# Customer Churn Analysis

## Flatiron Bank

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# Overview

- **Business Understanding**

- **Data**

- **Modeling Results**

    - **Key Feature Analysis**

- **Recommendations**

- **Next Steps**

# Business Understanding

- **Customer Retention**

- **20% customer churn currently**

- **Retaining customers costs less**

- **Complaints filed is KEY**

# Data Understanding

- 10,000 customer profiles

- Demographic information

- Banking metrics

- From **Kaggle**

# Model Building Goal

- What does it cost the bank if the model predicts:

  - *False Negative = missed opportunity*
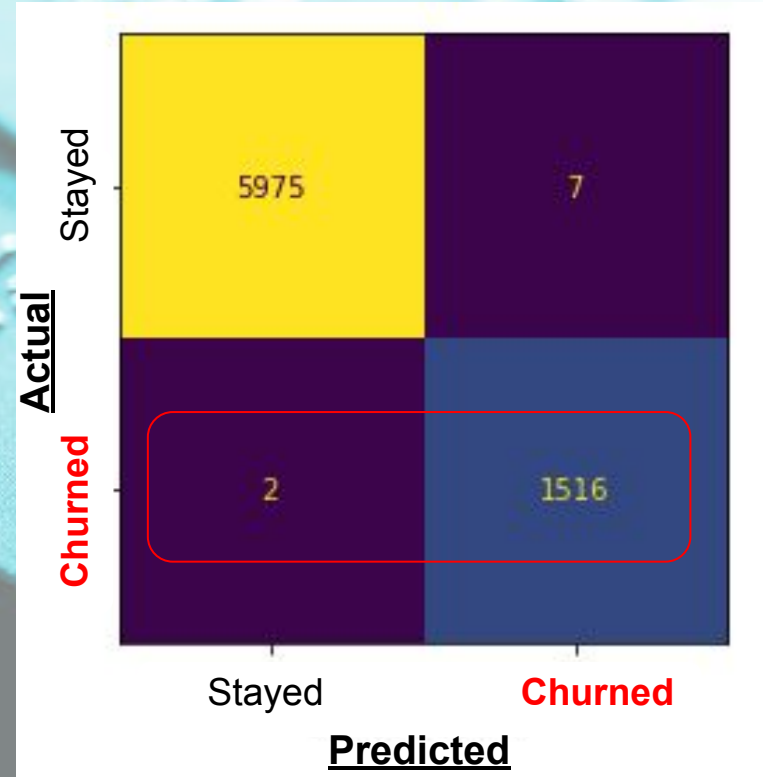
  - *False Positive?*

GOAL:

increase

**Recall Score**
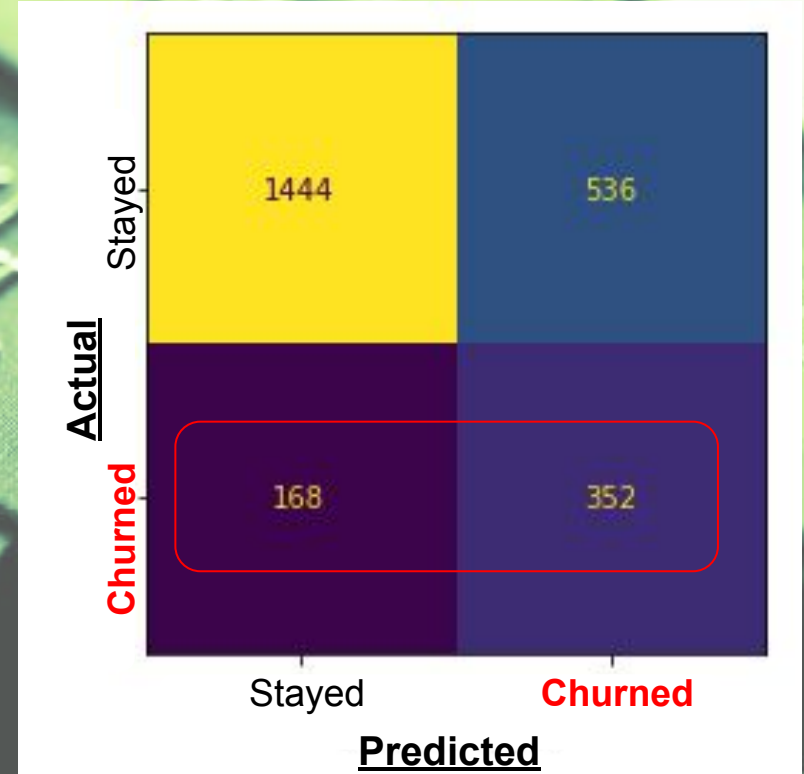
to reduce

**False Negatives**

# Complaints = Key Feature

- **Model Performance:**
  - **Recall Score: .998**

- **Why are customers complaining?**

- **What is the customer support process?**
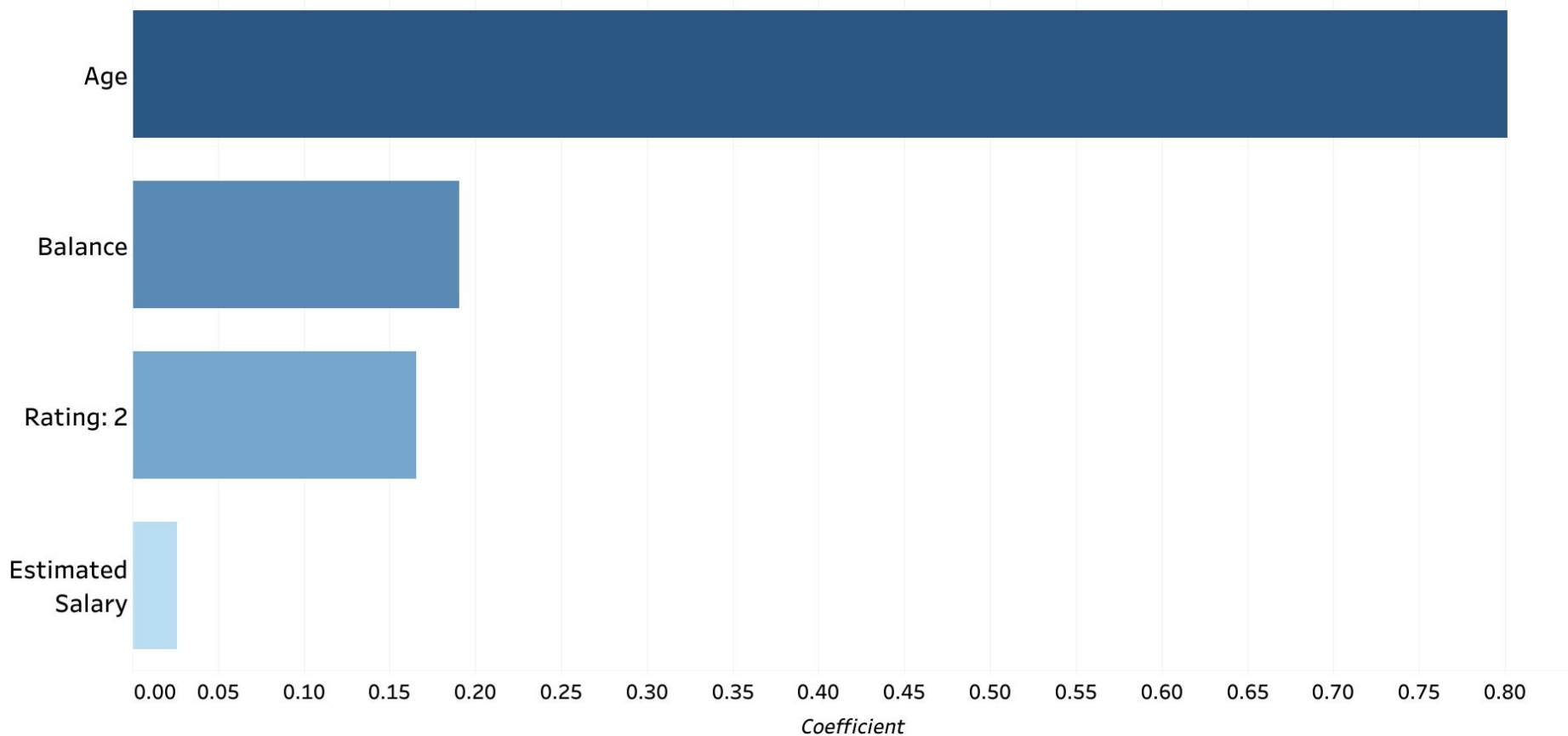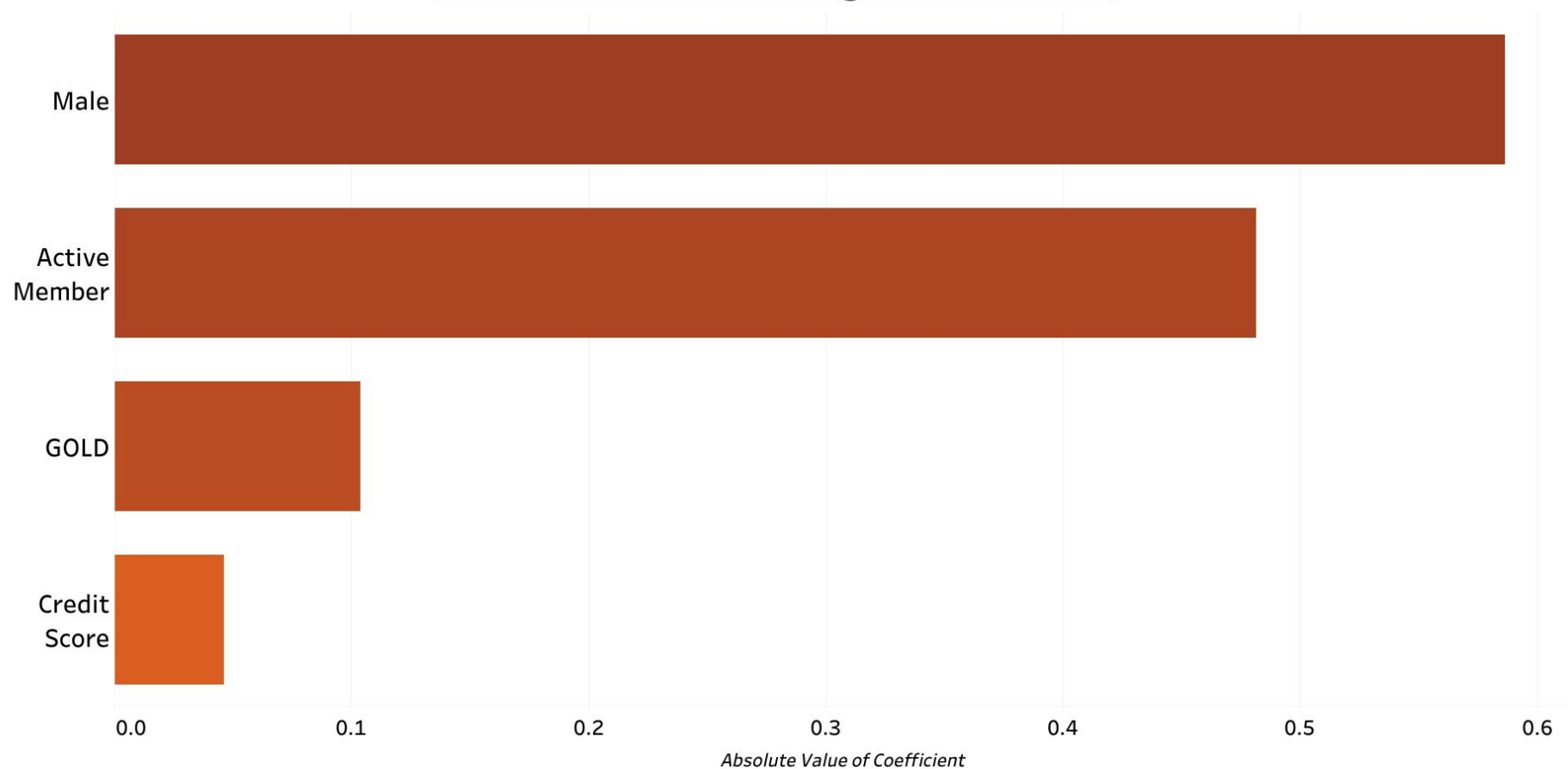
# Final Model Performance

- **Model Performance:**
  - **Recall Score: .677**

- **Which features impacted this result the most?**

# Features Contributing to Churn

Features Contributing to Retention

# Recommendations

1. Redesign customer complaint process

2. Use this model on all future customer records

3. Develop engagement programs for older and/or female customers

# Next Steps

1. **Conduct complaint analysis**

2. **Address customer frustrations identified in complaint analysis**

3. **Analyze the cost of different customer service strategies**

   a. **Email campaigns vs. Customer calls**

# Thank You!