



San Francisco Airport Data: Pandemic Recovery Survey

Matthew Laken, N'Dea Jackson, Michael Armesto, David Doman

Data Description

Data Collection

Paper surveys handed out at San Francisco (SFO) airport

Survey Questions

16 questions collecting information on traveler demographics and traveler comfortability

Participants

1,086 travelers participated in the survey

Objective

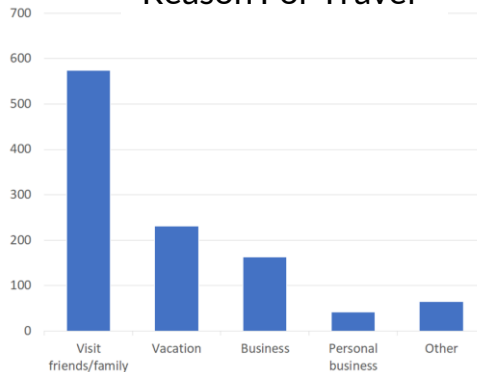
Identify groups of travelers that may need more encouragement before feeling safe flying and make recommendations to SFO to sway these customers

December 2020

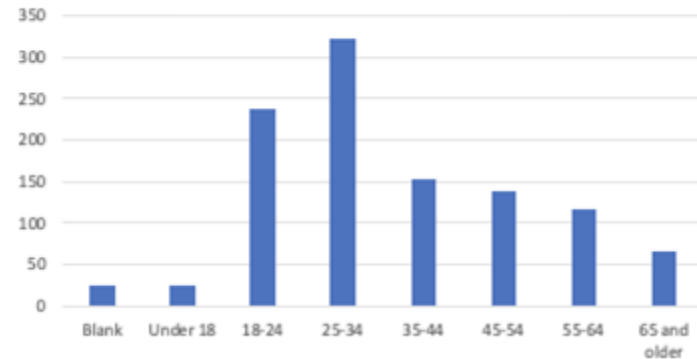
San Francisco (SFO) airport conducts extensive research on customers that come through their facilities on topics such as satisfaction levels, preferences, and demographics throughout the course of the year. By collecting this data, the airport is able to refine their practices as well as strategically team up with partners to ensure that the San Francisco airport experience remains above satisfactory. Some decisions that are often impacted by this data include transit issues, concessions, and any other key areas of concern that arise from the survey.

Exploratory Data Analysis

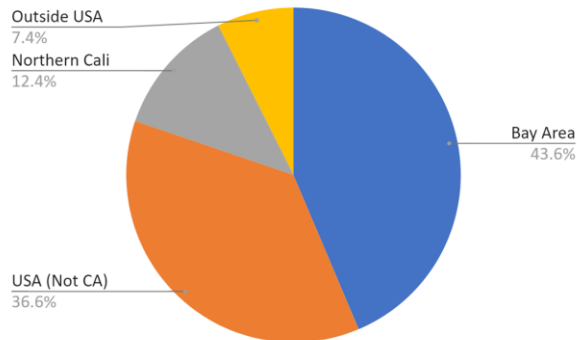
Reason For Travel



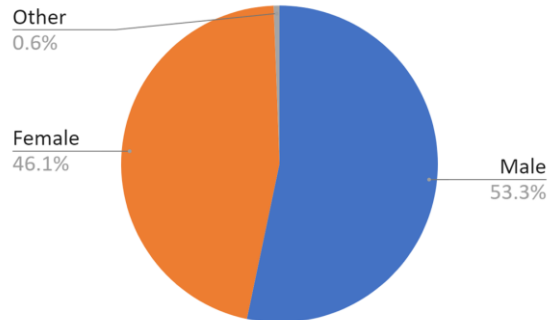
Travel Age Distribution



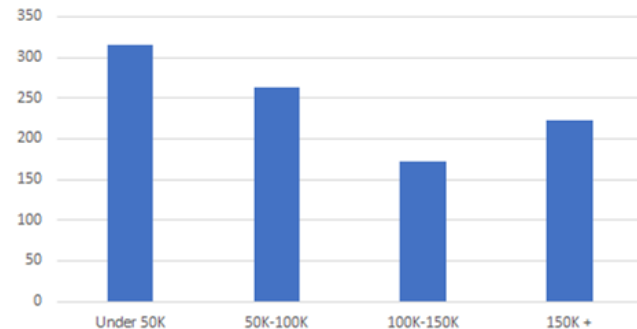
Residential Location



Gender

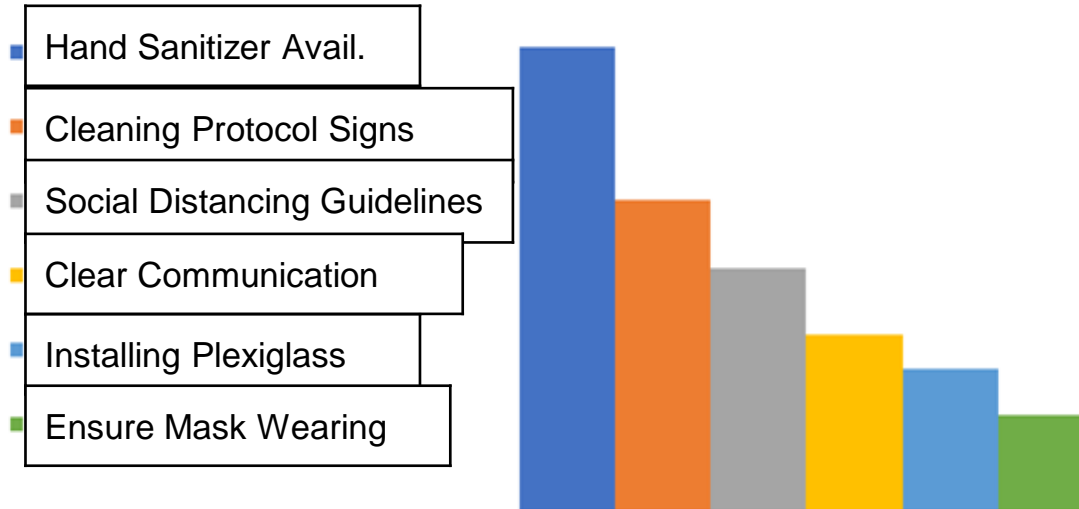


Income



Traveler concerns about traveling

Ranking of Travelers Needs



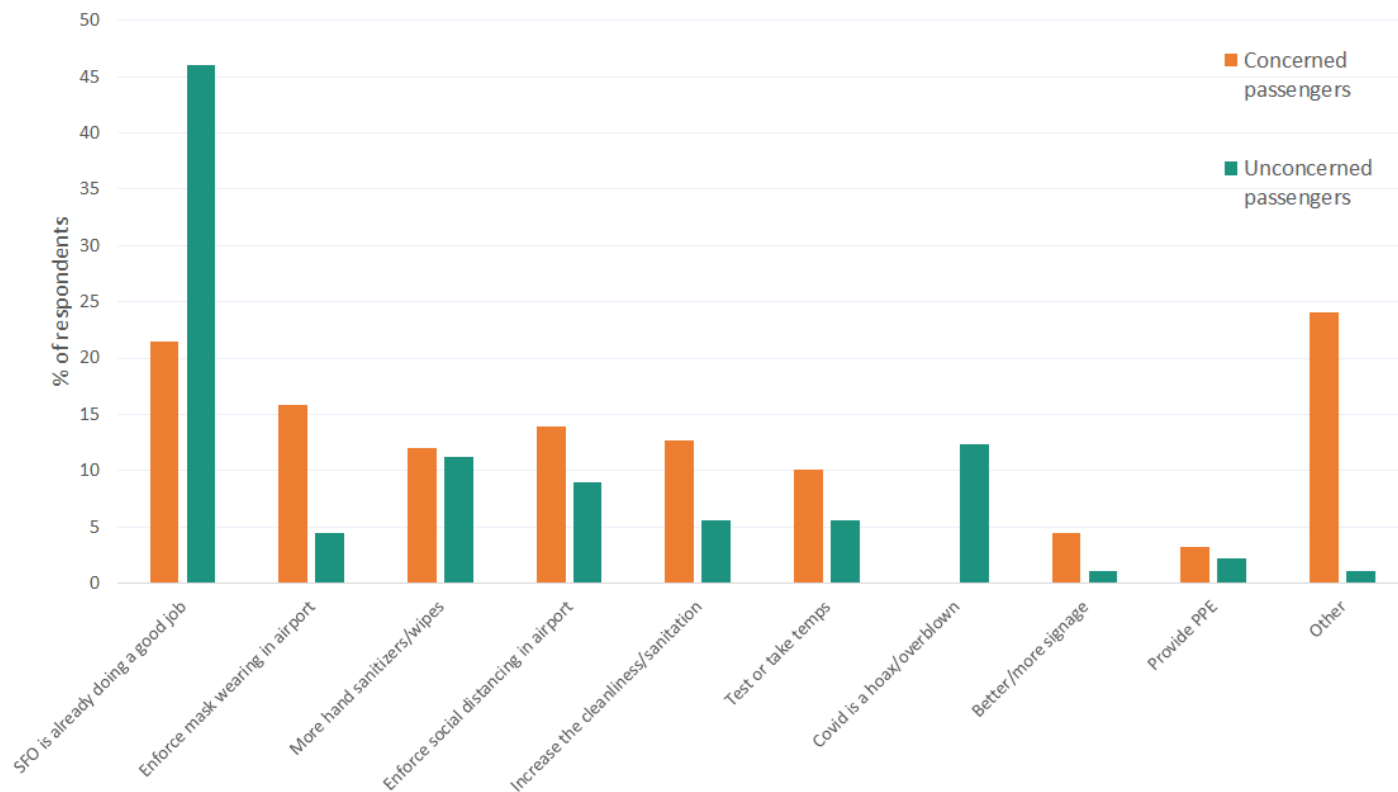
Most important factors for traveling:

- **47%** of travelers selected **strict social distancing guidelines and enforcement.**

- **14%** of travelers selected **having hand sanitizer readily available.**

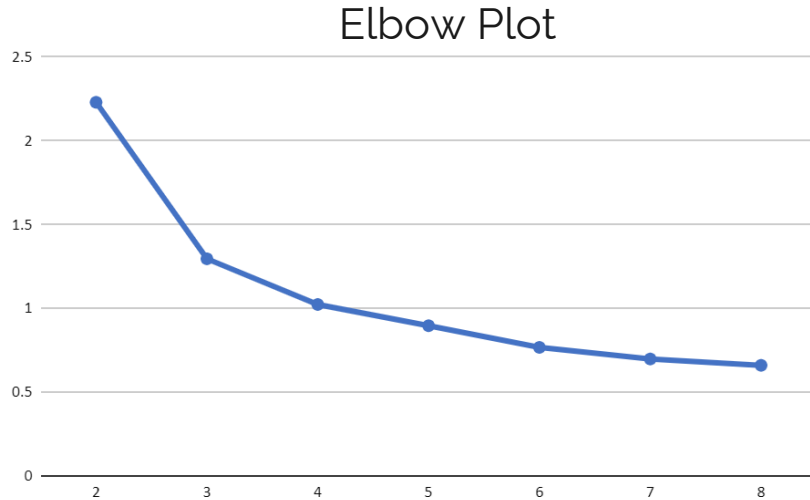
- **11%** of travelers selected **ensuring everyone was wearing a mask.**

What else should SFO be doing to help travelers feel their health is being protected when using SFO?





Elbow Plot: Determining the number of clusters



- Plot begins to flatten out at around 3 or 4 clusters so this seems to be the amount of clusters to target
- 3 clusters was found to be the optimal amount



Clustering Analysis Results and Survey Questions

Concerned Travelers (1)

These people tended to express more concern about traveling during the pandemic, and safety precautions.

- Are “very concerned” about flying during the pandemic
- Most private transportation to get to airport
- Lowest average income of all three groups
- More business travel than other groups
- Oldest average age of all three groups

Apprehensive Travelers (2)

These people expressed moderate concern about flying, but were the least satisfied about SFO’s current safety precautions

- Gave SFO lowest rating on overall response to protect travelers
- Lowest ratings on all questions about SFO’s current precautions
- Lowest average age
- Least likely to be traveling for business
- Highest average income

Confident Travelers (3)

These people felt comfortable traveling during the pandemic, and expressed little concern about the airport’s current safety precautions.

- Most likely to want mask removal for vaccinated travelers
- Highest average income
- Most likely to have arrived via public transportation
- Highest rating on overall response to protect travelers precautions
- Most likely to indicate “Covid is a hoax/overblown”



Customers to Target

Which customers should SFO target?

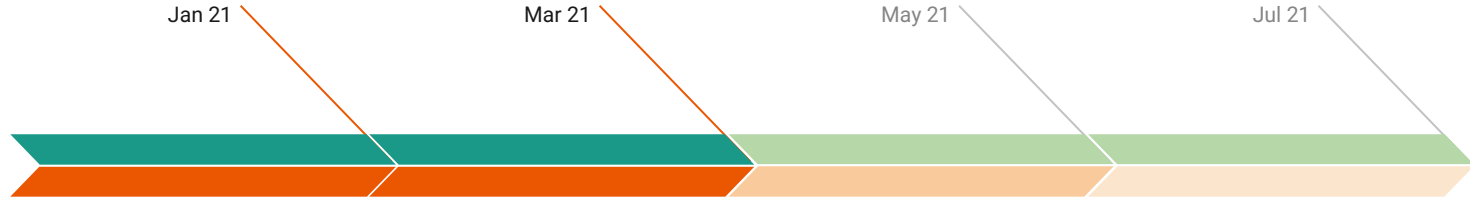
- “Very concerned about flying”
- Low ratings on current airport policies
- Older people
- Less likely to use public transport
- Traveling for vacation > business

Which clusters? Why?

By targeting the “Concerned” Cluster, we hope to alleviate the tensions associated with resuming travel post pandemic.

We hope to capture the “Apprehensive” Cluster by taking extra precautions to meet the needs of the most vulnerable groups of people.

8 Month Plan: Recommendations



Phase 1: Immediate

- Enforce mask policies and social distance guidelines.
- Installing additional barriers for workers.
- Readily accessible sanitation stations.

Phase 2: Assurance

- Transparency into process of sanitising planes and public areas.
- Improved management of airport food services-enforce grab and go.

Phase 3: Check-in

- Issue another survey to understand current needs.
- Adjust policies according to vaccinations (opening maskless vax sections).

Phase 4: Adapt

- Respond to survey questions by adjusting policy

We hope you enjoyed our presentation!



Safe Travels!

