

Border Crossing Entry Data

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### **Statistical/Hypothetical Question**

The statistical question for this analysis was whether there is a significant difference in the number of border crossings between different states or borders. This question aimed to explore potential variations in border crossing patterns across different regions.

### **Outcome of EDA**

The exploratory data analysis (EDA) revealed several key findings. Firstly, there was a noticeable variation in the number of border crossings among different states and borders. States like Texas and Arizona showed higher average numbers of border crossings compared to states like Montana and North Dakota. Additionally, the US-Mexico border had significantly higher average crossings compared to the US-Canada border. These findings suggest that border crossing activities are influenced by geographical and geopolitical factors.

### **Missed Elements**

During the analysis, it was challenging to fully explore the impact of certain variables due to data limitations. For example, while the dataset provided information on the number of border crossings, it did not include data on factors such as time of day, day of the week, or specific border crossing points. Including these variables could have provided a more comprehensive understanding of border crossing patterns.

### **Variables that Could Have Helped**

Variables such as the purpose of crossing (e.g., tourism, trade, commuting) and the presence of major events or policies (e.g., border closures, trade agreements) could have helped in the analysis. These variables could provide insights into the underlying factors driving border crossing patterns.

**Incorrect Assumptions**

One assumption made during the analysis was that the number of border crossings is primarily influenced by geographical factors such as proximity to the border. However, other factors such as economic conditions, political events, and border security measures could also play significant roles.

**Challenges Faced and Areas of Misunderstanding**

One challenge faced during the analysis was dealing with the large volume of data and ensuring that the analysis was both accurate and efficient. Additionally, understanding the nuances of border crossing data, such as differentiating between types of crossings (e.g., pedestrian, vehicular) and interpreting the impact of external factors, required careful consideration.

In conclusion, while the analysis provided valuable insights into border crossing patterns, there are several areas where further exploration and refinement could enhance the understanding of these patterns. By incorporating additional variables and addressing key assumptions, future analyses could provide a more nuanced and comprehensive view of border crossing activities.