Part 1

A1. Please see both data sets attached in the submission.

A2. Your Comprehensive Walkthrough for Dashboard Installation: Step-by-Step Guide:

1. Visit Tableau Public website: https://public.tableau.com/app/discover
2. Find Dashboard: Locate dashboard by using the search engine located in the top right corner of the website.
    a. Type "Performance Assessment by Jasmine Cooper"
3. Open the dashboard: Click the dashboard to view it. This will take you to the dashboard's page on Tableau Public.
4. Interact with the Dashboard: Explore the dashboard interactively by clicking on elements, filters, and tooltips within Tableau Public.

If user would like to download and install Tableau Public Dashboard in Tableau Desktop, please continue with the following instructions:

5. Download the Workbook: On the dashboard's page, look for the "Download" button in the top right corner of the dashboard. Choose the option to download the Tableau workbook.
6. Save the Workbook: Save the downloaded workbook file to a location on your computer.
7. Open Tableau Desktop: If you don't have Tableau Desktop installed, download, and install from the official Tableau website.
8. Launch Tableau Desktop: Open Tableau Desktop on your computer.
9. Open the Downloaded Workbook: In Tableau Desktop, go to "File" and select "Open". Navigate to the location where you saved the downloaded .twb file and open it.
10. Interact with Dashboard: Explore the dashboard and interactively by clicking on elements, filters, and tooltips within Tableau Desktop.

A3. Navigating the Dashboard: Step-by-Step Guide:

Throughout the dashboard, you will find various charts, graphs, and interactive elements. Click on different elements to explore additional details and insights and utilize tooltips that provide context and information when hovering over specific data points.

1. Drilling down Based on City - If user wants to drill down for further detailed insights based on the selected city:
    a. Select the city of interest on the map.
    b. Observe how the dashboard adjusts to focus on insights related to the highlighted city.
    c. Once the city is selected, information regarding the customers' churn reasons, customers' satisfaction, and customers' assigned area based on population size will appear.
    d. To reset the dashboard, unselect the city.
2. Highlighting a city
    a. Locate the "Highlight City" drop down interactive control on the right side of the dashboard.
    b. Choose a city to highlight

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    c. Observe the amount data usage in the highlighted city in comparison to other cities in California.
    d. Click on the 'x' on the interactive control to reset the map.
3. Select an Area
    a. Locate the "Area Filter" on the right side of the dashboard.
    b. Click on the drop-down menu and choose the desired area from the list.
    c. Observe how the entire dashboard dynamically updates to display insights specific to the selected area.

These step-by-step instructions guide users through interacting with the area filter, highlighting cities, and drilling down into specific insights based on the city selected.

In text citations:
("Filtering and sorting", n.d.)

Part 2

Please see the Panopto video link in submission.

Part 3

C1.

Purpose and Function of the Dashboard: The primary purpose of the dashboard is to enable executive leaders (SVP, EVP, and Regional VPs) to explore telecommunications churn data, identify trends, and compare key metrics. The function is to provide actionable insights that support decision-making related to customer engagement, recruitment, retention, and regional operations.

Alignment with Data Dictionary: The data dictionary outlines various categories of information available in the dataset, such as customer demographics, interaction details, and geographic information. The dashboard's purpose aligns with the available data by focusing on key characteristics of customers, their behavior, and geographic information.

Specific Considerations for Each Leader:

- Customer Experience (SVP): The dashboard highlights key characteristics that make up a customer and may drive their behavior, such as the 'Insights into Customer Churn Reasons'. Emphasis on insights related to customer engagement with the company's products and services are also within the dashboard.
- EVP of Sales: The dashboard provides a broad categorization of customers and demonstrate how these demographics play out across different cities. Insights such as the 'Customer Lifetime Valuation' could support strategic recruitment and renewal sales efforts.
- Regional VPs: The dashboard can assist in setting policies and managing operations in respective areas. Considerations for promotions or new product features being rolled out across areas can be derived from dashboard insights.

User-Friendly Design: Recognizing that some of the audience may lack a technical data analysis background, the dashboard should be easy to navigate. The dashboard is intended to present broad and understandable insights relevant to each leader's perspective.

Key Dashboard Features: Interactive controls such as filters should facilitate exploration of trends and metrics. Also, the visualizations should be tailored to represent customer interaction patterns and regional variations.

In summary, the purpose and function of the dashboard align with the needs outlined in the data dictionary by focusing on key customer-related metrics. The design and content cater to the specific requirements of executive leaders with varying areas of expertise, ensuring that the dashboard provides actionable insights relative to their decision-making processes.

C2.

The variables in the additional data set contribute valuable dimensions and information that enhance the insights that can be drawn from the chosen provided data set. The ways in which these additional variables enrich the analysis includes:

1. Customer Satisfaction and Survey Responses: The variables related to Customer Satisfaction and Items 1-8 offer direct feedback from customers, and what factors influence customer churn. Analyzing these responses can uncover patterns and preferences that influence customer satisfaction.
2. Behavioral Patterns: Variables such as "Number of Referrals" and "Referred a Friend" suggest customer referral patterns, which can impact customer acquisition and retention strategies.
3. Churn-related Variables: The Churn variable directly indicates whether a customer discontinued service within a period, which can be a critical indicator for churn analysis. Other variables such as Churn Value, CLTV, Churn Category, and Churn Reason provide additional details related to customer churn, offering a comprehensive view of churn dynamics.

By integrating some of these additional variables into the analysis, a more holistic understanding of customer behavior, satisfaction, and factors influencing churn is achievable.

C3.

Data Representation 1: Data Usage Map

Description: This map visualizes the average data usage across cities in California, providing insight into variations in data consumption. Each city is represented by color and size gradient, with larger sizes indicating higher average data usage.

Decision Support:

1. Identifying high data usage cities – Executive leaders can utilize the map to identify cities with the highest average data usage. This information is valuable for understanding areas with high demand for data services.

2. Resource allocation for network enhancement – By pinpointing cities with significant data consumption, leaders can allocate resources strategically to enhance network infrastructure and ensure optimal service quality in high-usage regions.
3. Targeted Marketing and Service Expansion – Understanding data usage patterns allows leaders to tailor marketing campaigns and service offerings based on the needs of specific cities.

This data representation provides a spatial perspective on data usage patterns, helping leaders to identify trends and potential areas for business growth. Executive leaders can leverage insights from the map to make informed decisions regarding investments, marketing strategies, and service customization to meet the unique demand of different cities in California.

Data Representation 2: Customer Satisfaction Heatmap

Description: This heatmap visualizes customer satisfaction scores across different areas. Each area is color-coded, and the size of squares are represented by the number of customers.

Decision Support:

1. Identifying Strengths and Weaknesses by Area – Executive leaders can swiftly identify areas with high and low customer satisfaction scores. This insight aids in recognizing regional areas who are satisfied and other areas where improved is needed.
2. Strategic Service Enhancements Based on Geographical Insights – Leaders can strategically allocate resources to enhance services in areas where customer satisfaction is lower.
3. Regional Customization of Services – Understanding the geographical variation in satisfaction allows leaders to customize services based on the preferences and needs of specific areas. This targeted approach ensures that service enhancements align with the unique expectation of each region.

This data representation provides a spatial context to customer satisfaction, enabling leaders to identify trends and prioritize areas for service improvements. Executive leaders can leverage insights from the heatmap to make data-driven decisions, prioritize initiatives, and implement targeted strategies for enhancing customer satisfaction in specific geographical areas. This approach contributes to a more tailored and effective customer service strategy aligned with organizational goals.

C4.

Interactive Control 1: Region Filter Dropdown

Functionality – The Region Filter Dropdown allows users to select specific regions, dynamically filtering the dashboard to display data relevant to the chosen region.

User Modification:

1. Focused Data Exploration: Users can choose a particular region of interest from the dropdown, instantly narrowing down the data to insights specific to that region.

2. Comparative Analysis: Enables users to compare metrics, trends, and patterns across different areas. By selecting multiple regions or switching between them, users, can gain a comprehensive understanding of area variations.

Interactive Control 2: City Selection

Functionality – The City Selection allows users to choose a specific city, dynamically filtering the entire dashboard to display data related to the selected city.

User Modification:

1. City- Centric Data Exploration: Users can select a city of interest on the map, instantly transforming the dashboard to showcase insights tailored to the chosen city.
2. Churn Reason Analysis: Once a city is selected, the dashboard dynamically updates to reveal detailed information, such as churn reasons specific to the chosen city. This facilitates granular analysis of factors contributing to churn in that location.

This interactive controls facilitates a city-centric approach to data exploration, allowing users to delve into localized insights. Users can tailor their analysis by selecting different cities, gaining deeper understanding of churn reasons, demographic patterns, and service-related data specific to each city. The overall impact is more focused and insightful exploration of data within the dashboard.

C5.

Accessibility Features for Colorblindness:

1. Color Palette Selection: I chose colors that are easily distinguishable by individuals with colorblindness. My dashboard consists of a color palette or red, orange, and blue. Utilizing hues that maintain good contrast ensures that data points and visual elements can be differentiated without relying solely on color perception. Furthermore, maintaining consistency in color use throughout the dashboard ensures that users can associate specific colors with categories or data points, reducing reliance on color alone for interpretation.
2. Pattern and Texture Integration: In addition to color, I incorporated varying shapes and sizes for data points. This provides an additional layer of distinction, allowing users to differentiate between elements based on shape and size cues. This offers further enhance visual distinction, offering an alternative means of identification beyond color.
3. Accessible legends and labels: I ensured that data points are accompanies by clear labels or annotations. This aids users in understanding the information conveyed without relying solely on color-coded legends. For color-coded legends, I included text descriptions alongside each color to convey meaning. This allows users to associate colors with specific categories or data points more easily.
4. Interactive Tooltip information: Interactive tooltips provide detailed information when users hover over data points. This feature allows users to access information Beyonce color coding, promoting a more comprehensive understanding.

By incorporating these features, the dashboard aims to be inclusive, allowing individuals with colorblindness to navigate, interpret, and gain insights effectively. The combination of distinctive colors,

varied shapes, and clear labeling enhances the overall accessibility of the dashboard, ensuring a positive and inclusive user experience.

C6.

Data Representation 1: Area Churn Reasons Comparison Bar Chart

Explanation – This chart provides a visual overview of the reasons contributing to churn across different areas. Each area is represented by a segment within the bar, and the length of the bar corresponds to the prevalence of a specific churn reason.

Story Support:

1. Churn Reason Distribution: The chart effectively illustrates how different churn reasons are distributed across areas within California. This visual representation supports the narrative by providing insights into the primary factors influencing churn in each geographic area.
2. Regional Disparities in Churn Factors: By examining the length of segments for various churn reasons, the audience can discern regional disparities in the factors contributing to churn. This supports the narrative by shedding light on unique challenges and opportunities in different areas.

The bar chart delves into the specific factors driving churn in each region. It offers a nuanced perspective, allowing the audience to understand the area nuances in customer behavior and preferences. This detailed insight contributes to the formulation of targeted strategies aimed at addressing region-specific churn challenges.

Data Representation 2: Customer Lifetime Valuation Bar Chart

Explanation – This chart visually represents the estimated lifetime value of customers, providing a clear comparison of valuations by area.

Story Support:

1. Lifetime Value Prioritization: The bar chart aids in prioritizing customers based on their estimated lifetime value. This supports the narrative by guiding the audience's attention to customers who contribute significantly to long-term business success.
2. Strategic Resource Allocation: The chart offers insights into allocating resources effectively, focusing on customers with higher lifetime values. It supports the story by emphasizing the strategic importance of retaining and satisfying high-value customers.

Together, these two data representations create a well-rounded story. Both bar charts focus on the strategic aspect of customer value. The combination provides a comprehensive story that supports strategic decision-making, emphasizing the need for area-specific retention and strategies and resource allocation based on customer lifetime valuation.

C7.

In crafting the presentation, an audience analysis played a pivotal role in tailoring the message to resonate effectively with the diverse stakeholders. Recognizing that the audience comprised of the Senior Vice President for Customer Experience (SVP), Executive Vice President of Sales (EVP), and Regional Vice Presidents (Regional VP), as well as Data Analytics peers. For the SVP, whose primary focus is on increasing customer engagement and improving recruitment and retention, the message emphasized the strategic implications of the data. I highlighted key characteristics influencing customer behavior and provided actionable insights to enhance customer satisfaction. Understanding, the EVP's responsibility for strategic recruitment and retention, I tailored the message to offer a specific categorization of customers and demographic insights across areas within California. This approach aimed to align with the EVP's interest in understanding how demographics play out in different areas. Considering the Regional VP's role in policy setting and operations management, the message delved into area disparities in churn factors. I provided actionable insights tailored to each area, aligning with their involvement in promotions and new product features. For the Data Analytics peers, the message focused on design, methodology, and results of the data analysis. I presented a compelling story backed by data, addressing their specific interest in translating data into actional business insights. By adapting the message to the diverse needs and expertise levels of my audience, I ensured that each stakeholder could extract relevant, meaningful insights from the presentation. This approach fostered engagement, understanding, and supported informed decision-making across the executive leadership and data analytics teams.

C8.

In designing my presentation, I focused on catering to diverse audiences with varying needs and preferences. Several key principles guided my approach to create an inclusive and accessible presentation. I opted for a clean and visually appealing design with high contrast to ensure readability for individuals with colorblindness. All visual elements, including charts and maps, were accompanied by descriptive text, which provided clarity for all audience members. Also, the language in the presentation was kept clear and straightforward to enhance understanding for diverse audiences. Avoiding jargon and complex terminology contributed to a more inclusive experience. Furthermore, the presentation can be downloaded into different formats such as an Image, PDF, PowerPoint, and/or Tableau Workbook. By adhering to these principles, the goal was to create a presentation that could be accessed, understood, and engaged by all audience members, regardless of their individual preferences or abilities.

C9.

In my presentation, two key elements of effective storytelling were incorporated to engage the audience. Firstly, I decided to use Tableau story points to cycle through a sequence of visualizations that would help to support my actionable insights, key results, and recommendations. Most individuals tend to understand and remember concepts better through stories, and it is an effective tool for business cases.

Secondly, I incorporated proper formatting in the dashboard by writing informative titles, using colors and fonts and increase legibility, and provided legends as needed. This helped the audience to clearly understand and depict the dashboard.

In conclusion, the combination of storytelling through visualization and thoughtful dashboard formatting aimed to not only convey complex information but also create a compelling story for the audience, enhancing engagement and comprehension.

In-text citations:
(“Mapping your data”, n.d.)
(“Make your data visually appealing”, n.d.)
(“Dashboards and stories”, n.d.)
(“Building a KPI dashboard”, n.d.)
(“Dashboards objects and actions”, n.d.)
(“Dashboard interactivity”, n.d.)
(“Sharing data insights”, n.d.)
(Shaffer, 2016)

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