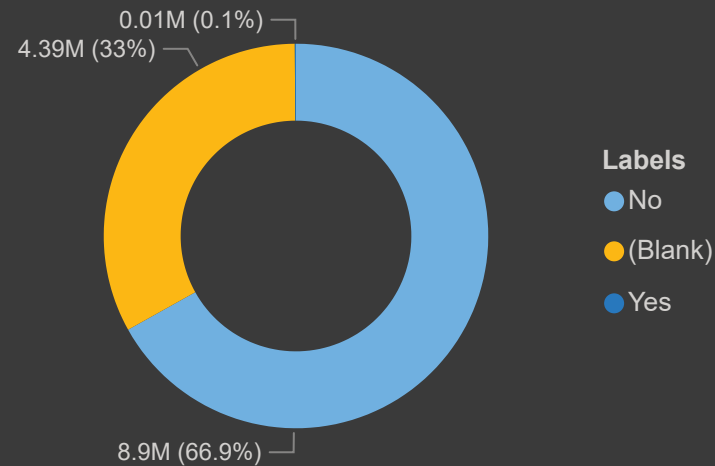
Labels
- No
- Yes

(Blank)
4390952
Count of Transactions

No
8901631
Count of Transactions

Yes
13332
Count of Transactions
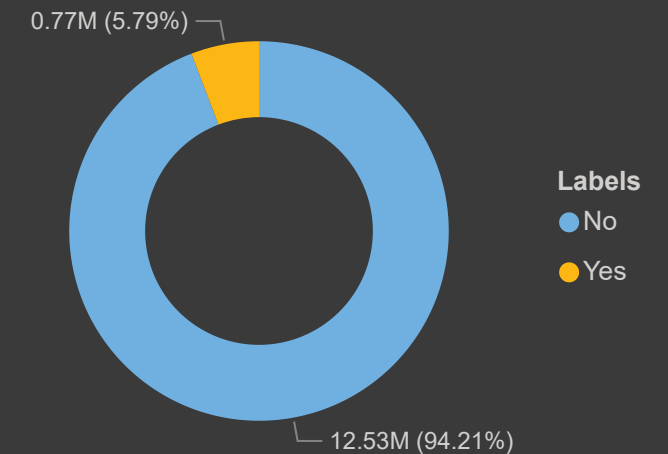
No
12534900
Count of Transactions

Yes
771015
Count of Transactions

Fraud Analysis

13.31M	**771K**	**$69.13M**	**2000**	**6146**	**211K**
Total Transactions	Total Fraudulent Detected	Total Amount of Fraudulents	Total Users	Total Cards	Count of Failed Transactions

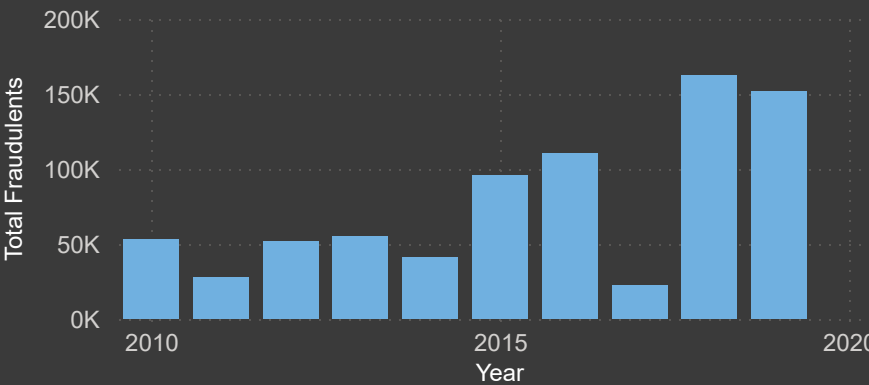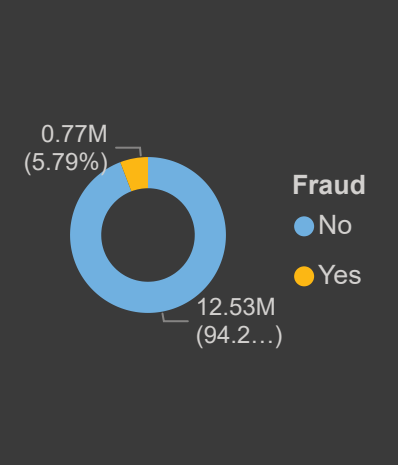## Fraudulents by City

© 2024 TomTom, © 2024 Microsoft Corporation, © OpenStreetMap
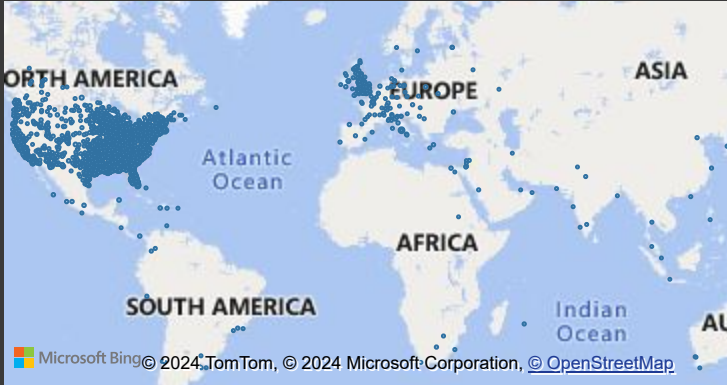
Fraudulent Amount by Day
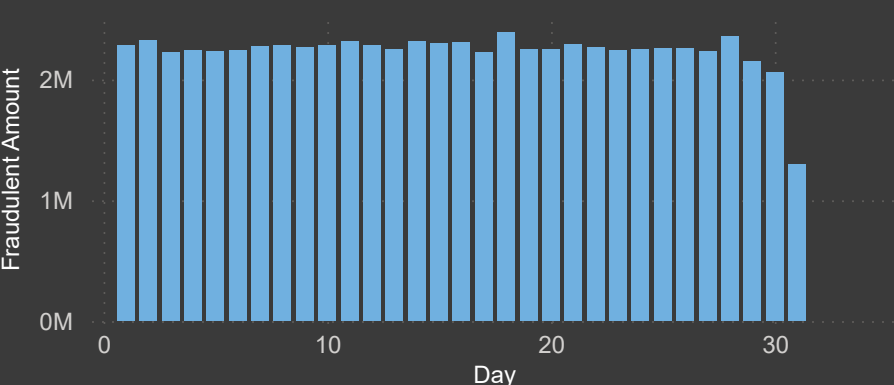
Total Fraudulents by Year

Total Transactions by Fraud

0.77M (5.79%)

12.53M (94.2...)

Fraud
- No
- Yes

Fraundulents by Card brand
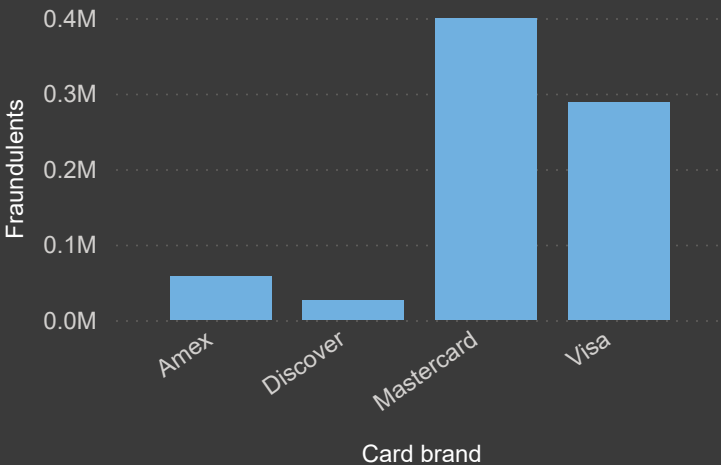
Card number	Brand	Type	Total Fraud
5524896778714385	Mastercard	Debit	2051
4749273777651489	Visa	Credit	1850
4833362009066626	Visa	Debit	1767
5037187439217055	Mastercard	Debit (Prepaid)	1727
5320717372996306	Mastercard	Debit	1676
542508696505039 5	Mastercard	Credit	1315
4333340134035074	Visa	Credit	1311
5524375174709990	Mastercard	Debit	1306
5417249342822909	Mastercard	Debit	1286
5198052110187452	Mastercard	Debit	1248
4802501874295829	Visa	Credit	1245
50000540007007574	Mastercard	Debit	1005
Total	**Amex**	**Credit**	**771015**

merchant	Total fraud detected
Department Stores	159007
Discount Stores	43204
Digital Goods - Media, Books, Apps	42502
Telecommunication Services	40093
Wholesale Clubs	34399
Grocery Stores, Supermarkets	30877
Taxicabs and Limousines	29028
Utilities - Electric, Gas, Water, Sanitary	27963
Drug Stores and Pharmacies	27437
Total	**771015**