



Credit Card Financial Dashboard

An Interactive Analysis of Transaction &
Customer Insights

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Data Science & Analytics

Project Objective

The objective of this project is to build an interactive and insightful dashboard using Power BI that helps in analyzing:

- Customer behaviours based on their demographics and usage patterns.
- Transaction trends across various card types and usage methods.
- Revenue and Interest metrics from a financial performance perspective.

This dashboard enables a data-driven understanding of credit card usage, aiding business decisions and improving customer targeting.

Data Overview

- The dataset was sourced from an open dataset available online, which includes a variety of features around credit card transactions and customer profiles.
- **Dataset Highlights:**
 - Transactions: 656K
 - Income: 576M
 - Customer Satisfaction Score: 3.19
 - **Key Fields:**
 - Card Category, Gender, Age, Income Group
 - Revenue, Interest Earned, Transaction Volume
 - Education, Job, Risk Level, Marital Status

Credit Card Transaction Report

Q4

Q3

Q2

Q1

Week_Start_Date

All

Revenue

55M

Interest

7.84M

Tran Amount

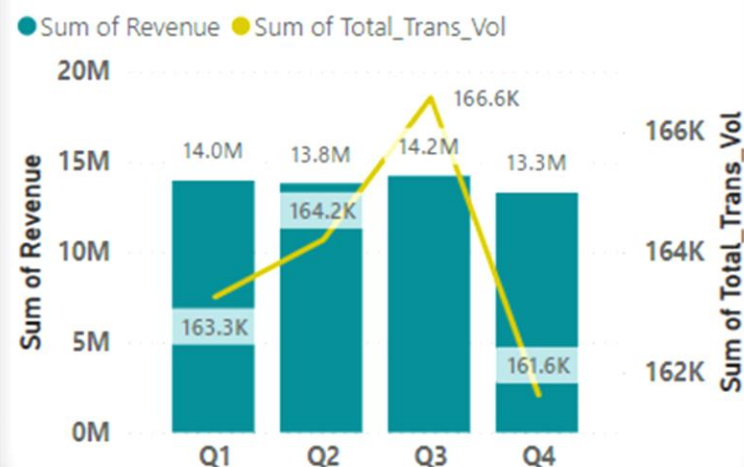
45M

Tran Count

656K

Card_Category	Sum of Revenue	Sum of Total_Trans_Amt	Sum of Interest_Earned
Blue	4,61,39,398	36957875	64,95,888
Gold	24,54,072	2024078	3,73,784
Platinum	11,35,608	953314	1,61,629
Silver	55,86,332	4586746	8,12,081
Total	5,53,15,410	44522013	78,43,382

Revenue and Total Trans Count



F

M

Silver

Gold

Blue

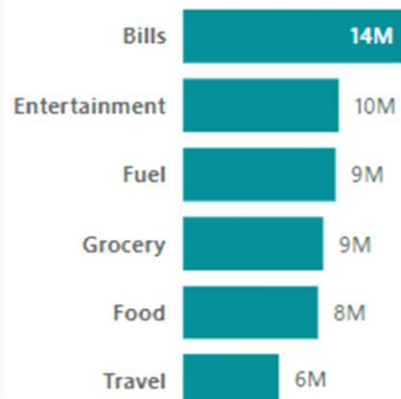
Platinum

Medium

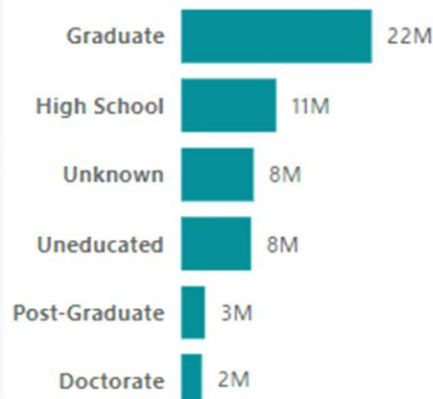
Low

High

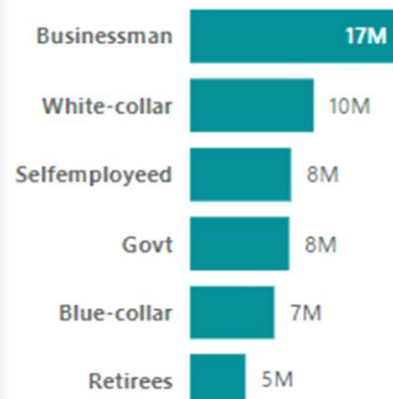
Revenue by Expenditure Type



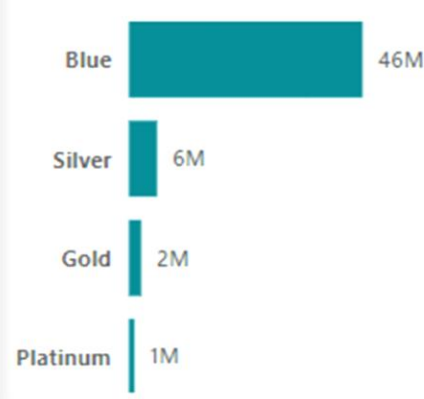
Revenue by Education Level



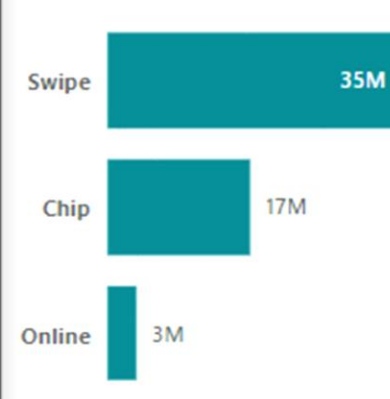
Revenue by Job



Revenue by Card Category



Revenue by Use Chip



Dashboard Structure

Transaction Report

This report focuses on the financial aspect of credit card transactions. It provides a broad view of how revenue and transaction volumes vary across different dimensions.

Key Elements:

- **KPI Cards:** Overall Revenue, Interest, Transaction Amount & Count
- **Card Categories:** Blue, Gold, Platinum, Silver
- **Trends:** Revenue & Transaction Volume by Quarter
- **Demographics & Usage Analysis:**
 - Revenue by Job, Education, Card Category, and Use Type
 - Expenditure Types and their revenue contributions

The report is prepared with slicers for Quarter, Gender, Card Type, Income Group, and Start Date of Week to enable dynamic filtering.

Credit Card Customer Report

Q4

Q3

Q2

Q1

Week_Start_Date

All

Revenue

55M

Total Interest

7.84M

Income

576M

CSS

3.19

Silver

Blue

Gold

Platinum

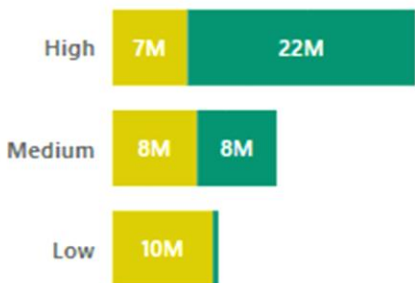
M

30.22M

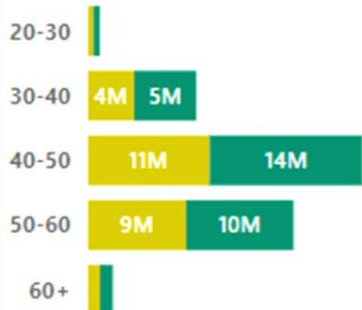
F

25.09M

Revenue by Income Group



Revenue by Age Group



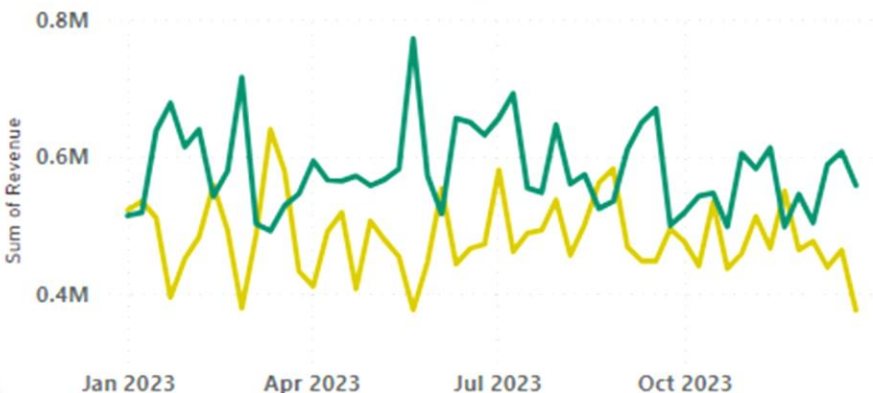
Customer_Job Sum of Revenue Sum of Interest_Earned Sum of Income

Retirees	45,35,184	6,30,359	48675030
Blue-collar	69,04,279	9,52,801	72262158
Selfemployeed	82,61,758	11,19,742	75313288
Govt	81,11,701	11,60,016	88773989
White-collar	1,01,14,656	14,41,074	103930055
Businessman	1,73,87,832	25,39,390	186959919
Total	5,53,15,410	78,43,382	575914439

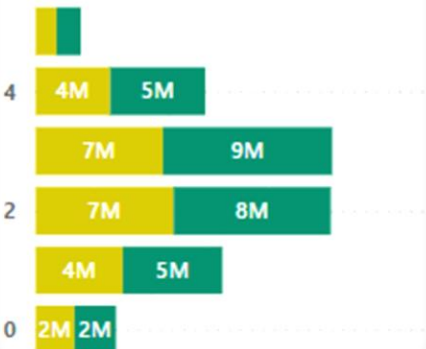
Revenue by Marital Status



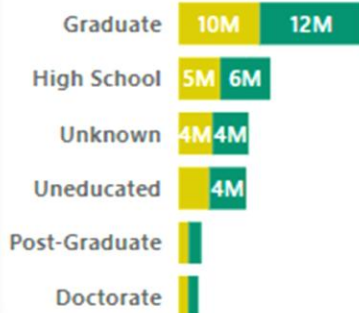
Revenue by Week



Revenue by Dependent Count



Revenue by Education Level



Revenue by State



Dashboard Structure

This report highlights the customer profile side of credit card usage. It helps understand which customer groups are contributing more to revenue and how usage patterns vary.

Key Elements:

- **KPI Cards:** Revenue, Interest, Income, and CSS (Customer Satisfaction Score)
- **Customer Segment Table:** Job-wise Revenue, Interest, and Income
- **Behavioural Patterns:**
 - Revenue by Age, Income Group, Marital Status, Education, Dependents, and State
 - Revenue trends over Week

Slicers are available for Quarter, Gender, Card Type, and Start Date of Week, providing interactive filtering.

Customer Report

Key Metrics

Our dashboard presents key performance indicators that provide a quick snapshot of the credit card business performance. These metrics are displayed as KPI cards across both reports for quick analysis.

Financial Metrics:

- Total Revenue: 55M
- Total Interest Earned: 7.84M
- Total Transaction Amount: 45M
- Total Income: 576M

Volume Metrics

- Transaction Count: 656K
- Customer Satisfaction Score (CSS): 3.19

Key Metrics



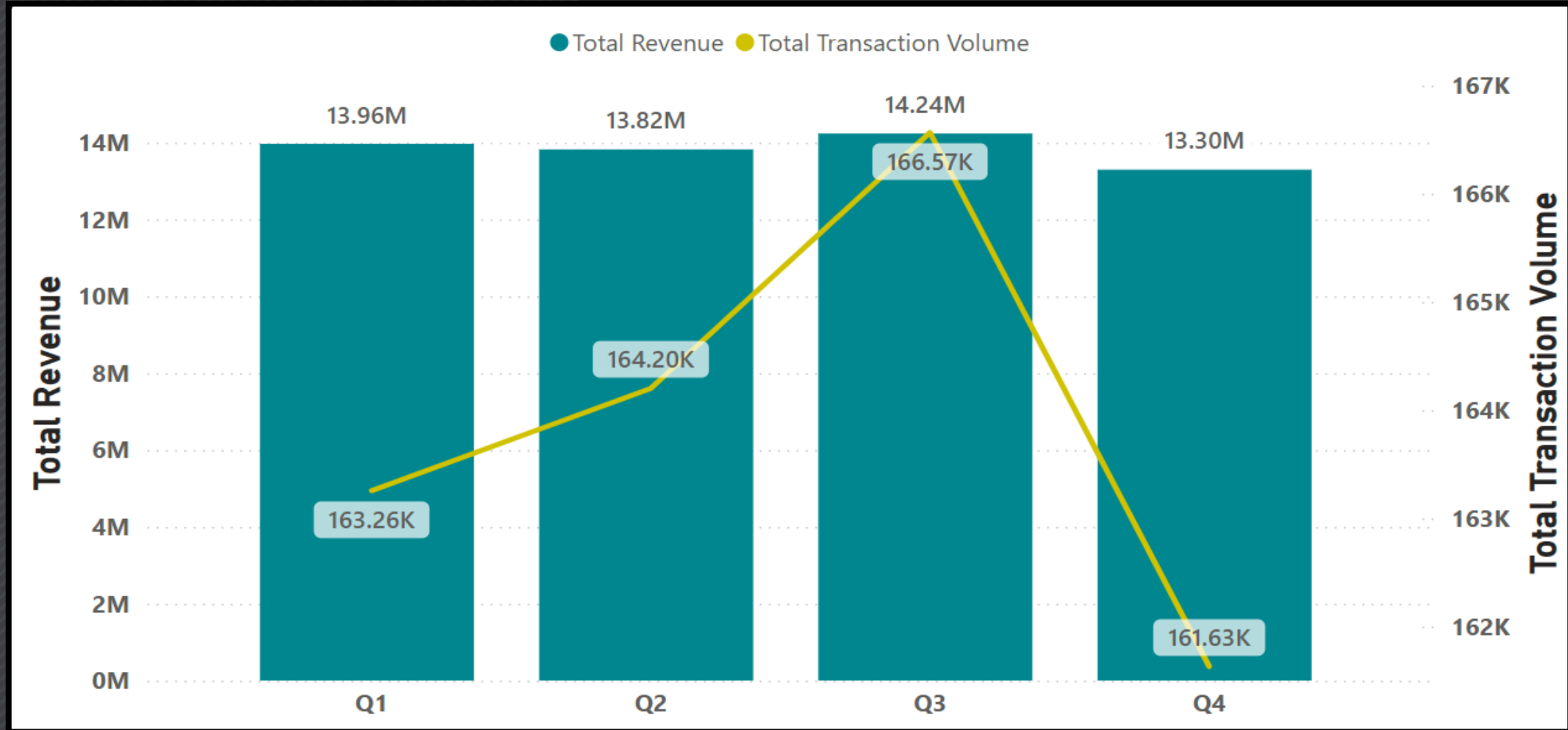
Filter Capabilities

Both reports allow filtering based on:

- Time Period (Quarter / Start Date of Week)
- Demographics (Gender, Marital Status, Education)
- Financial Attributes (Card Category, Income Group)

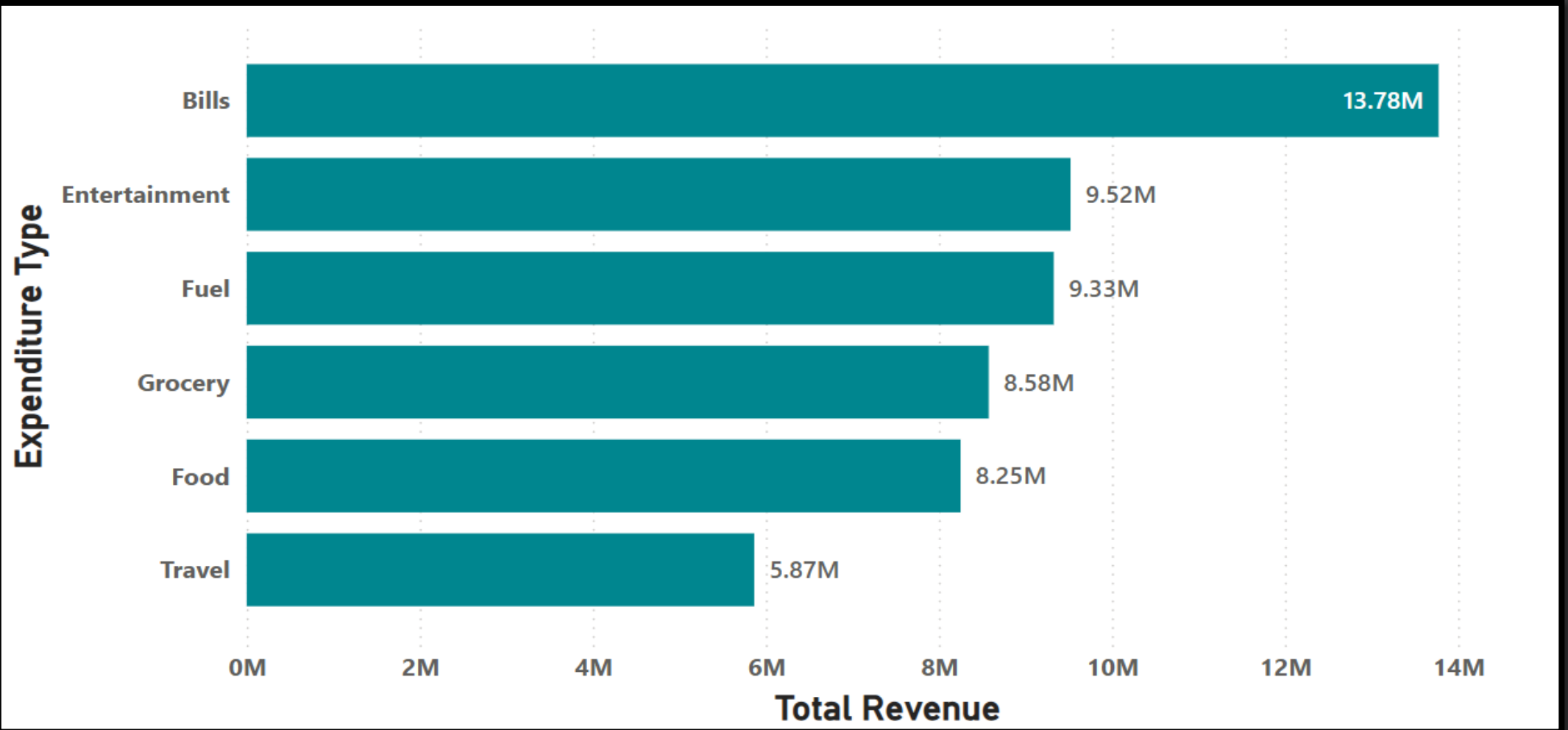
These filters help in analyzing KPIs across different customer segments and time frames.

Quarter-wise Revenue & Transaction Volume



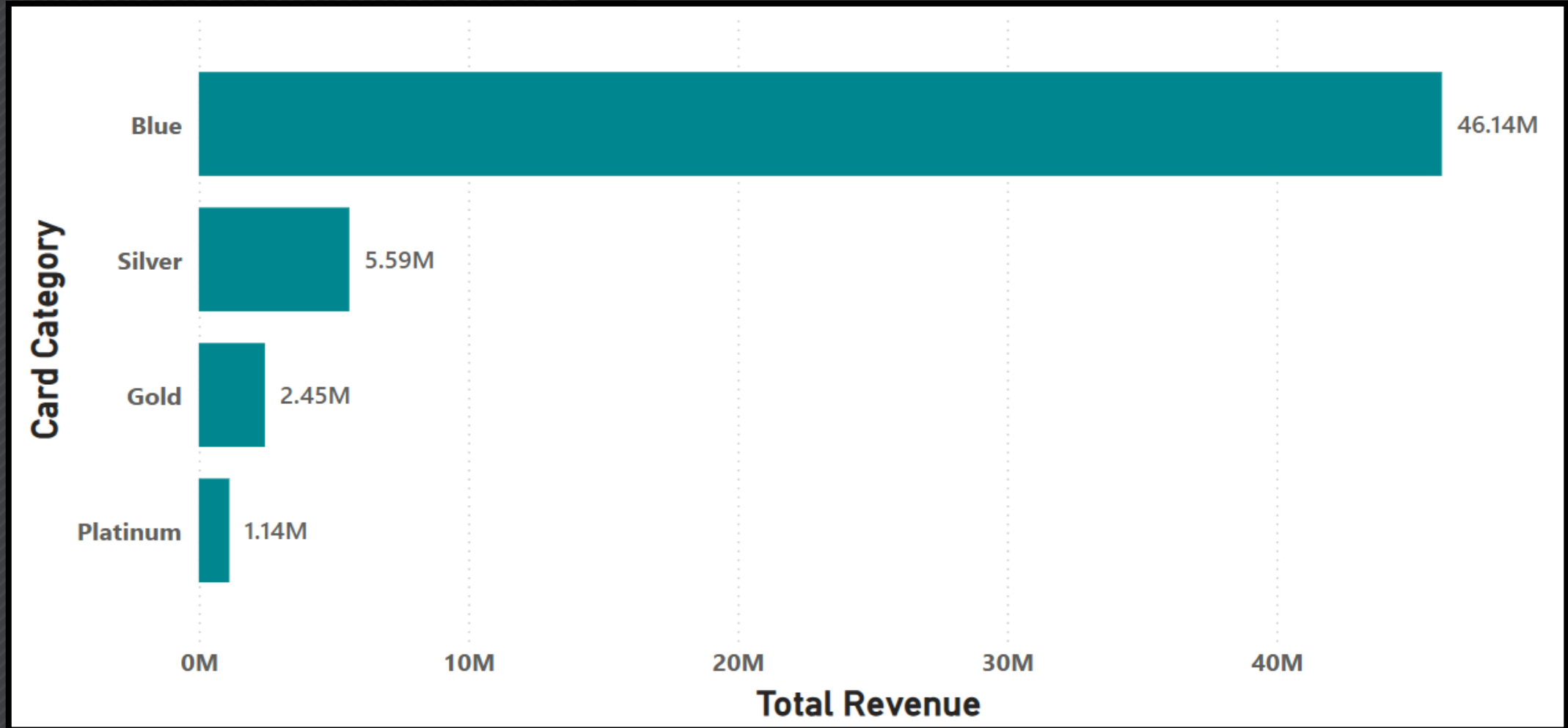
Both Revenue and Transaction Volume peaked in Q3 with 14.24M and 166.57K respectively. This shows strong seasonal performance. A consistent upward trend indicates positive business growth.

Revenue by Expenditure Type



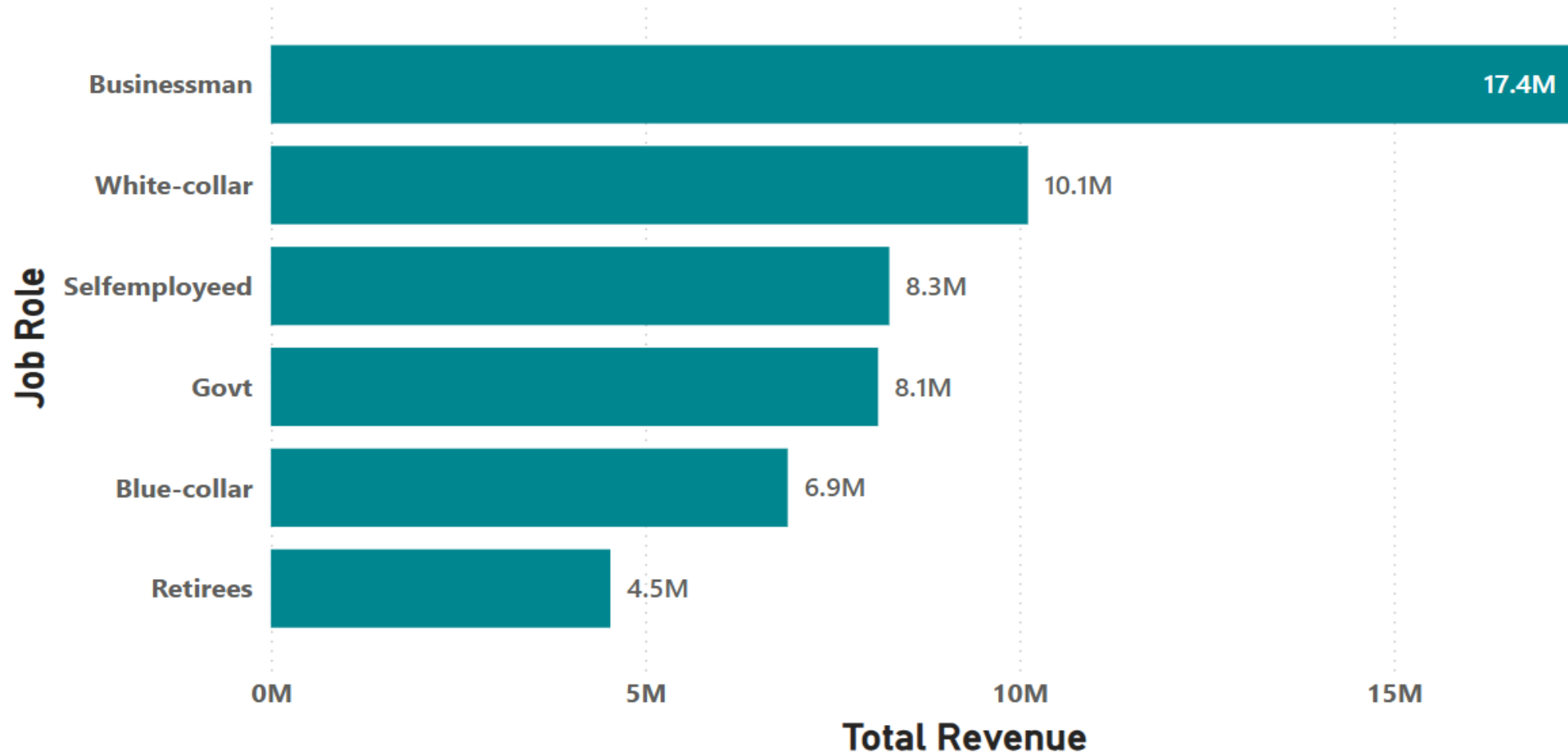
Bills lead the way as the top spending category, contributing over \$13.78 Million in revenue. Following closely, Entertainment and Fuel also show strong performance, generating \$9.52 Million and \$9.33 Million respectively. These categories are key drivers of revenue growth.

Revenue by Card Category



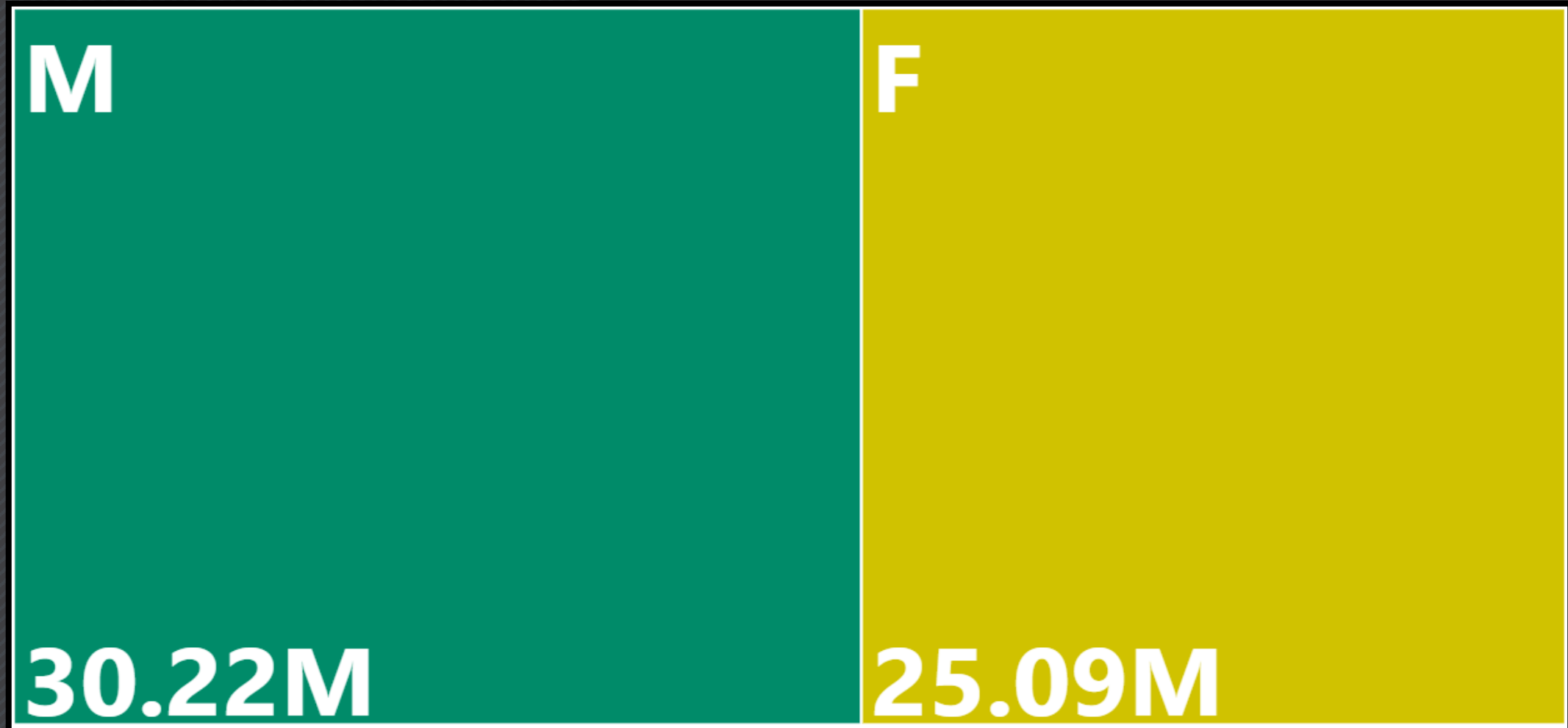
Blue cards dominate revenue, contributing over \$46.14 Million, far surpassing the other card types. Silver, Gold, and Platinum cards contribute significantly less, with \$5.59 Million, \$2.45 Million, and \$1.14 Million respectively.

Revenue by Job



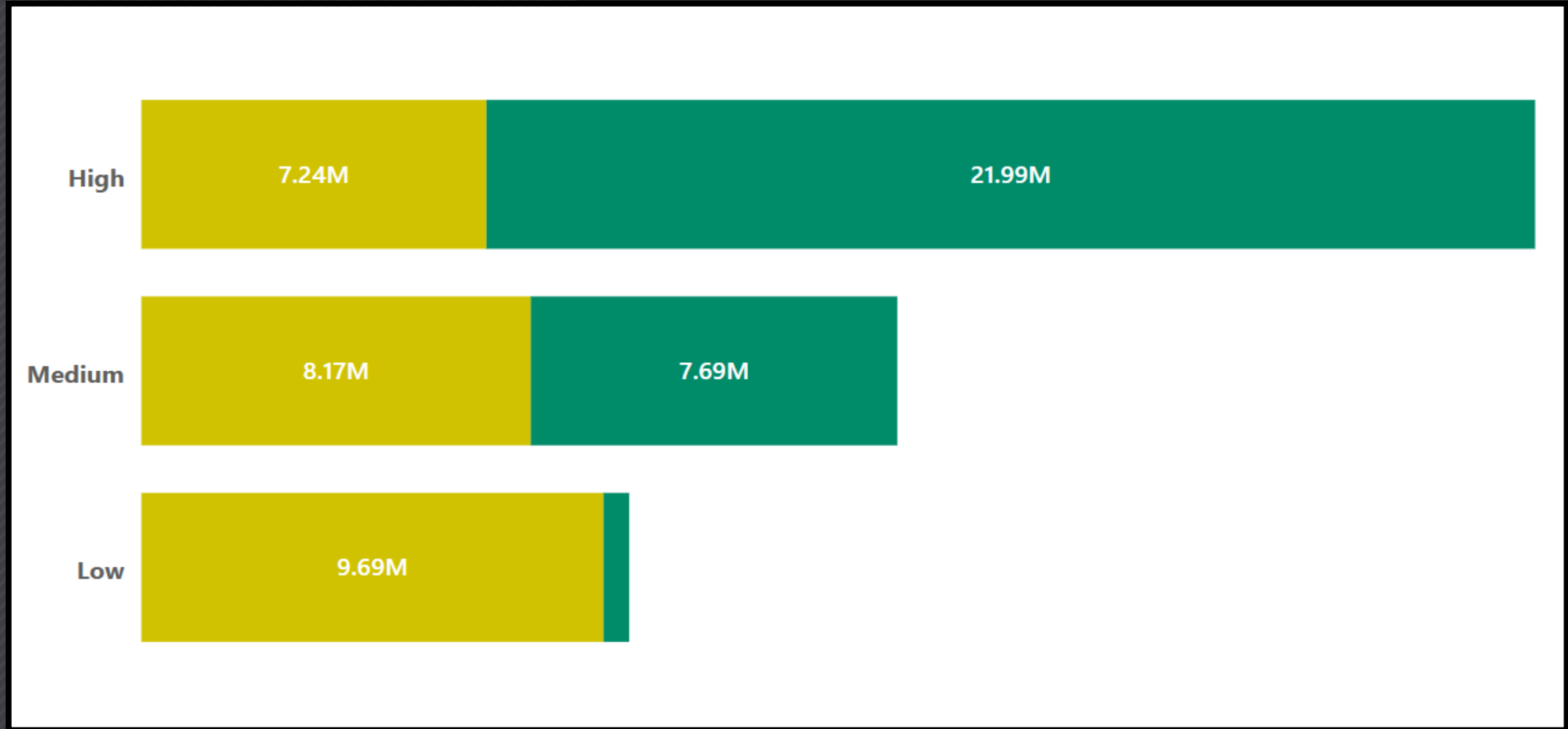
Businessman leads with \$17.4M in revenue, significantly outpacing other job roles. White-collar contribute \$10.1M, while Retirees contribute the least at \$4.5M.

Revenue by Job



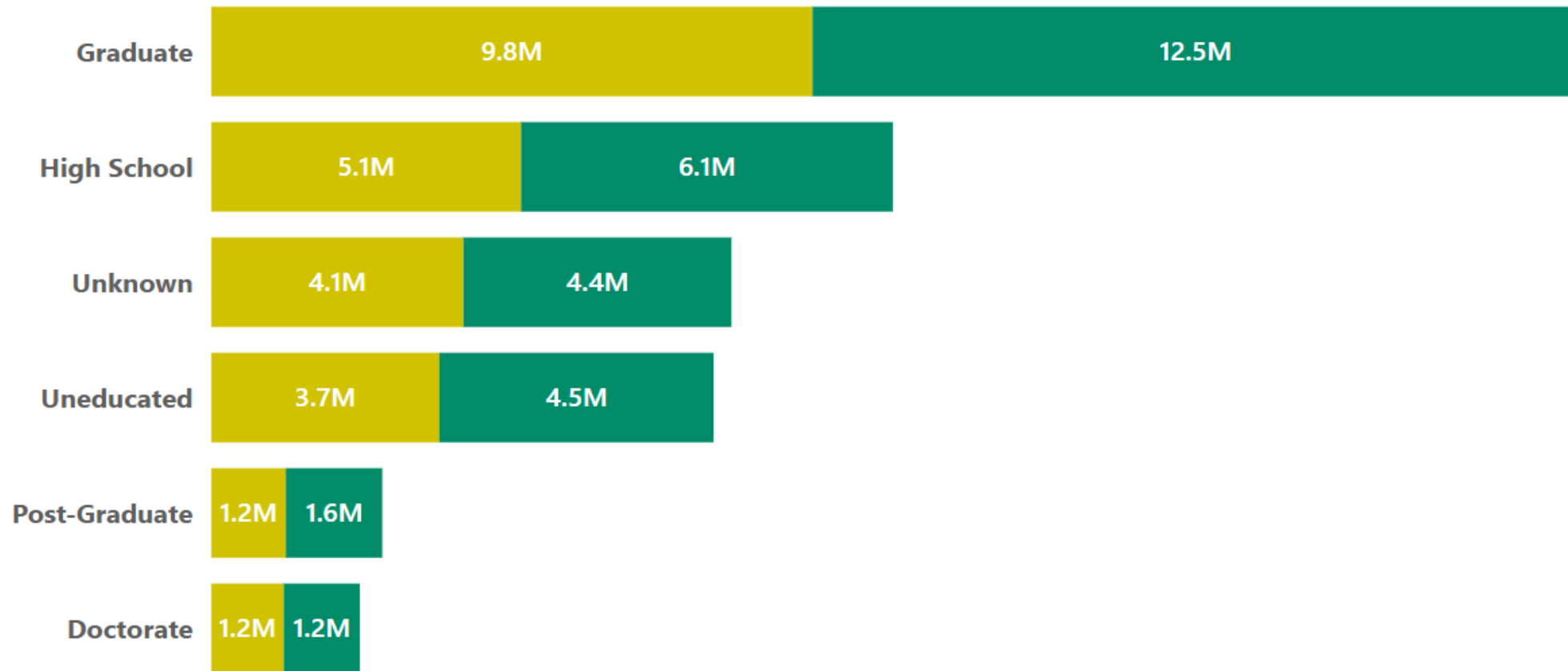
Men generated \$30.22M in revenue, while women generated \$25.09M. This indicates that men contribute about 17% more to the total revenue than women. To increase revenue, marketing efforts should be targeted toward women.

Revenue by Job



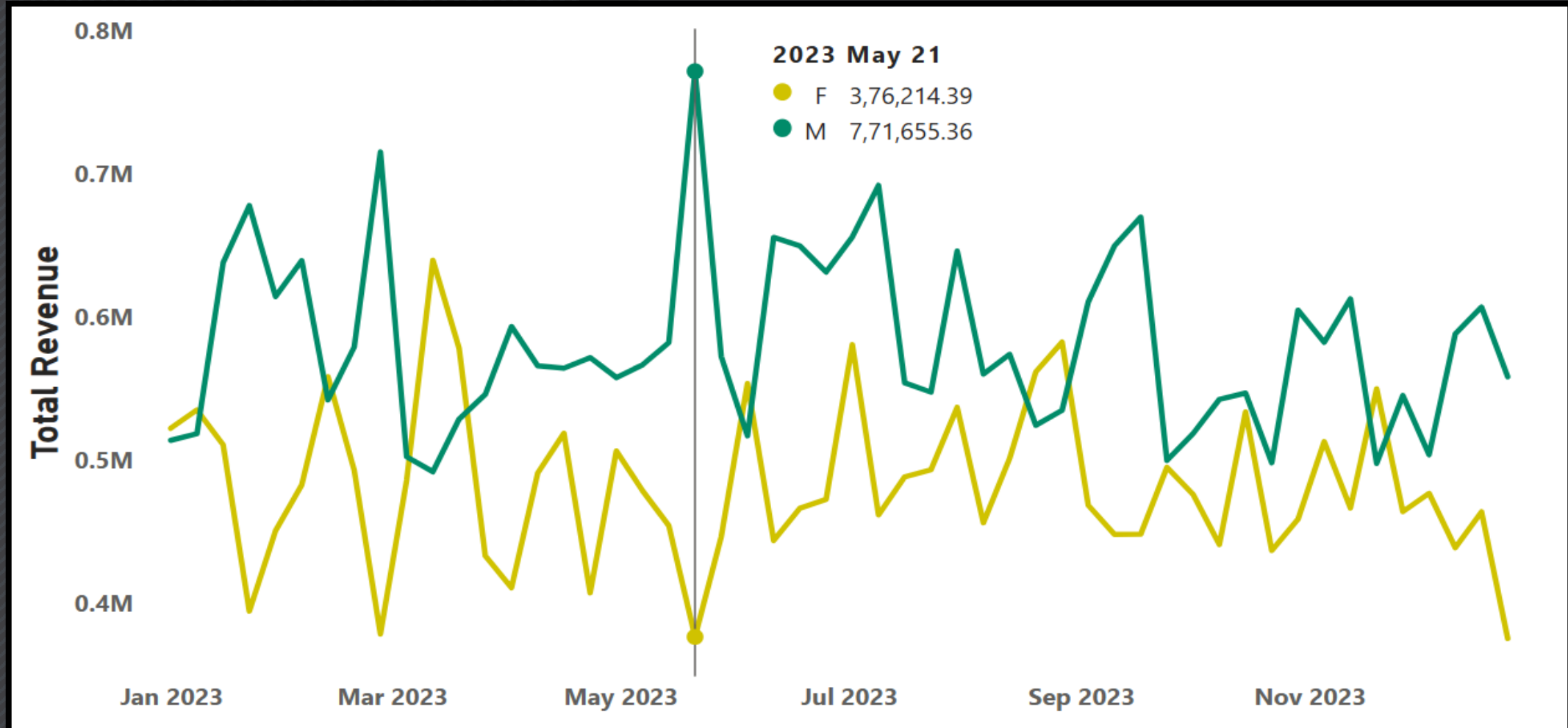
High-income group dominates overall revenue, driven primarily by Males (\$21.99M), while Females contribute \$7.24M. In the Medium-income group, Females slightly outperform Males. Among the Low-income group, Females show a significantly higher contribution (\$9.69M) compared to Males.

Revenue by Education Level



Graduates lead in revenue, with Males contributing \$12.5M and Females \$9.8M. High School level follows, with a near-equal gender split (\$6.1M Males, \$5.1M Females). Post-Graduate and Doctorate levels show the lowest revenue, with similar contributions from both genders.

Weekly Revenue Trend



Weekly revenue peaked on May 21, 2023, with Male revenue at \$7.71M and Female revenue at \$3.76M. Overall, Male revenue consistently exceeds Female revenue. While there are fluctuations, the revenue trend remains relatively stable throughout the year, without major spikes or drops outside of the peak week.

Key Insights from Transaction Report

- Revenue and transaction volume both peaked in Q3, showing strong seasonal performance.
- Bills were the top expenditure type, followed by Entertainment and Fuel.
- Blue Cards dominated revenue generation, far ahead of other card types.
- Businessmen contributed the most by job category, followed by White-collar workers.
- Overall, Men generated more revenue than Women, contributing about 17% more.

Key Insights from Customer Report

- High-income customers, especially Males (\$21.99M), contributed the most to revenue, compared to Females (7.24M).
- In the medium-income group, Females slightly outperformed Males.
- Among low-income customers, Females (9.69M) showed a significantly higher contribution than Males (539K).
- Graduates led in revenue across education levels, again with Males (12.49M) significantly ahead, compared to Females (9.80M).
- Weekly trend shows stable revenue throughout the year, peaking on May 21, 2023, with consistent Male dominance in revenue.

Business Value

- Identified top-performing customer segments like, Businessmen, High-income earners, Graduates for focused marketing strategies.
- Revealed Blue Card holders as the most valuable group, guiding future card promotion strategies.
- Insights into spending behavior by category like, Bills, Entertainment, and Fuel can help tailor targeted cashback or loyalty programs.
- Gender-based revenue analysis helps in designing campaigns aimed at increasing Female engagement, especially in underperforming segments.
- Stable weekly revenue trend enables better forecasting and resource planning.

Conclusion

- This project successfully shows how Power BI can be used to uncover deep insights from financial and customer data.
- The dashboards offer clear visibility into key revenue drivers, customer behaviors, and transaction trends.
- These insights can support data-driven decision-making across marketing, product strategy, and customer targeting.
- The project reflects strong visual storytelling, efficient use of Power BI features, and an understanding of business context through analytics.

Thank You

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That's a wrap up — now let's talk data!