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Data Visualization

**Final Presentation Story Outline**

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# Context

**Audience**:

Policymakers, economists, transportation planners, and regional stakeholders interested in border crossings, trade, and commuter trends.

**Technology**:

**Tableau** was used to create interactive, dynamic visualizations that facilitate exploratory and explanatory analysis of border crossing data.

# Goal

* To analyze and present border crossing trends, seasonal variations, port-specific insights, and transportation mode distributions.
* To guide data-driven decisions for optimizing border infrastructure and resource allocation.

# **Sequence of Visual Elements**

The analysis is presented as a Tableau Story with multiple story points, guiding the audience through key insights:

**Texas Insights**:

* Focus: Filters the dashboard to display border crossing data specific to Texas.
* Insight: Highlights state-specific trends, transportation modes, and total crossing volumes.

**Pedestrian Crossings**:

* Focus: Filters data to display pedestrian crossings across all regions.
* Insight: Emphasizes the role of pedestrians in border traffic and identifies patterns.

**U.S.-Canada Border**:

* Focus: Analyzes crossing activity along the U.S.-Canada border.
* Insight: Provides insights into transportation modes and crossing trends specific to northern borders.

**San Ysidro Port Analysis**:

* Focus: Drills down into the San Ysidro Port of Entry, one of the busiest U.S.-Mexico ports.
* Insight: Examines crossing types and total volumes, identifying its critical role in regional traffic.

**Peak Month: August**:

* Focus: Highlights August as the month with the highest crossing volume.
* Insight: Explores seasonal trends, emphasizing the significance of this peak for resource planning.

# Interactive Features

**Filters**:

* Enable dynamic exploration of data by region, transportation mode, and time period.
* Filters used include:
  + State (e.g., Texas).
  + Border Type (e.g., U.S.-Mexico, U.S.-Canada).
  + Transportation Mode (e.g., Pedestrians, Trucks).
  + Time Period (e.g., August).

**Tooltips**:

* Provide detailed insights into crossing volumes, transportation modes, and port-specific data.

# Purpose and Impact

**Purpose**:

* To demonstrate how Tableau’s interactive storytelling capabilities can uncover actionable insights from border crossing data.

**Impact**:

* Supports infrastructure planning and staffing decisions during high-traffic periods.
* Assists in understanding seasonal and geographical patterns for trade and commuter flows.

# Document Submission

The Tableau Story, titled **"Border Crossing Analysis Story"**, is hosted in the workbook border\_crossing\_analysis.twb.