

Creating a cohesive story

CASE STUDY: ANALYZING CUSTOMER CHURN IN TABLEAU



Carl Rosseel
Curriculum Manager

Data analysis flow in Tableau

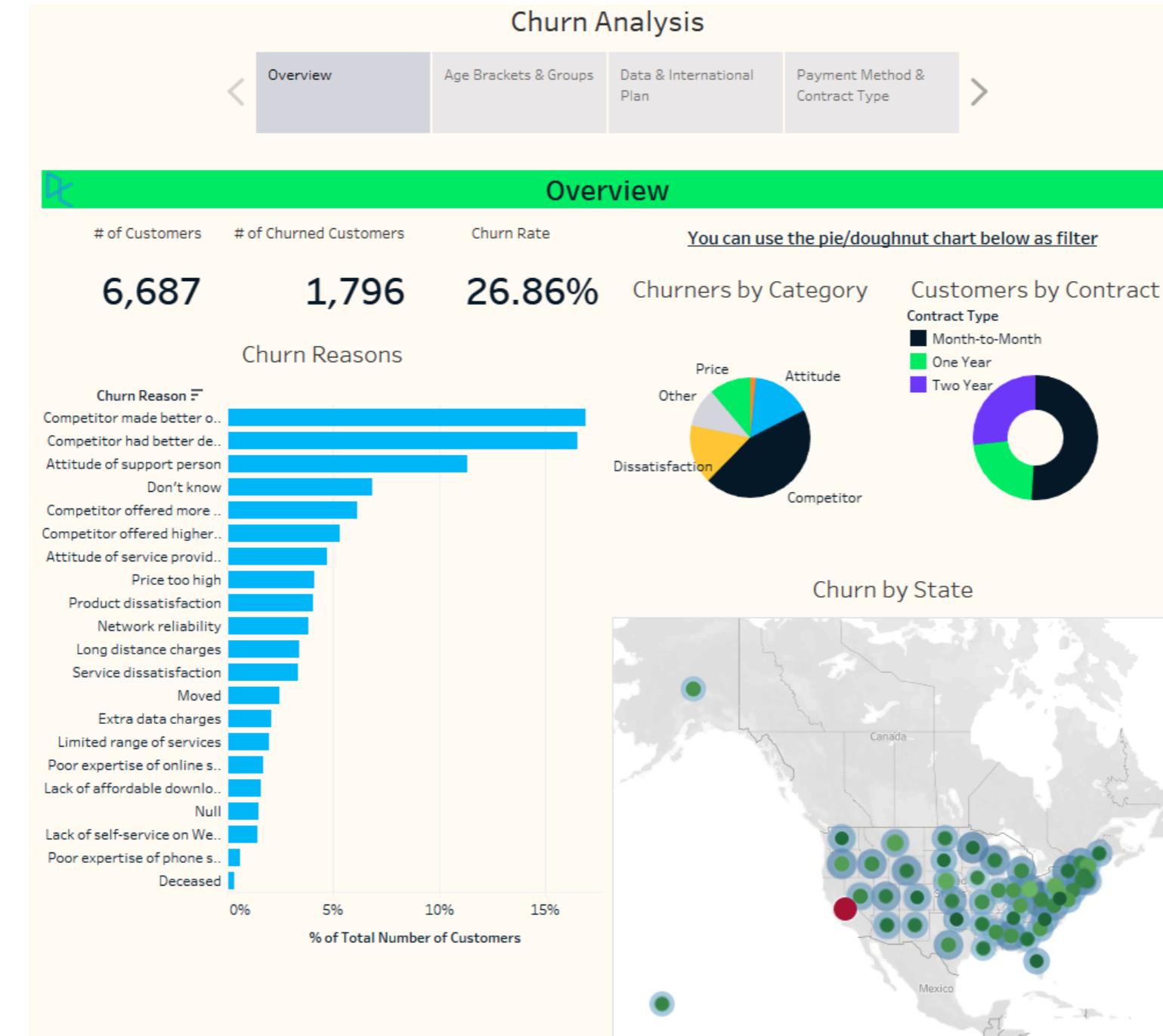


Structuring your analysis is not easy

- Not informative to publish 10+ different worksheets.
- Need to combine information which fits well together.



It's time to tell a story



Each story point investigates a different topic

Churn Analysis

Overview

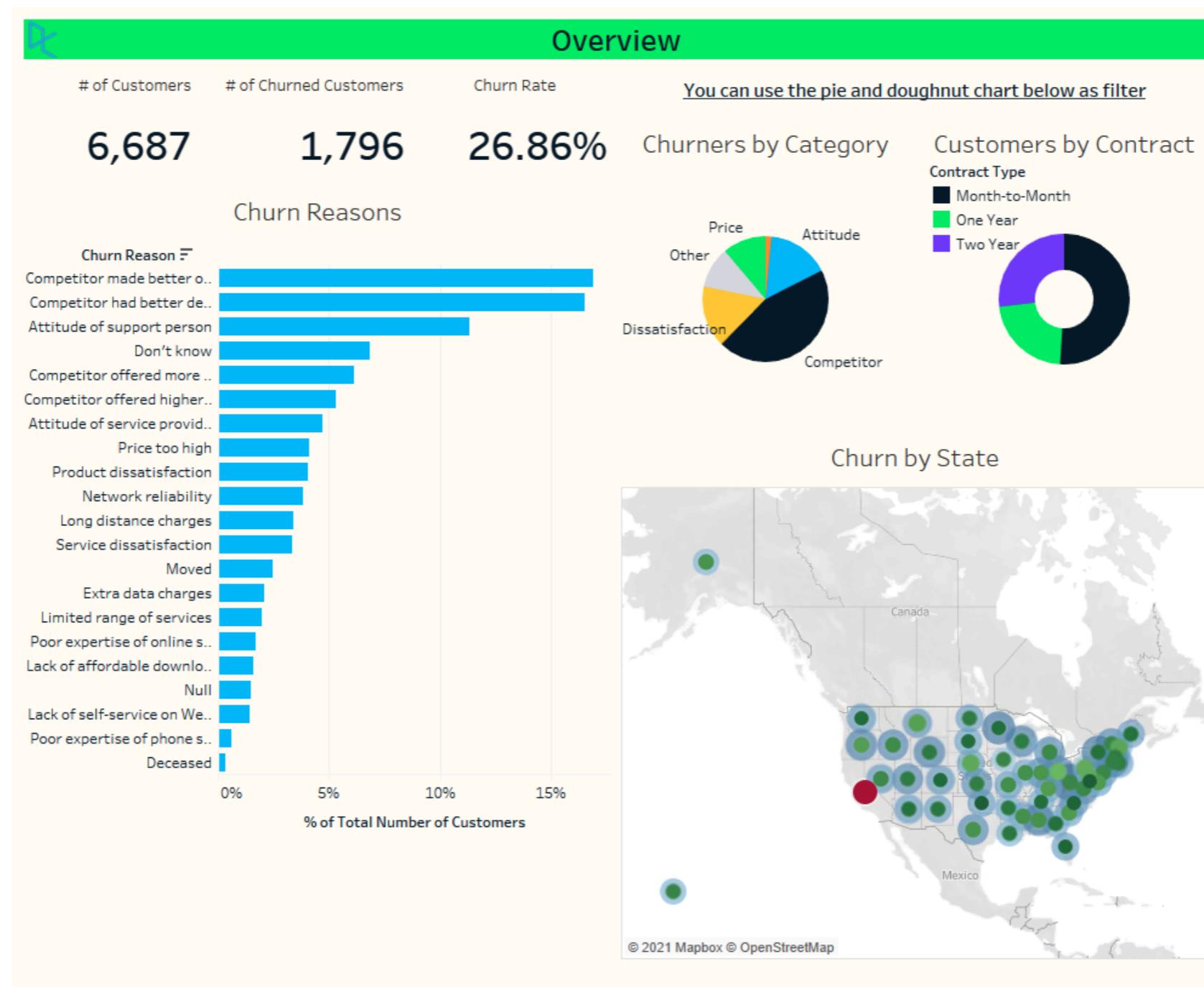
Age Brackets & Groups

Data & International Plan

Payment Method & Contract Type



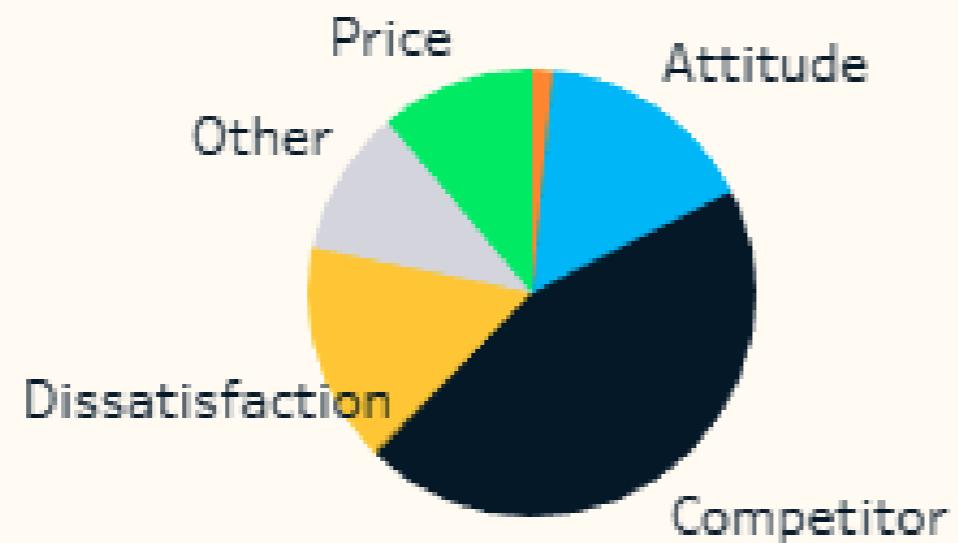
Overview page



Adding instructions can be extremely useful

You can use the pie and doughnut chart below as filter

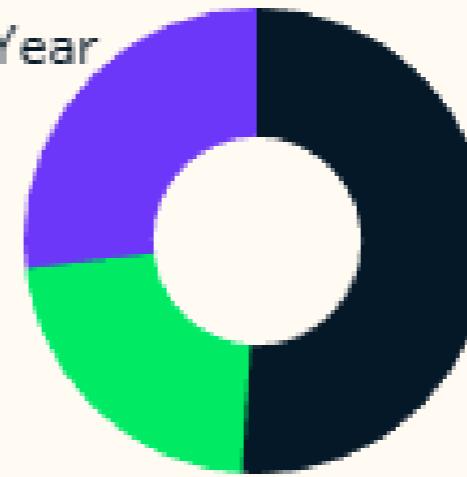
Churners by Category



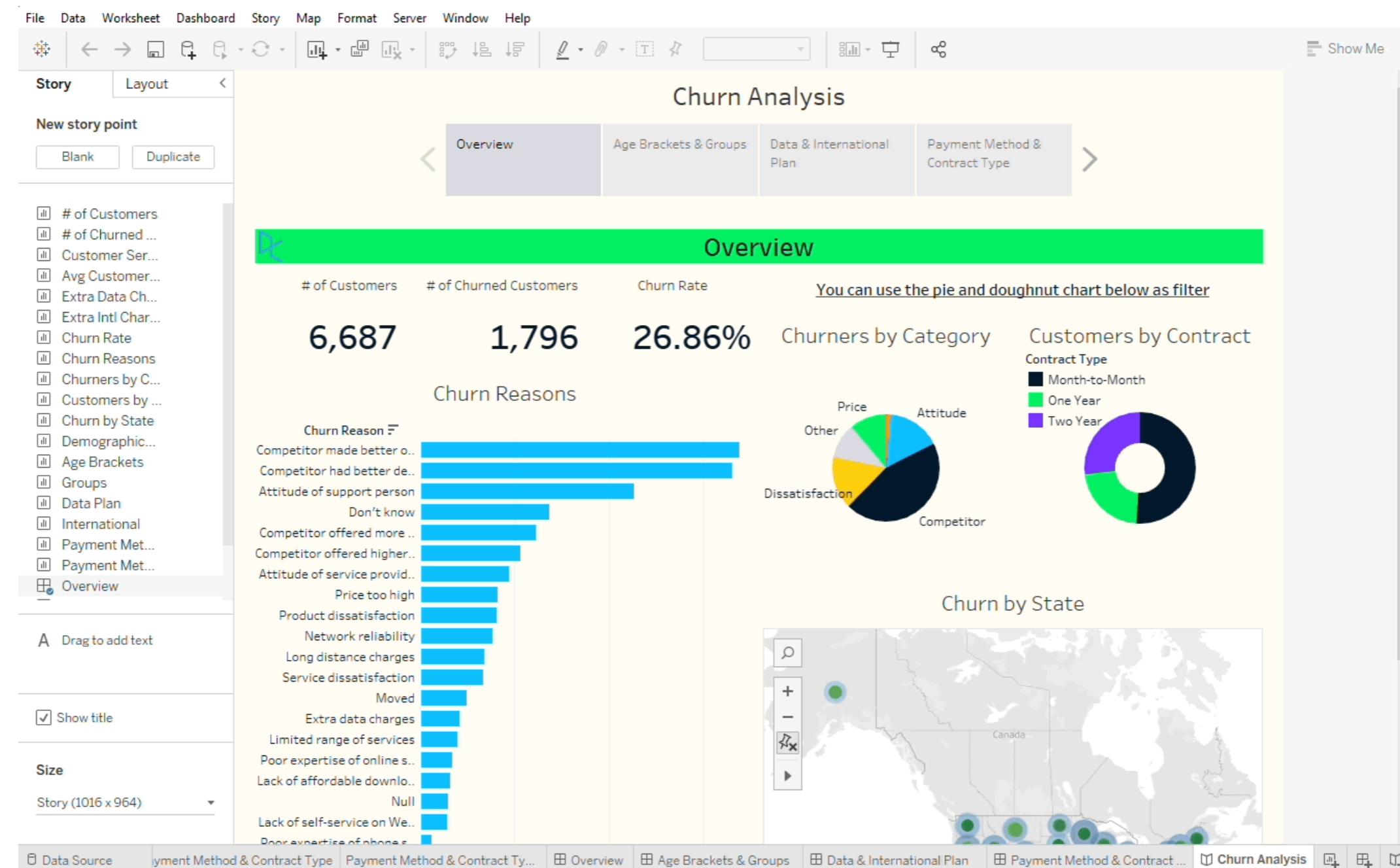
Customers by Contract

Contract Type

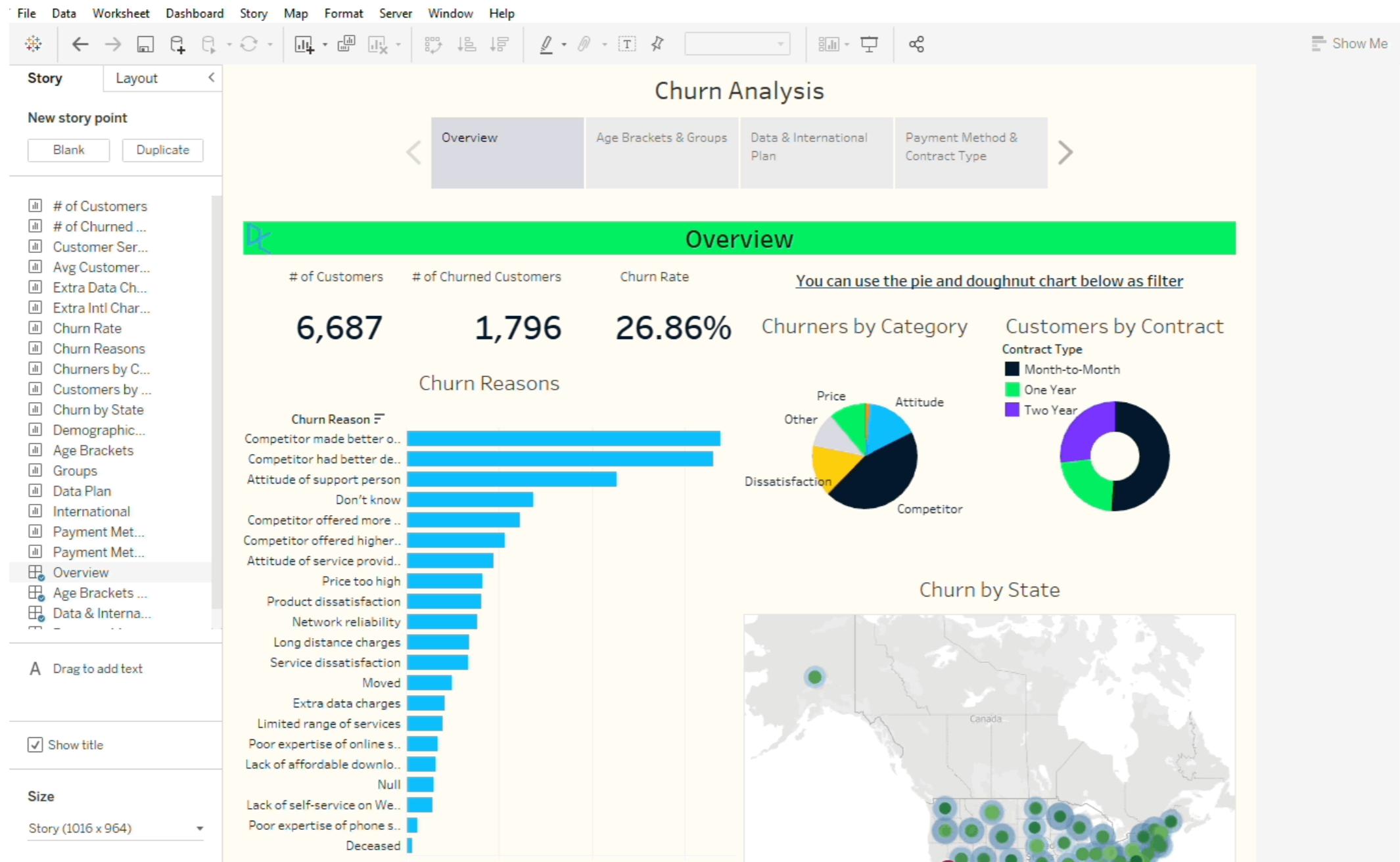
- Month-to-Month
- One Year
- Two Year



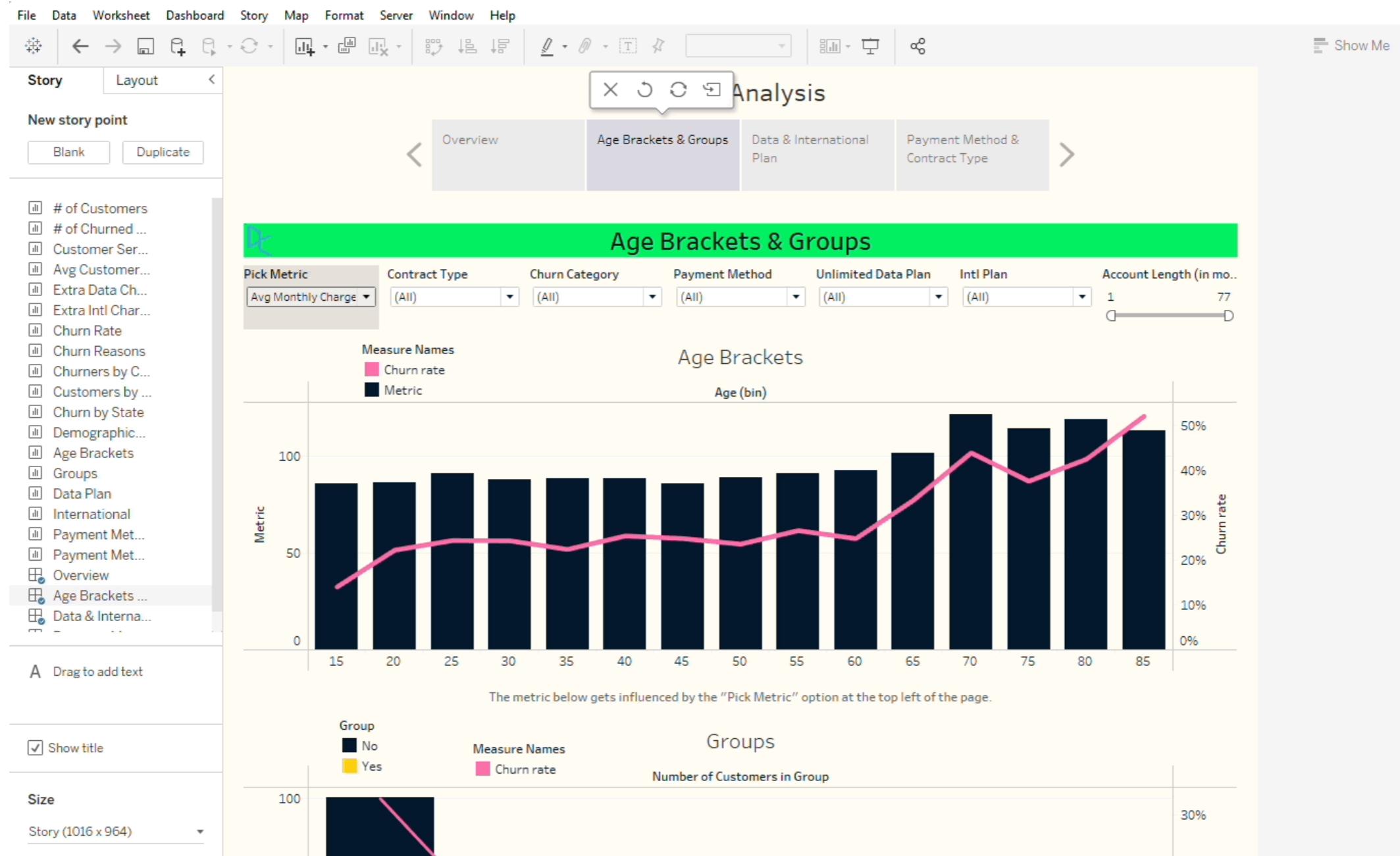
Interactivity makes a dashboard powerful



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Interactivity makes a dashboard powerful



Let's visualize!

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Wrap-up

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Data analysis flow

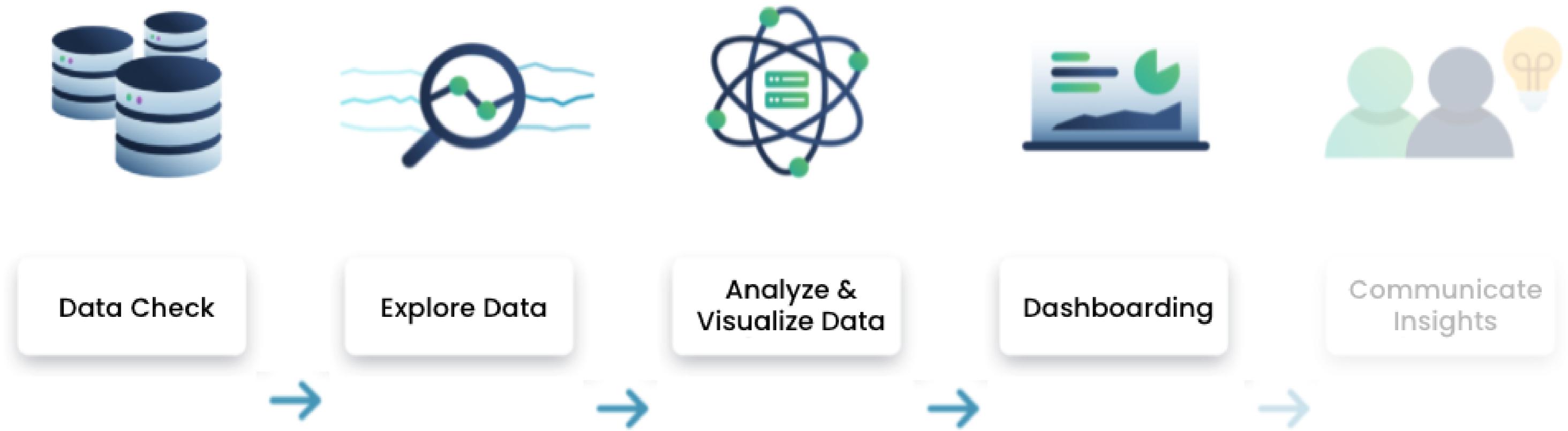
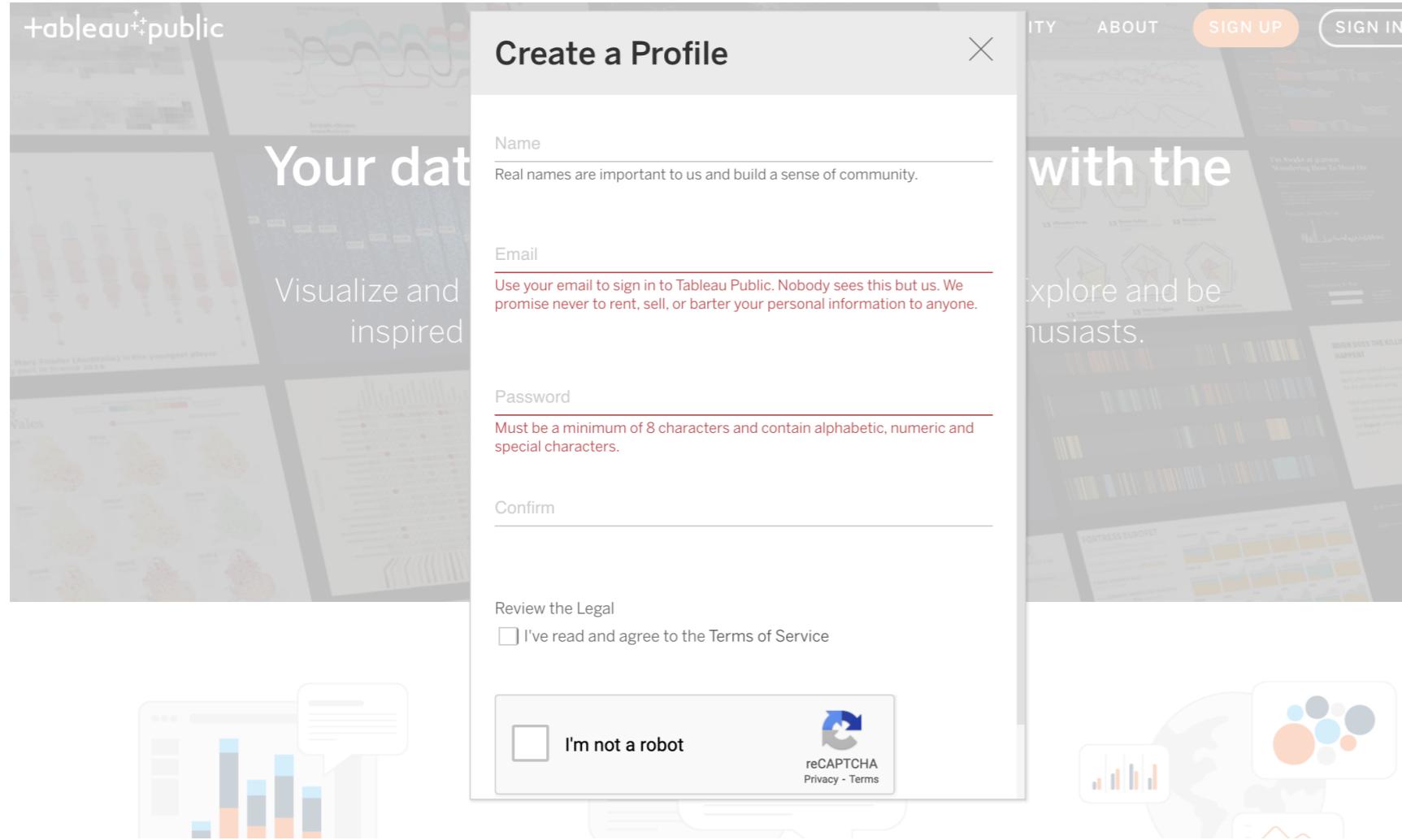


Tableau Public

- Free
- Limitations
 - Only CSV, Excel and text files
 - Save online
 - 15 millions rows of data
 - Public reports
- Allows you to save your work

A Tableau Public account is required

- You can't publish without an account
- You can create an account on <https://public.tableau.com/>
 - Click the sign up button and complete the details:



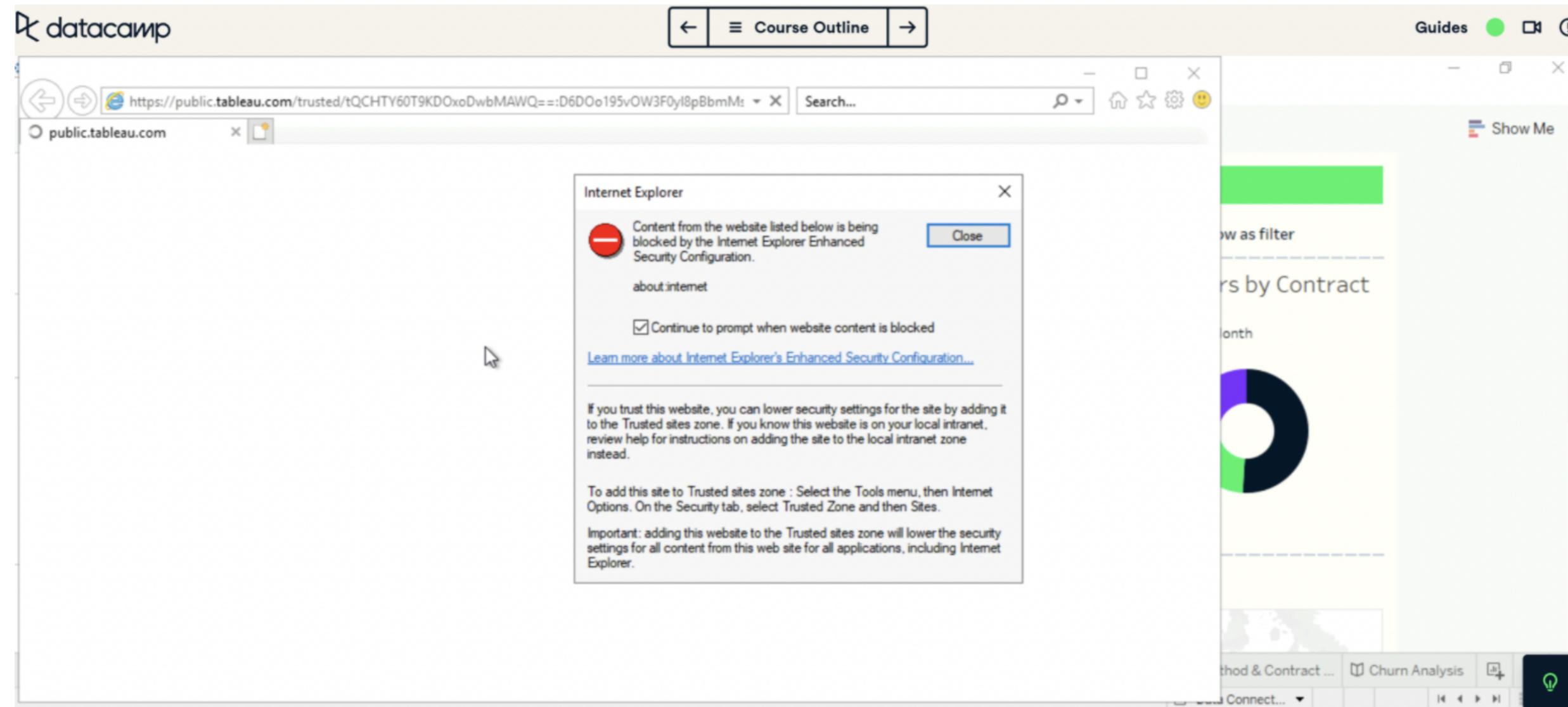
Saving your work

The screenshot shows a Tableau dashboard titled "Overview". The dashboard includes the following components:

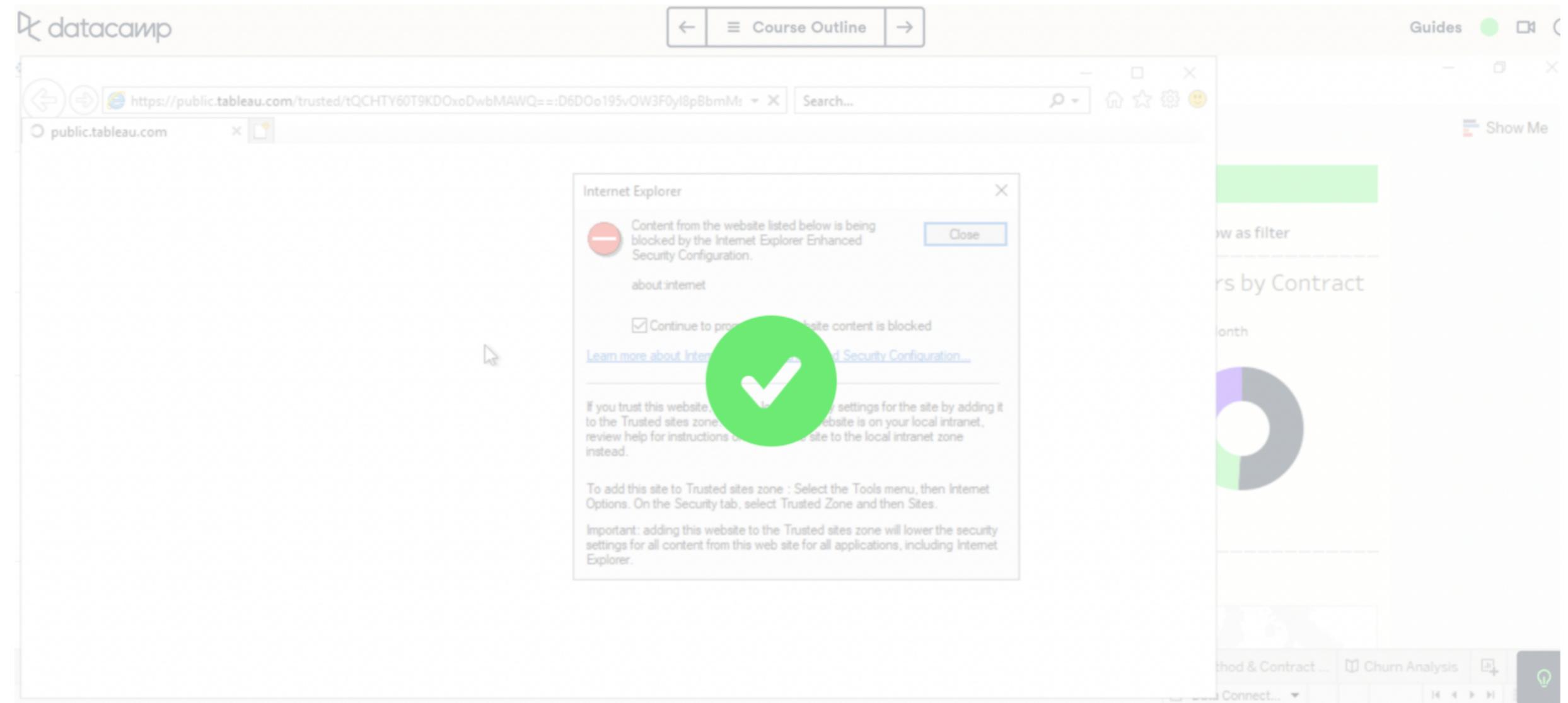
- Key Metrics:** # of Customers (6,687), # of Churned Customers (1,796), and Churn Rate (26.86%).
- Text Note:** "You can use the pie and doughnut chart below as filter".
- Churn Reasons:** A bar chart showing reasons for churn, with the top reason being "Competitor made better o...".
- Churners by Category:** A pie chart showing categories of churners, with segments for Price, Attitude, Other, Dissatisfaction, and Competitor.
- Customers by Contract:** A donut chart showing contract types: Month-to-Month (dark blue), One Year (green), and Two Year (purple).
- Churn by State:** A map showing churn distribution across different states.

The left sidebar contains a "Sheets" section with various data sources and objects, and a "Objects" section for horizontal and vertical navigation.

Internet access is blocked



Your file will be published

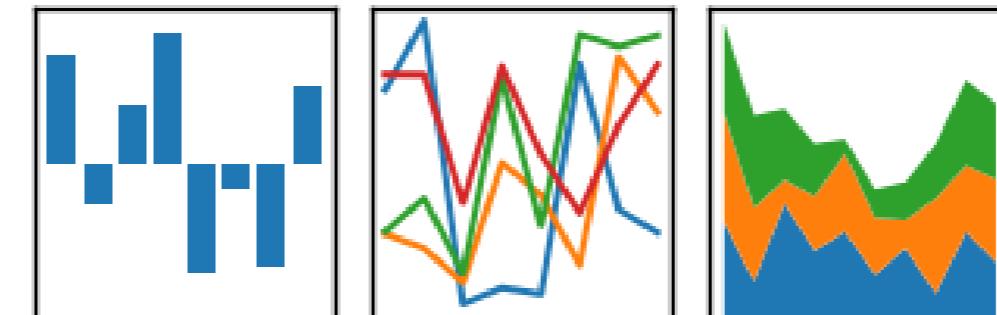


Optional future work: predicting churn

- Course on churn prediction: [Marketing analytics: predicting customer churn in Python](#)
- Intermediate python knowledge required

pandas

$$y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$$



- You'll learn how to build and validate your prediction using model metrics

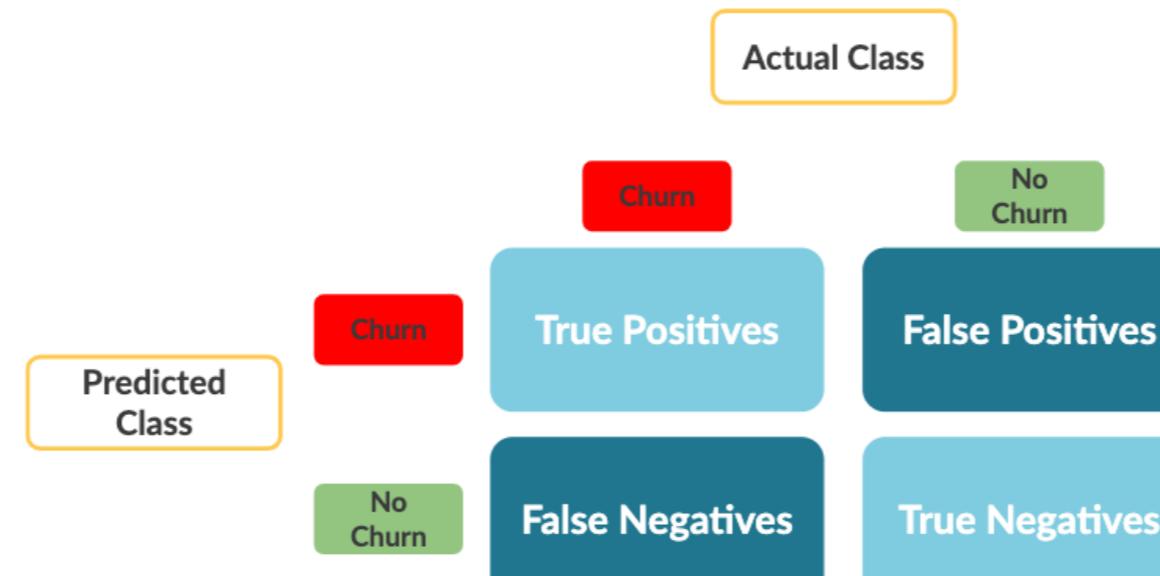


Tableau is a playground

- You analyzed a new dataset from scratch:
 - Various visualizations: Dual Axis graphs, scatter plots, maps, ...
 - Calculated fields: COUNTD(), IF THEN ELSE, ..
 - Bins and bin sizes
- You leveraged the power of interactivity through:
 - Filters
 - Visualizations as filters
 - Parameters

Congratulations!

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