The purpose of this dashboard is to profile our customers by evaluating various key performance indicators, and track feature adoption. These indicators are Average Monthly Charge, Three Month Churn Rate, Average Bandwidth consumed, Average Account Age and Percent of Market Share. Each of these things are used individually and collaboratively by the executives. Feature tracked will be discussed later in this reflection paper.

There are two visualizations that help to paint a picture of our customers. The first is the customer account age distribution in five-year buckets.
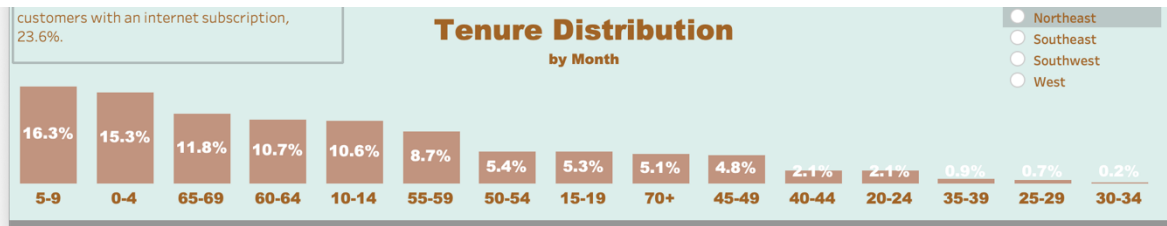
The second visualization is a map of the United States by customer count indicated by a gradient of blue.
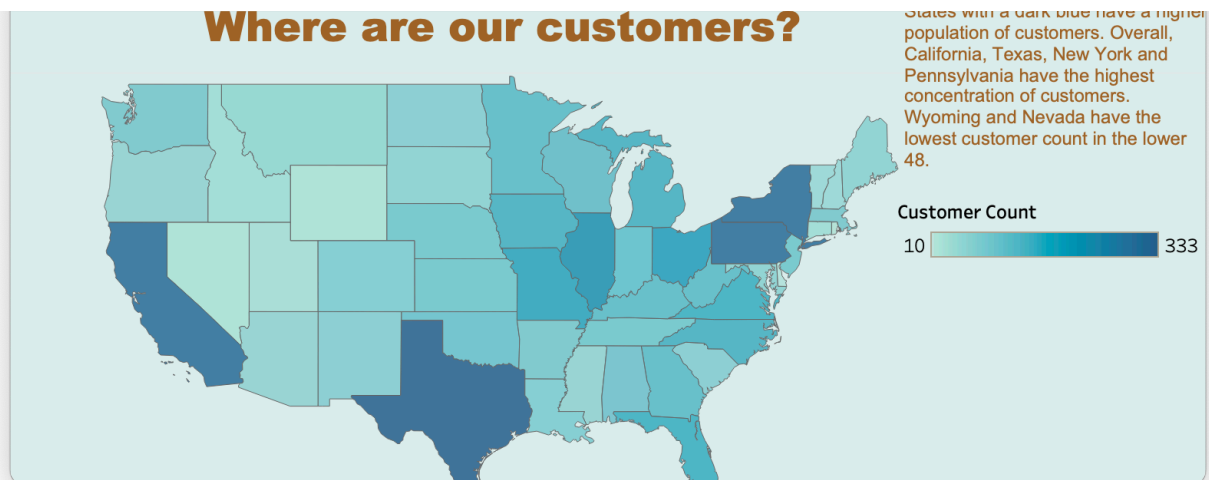
Additionally, there are for total filters available on this dashboard. First, I included a filter to slice the entire dashboard by Internet Service. The selection choices are DSL, Fiber Optic, None and All. The second selection is Contract length. Contract lengths to choose are Month-to-Month, One Year, Two Year and All. The third filter is on region to slice the high-level metrics by Northeast, Southeast, Southwest, West and a National view with (All). Lastly, the map can be filtered by selecting a State. As each selection is made, all of the KPIs and visualizations change to represent the filters selected.

The needs of our Executive leaders vary. Creating a dashboard to meet everyone's needs is difficult and normally is not suggested. This dashboard can lead to additional dashboards that are tailored for each leader's business responsibility. addressing specific questions. This dashboard will address the broad questions that might be presented by our Executives. I will

address how this dashboard can be used by each Executive. I also analyzed each executive's job responsibilities and evaluated the dashboard through the lens of their responsibilities. This helped me to tailor my message and dashboard design.

Senior Vice President for Customer Experience (SVP)

The SVP is concerned with the experience a customer has. engagement, retention and increasing customer base. To do this, one would have to evaluate how the customers are engaging with and using our products.

The metrics of interest to the SVP are littered throughout the dashboard. In the KPI section at the top, the SVP will be interested in the Avg. GB Per year, The Churn Rate, Avg. Account Age. In the Tool Tips pop up, the SVP will find Avg. Outage Seconds per week, % of customers Streaming Media, Subscribing to Tech Support, has a tablet, portable modem, landline phone, and customers who consider themselves a techie.
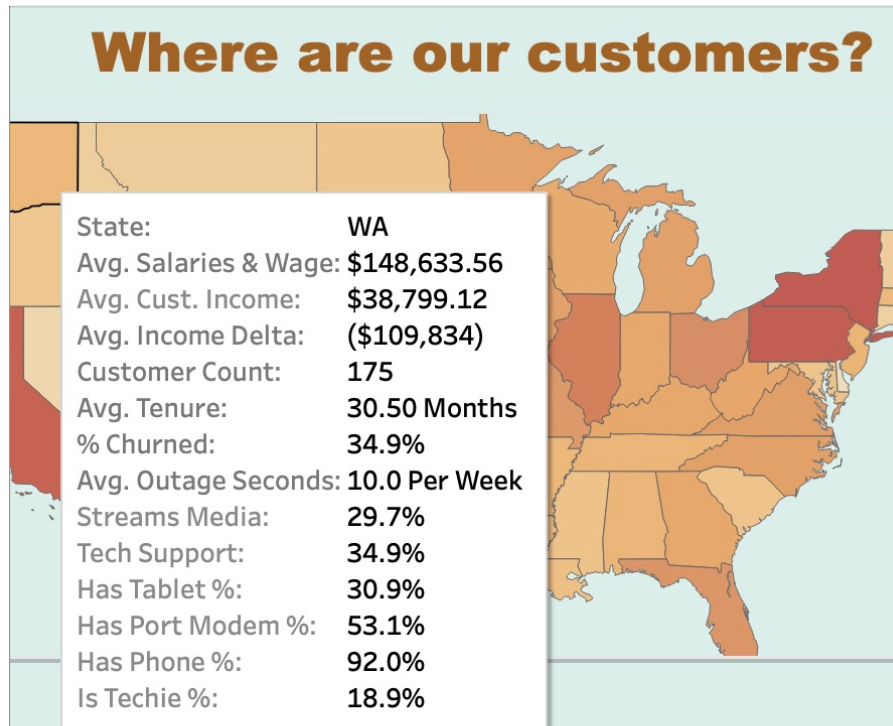
Executive Vice President of Sales (EVP)

The EVP will use the same dashboard features used by the SVP, but also includes Avg. monthly charge, % of market, and region.

Regional Vice Presidents

The Regional VPs will utilize all features of this dashboard but filtered by their respective regions. This will help them collaborate with the SVP and EVP on promotions and analysis of feature adoption within their regions.

Two Impactful Data Representations

The metrics in the map's tool tip is great for this as it gives a high-level overview of the percentage of participating customers. These metrics offer important insights into customer profiling. For instance, in the tool tip screen shot below, we can easily see important insights in each state. Customers in Washington don't consider themselves very techie, most have a landline phone and about 31% stream media. This data can be used to sell Tech Support services. The executives can also use the filters to see how these metrics change when internet service or contract length changes.

Where are our customers?

State:	**WA**
Avg. Salaries & Wage:	**$148,633.56**
Avg. Cust. Income:	**$38,799.12**
Avg. Income Delta:	**($109,834)**
Customer Count:	**175**
Avg. Tenure:	**30.50 Months**
% Churned:	**34.9%**
Avg. Outage Seconds:	**10.0 Per Week**
Streams Media:	**29.7%**
Tech Support:	**34.9%**
Has Tablet %:	**30.9%**
Has Port Modem %:	**53.1%**
Has Phone %:	**92.0%**
Is Techie %:	**18.9%**

The second impactful data representation of the dashboard is looking at the distribution of the tenure groups. This can be useful when analyzing customer churn by the different tenure lengths and contract types. For instance, filtering the customers to those who are on a month-to-month contract, we can see that the second highest tenure group is the 0-4 customers makes up 15.3% of all customers, and 72.4% of those customers have left the company in the last three months. Compared to a churn rate of 34% for the 0-4 customers with a two-year contract. It would be very beneficial for the executives to work together to move customers into one or two year contract.

Data

The data that drives this dashboard consist of two datasets. The first dataset is made up of customer data relating to services, account usage, and demographic information. The second data set I incorporated is tax return data. I took the population and income data and joined it by state to the customer dataset. The variables from this additional dataset were used to give insights into our market share over the entire household population in each state. This is not an ideal data source to use for market share, but it helps us to set a baseline of how many homes we are serving in a given state.

I also used income data from this dataset to compare the income as reported by our customers vs. the income reported income tax documents. This insight helps us to see how our customers compare to the population. We can directionally use this data to help us target new customers in areas of higher income and increase subscribership in other product offerings.

Accessibility

To be sure that this dashboard could be useful to all audiences, I used colors that can be viewed by users who are colorblind. I used a blue pallet that is a mixture of light to dark blue.

To be sure that everyone can download and view this dashboard, I exported it as a .TWBX file. This file type packages the tableau workbook along with any data source files. Anyone can view this dashboard as long as they have Tableau Reader installed. [Tableau Reader can be downloaded from this link.](#) Directions to install Reader are found on the linked download page.

Elements of Storytelling

An important part of data analytics is conveying the information that is uncovered. The elements of storytelling in general can be applied to storytelling with data. In my undergrad I took a class on presentation. In all honesty, I don't remember a lot about that class, but what I do remember is one of the most important things of any presentation. For a story or presentation to be effective, the presenter has to consider who their audience is.

In Storytelling with Data, Cole Nussbaumer Knaflic says, "The more you know about your audience, the better positioned you'll be to understand how to resonate with them and form a communication that will meet their needs and yours." (2015)

When designing this dashboard, I had to consider my customer needs. In this case, my customers are the stakeholders described earlier in this paper. Different parts of the dashboard serve their needs. The dashboard also serves their collective needs since they collaborate with each other.

The second important element of storytelling I incorporated, is a character. The character in this case is our customer; where they live, the services they use, and how much they consume. This customer represents a problem for the stakeholders of this dashboard. There are segments of customers abandoning their service for various reasons.

Reference

Nassbaumer Knaflic, C. (2015). *Storytelling with Data*.