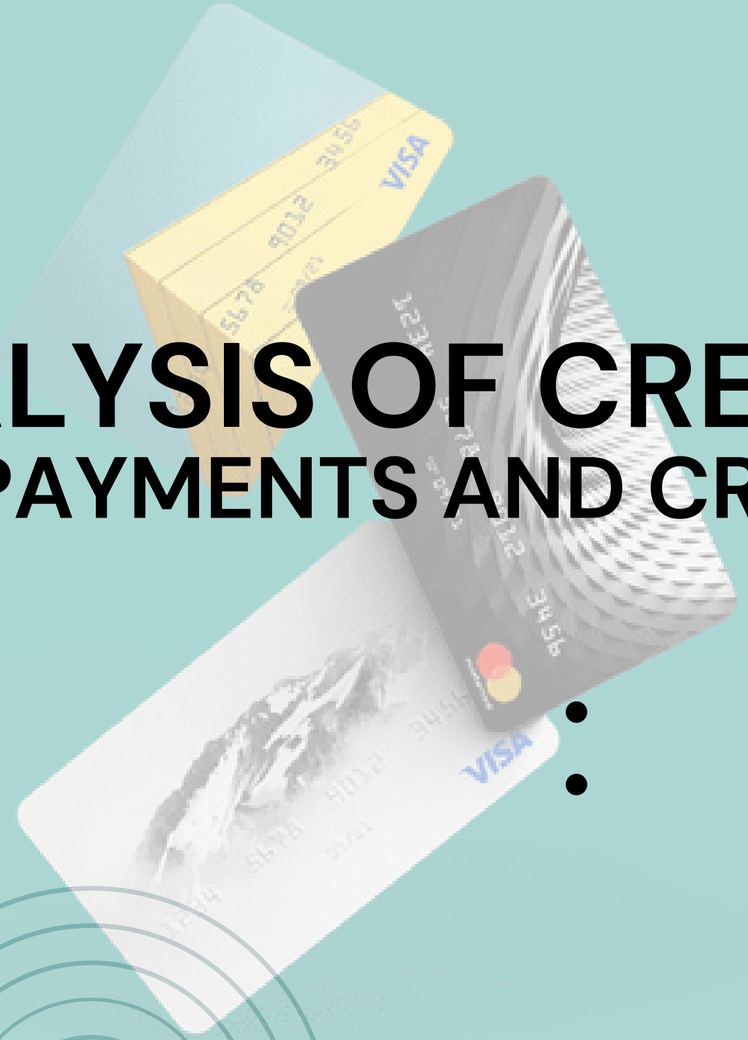
ANALYSIS OF CREDIT CARD
DEFAULT PAYMENTS AND CREDIT SCORES



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- *4844466596*

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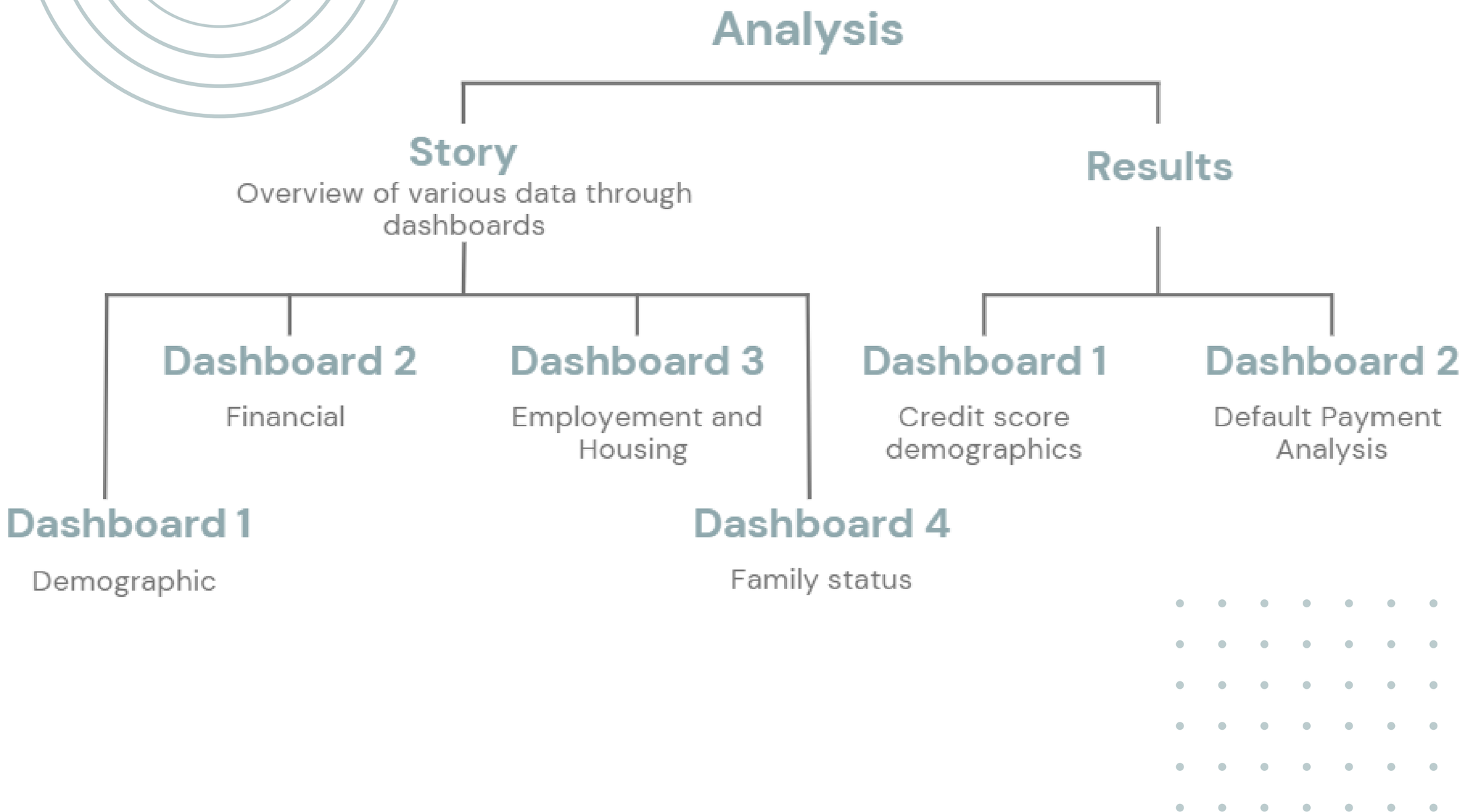
INTRODUCTION

In this presentation, we will explore the data related to credit card holders, their demographics, and their credit behavior. The goal is to identify patterns that can help us understand the factors influencing default payments and credit scores.

DATASET

The dataset includes demographic and financial information such as gender, car and realty ownership, income, education, family status, housing type, age, employment status, and occupation type, along with a column indicating if the individual defaulted on a credit payment.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Dashboard 2
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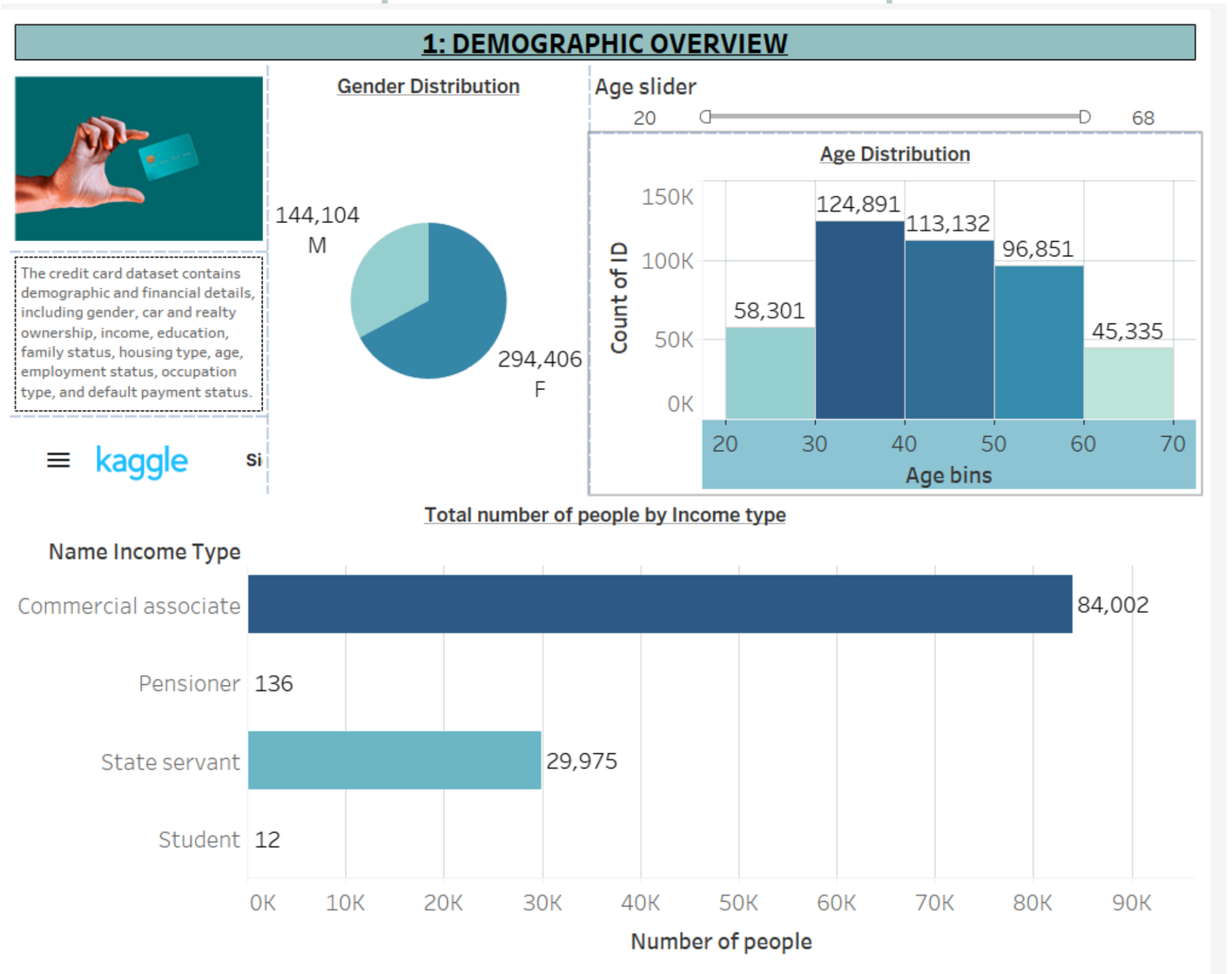
Dashboard 1
Demographic
Dashboard 4
Family status

STORY

DASHBOARD 1:

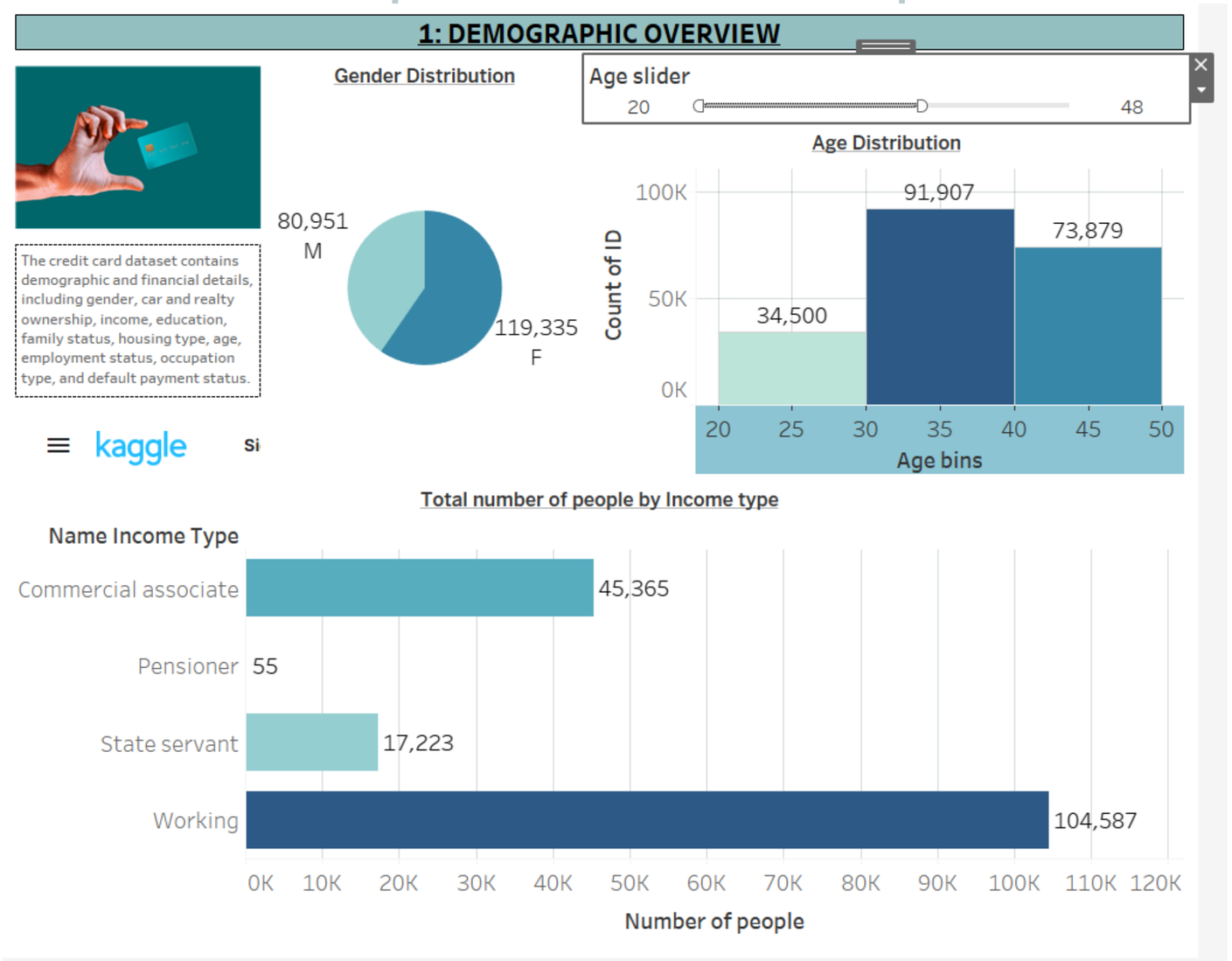
- The demographic overview displays a breakdown from a credit card dataset, indicating a larger female population of 294,406 compared to 144,104 males. The age distribution shows the most individuals in the 30s, and commercial associates are the leading income category.



STORY

DASHBOARD 1:

- The second dashboard filters this information to show a subset of individuals aged 20 to 48. It maintains the same gender ratio but with reduced total counts and introduces the 'working' category as the predominant income type for this age range, highlighting the demographic shift when focusing on a specific segment.

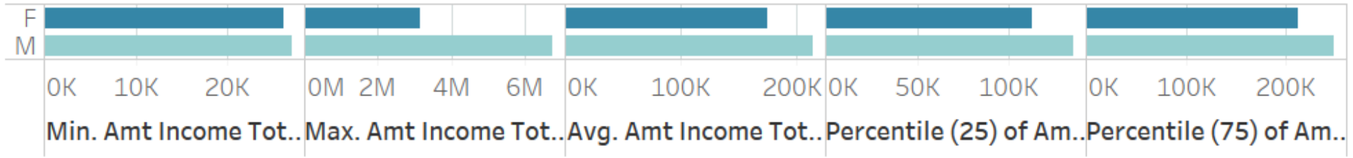


STORY

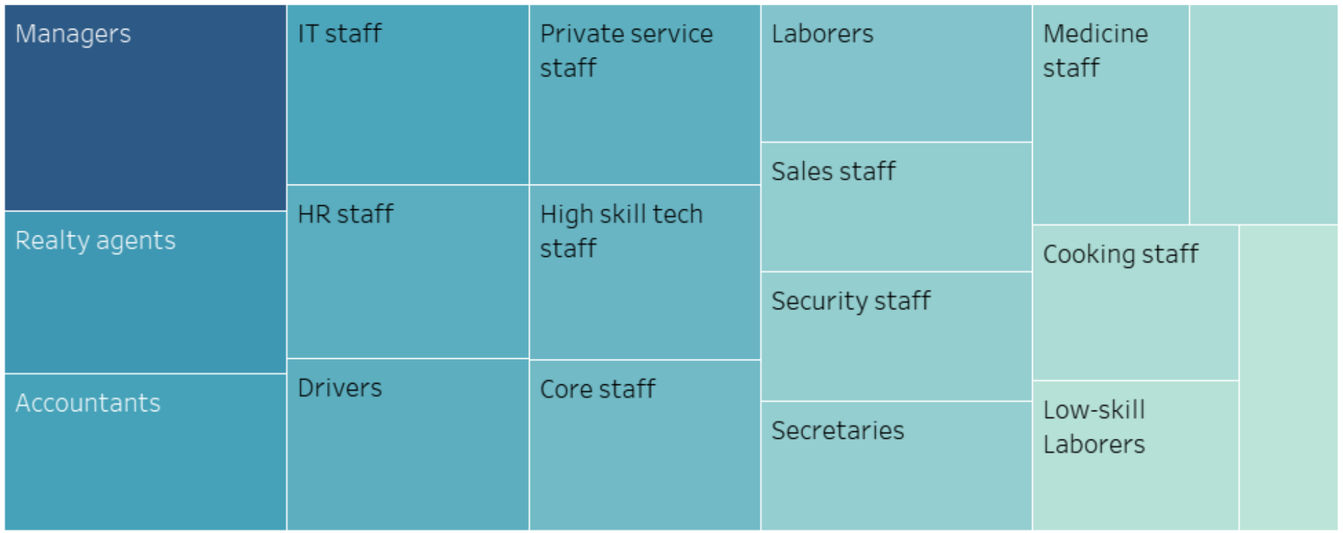
2. Financial Overview

Name Income Type	Avg. Amt Incom..	Max. Amt Incom..	Min. Amt Incom..	25th Percentile ..	75th Percentile ..
Commercial associ..	222,224	3,950,060	28,724	135,000	270,000
Pensioner	153,572	1,260,000	26,100	99,000	180,000
State servant	200,917	3,150,000	27,000	135,000	247,500
Student	159,618	225,000	112,500	135,000	171,000
Working	181,259	6,750,000	27,000	121,500	225,000

Income Distribution by Gender



Avg. Income by Occupation type



DASHBOARD 2:

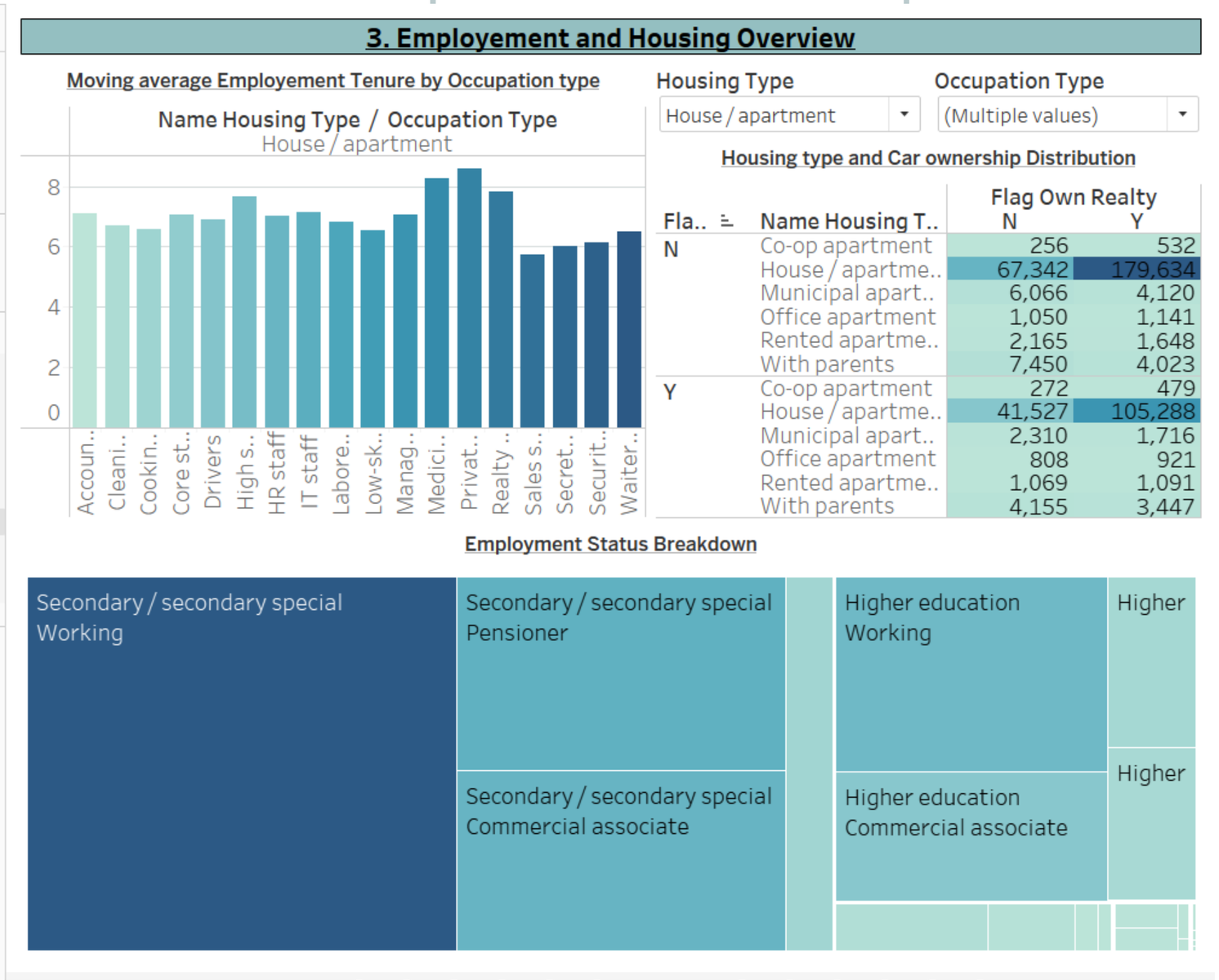
- The financial overview dashboard from the dataset reveals income disparities across various demographics. It highlights significant differences in income levels with the working category showing the highest maximum income at 6,750,000. There is a noticeable gender income gap, with males earning more across all parameters.

- Additionally, the average income by occupation type displays a wide economic range, with IT and medical staff at the higher end, contrasting with lower incomes for roles such as cooking staff and low-skill laborers, indicating a diverse yet unequal financial situation among the individuals in the dataset.

STORY

DASHBOARD 3:

- In the dataset's employment and housing overview, the filters applied for 'House/Apartment' as a housing type and various occupations highlight employment tenure and housing ownership, which are factors that could influence credit scores.
- The graph shows that individuals in certain occupations, such as IT staff and reality agents, have longer employment tenure, which could correlate with more stable incomes and potentially better creditworthiness.
- The table indicates a higher number of individuals owning houses or apartments, which could be associated with higher credit scores due to the financial stability that property ownership typically suggests.
- The breakdown also reveals that people with higher education working as commercial associates are common, which may further imply a potential for higher income levels and possibly better credit profiles.



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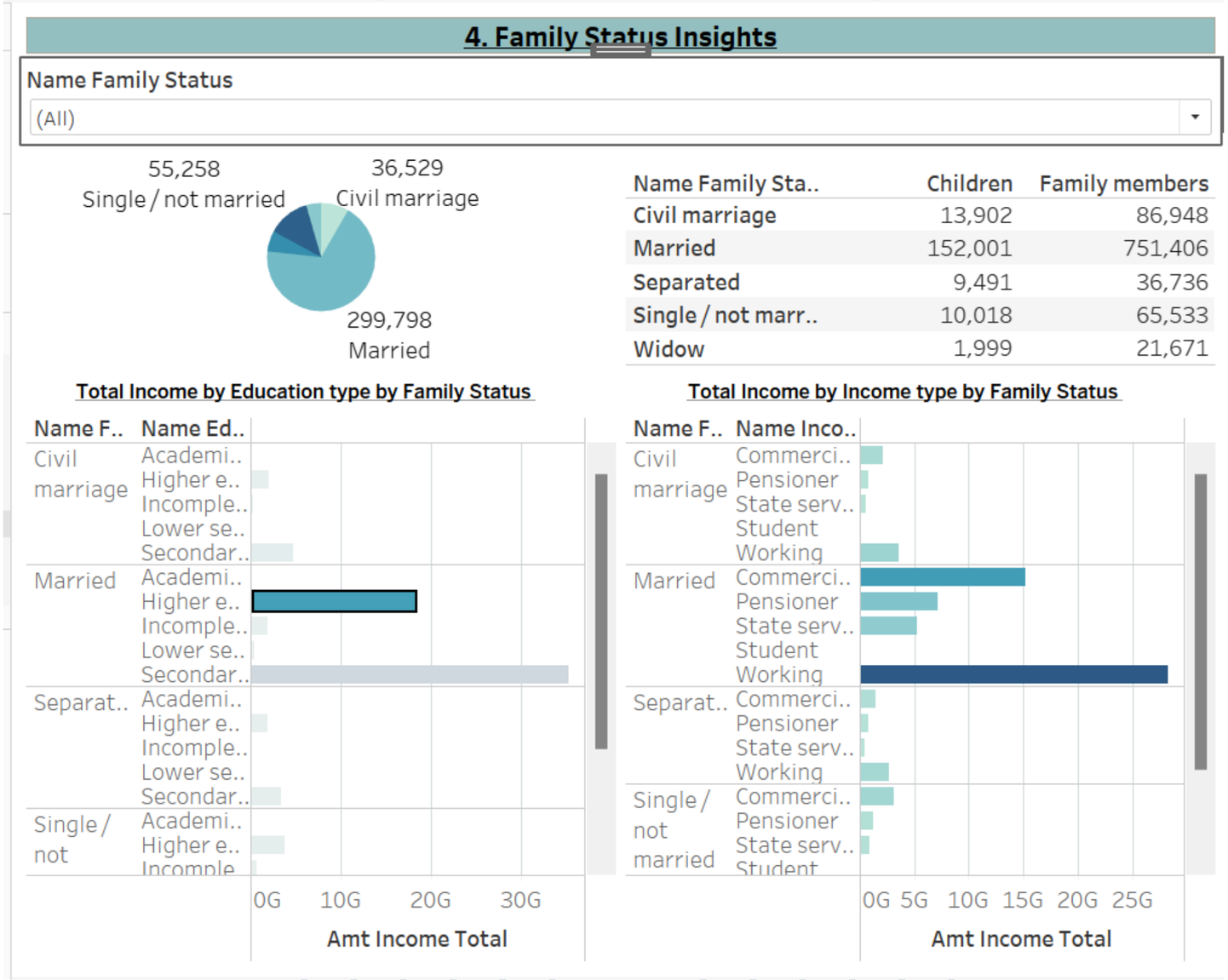
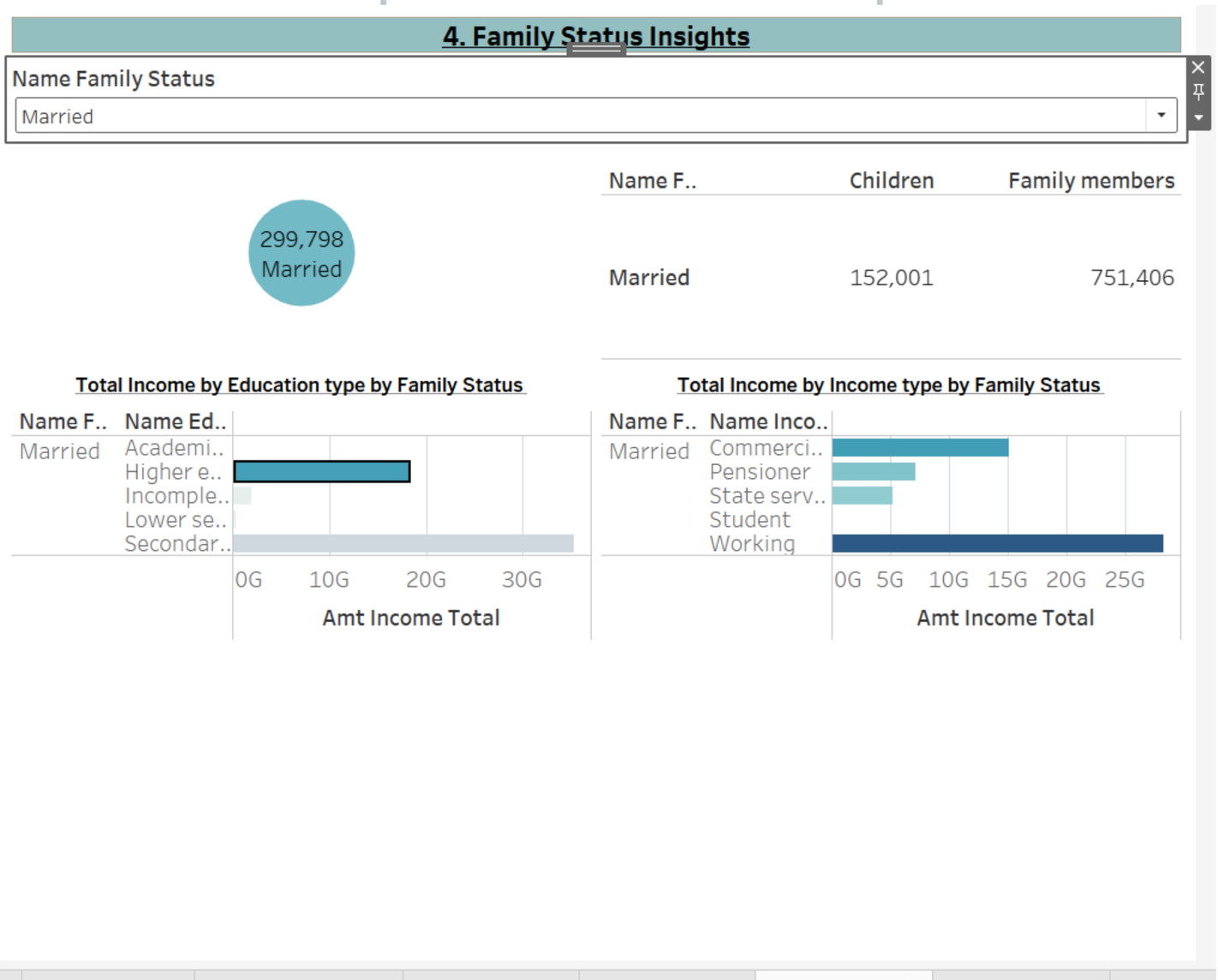


DASHBOARD 4:

- The Family Status Insights dashboard initially presents a broad view of the dataset's demographic and financial status, revealing that married individuals make up the bulk of the dataset with significant implications on income and family size. The general trend suggests that those with higher educational levels and the 'working' and 'commercial associate' groups have higher total incomes, implying a correlation between marital status, educational attainment, and financial stability.

STORY



DASHBOARD 4:

- When the data is filtered to only include married individuals, a focused analysis highlights this group's financial profile. The working category still commands the highest total income within the married subset, underlining a consistent pattern where marriage, employment, and financial security are interlinked. These patterns could be crucial for financial evaluations like credit scoring, as they suggest that married individuals might typically present a more stable and lower-risk financial demographic.

After the data analytics phase, we will now analyze the results based on two key factors: credit card default payments and credit scores.

RESULT 1

Credit Score Demographics

RESULT 2

Default Payment Analysis

RESULTS

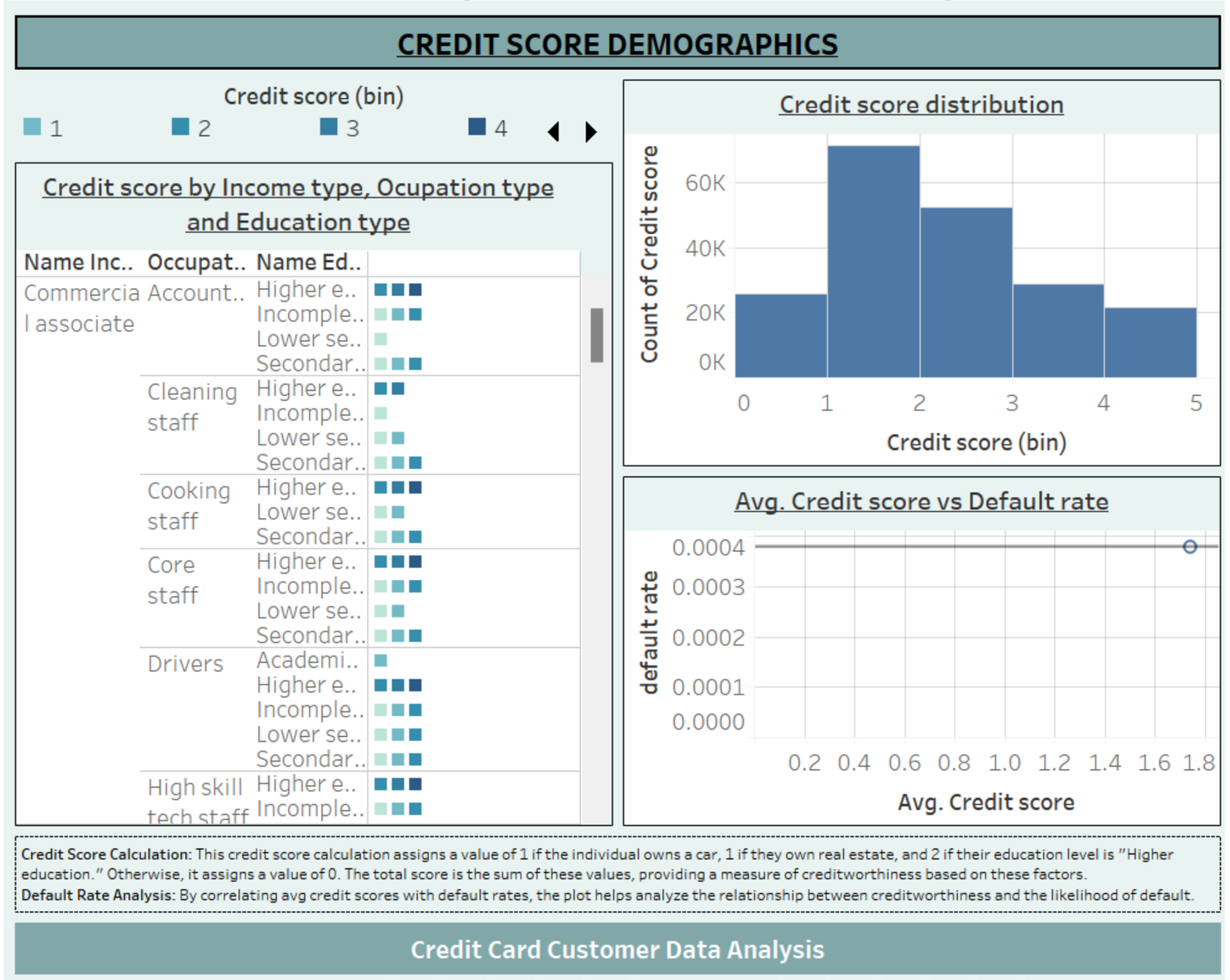
DASHBOARD 1:

- The Credit Score Demographics dashboard uses ownership of a car, property, and education level to calculate credit scores, displaying a central concentration of scores with fewer individuals at the extreme low and high ends.

Credit score

```
IF [Flag Own Car] = 'Y' THEN 1 ELSE 0 END +
IF [Flag Own Realty] = 'Y' THEN 1 ELSE 0 END +
IF [Name Education Type] = 'Higher education' THEN 2 ELSE 0 END
```

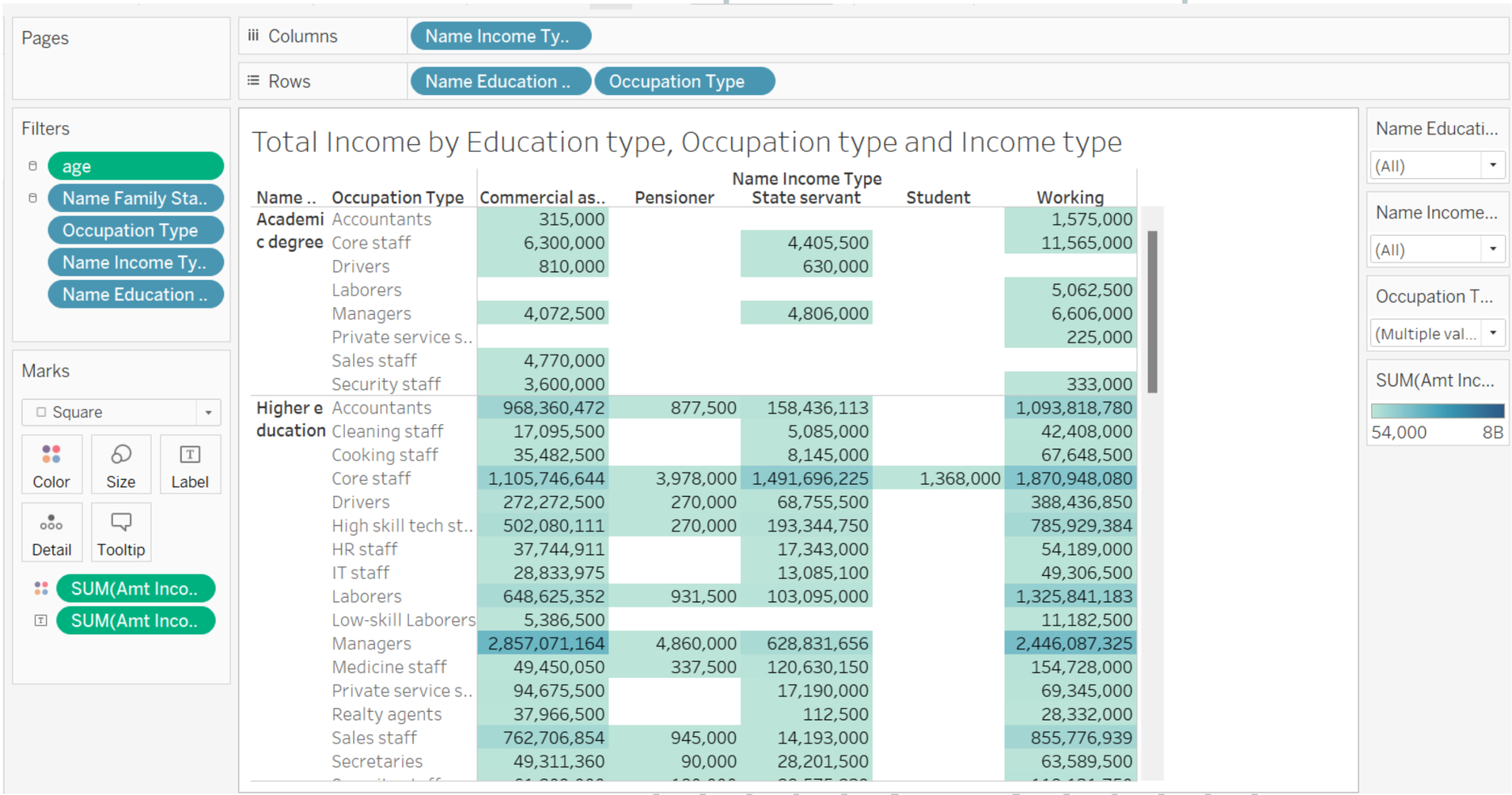
- However, the comparison of average credit scores with default rates indicates a weak correlation, suggesting these scores may not accurately predict default risk alone, pointing to the influence of other, unaccounted-for factors.



RESULTS

DASHBOARD 1:

- The linkage to a more detailed 'Credit Card Customer Data Analysis' suggests a richer data set that includes total income by education, occupation, and income type, which could provide a more comprehensive assessment of creditworthiness. This additional financial data is likely crucial for a deeper understanding of the risk profiles, as it encompasses more dimensions of an individual's financial health.



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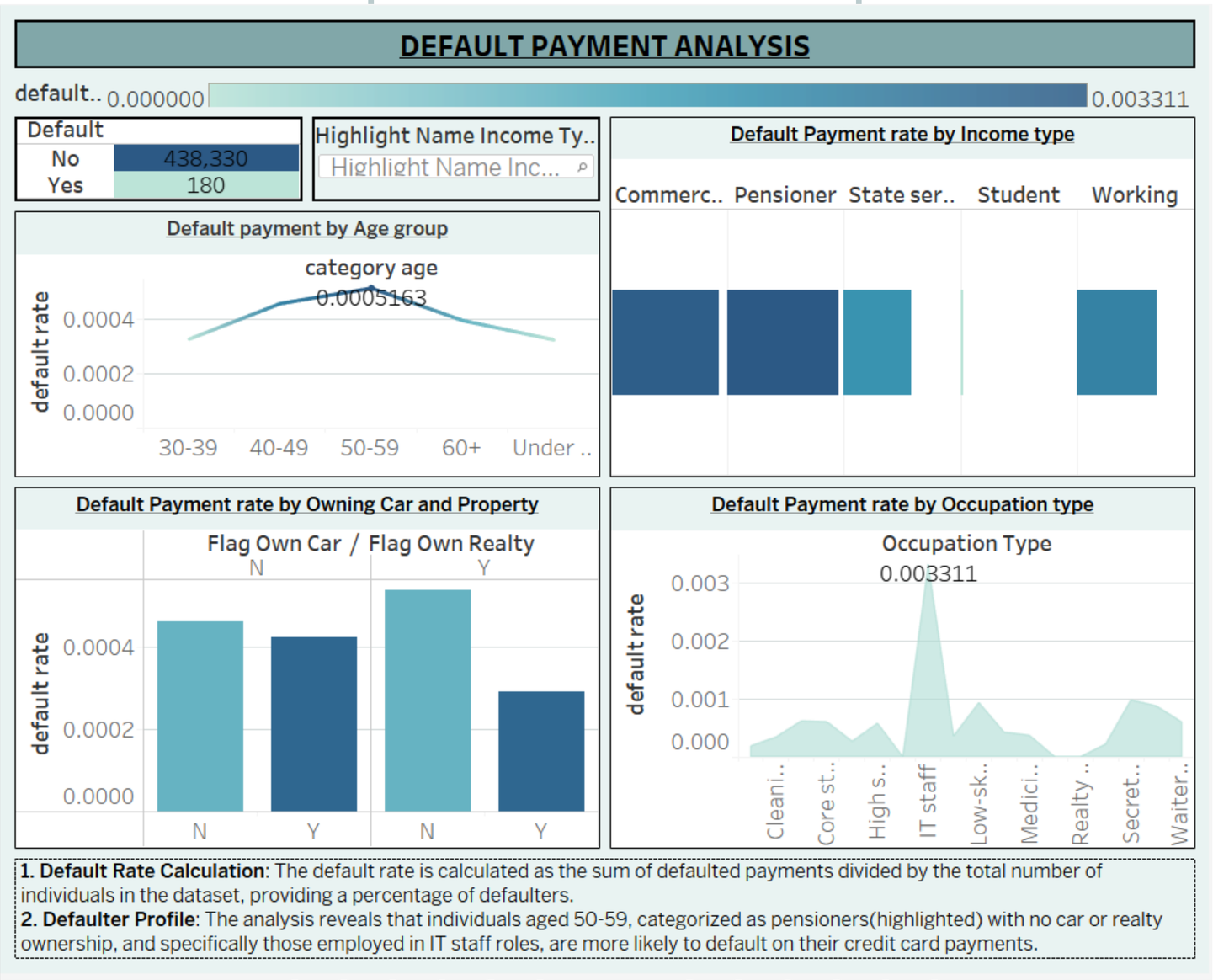
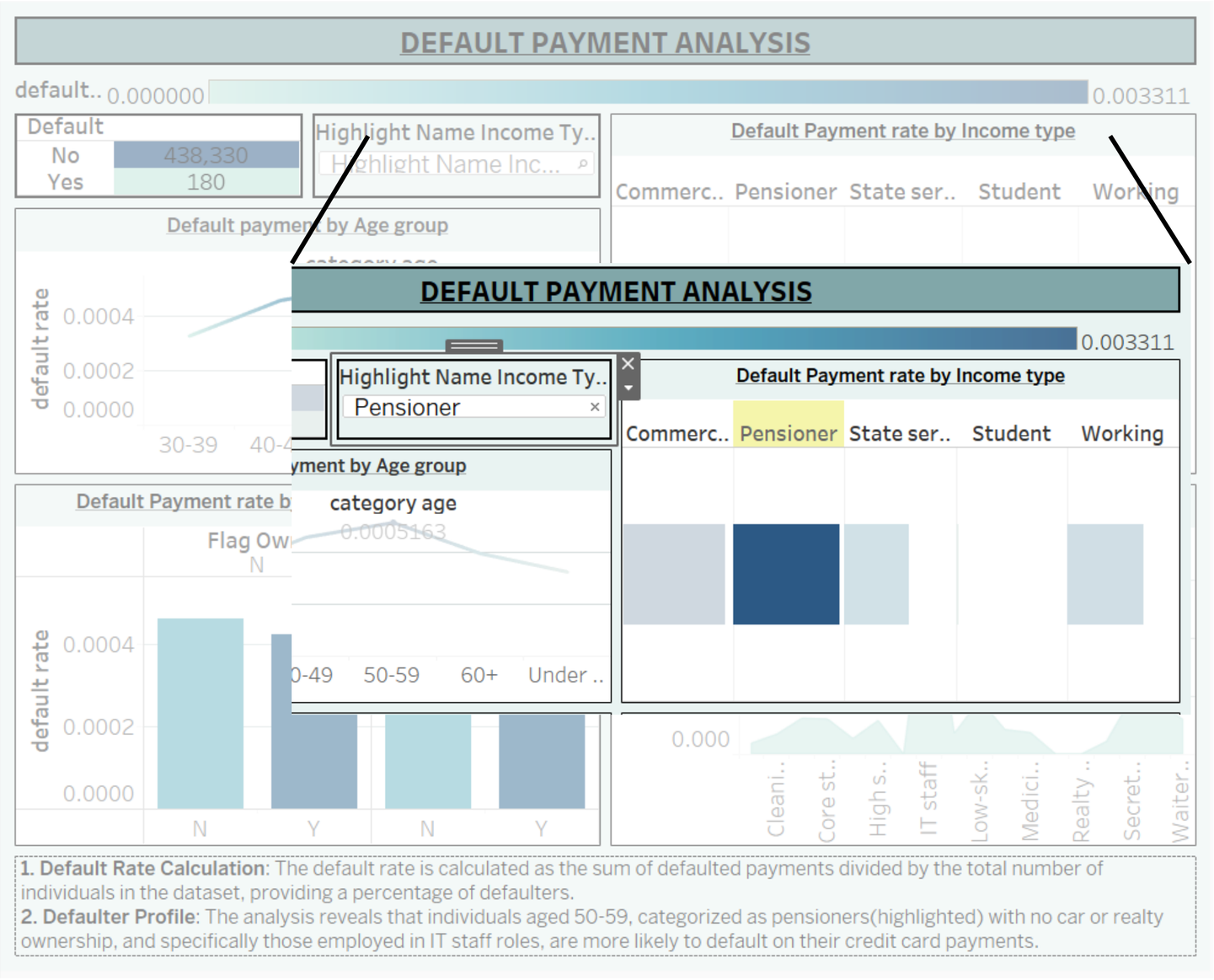


DASHBOARD 2:

- The Default Payment Analysis dashboard indicates that pensioners, particularly in the 50-59 age category, and IT staff have higher rates of credit card payment default, with pensioners being explicitly highlighted for emphasis.

- The default rate spikes for individuals who own cars and property, suggesting that despite seeming financial stability, these groups may have higher financial commitments leading to payment defaults. This pattern suggests that age, employment type, and asset ownership are significant factors in predicting credit card payment behavior in the dataset.

RESULTS



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CONCLUSION

In conclusion, the analysis of the dataset reveals several key insights:

1. Pensioners, especially those aged 50-59, show a higher default rate on credit card payments, indicating a potential financial strain in this demographic.
2. Individuals in the IT field also exhibit a higher default rate, suggesting that occupation type plays a role in credit card payment behavior.

These findings underscore the importance of considering demographic and occupational factors in assessing credit card payment risk, highlighting the need for tailored financial strategies for different segments of the population.

THANK YOU

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