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CREDIT CARD CUSTOMERS ANALYSIS

EXPLORATORY DATA ANALYSIS (EDA)

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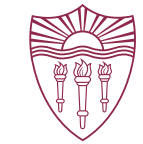
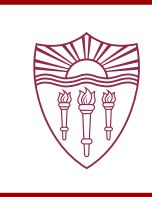


Business Objective

To provide insight into which customers are eager to churn.
Therefore, the banks could have a deeper understanding of their customers and target the appropriate groups to decrease their credit card churning rate.



Data Sources

Credit Card Attrition Dataset Overview:

Database of records of bank customers, both attrited customers and existing customers, with features like gender, age, salary, marital status, credit card limit, credit card category, inactive months, etc.

Data Sources:
https://www.kaggle.com/datasets/sakshigoyal7/credit-card-customers?datasetId=982921&sortBy=commentCount&page=2
10,127 observations/ 23 variables

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Attribute Summary

Numeric(14)

Demographic:
Customer_Age, Dependent_count

Organizational:
Total_Relationship_Count,
Months_Inactive_12_mon,
Contacts_Count_12_mon,
Credit_Limit, Total_Revolving_Bal,
Total_Amt_Chng_Q4_Q1,
Total_Ct_Chng_Q4_Q1,
Total_Trans_Amt, Total_Trans_Ct,
Avg_Utilization_Ratio,
Avg_Open_To_Buy,
Months_on_book

Factor(6)

Output: Attrition_Flag

Demographic:
Gender,Education_Level,
Marital_Status, Income_Category

Organizational:
Card_Categor

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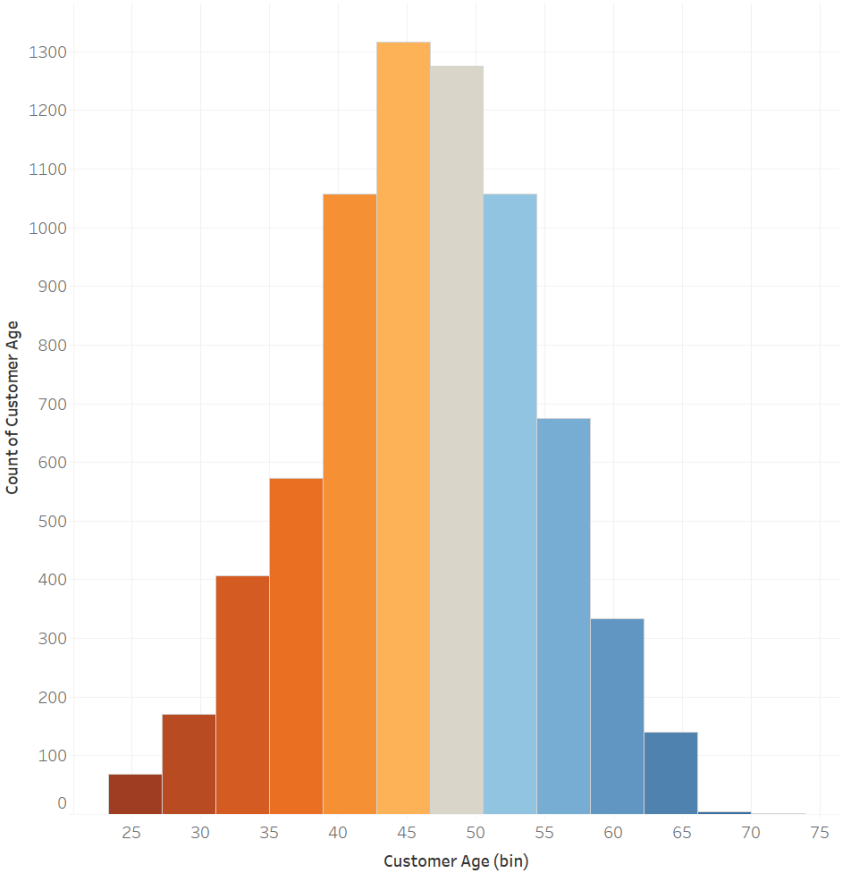
Insights:

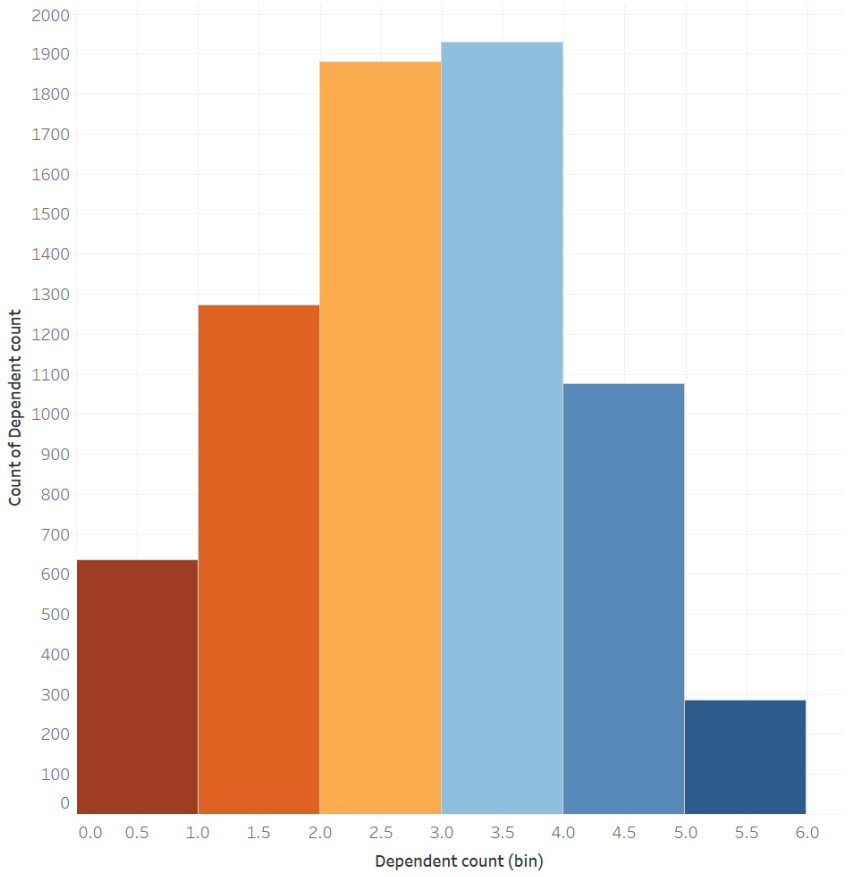
- **Customer age presents a normal distribution.**
- **Dependent count presents a normal distribution.**

Univariate Summary

Demographic Factors | Organizational Factors | Demographic and

Univariate Summary of Demographic Factors (Numeric Attributes)





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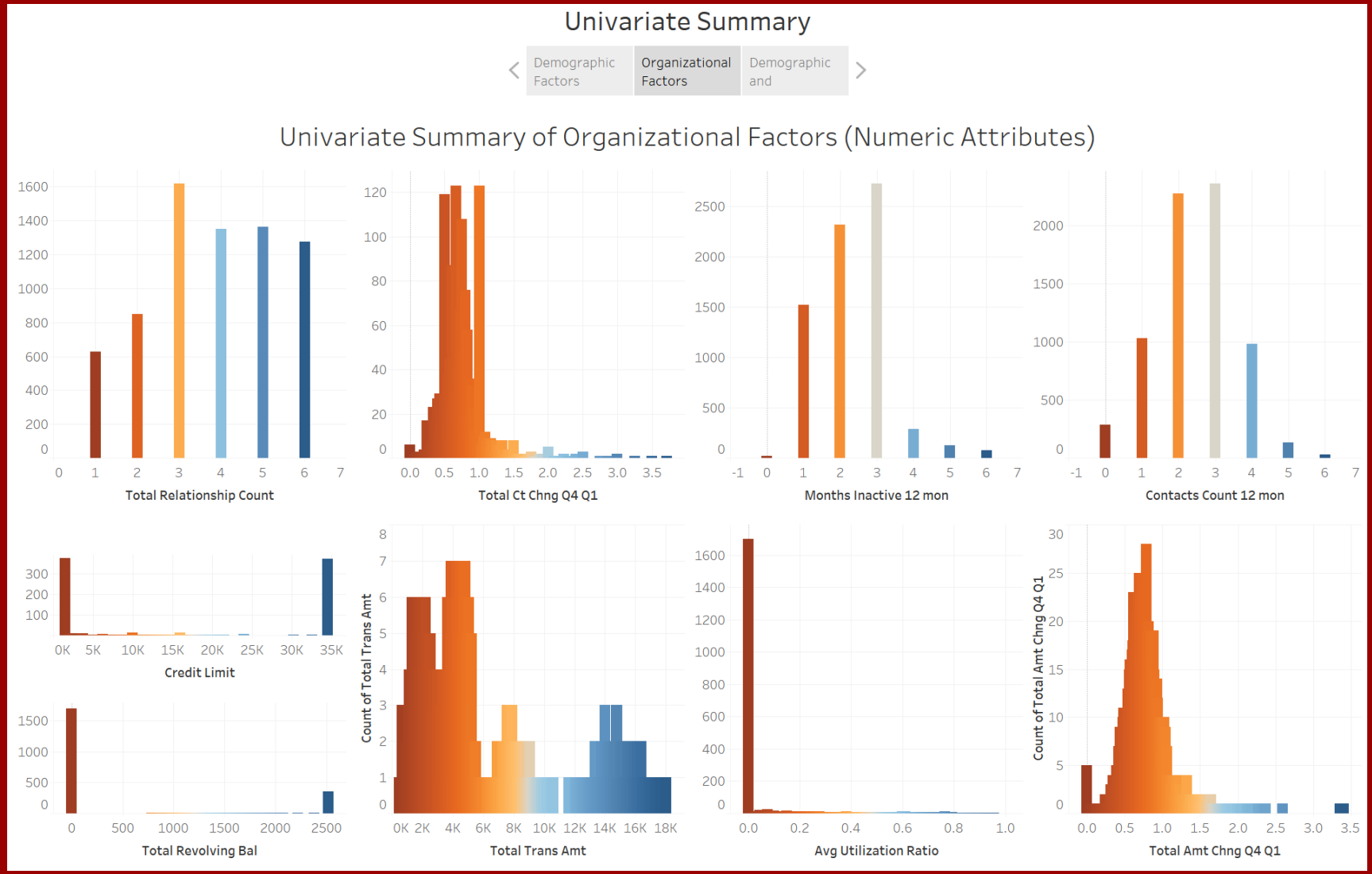
Insights:

- **Total_Amt_Chng_Q4_Q1 and Total_Ct_Chng_Q4_Q1 present highly positive skew.**



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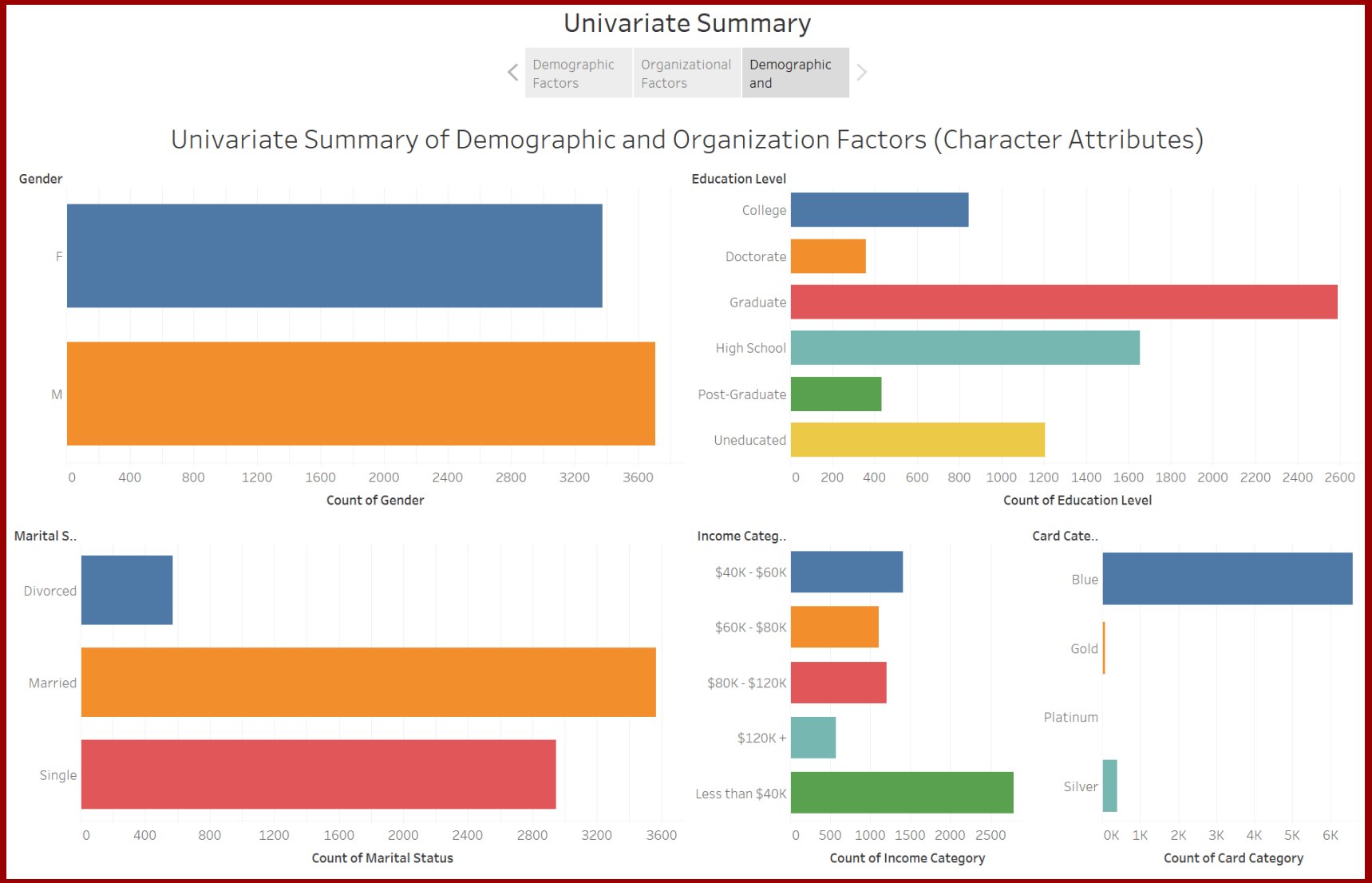
Insights:

- **The proportion of graduates is the largest at Education Level.**
- **The proportion of blue cards is the largest in Card Category.**



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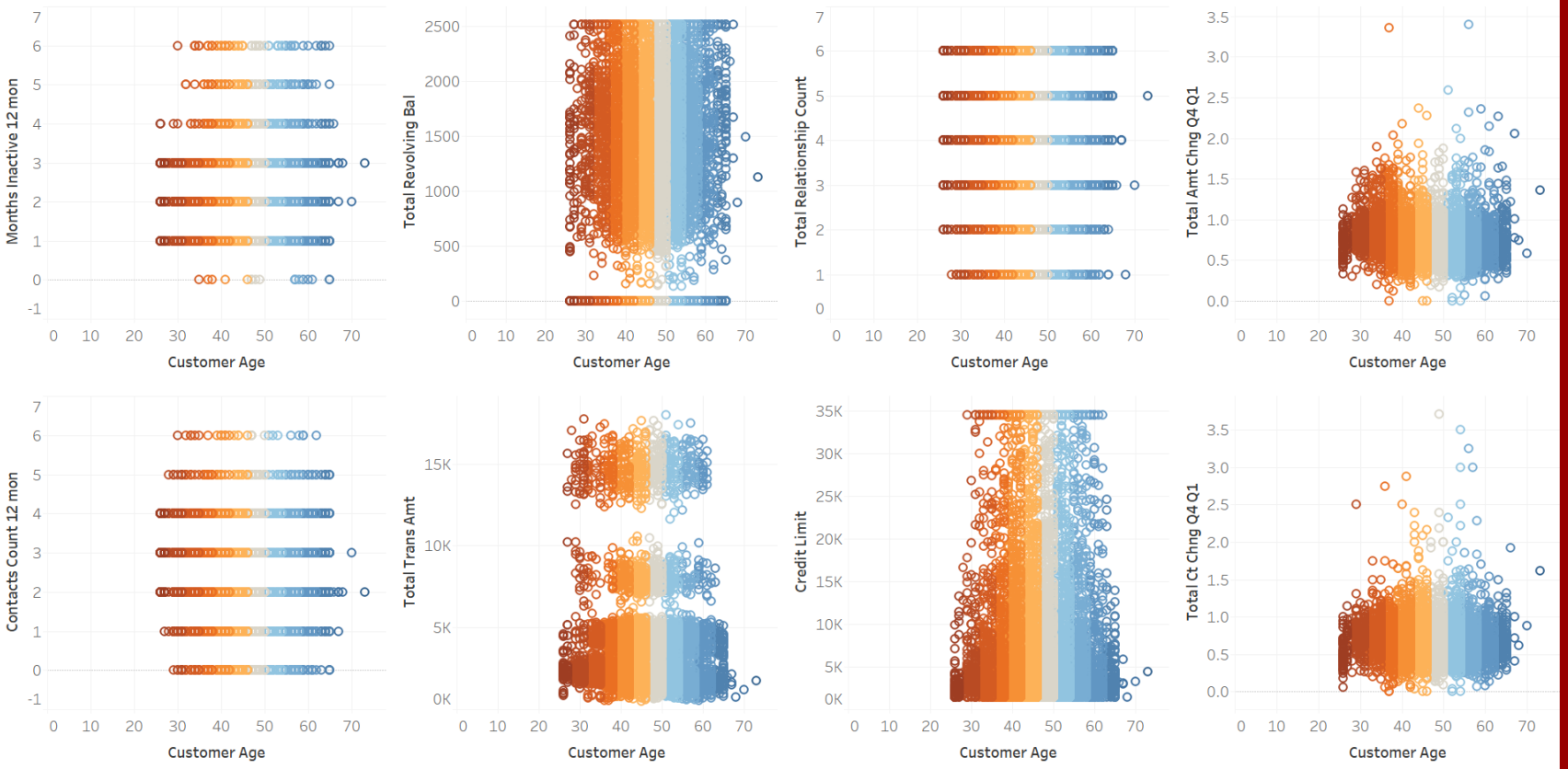
Insights:

- **The credit limits differentiate by customer age.**

Bivariate Analysis

Customer Age by Different | Customer Age by Selected | Dependant Count by | Credit Limit by Selected | Total Relationship

Bivariate Analysis - Measure vs Measure
Visualizing Customer Age and Selected Measures



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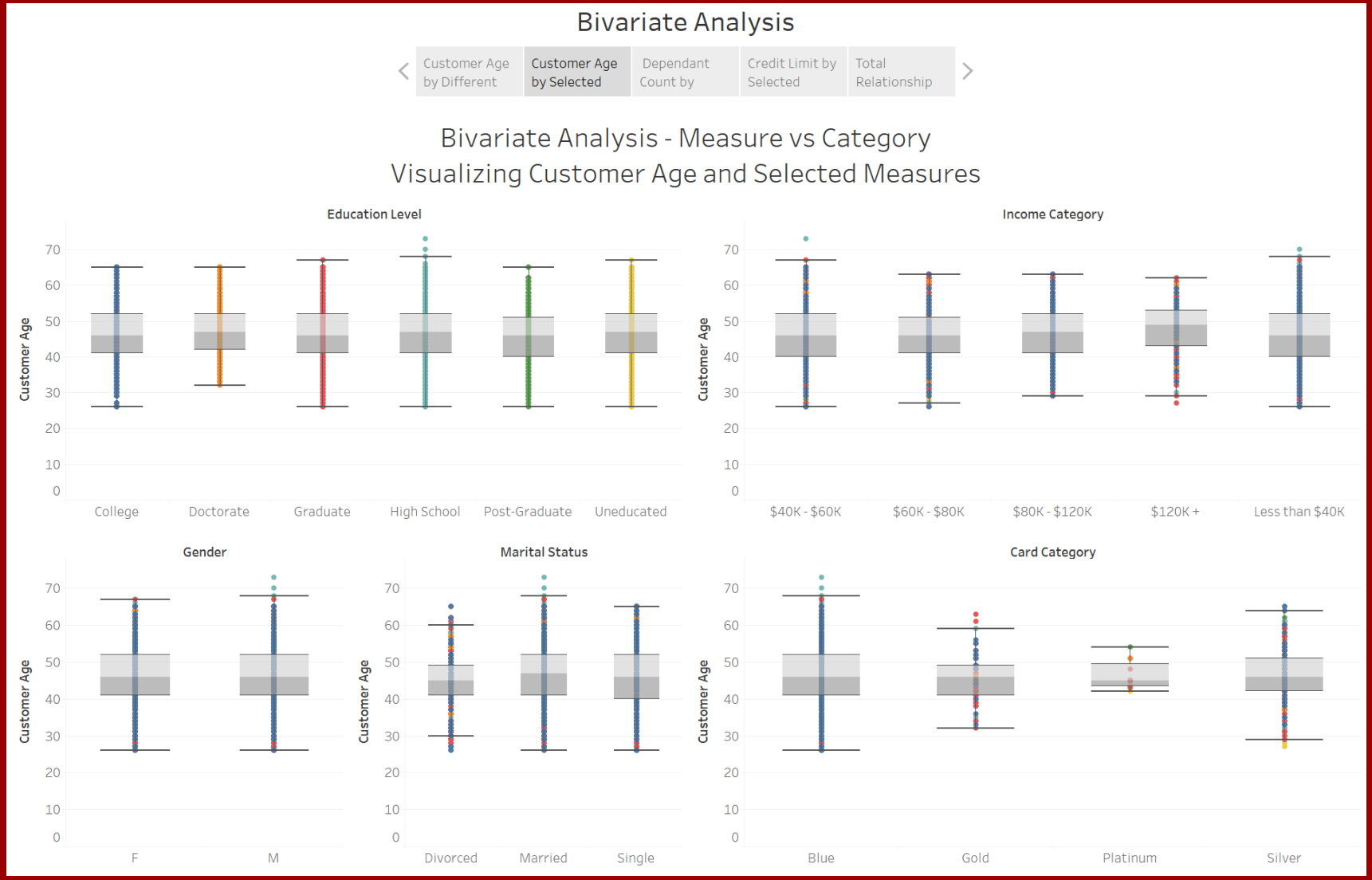
Insights:

- **The card categories differentiate by customer age.**



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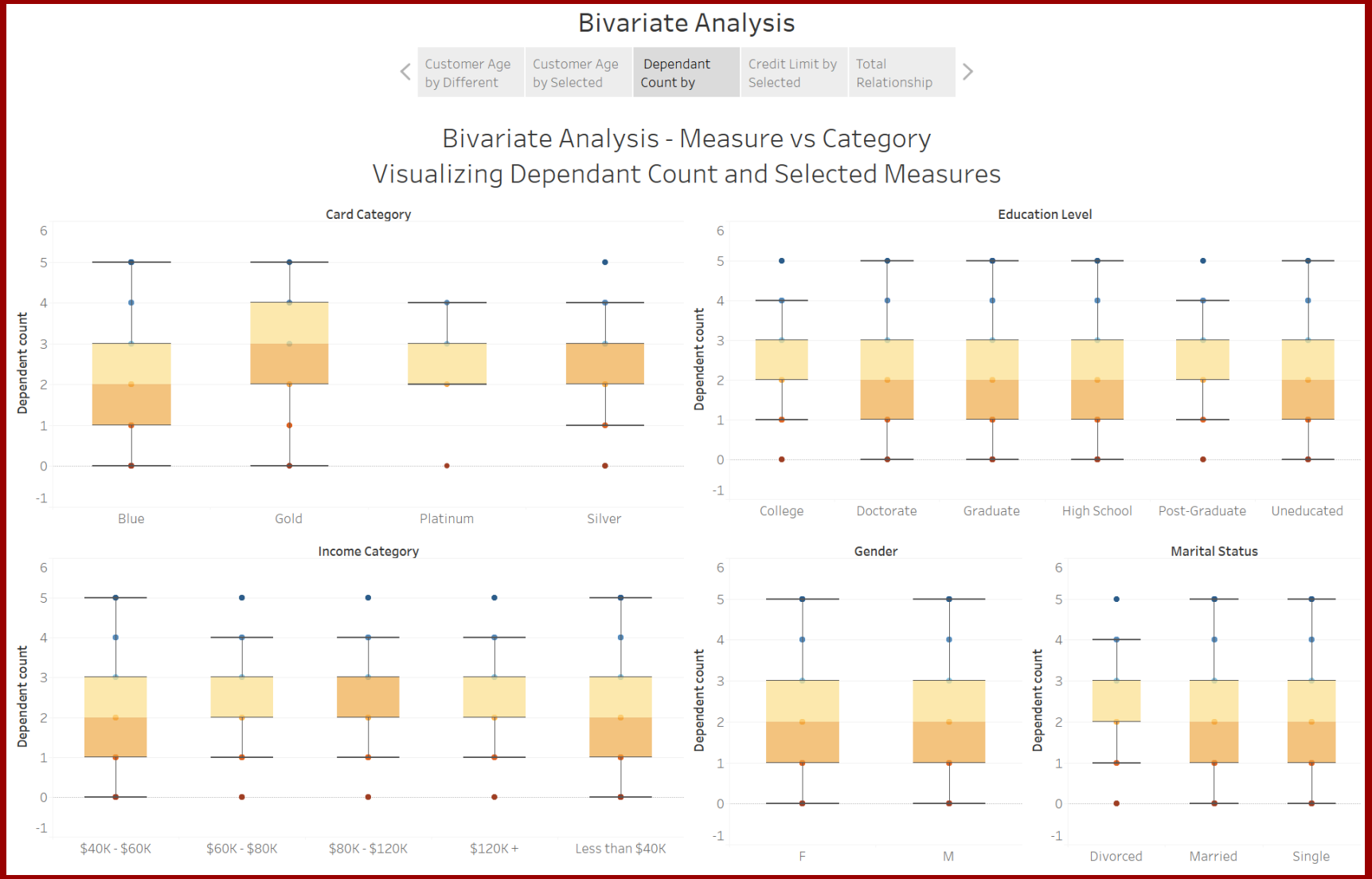
Insights:

- **Different card categories/ income categories/ education level categories have different dependent counts.**



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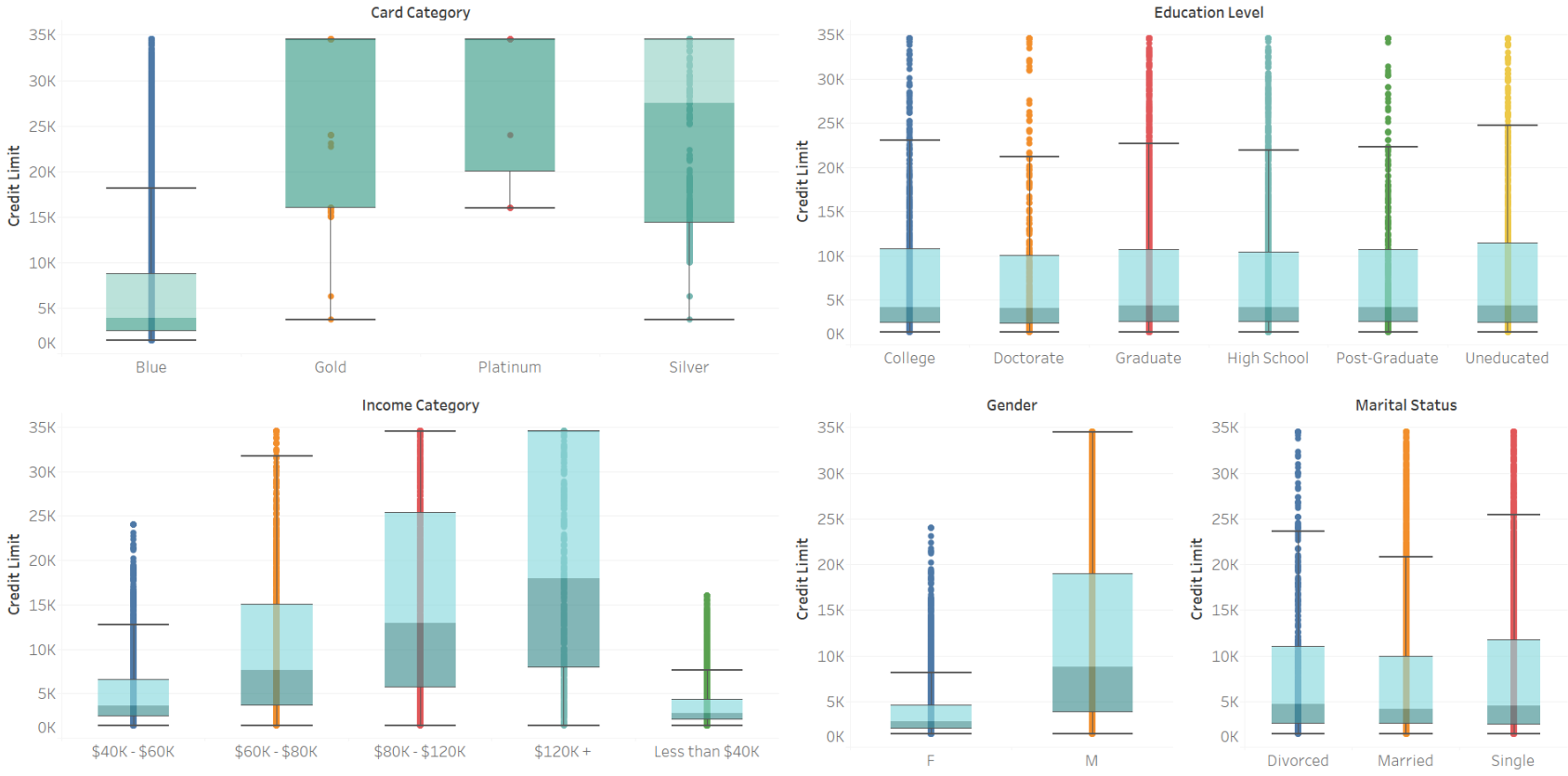
Insights:

- **The credit limit is biased in gender.**
- **Different income categories have different credit limits.**

Bivariate Analysis

Customer Age by Different | Customer Age by Selected | Dependant Count by | **Credit Limit by Selected** | Total Relationship

Bivariate Analysis - Measure vs Category
Visualizing Credit Limit and Selected Measures



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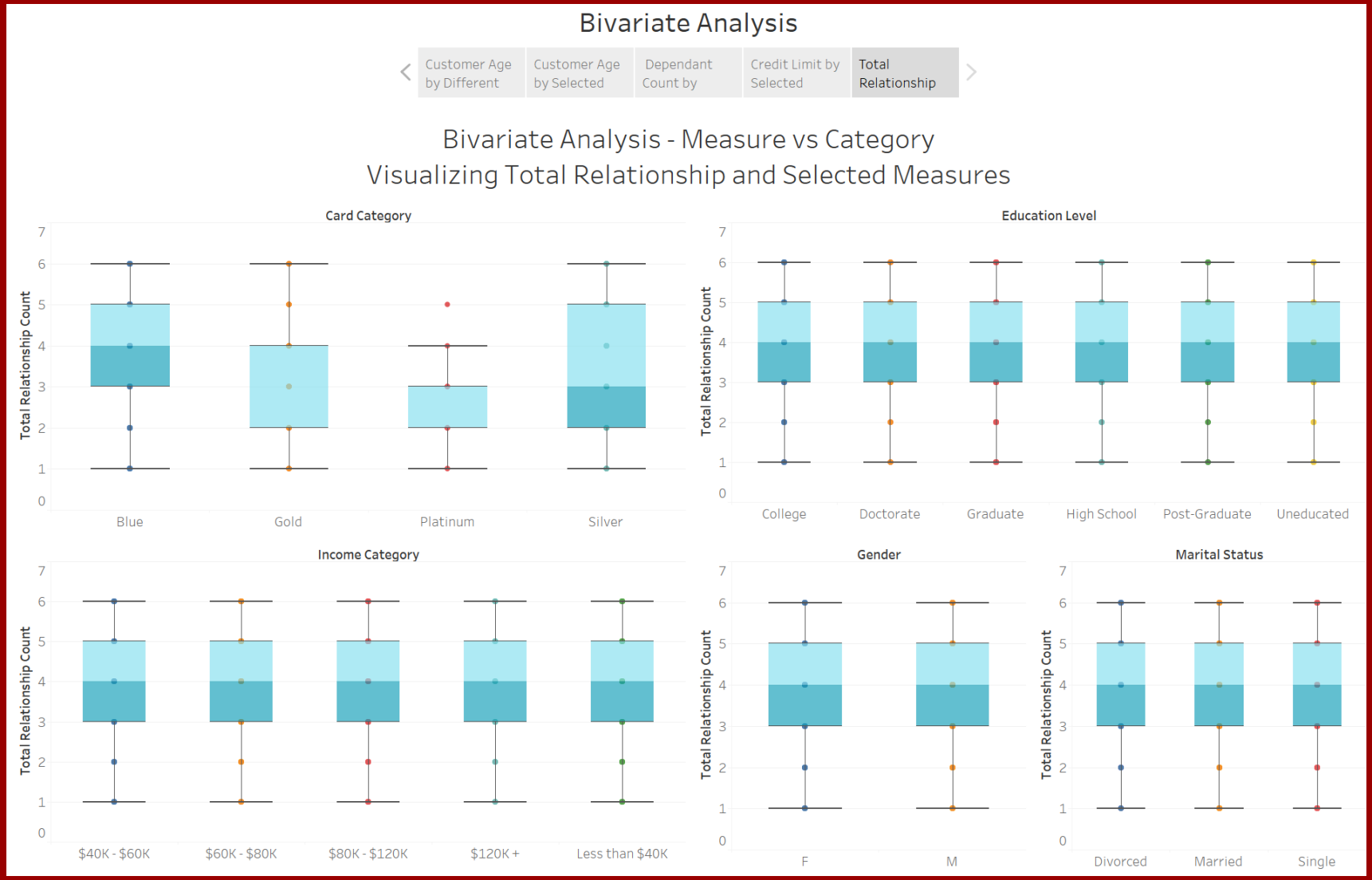
Insights:

- **The card categories differentiate in total relationship count. (Relationship Count is total number of products held by the customer)**



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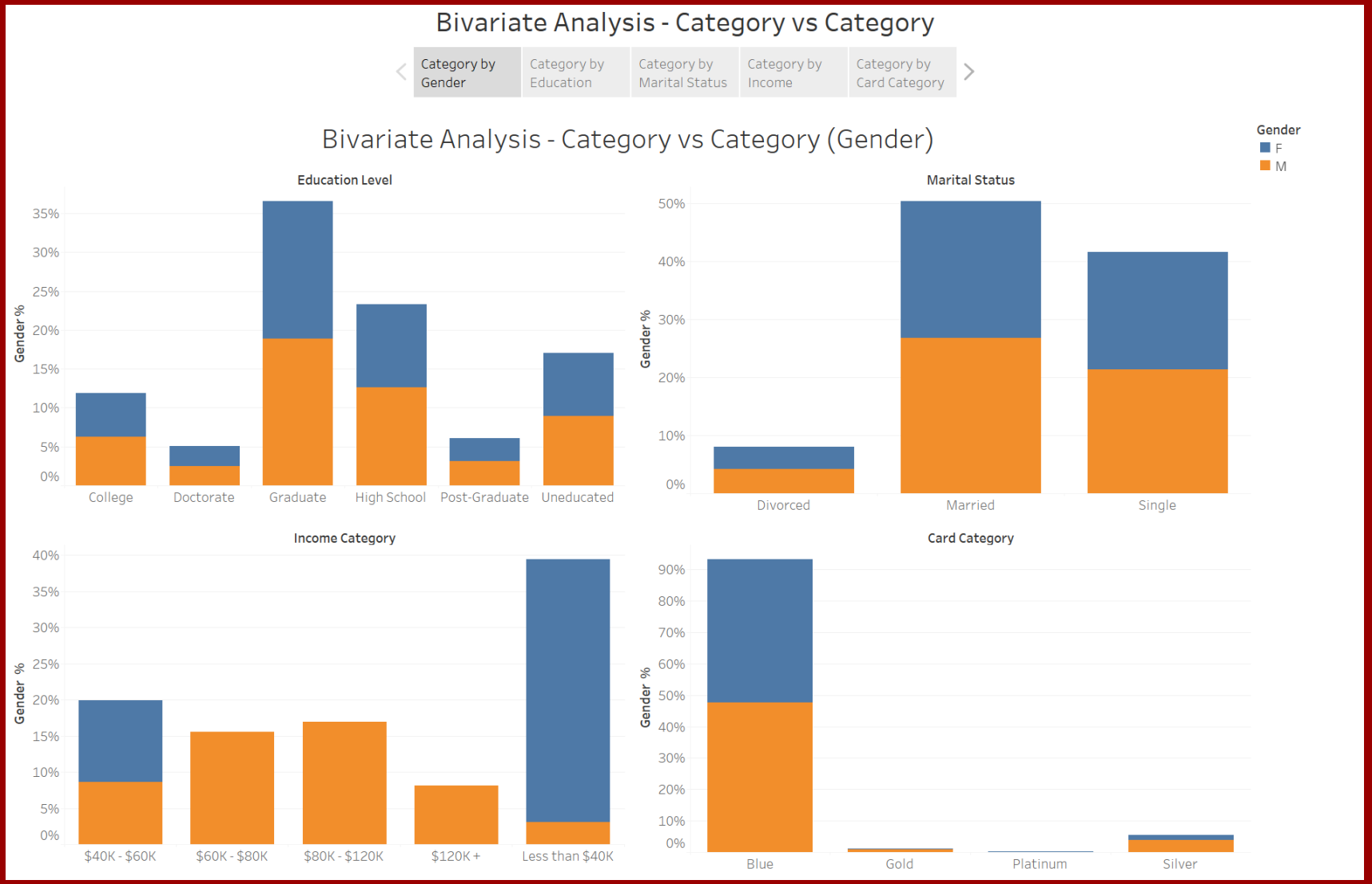
Insights:

- **Almost the same ratio of men to women in most groups.**
- **The income category is biased in gender.**



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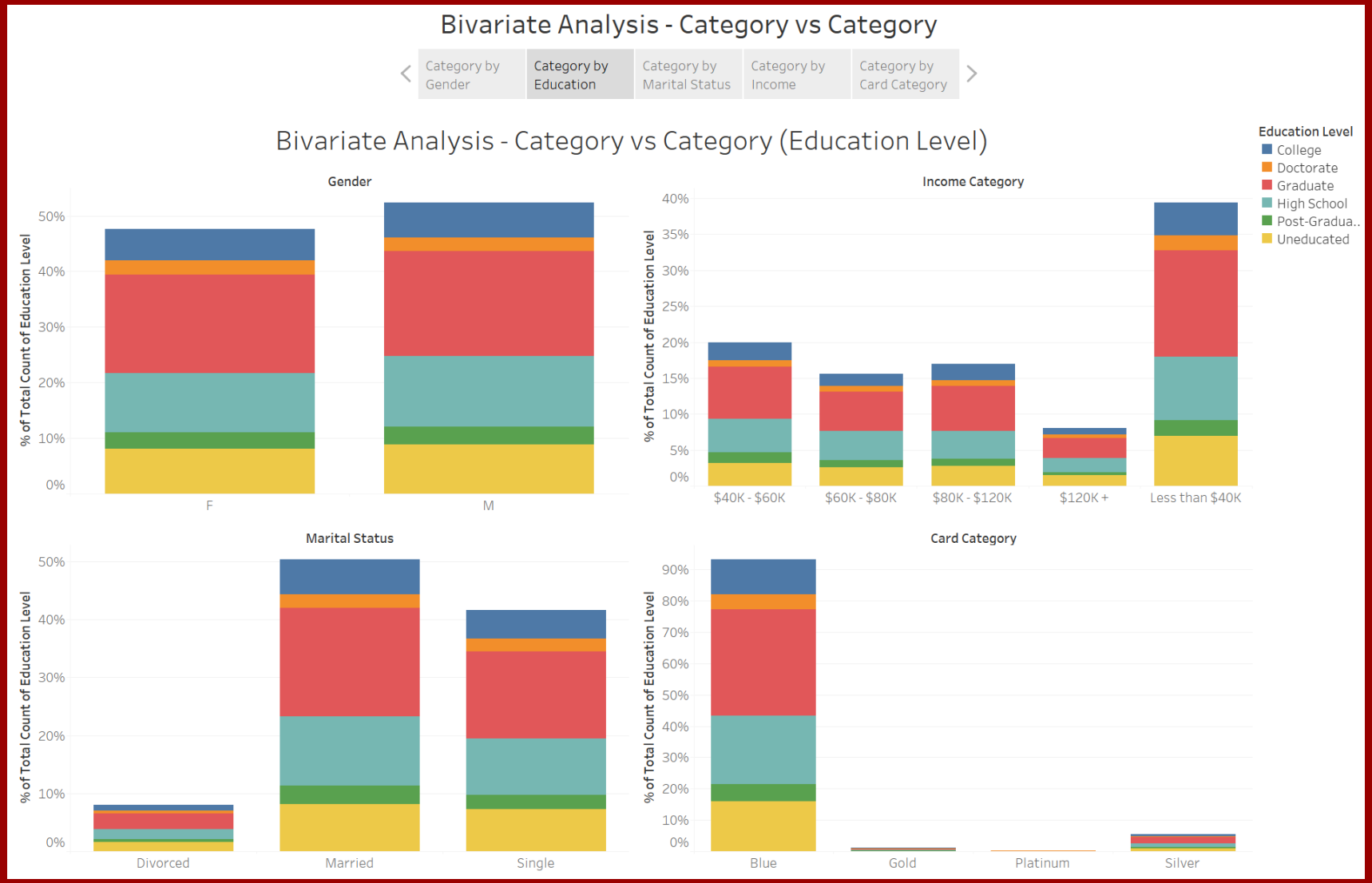
Insights:

- **Almost the same ratio of different education levels in most groups.**



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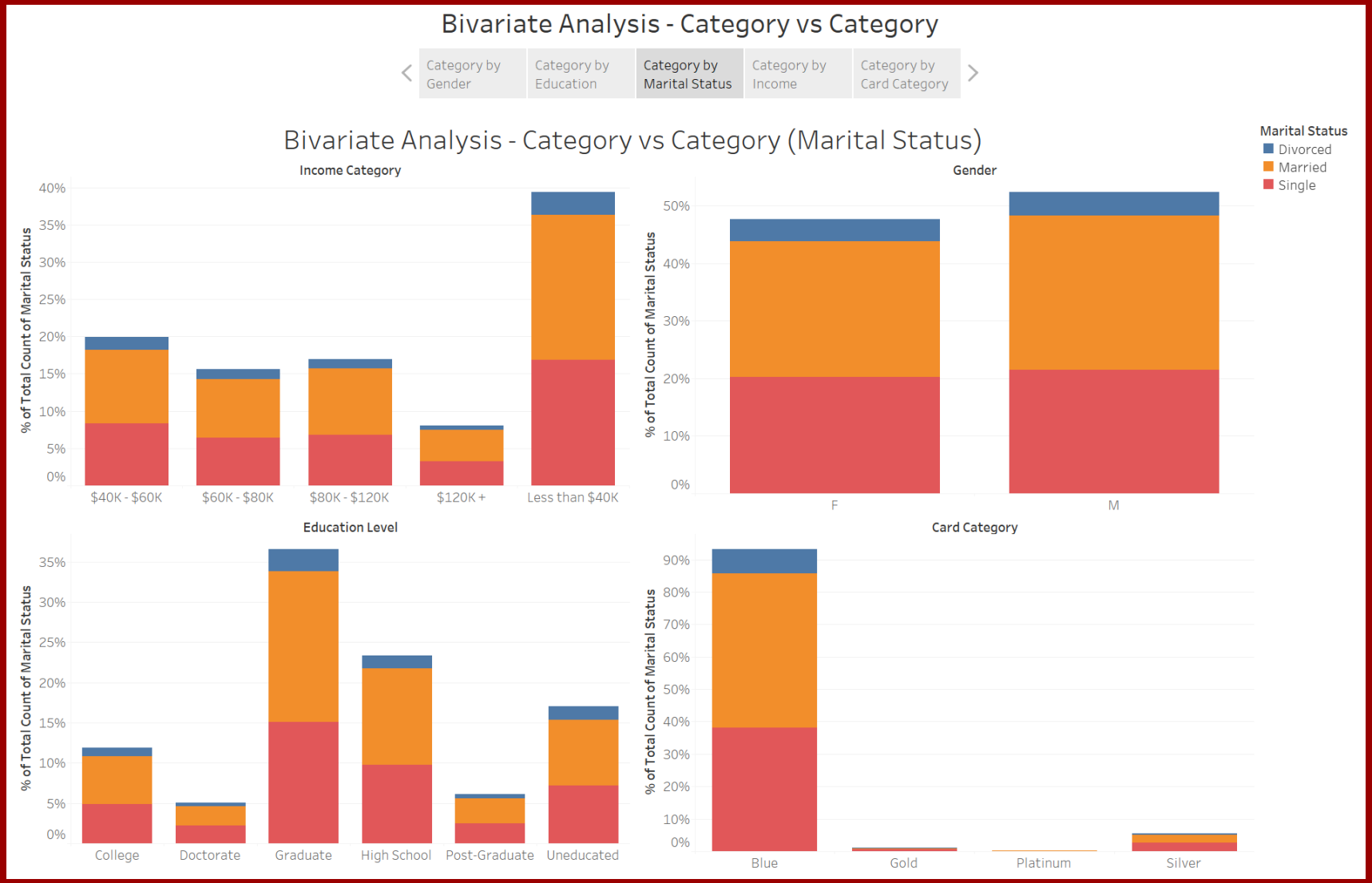
Insights:

- **Almost the same ratio of different marital statuses in most groups.**



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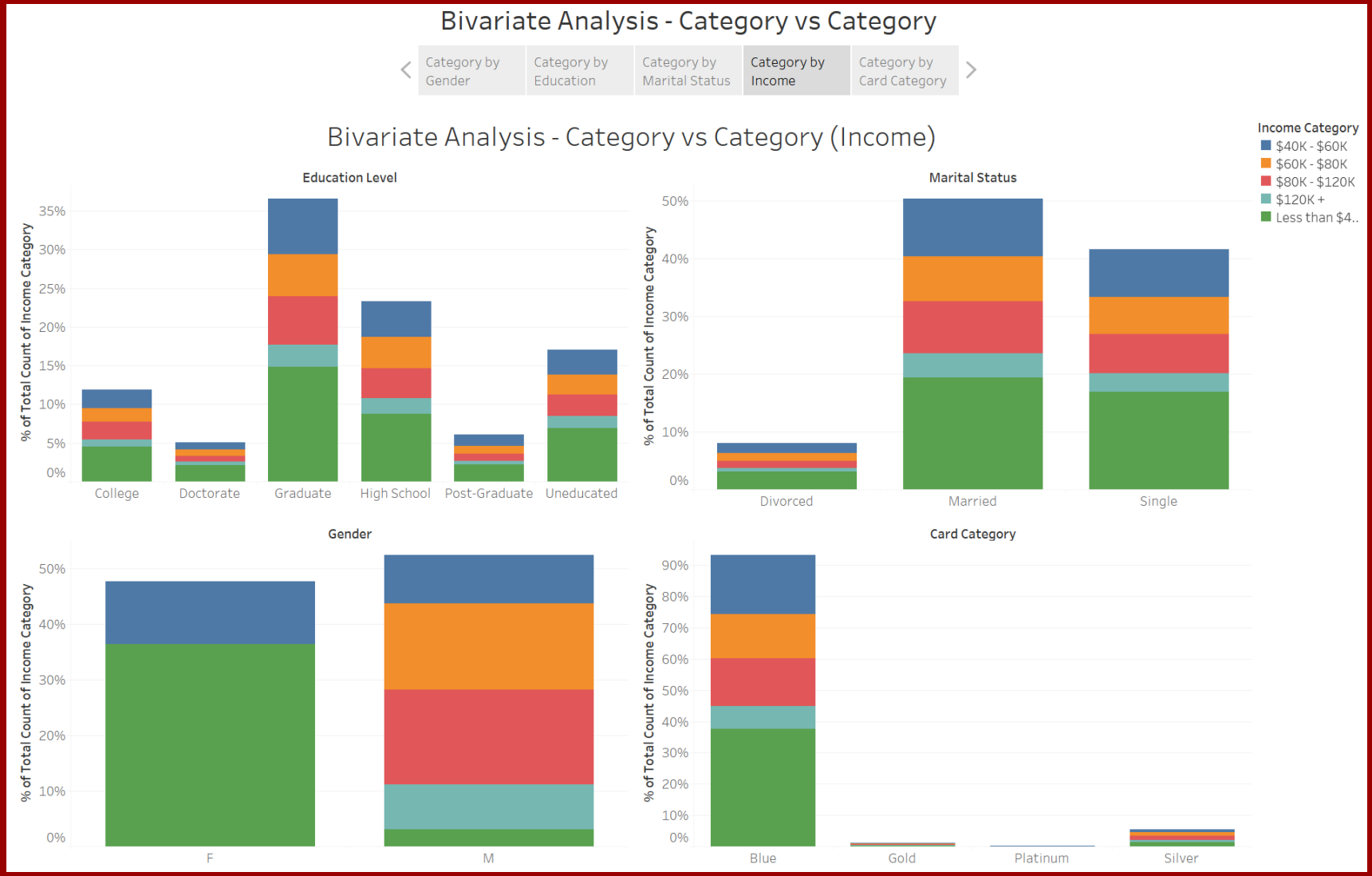
Insights:

- **Income categories distribute differently in other categories.**
- **The income category is highly biased in gender.**



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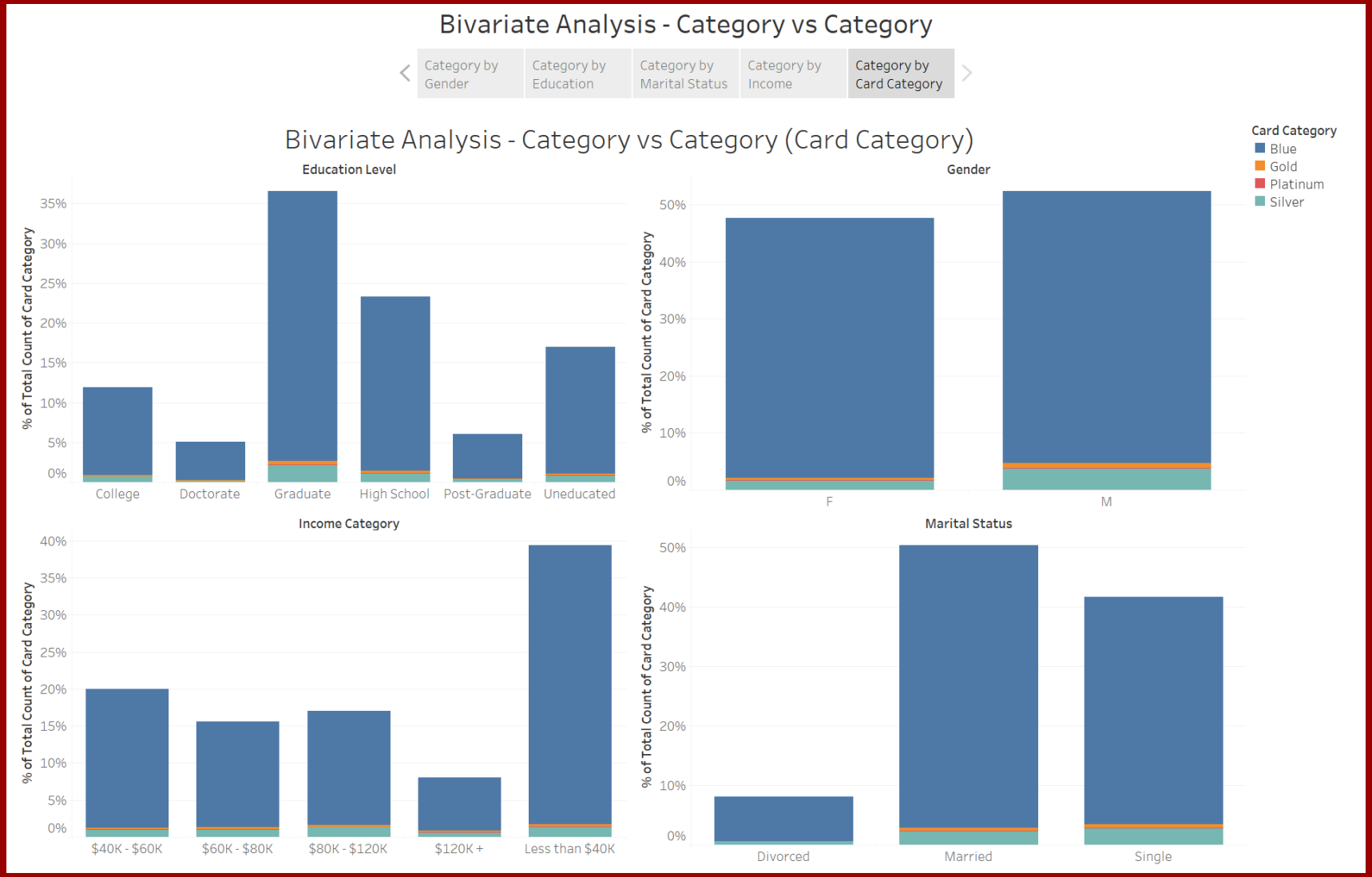
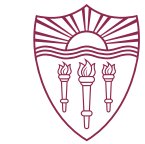
Insights:

- **Almost the same ratio of different card categories in most groups.**





Thanks for watching!