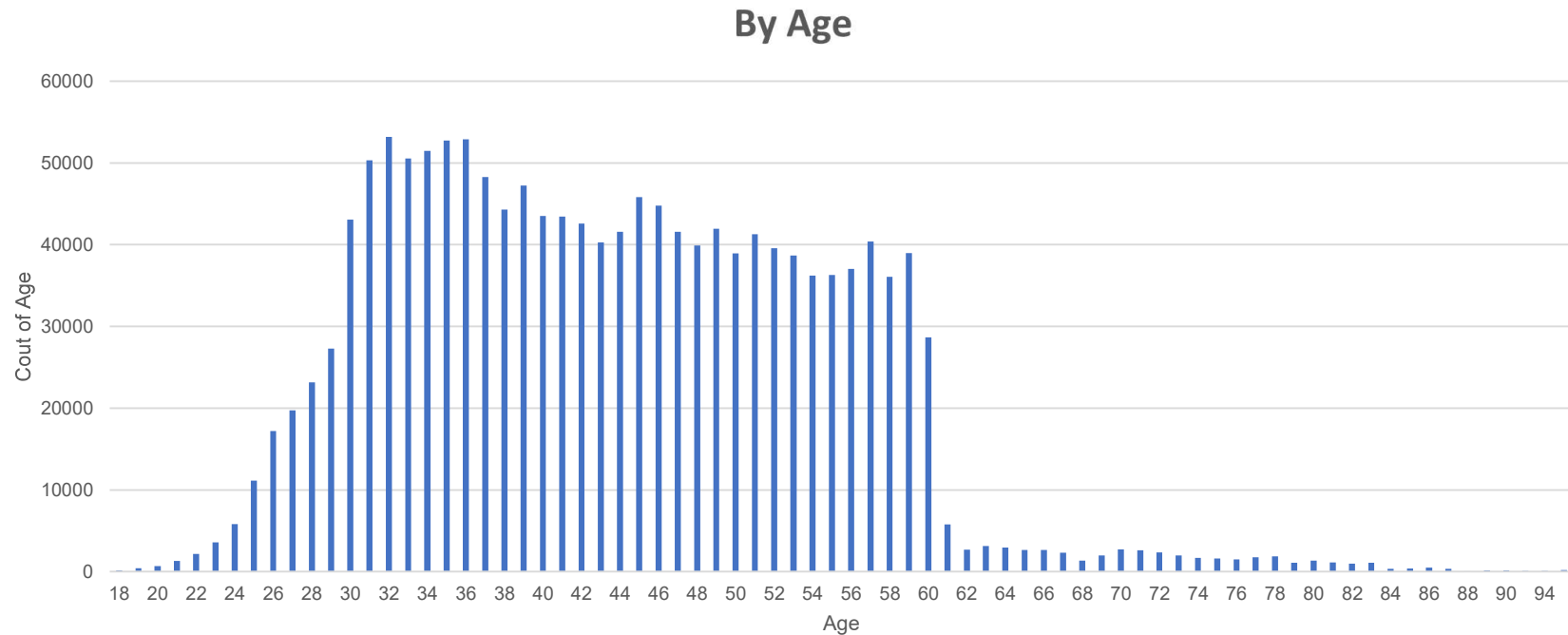


Data Cleaning

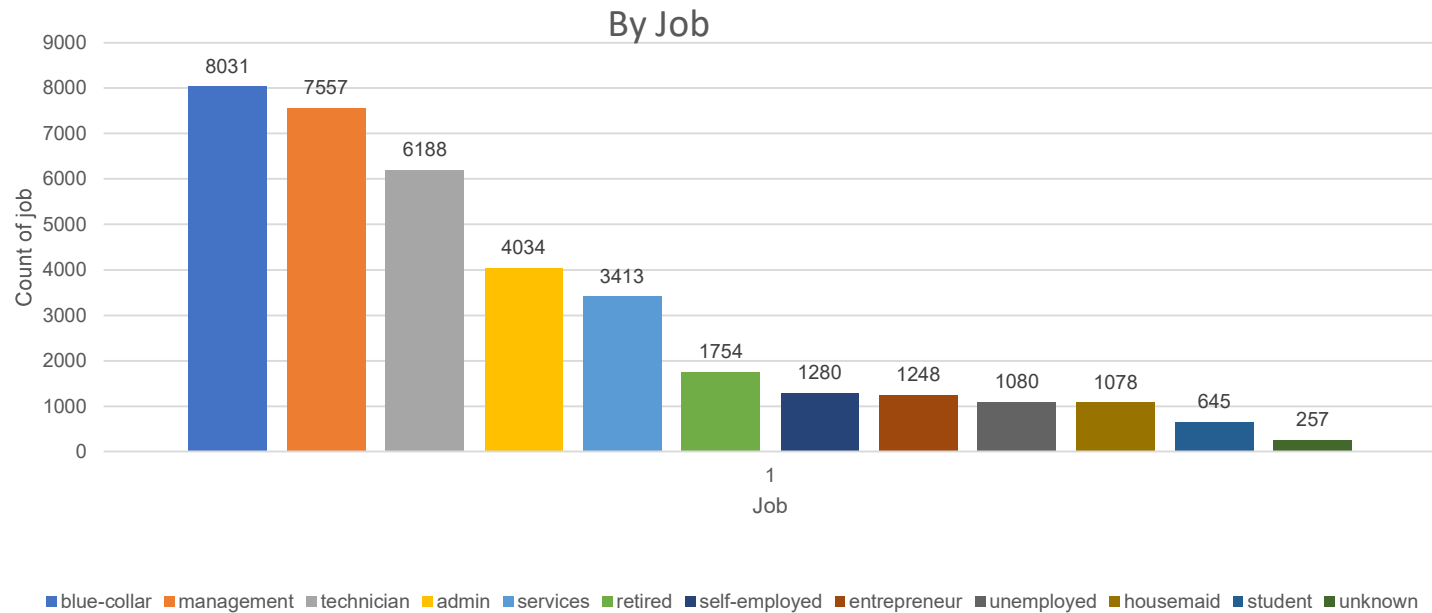
- ❖ Removed duplicate rows
- ❖ Removed blank cells in rows under Loan default, Subscription and Poutcome.
- ❖ Data conversions :
 1. In Age – negative to positive
 2. In Job - admin. To admin
 3. In loan default, Housing loan, personal loan and subscription, replace yes and no with 1 and 0 respectively.
- ❖ Convert the date from text to date format.
- ❖ Create the new columns for day and month from the date column.
- ❖ In call duration, convert Hrs, mins, and sec to seconds.
- ❖ Remove outliers in column previous.
- ❖ Finally delete the empty rows in between from the data set.

Univariate Analysis



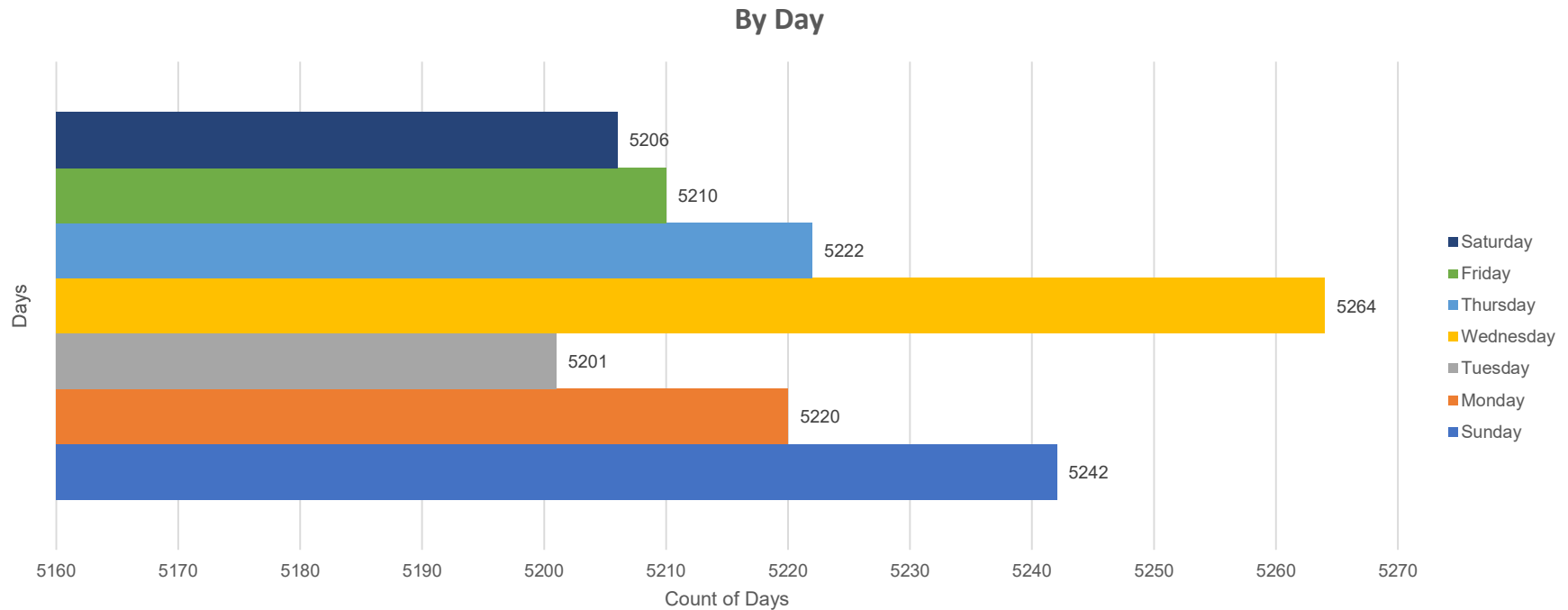
Observation: Majority of the bank customers are in the range of 23-60 years who can be working age group. Though, there is a drastic decline after 60 years of the customers.

Univariate Analysis



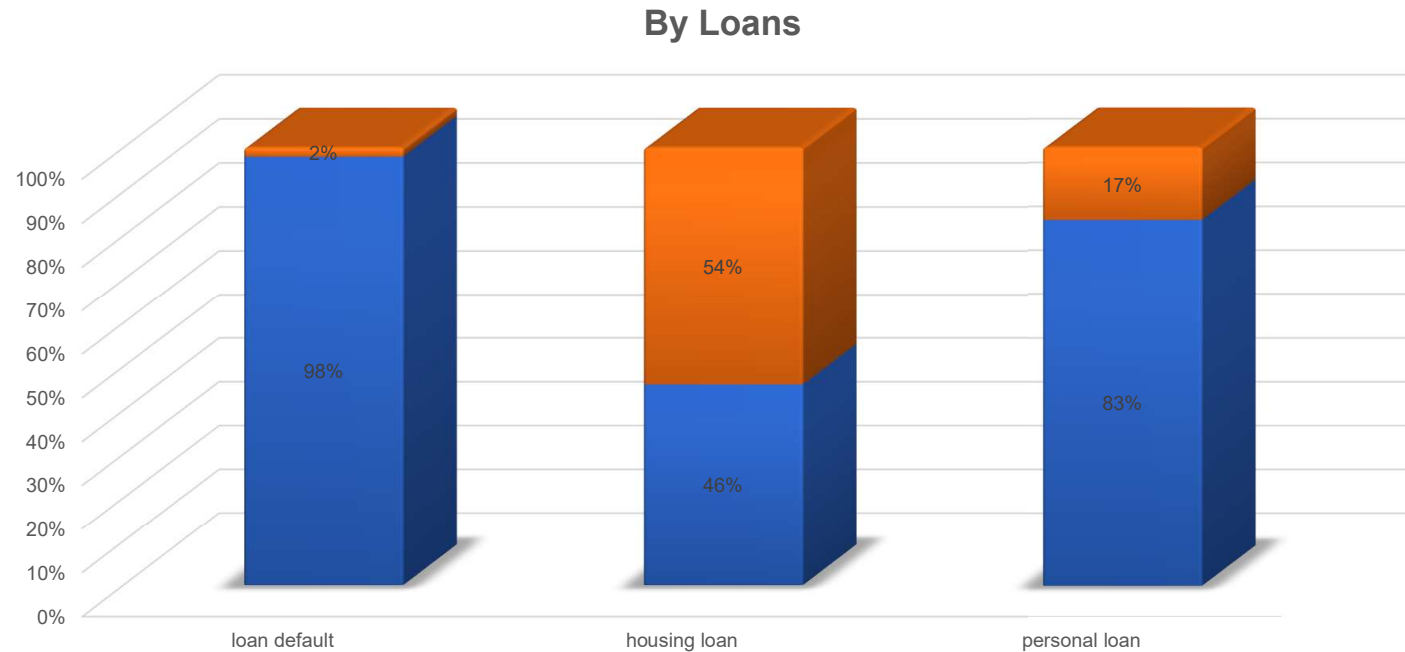
Observation: The blue-collar and management working professions are the majority shares to the customer segments.

Univariate Analysis



Observation: Majority of the customer visits for a bank on Wednesday, which is a mid week of the working days for the working professions to visit.

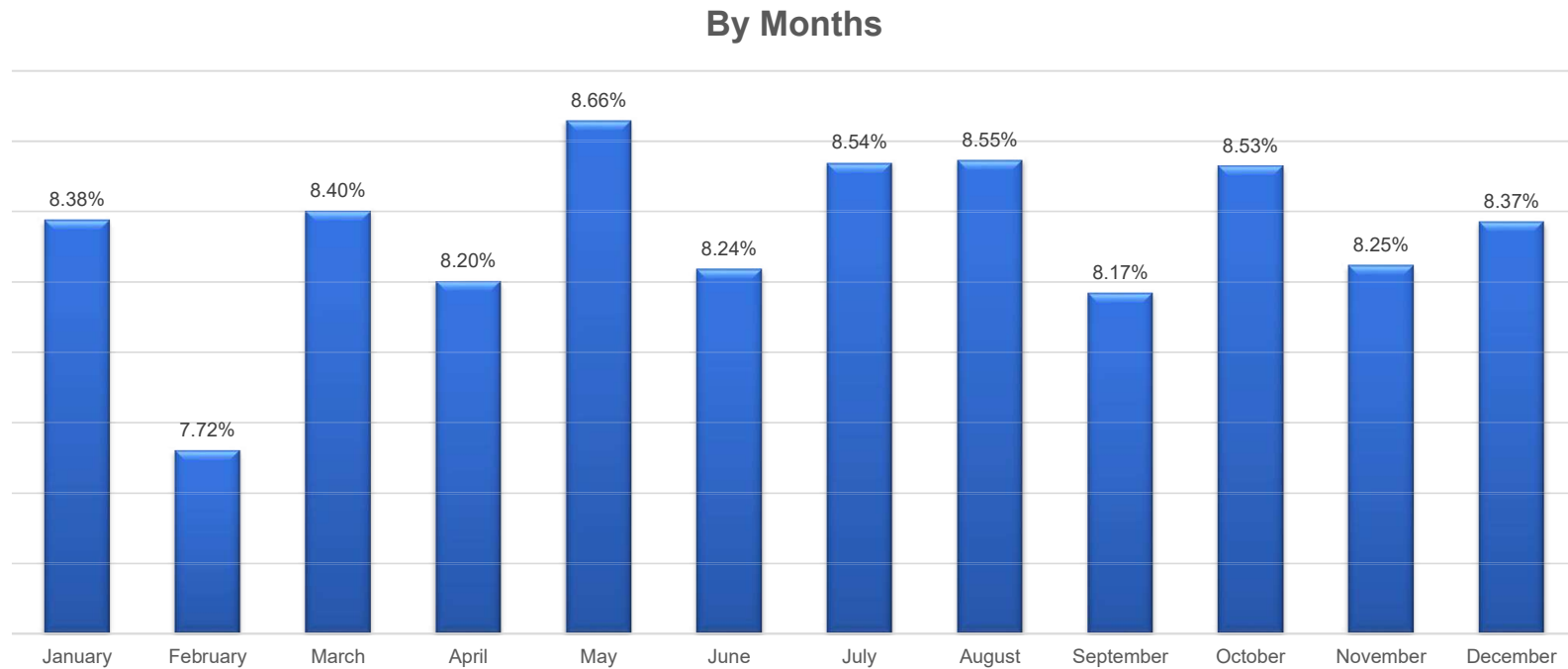
Univariate Analysis



Observation:

The defaulted customers are having very less which is 2% of total customers. And majority of the customers are having housing loan (54%) compare to personal loan (17%) for investing and property purpose.

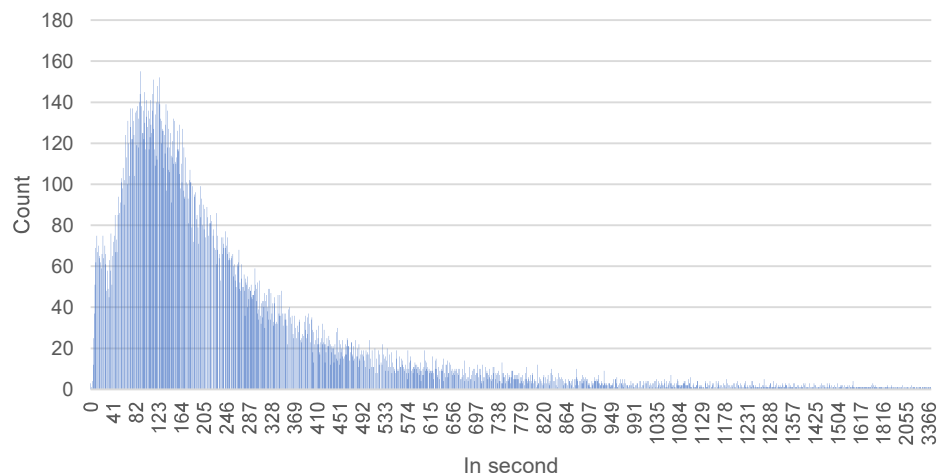
Univariate Analysis



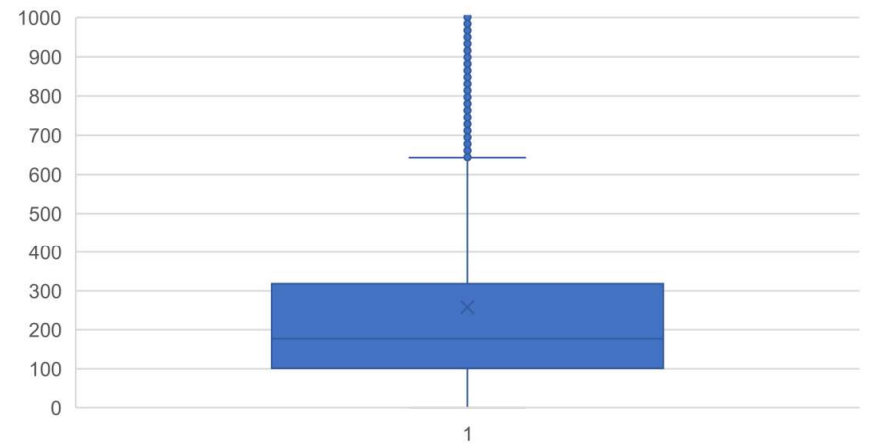
Observation: The majority share of the calls are around 8.66% of total calls are made during the month of May.

Univariate Analysis

By Call Duration



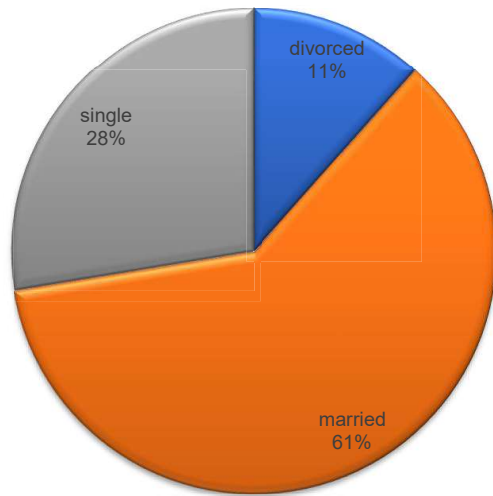
Observation: This graph illustrates that most of the customer's call durations are lies between 1-3 minutes.



Observation: This graph illustrates that most of the customer's average call duration is 180 seconds.

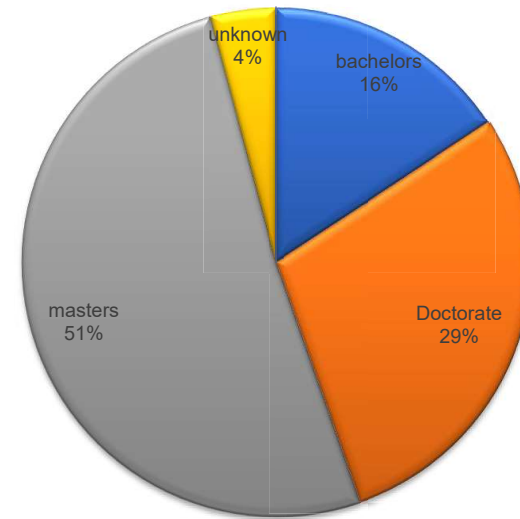
Segmented Univariate Analysis

Marital Status



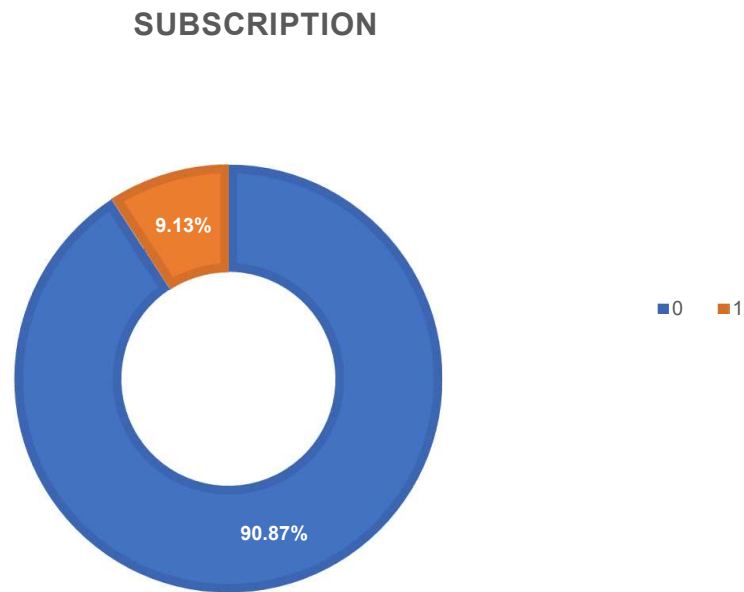
Observation: Majority of the customers are from married.

Education status



Observation: from the graph illustrates that, least hold bachelor degree holders are 16% and 4%. Overall 51% are holding masters degree.

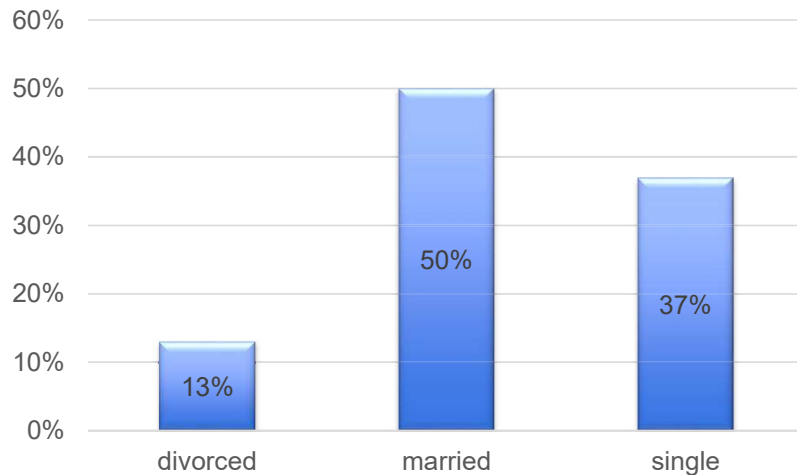
Segmented Univariate Analysis



Observation: The overall conversion rate of the customer is 9.13% for the subscription of term deposit.

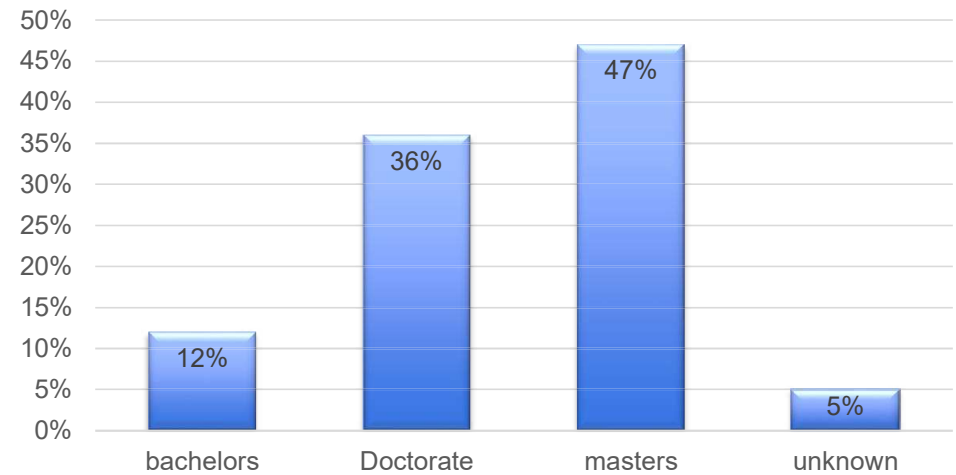
Bivariate Analysis

Marital Status



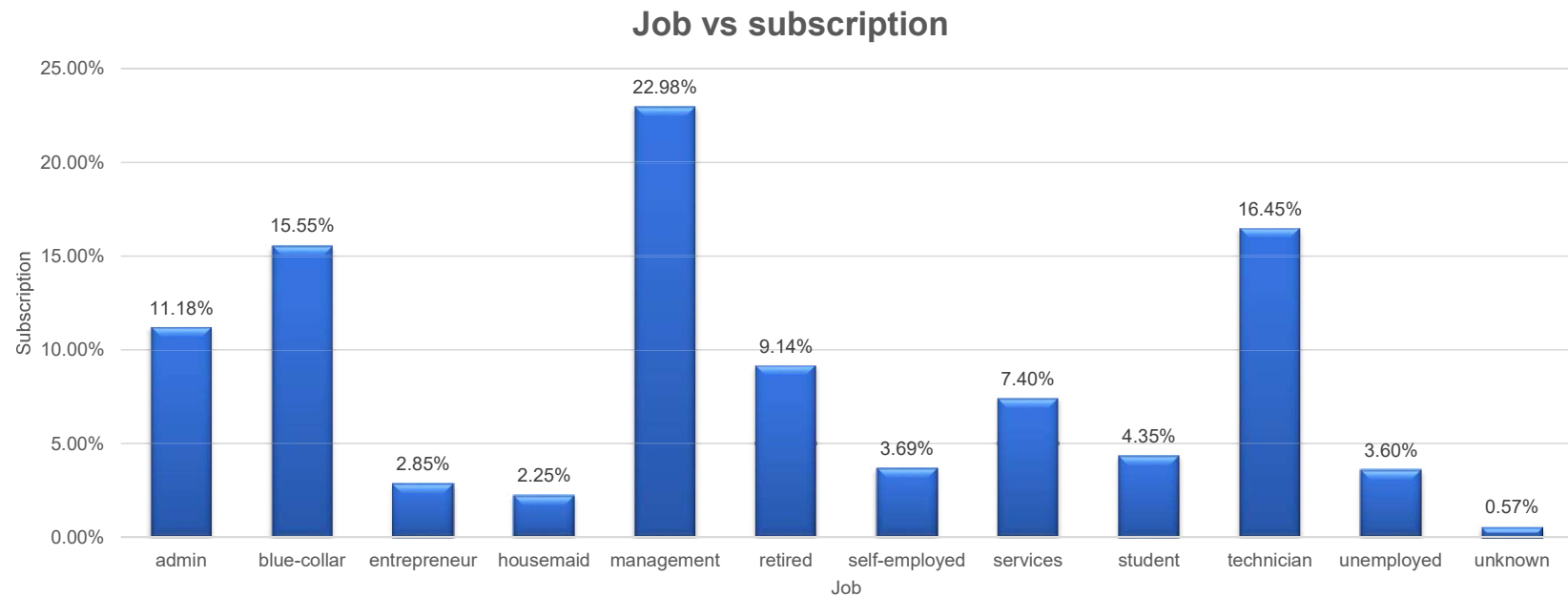
Observation: Most of the subscription conversion rate is higher in married better than single and divorced. So, better to target a married customers more than others.

Education



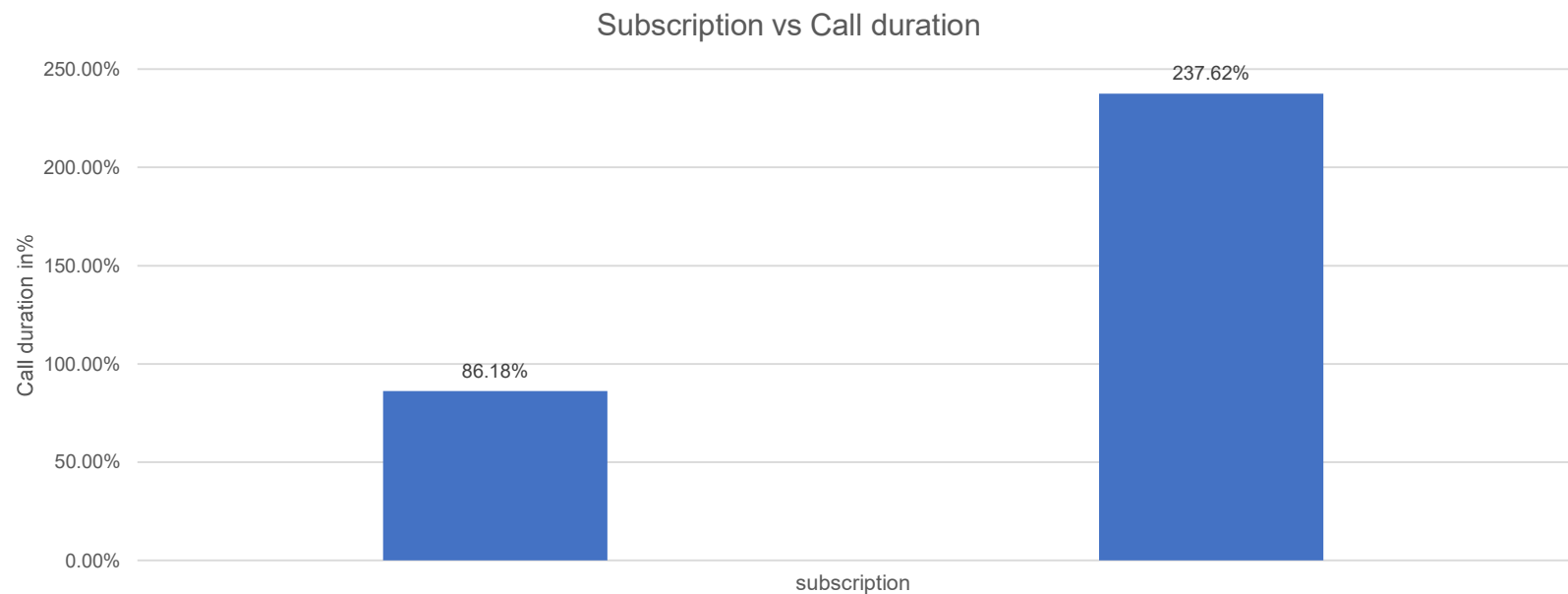
Observation: Most of the subscription conversion rate is higher in masters than others education. So, better to target a who are masters and doctorate customers more than others.

Bivariate Analysis



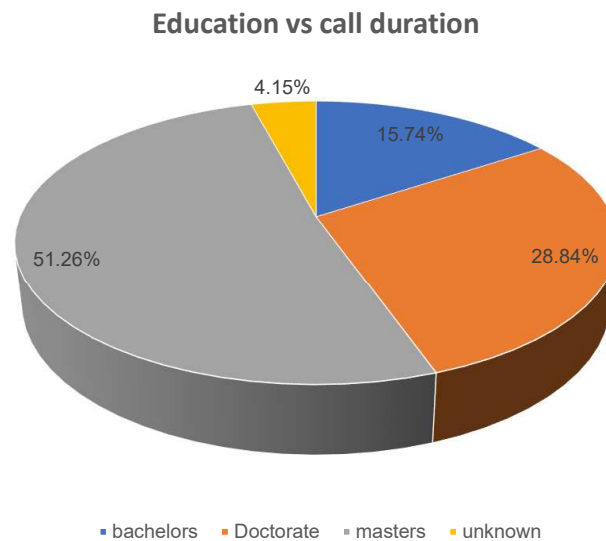
Observation: The conservation rate of the people who are management profession have high which is 22.98% compare to other job profession. These customer has opened the term deposit account, So we should target accordingly for the other products.

PART II : Bivariate Analysis



Observation: The majority of the average call duration of the subscribed customers are higher than the unsubscribed customers.

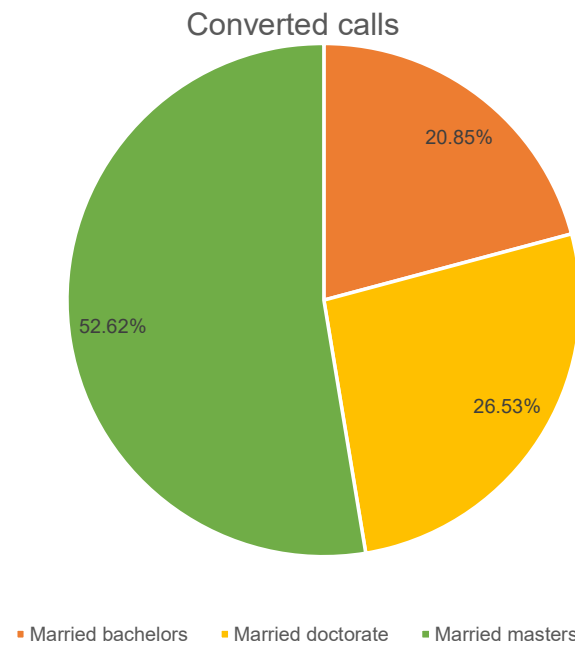
PART II : Bivariate Analysis



Observation: This graph represents that, most of the call conversion rate is higher in master's qualified customers, which is 51.26%.

Analysis Results

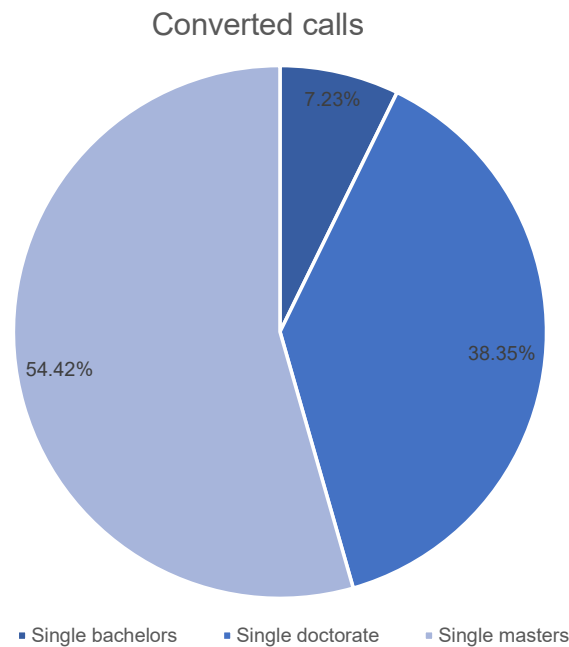
Married marital status segmented by Education



Observation: This graph illustrates that majority of the married masters are highly conversion rate 52.62% compare to others.

Analysis Results

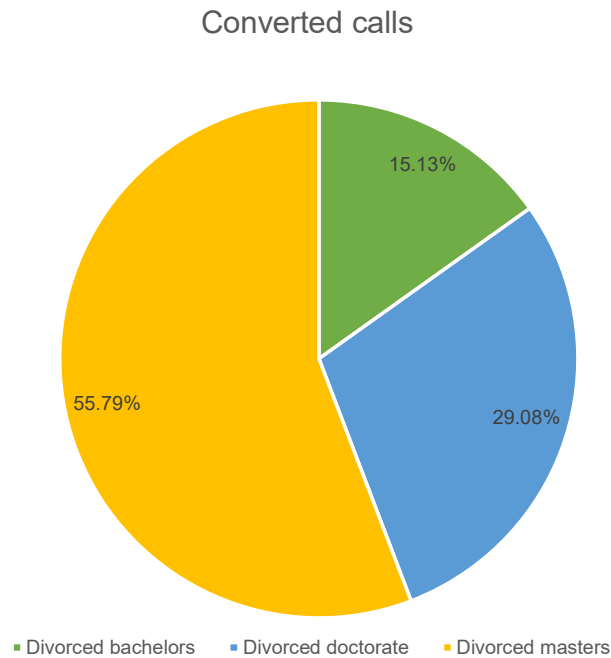
Single marital status segmented by Education



Observation: This graph illustrates that majority of the Single masters are highly conversion rate 54.42% compare to single doctorate and single bachelors.

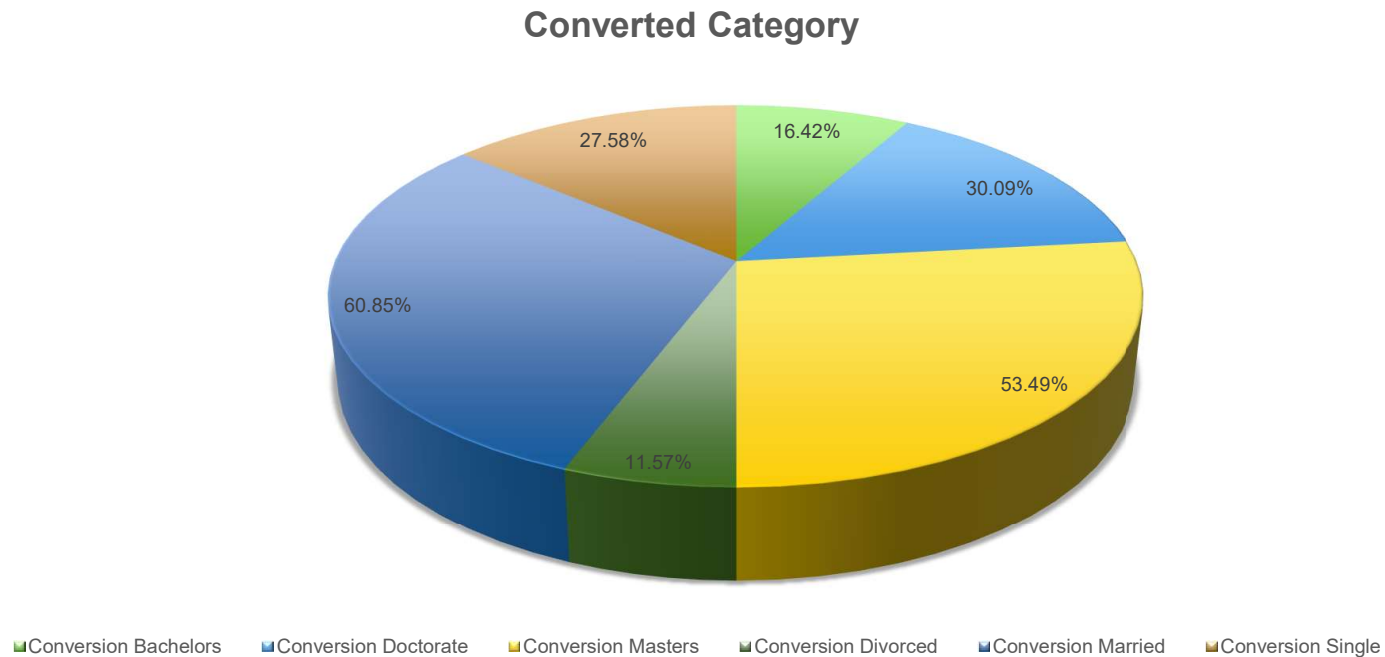
Analysis Results

Divorced marital status segmented by Education



Observation: This graph illustrates that majority of the divorced masters are highly conversion rate 55.79% compare to others.

Analysis Results



Observation: This graph illustrates that majority of the married and masters are highly conversion rate 60.85% and 53.49% respectively compare to other conversions. So, this infers that the customers to be target on these category make more efficient to the marketing campaign.