## **DATA QUALITY REPORT**

## Submitted By - Siddharth Jain

## **File Description**

File Name: applications.csv

**Description:** File contains information people use while filling applications (for

credit card, new phone etc.)

Number of Records: 94,866

Number of Features: 10 features

## **Data Description**

VARIABLE NAME	VARIABLE TYPE
Record	Numeric
Date	Date
SSN	Categorical/String
First Name	Categorical/String
Last Name	Categorical/String
Address	Categorical/String
Zip5	Categorical/String
Home Phone	String (Phone Number)
Date of Birth	Date
Fraud	Categorical

## **Feature Description:**

## 1. Record

Description: Manually added field to uniquely identify each observation.

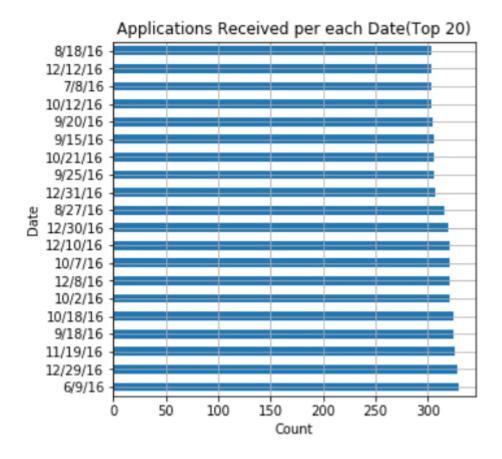
<u>Percent Populated</u>: 100% <u>Unique Values</u>: 94,866

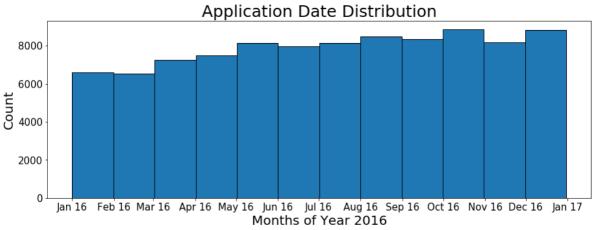
### 2. Date

<u>Description</u>: Date of applying.

Percent Populated: 100%

**Unique Values**: 365



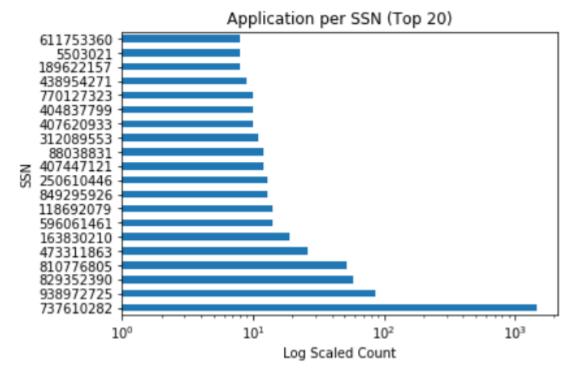


From the dataset, we can see that there is at least one entry for each day of the year.

### 3. SSN

<u>Description</u>: Hashed value of the SSN used by the person for application.

<u>Percent Populated</u>: 100% <u>Unique Values</u>: 86771

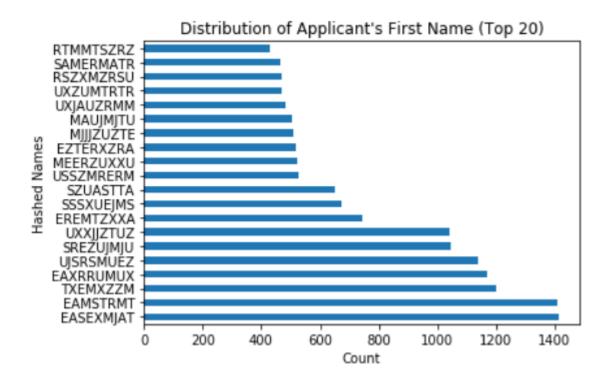


As we can see that one SSN "737610282" has abnormally large number of counts, we conclude that it is the frivolous entry people put in to avoid putting in there real SSN (like 000000000)

## 4. First Name

Description: Hashed value of the first name of the applicant.

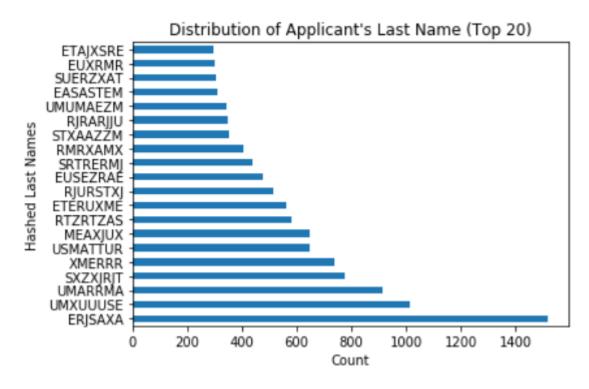
<u>Percent Populated</u>: 100% <u>Unique Values:</u> 14,626



#### 5. Last Name

Description: Hashed value of the last name of the applicant.

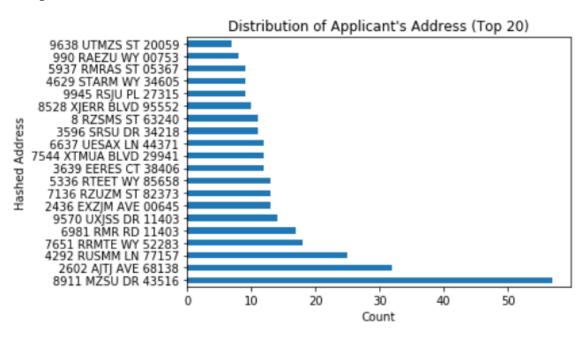
<u>Percent Populated</u>: 100% <u>Unique Values</u>: 31,513



#### 6. Address

<u>Description</u>: Hashed value of address filled by applicant.

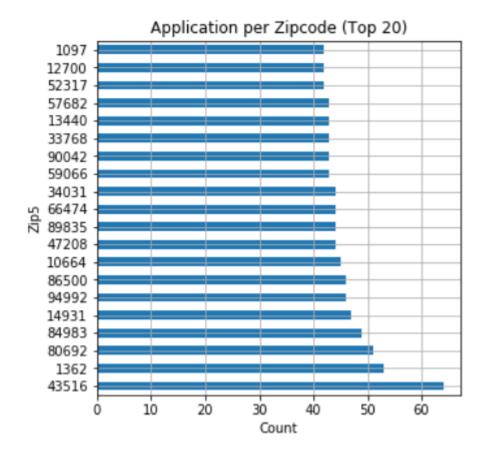
<u>Percent Populated</u>: 100% <u>Unique Values</u>: 88,167



## 7. Zip5

**Description**: Zip of the applicant

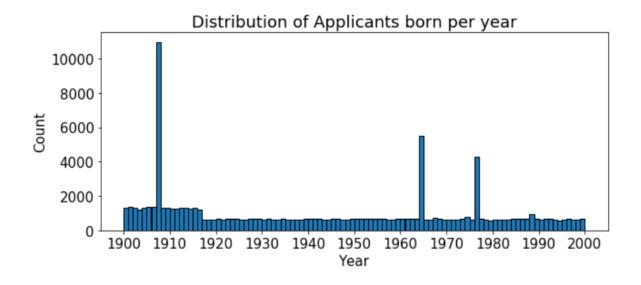
Percent Populated: 100% Unique Values: 15,855

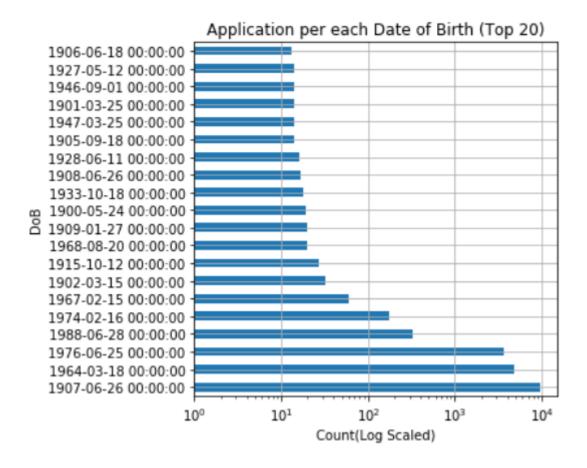


#### 8. DOB

**Description**: Date of birth of applicant

<u>Percent Populated</u>: 100% <u>Unique Values</u>: 30,599

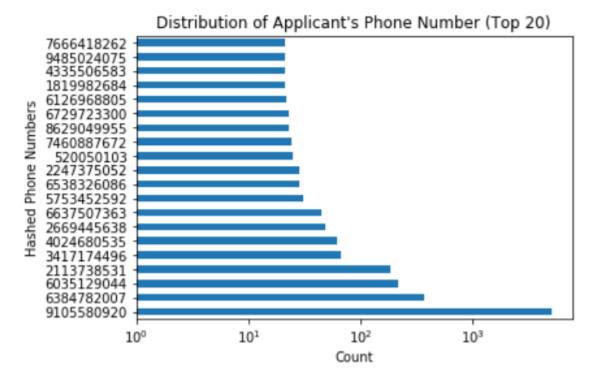




#### 9. Home Phone

<u>Description</u>: Hashed value of phone number of applicant.

Percent Populated: 100% Unique Values: 20,762



Some phone number may seem to have less digits as they have trailing zeroes. We also see that count of phone number 910-558-0920 is abnormally high. Hence, we conclude that it is a frivolous entry (like 999-999-9999) which people enter when unwilling to share real phone number.

#### 10.Fraud

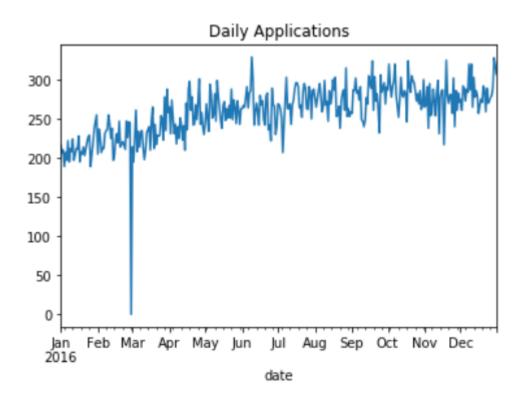
<u>Description</u>: Dependent variable (Telling whether the record is fraud or not)

Percent Populated: 100%

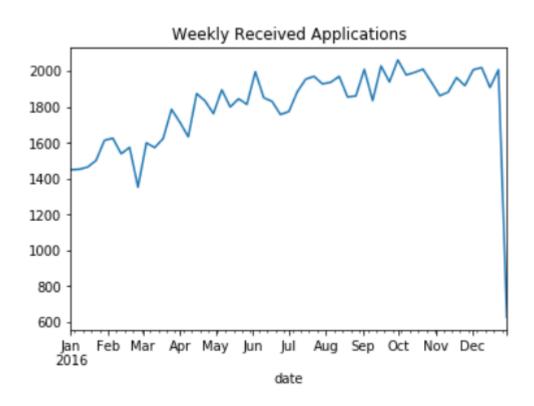
Unique Values: 2 (0 – No fraud, 1- Fraud)

## **Time Based Analysis:**

Number of applications received per day-



Number of applications received per week-



# Number of applications received per month –

