

Data Storytelling for Varied Audiences

Task 3

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Below is the link to my dashboard

<https://public.tableau.com/app/profile/nathan.hefner/viz/NathanHefnerTask1/Dashboard1>

Below is the link to my presentation

<https://wgu.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=81a9b482-3d36-4956-a5bc-b2cb00fcd55d>

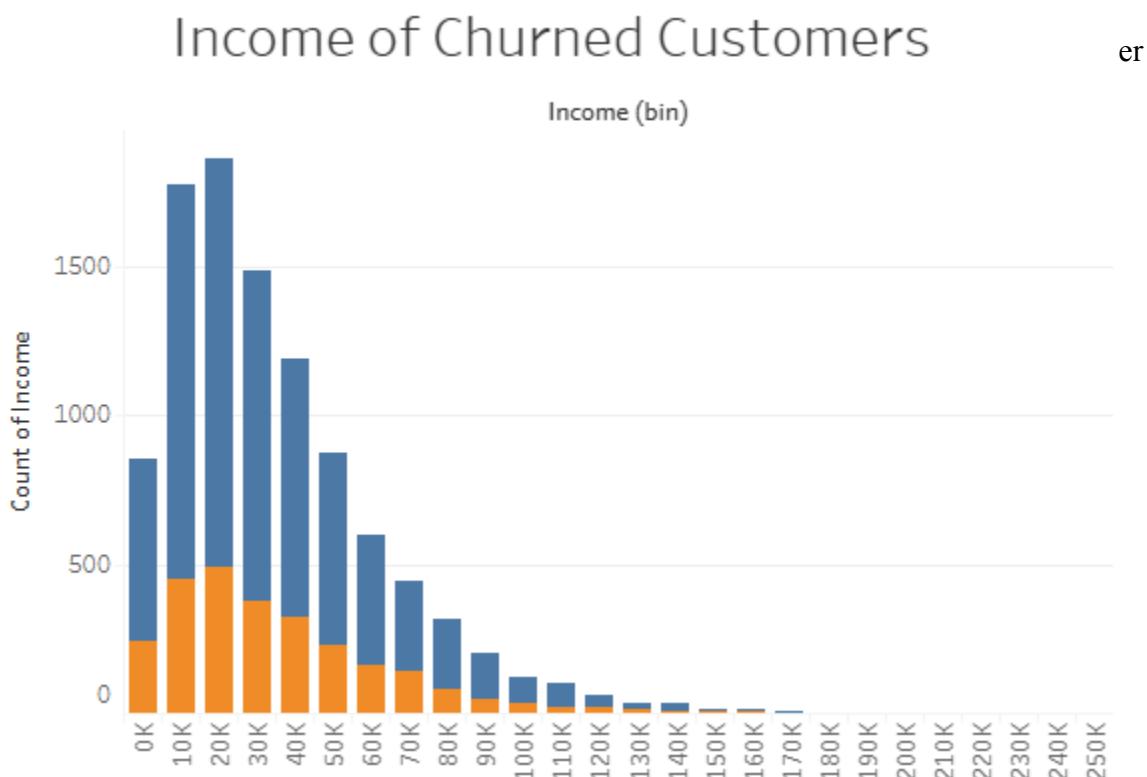
A. Write a reflection paper to demonstrate your understanding of data representation and reporting by doing the following:

1. Explain how the purpose and function of your dashboard align with the needs outlined in the data dictionary associated with your chosen dataset.

My dashboard's purpose and function align with the data dictionary's needs because I searched for hidden trends that could link back to why customers are churning and how we could avoid that. The SVP wanted to dial in on key characteristics that make up a customer and what drives the customers' behaviors. The EVP wanted broad characteristics of customers to compare different demographics. I met the criteria by analyzing churned and retained customers across multiple demographics and examining different behaviors.

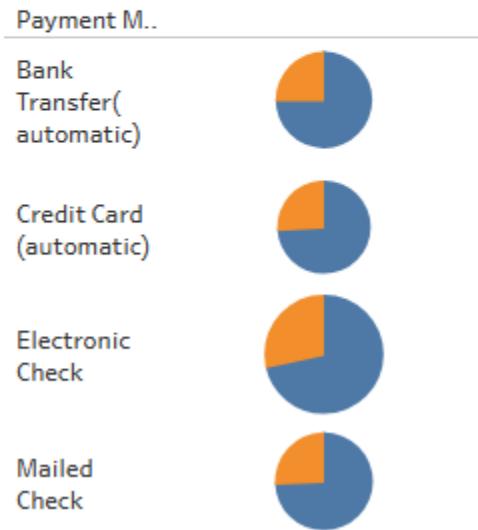
2. Explain two different data representations from your dashboard, including how executive leaders can use them to support decision-making.

My first data representation is the age of churned customers.



My second data representation is the payment method.

Churned Customers by Payment Method



This data representation shows that all payment methods are around the same for churn rates, except for the slightly higher electronic check. Therefore, this can help executive leaders' decision-making by incentivizing the lower churn rate payment methods.

3. Explain two interactive controls in your dashboard, including how each enables the user to modify the presentation of the data.

My two interactive controls are an age slider and a contract selector.

Contract

- (All)
- Month-to-month
- One year
- Two Year

Age

18 89

The Age Slider allows you to modify the age range to select specific demographics and see how the churn rates differ. After testing, I did not find much variance between different age ranges.

The Contract selector allows us to view the churn rates and demographics for different types of contracts. Choosing one type, two different types, or seeing all three simultaneously. After testing, I found the lowest churn rates for those with a two-year contract. This evidence shows that the longer we keep customers, the less likely they are to churn.

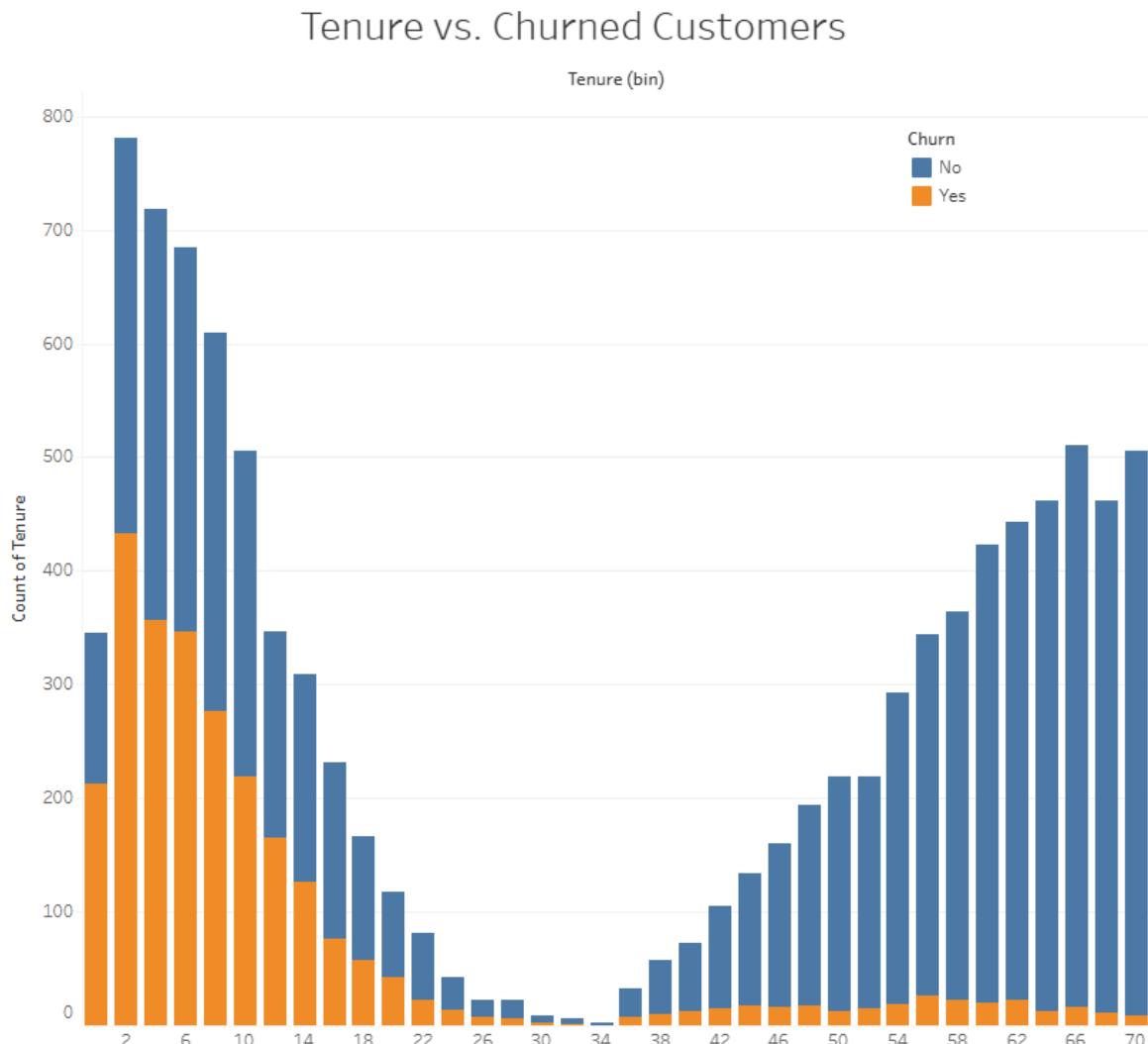
4. Describe how you built your dashboard to be accessible for individuals with colorblindness.

The dashboard was built to be colorblind accessible using a specific high-contrast color palette. I opted for blue and orange as they are easily distinguishable colors. These two colors make it easy to distinguish between churned and retained customers.



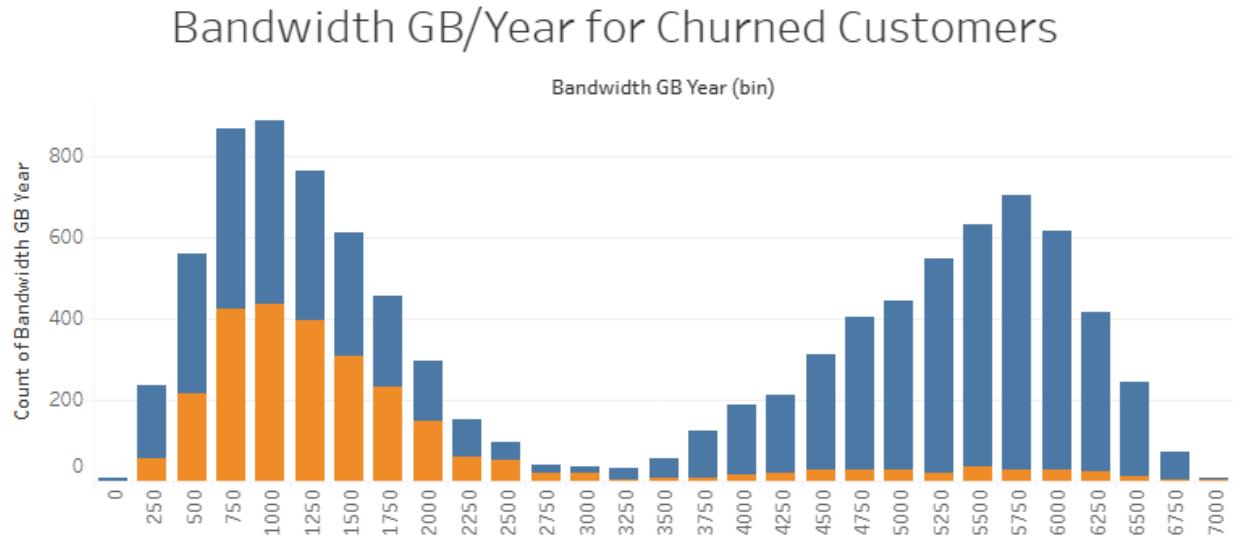
5. Explain how two data representations in your presentation support the story you wanted to tell.

My first data representation is Tenure Vs. Churned Customers.



This tells a story because it shows a threshold at which the customers are with the company for so long that the churn rate drops dramatically. This is evidence that we need to focus on incentivizing customers to stay for at least 24 months minimum.

My second data representation was Bandwidth GB/Year for Churned Customers.



This graph also shows a threshold of when customers stop churning and stick with the company. At 2750 GB/Year, the customer will stay with the company. Therefore, I believe we should prioritize getting higher bandwidth to areas with lower bandwidth to help avoid churned customers.

6. Explain how you used audience analysis to adapt the message in your presentation.

Knowing my audience was executive leaders and my data analysis peers, I used a mix of technical and nontechnical language. Still, I always made sure to explain the more technical terms. I also made the visualizations easy to understand and digest, whilst also being technically adept to a higher level of detail and analysis for my peers. I also ensured that the data representation clearly showed how this affected the executives to keep them engaged and listen to my analysis and final evaluation.

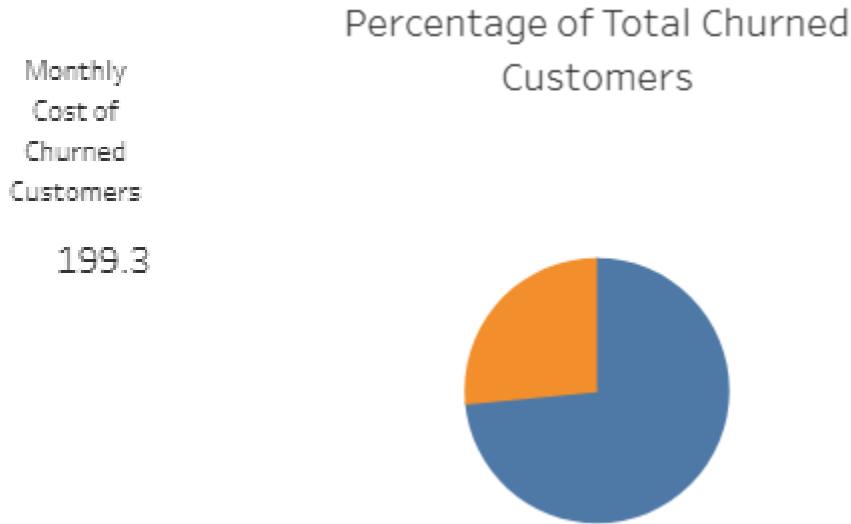
7. Describe how you designed your presentation for universal access by all audiences.

I designed the presentation for universal access by uploading it onto Tableau Public, allowing anyone with the link. The link also allows users to download the dashboard in case there are any issues with the web-based dashboard.

8. Explain two elements of effective storytelling that you implemented in your presentation, including how each element was intended to engage the audience.

- **What are you persuading the audience to think about and act on?**
- **What is the clearest example from the dataset?**

The first element of my presentation was the cost and percentage of churned customers.



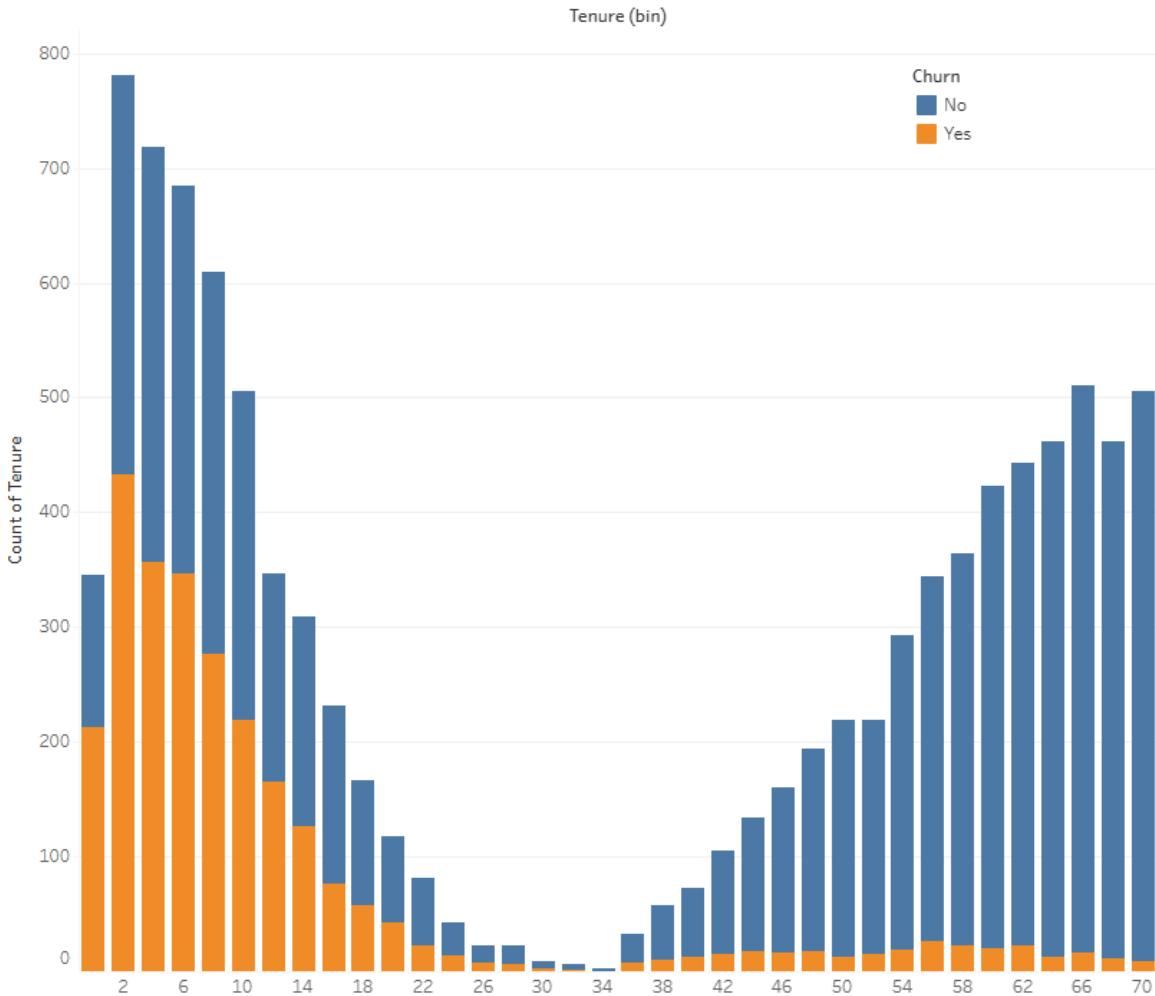
These elements indicate the negative impact on the company and the scale of said impact. Showing the cost of each churned customer and seeing nearly a quarter of all customers become churned shows a lot of potential gain that is missing from these customers. This will help set the stage for knowing exactly why we want to reduce this amount. Knowing that a new customer is much more expensive to obtain than to keep an older customer makes it more imperative to focus on customer retention.

My second element is the tenure graph and contract selection I showed earlier.

Contract

- (All)
- Month-to-month
- One year
- Two Year

Tenure vs. Churned Customers



The graph and the filter show that the biggest takeaway is that the best way to keep customers is to incentivize with longer contracts. Doing so makes them more likely to meet the 22-month threshold where the churn rates drop dramatically. The longer they have the service, the less likely they are to churn. The graph and filter help prove my point and clearly show the difference between churn customers and the retention customer rate by how many months they are with the company, thus providing compelling storytelling.

Sources

No sources were used except WGU Material