Data visualization using power BI final project

Data Cleaning and Transformation

1- Remove duplicates
2- Remove null values
3- Ensure Formats of all columns.

Creating Measures and Add Measures Table

Forming Questions and Data Visualization

1. **What is the overall churn rate?**

Churn Rate

26.58%

2. **Which contract type (e.g., month-to-month, one year) has the highest churn rate? month-to-month**

Churn Rate by Contract

- Month-to-month: 42.71%
- One year: 11.28%
- Two year: 2.85%
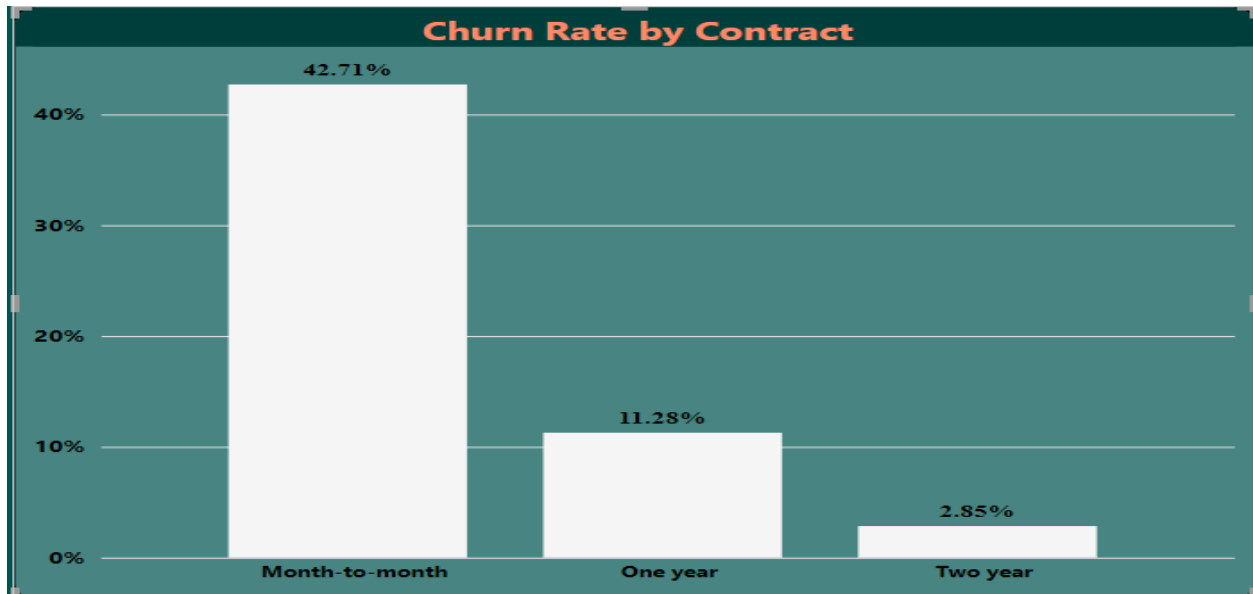
3. **What is the average tenure of churned customers versus retained customers?**
   Average Tensure For Churned Customers = 14.98 and For Retained Customers = 37.65

Average Tensure by Churn

Churned ● No ● Yes

- 17.98
- 37.65
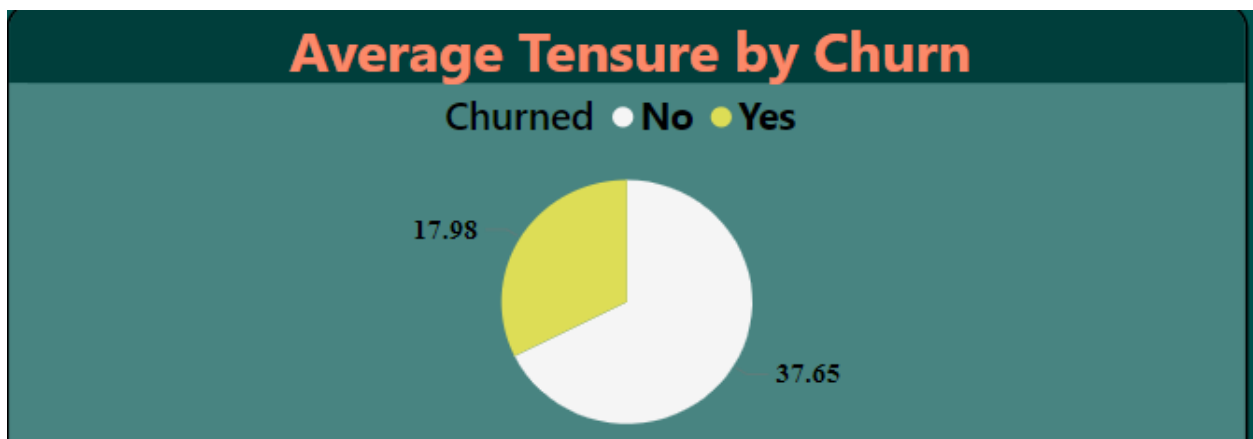
4. What is the average of tenure across customers with different contract types?
For Two Years = 57.07 , For One Year = 42.07 and For Month-To-Month = 18.04
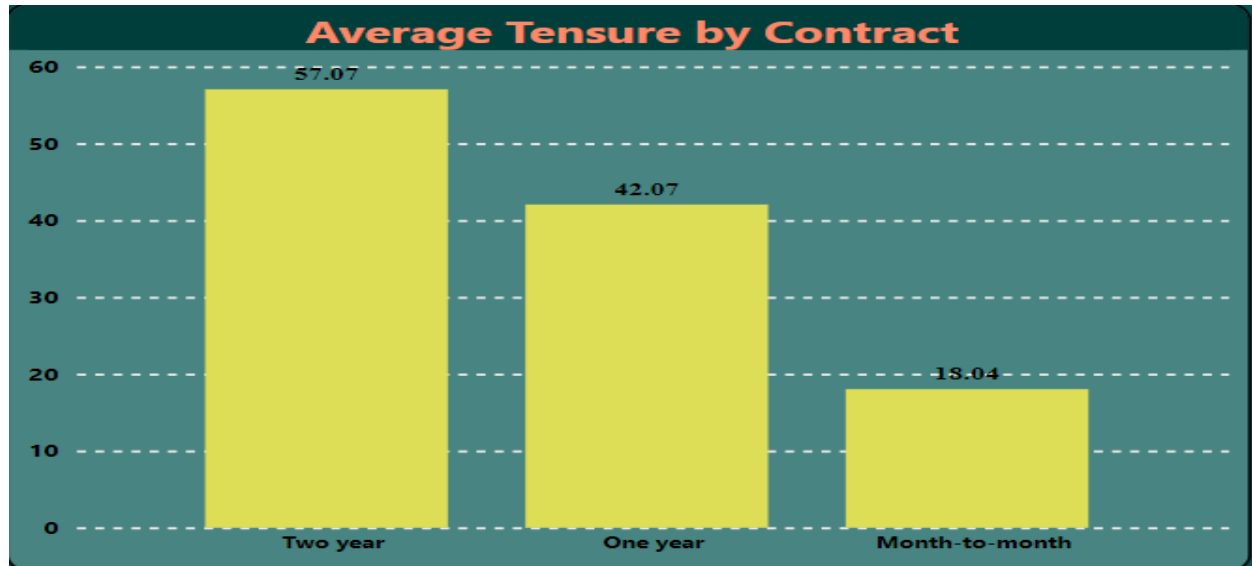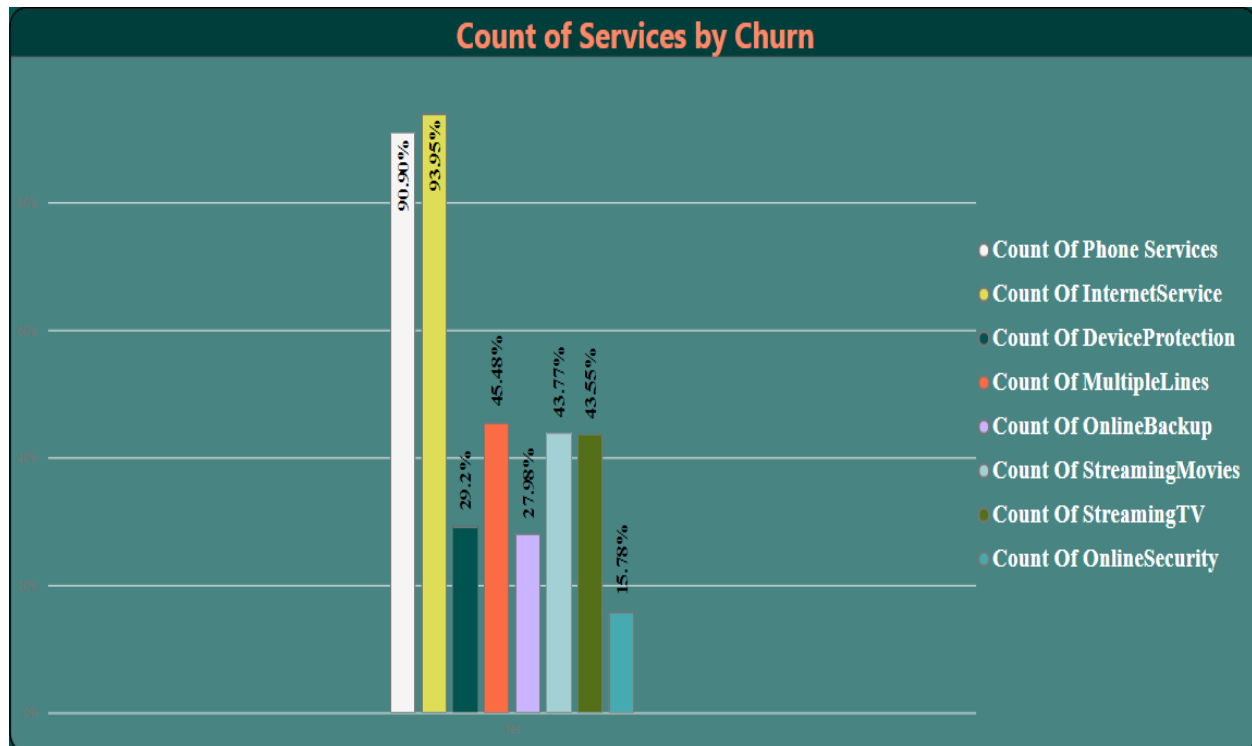

5. Do customers with certain Service types churn more frequently?

Internet Services and Phone Services are the most Services with the most churned Customers
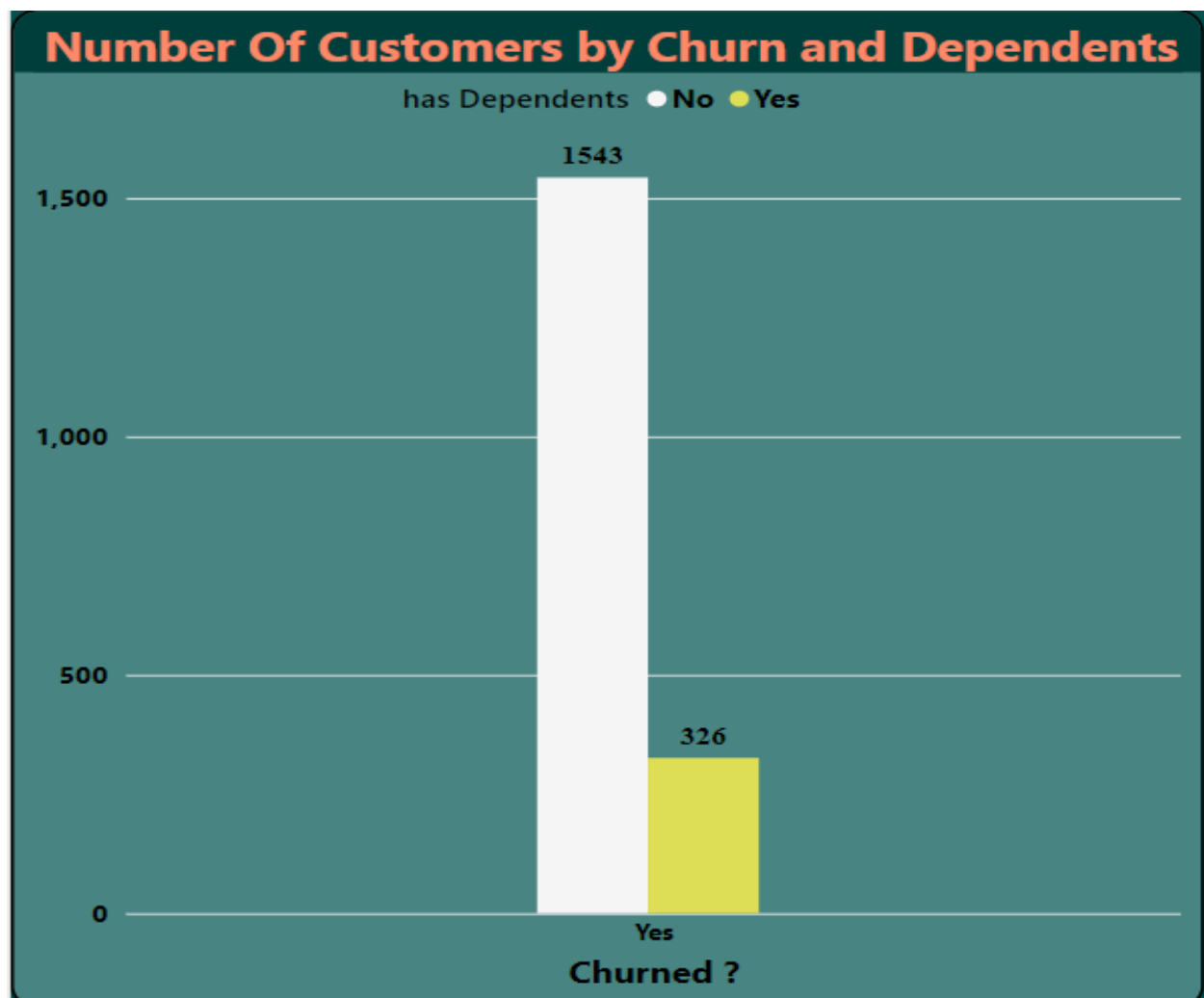
| Churn	Phone Services	Internet Services	Device Protection	Multiple Lines	Online Backup	Streaming Movies	Streaming TV	Online Security
Yes	90.90%	93.95%	29.2%	45.48%	27.98%	43.77%	43.55%	15.78%

6. What is the average tenure for customers by gender and status?
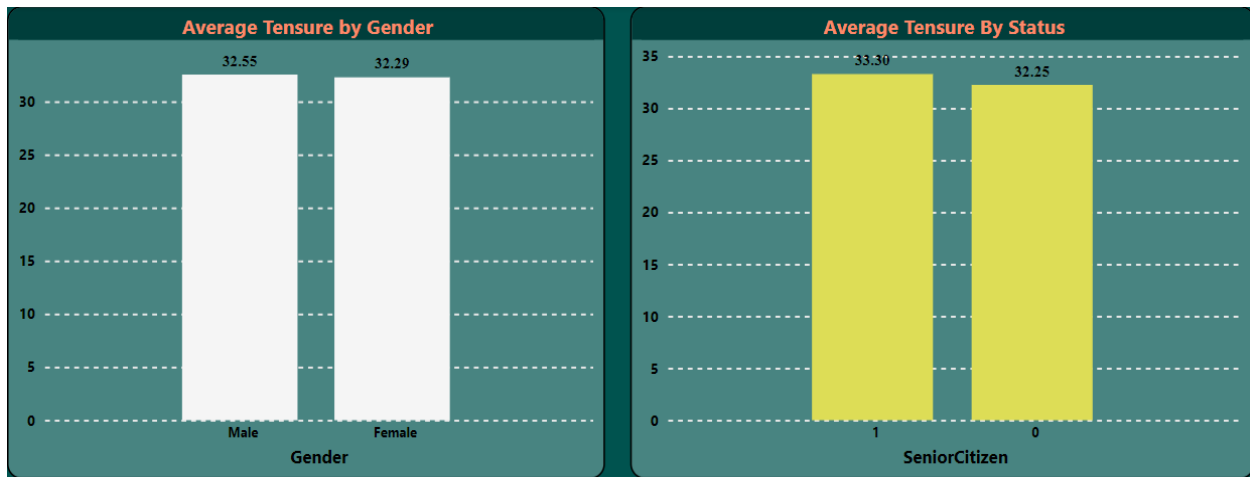
7. Is there a noticeable difference in churn between customers with dependents versus those without? Yes

8. Are there any trends for Churned and active customers over time?

**Churned Customers Over Years**
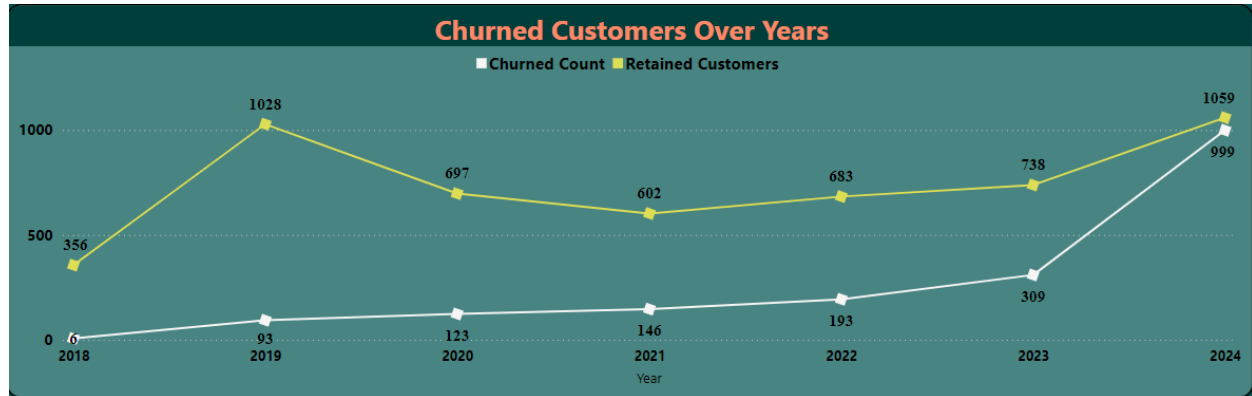
9. What are the average MonthlyCharges and TotalCharges for churned vs. retained customers?

Average MonthlyCharges for Churned Customers = 74.44 For Returned Customers = 61.31
Average TotalCharges for Churned Customers = 2.6K For Returned Customers = 1.5K

Average of MonthlyCharges by Churn

Average of TotalCharges by Churn
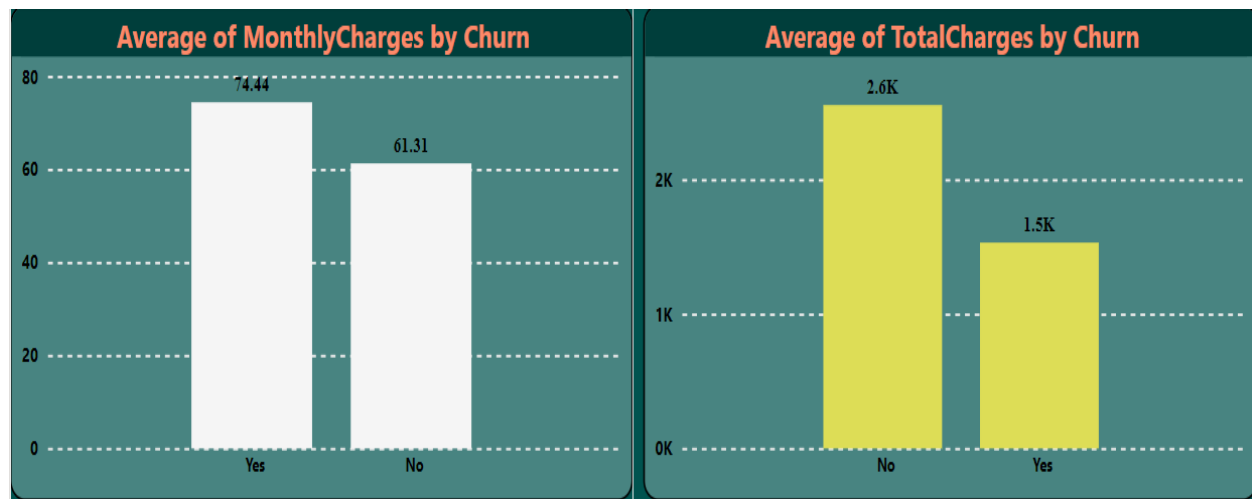
10. Do certain PaymentMethod types (e.g., Credit Card, Electronic Check) have higher churn rates?

Electronic Check has the highest churn rate.
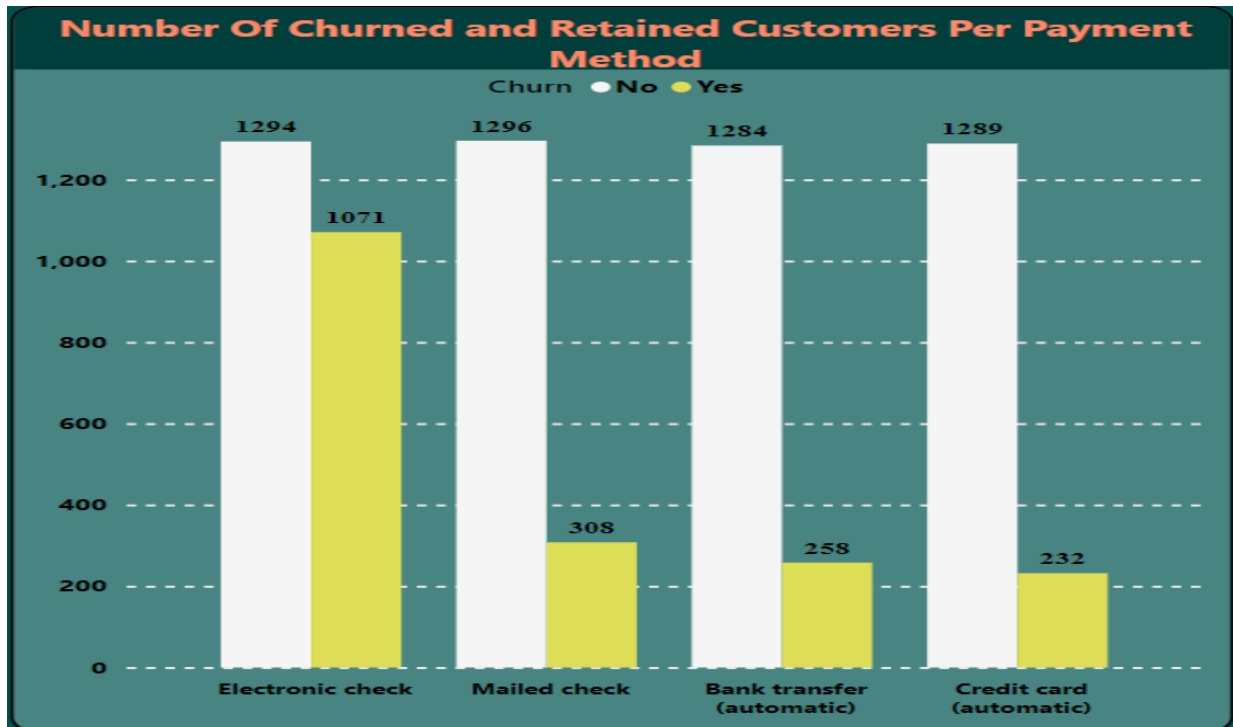
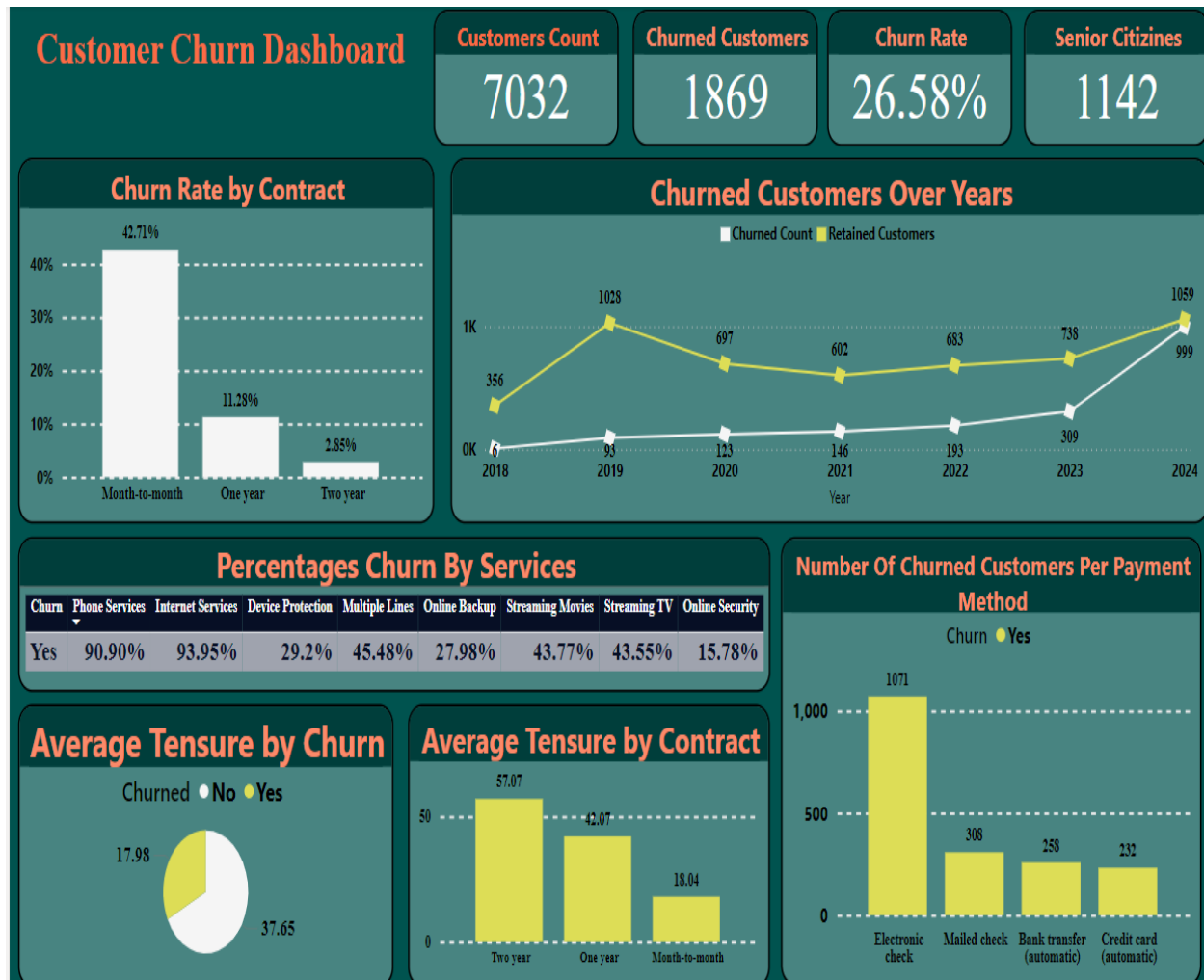**11. Do customers with multiple service subscriptions churn less than those with fewer subscriptions?**

The customers subscribed to little services are most likely to churned.
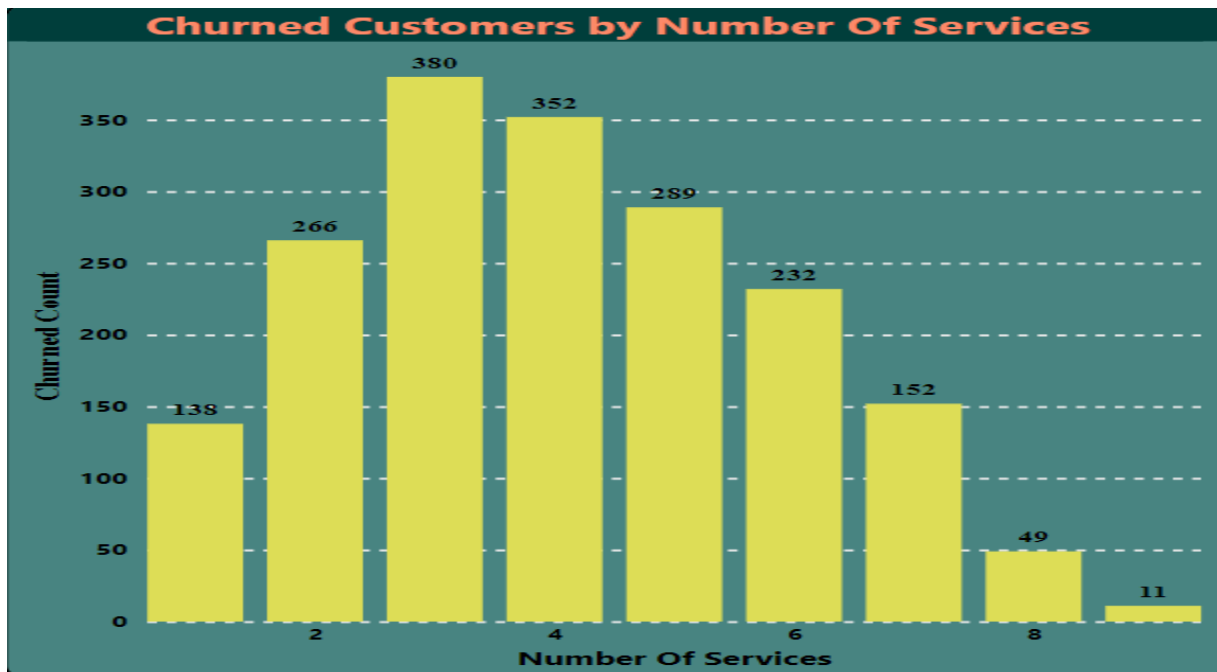
12. What are the key predictors of churn in the dataset?
- Contract Type
- Number Of Services
- Payment Methods
- Customers with Dependents

Final Dashboard

Recommendations

Suggestions for reducing churn:
- Offering discounts for loyal customers.
- Improving services that have high churn rates such as Internet Service and Phone Service.
- Enhancing communication and feedback loops with customers.
- Provide incentives for customers using payment methods with high churn rates e.g., electronic checks.
- Provide customers with flexible contract options or the ability to pause services during financial hardship.