Write Up

Audience: The audience of this project are key stakeholders within the TSA that are directly responsible for managing complaint numbers.

Purpose: This presentation is meant to be a quarterly update on the number of TSA complaints. Additionally, it is used to show research recommending ways to reduce complaints.

Medium: I chose a PowerPoint for this week's assignment because it is a form the audience will be familiar with. Additionally, it is very powerful for showing the steps in the research process.

Design: This will be shown in a government agency, so I kept the color palette neutral and used color where needed to draw attention to important details. I chose to leverage red in my palette when complaints were high. This will help show convey the negative aspect of the visualizations, so I do not need to explicitly say it. Finally, I chose to only include one visualization per slide to avoid overwhelming the audience.

Ethical Considerations: As far as I know, there are no legal or regulatory guidelines to be followed with this data. I did minimal transforming to the datasets and tried to maintain the original integrity through merges.
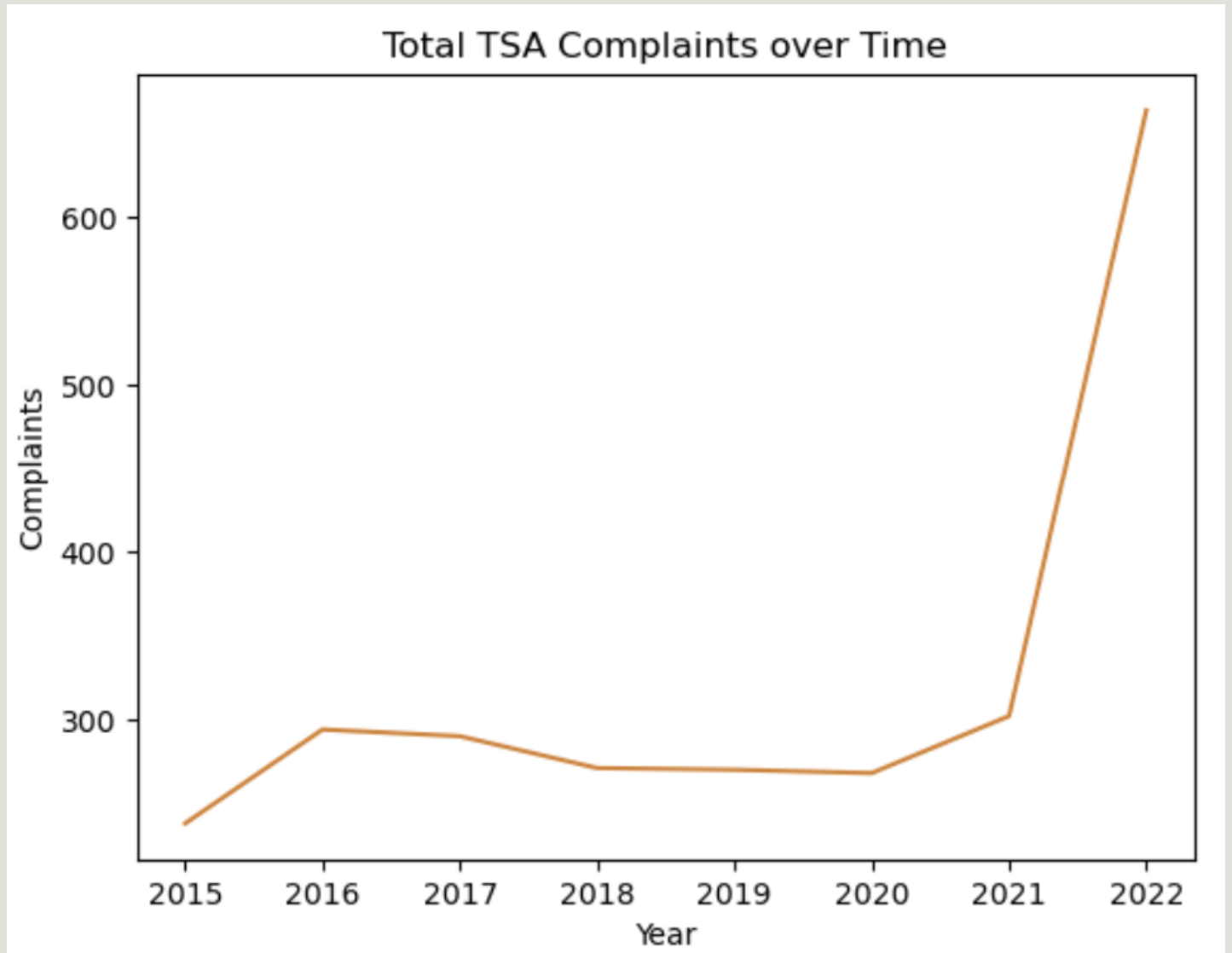
TSA Complaints

QUARTER 3 UPDATE

PROVIDED BY COMPLAINTS MANAGEMENT TEAM

Complaints Over Time

We have seen a significant increase in complaints in 2022.

An increase this large is cause for concern and requires immediate action.

Correlation with Complaints

To begin, we tried to understand if there were any specific drivers for complaints. This would help us understand if complaints could be affected by region, airport, category, etc.

From the below visualization, we can see that no variable had a strong correlation with complaints. This indicates this is not a quick fix situation and will require more digging.

Correlation of Variables with Count of TSA Complaints
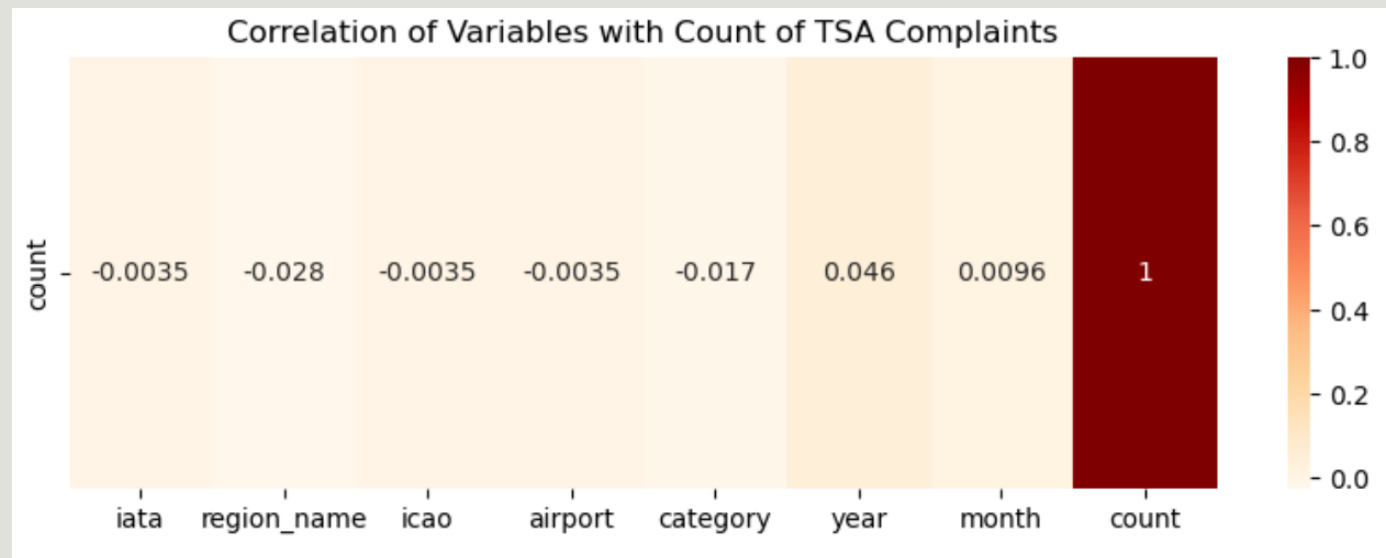
Complaints by State


2022 TSA Complaints by State
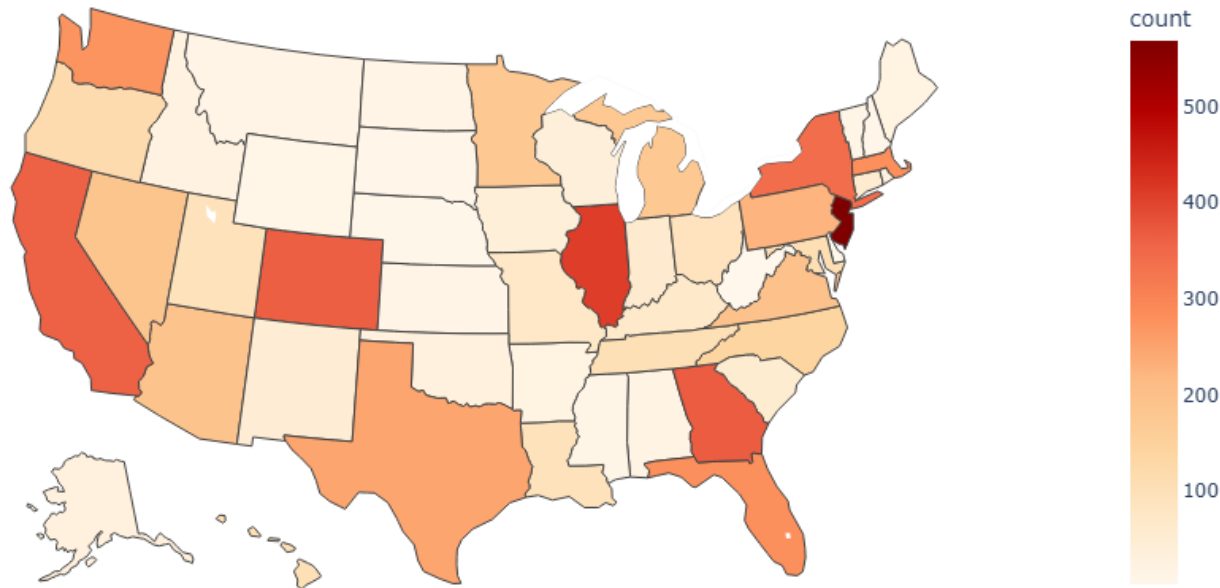
When we viewed the number of complaints by state, it was revealed that New Jersey has significantly more complaints than other states.

To gain a better understanding of what is driving these complaints we did further research into complaints in New Jersey.
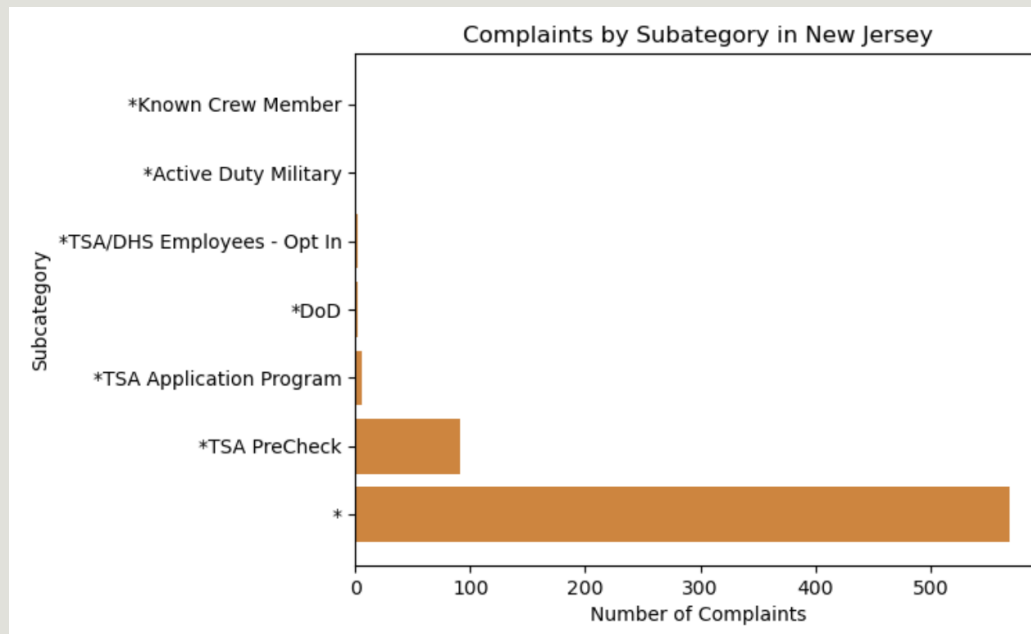
Deep Dive into New Jersey

The complaints form allows customers to select both a category and subcategory when filing a complaint.

A deeper look into these forms in New Jersey revealed Expedited Passenger Screening Programs was the category responsible for the majority of all complaints in 2022.

Complaints by Category in New Jersey
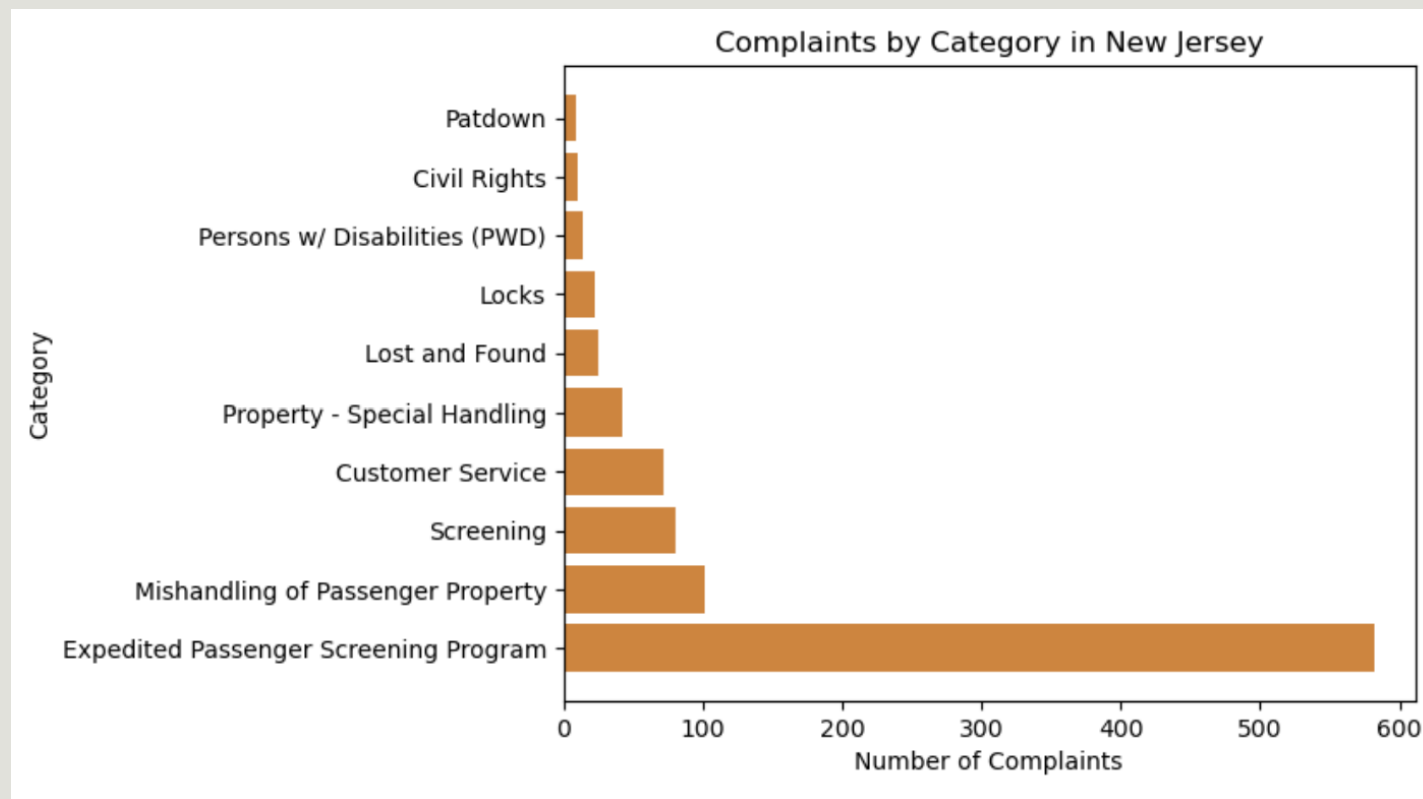
New Jersey Continued

We tried to gain further understanding from the complaints form by determining which subcategory of the Expedited Screening Passenger Program category contributed to most of the complaints.

However, due to the ambiguity of the complaints form, customers were not able to reliable select a subcategory for their complaint. All subcategories with a * indicate ambiguous responses.

Complaints through the year

Lastly, we wanted to understand if there were more complaints during a specific time of the year.

In the visualization on the right, the orange lines indicate the average number of complaints. From this, we can see that December has more complaints than any other month.

Summary

TSA complaints are at an all time high. The complaints management team was tasked with finding the cause of these complaints.

Initial research revealed New Jersey had significantly more complaints than other states. A deeper dive into new Jersey complaints revealed the category with the highest complaints is Expedited Passenger Screening Programs. This indicates customers are primarily complaining that they are waiting too long at airport checkpoints.

Additionally, it was found that December has the highest number of complaints. This is likely due to increased customers during peak holiday season.

Next Steps in New Jersey

To decrease complaints, immediate action is needed. Based on this research the complaints team suggests to following steps:

1. Increase staffing at major checkpoints (baggage drop off, security, customs, etc.): An increase in staff will allow more customers to be helped at once, reducing their wait time.

2. Increase number of scanners at security checkpoints: Again this will reduce wait time for customers

3. Update TSA complaints form to have better subcategory options. This will lead to better understanding of where to put resources

Recommendations 1 and 2 will be costly, however the cost will be outweighed by the gain in customers. If customers have a better experience at the airport, they will be more likely to fly than drive which will increase profits.