The Return to Air Travel

Aviation in a post-pandemic world

Executive Summary

COVID-19 has caused an unprecedented disruption to global travel. As of May 14th, less than 20% of people felt comfortable travelling by air. For airports and airlines, the rate at which passengers return to traveling will determine not just corporate strategy but long-term financial viability. This research characterizes general attitudes toward air travel and how people currently anticipate their travel habits to change in the coming months and years, with the objective of determining the rate of recovery and what factors will influence it.

Key Findings

People are concerned about the health of the airport environment, but are also excited to return to air travel.

Airport strategies of continuous environmental monitoring, real-time display of environmental conditions, and touchless technology are associated with increased traveler confidence in the airport.

Boosting traveler confidence can bring travelers back to air travel 6-8 months sooner.

Methods

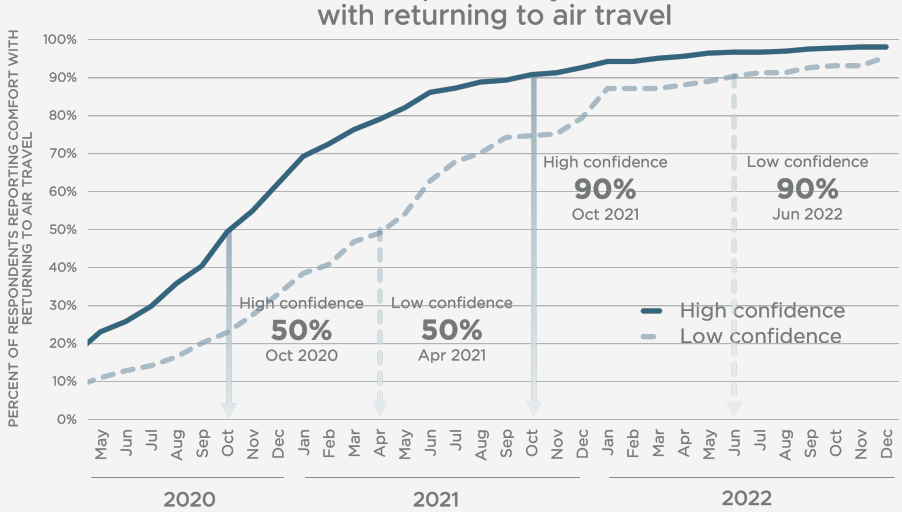
We administered a national survey exploring how COVID-19 has impacted people's perceptions of air travel on May 14, 2020 via Amazon Mechanical Turk (MTurk). 970 respondents met the survey criteria and were included in the analysis. Respondents were prompted with questions relating to the impact of travel restrictions on their life and happiness, their positive and negative sentiments around returning to air travel, their concerns with various stages of the travel process, their perceptions of healthy airport strategies.

Results

71% of respondents felt that a healthy airport is more important to them now than pre-COVID-19. While safety remained a top priority for travelers, it was not without consequence. Respondents reported that travel restrictions have significantly impacted their jobs, their ability to take personal trips and their overall happiness, with 38% of people reporting that restrictions on travel lowered their happiness either very much or extremely.

Passengers universally ranked strategies that limit the risk of COVID-19 transmission as important. While temperature monitoring and handwashing signage are the two policies most passengers expect to encounter next time they travel, continuous environmental monitoring, real-time display of environmental conditions, and touchless technology were the three policies that were associated with increased confidence in the airport.

Confidence in the airport is the key factor in how quickly people return to traveling. Regardless of travel frequency, respondents were more comfortable returning to air travel sooner by up to 6-8 months if they had high confidence in the airport compared to those that did not have confidence in the airport.



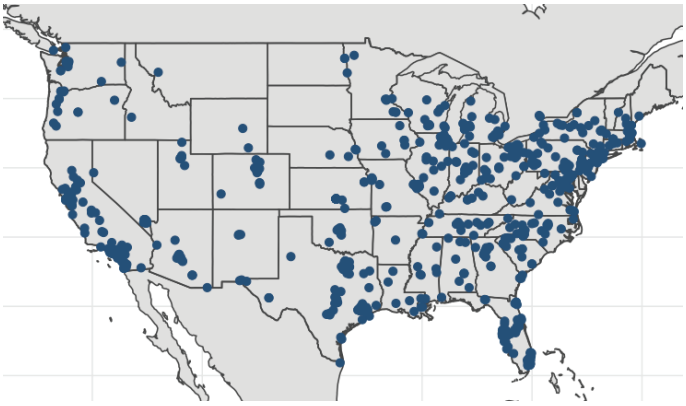
Conclusions

The main factors driving the recovery of passenger volume are the pent-up demand to travel and the traveler confidence in the airport and the health and safety of the travel journey. Of the strategies listed to improve safety of the travel process, continuous environmental monitoring, real-time display of environmental conditions, and touchless technology were the only three that were statistically significantly associated with confidence in the airport. Restoring confidence in the airport has the potential to accelerate the return to travel, bringing in the time it takes to return to 90% of pre-COVID-19 levels by 8 months, from June 2022 to October 2021.

Methods

A national scale survey exploring how COVID-19 has impacted people's perceptions of air travel was conducted on May 14, 2020 via Amazon Mechanical Turk (MTurk). Of the 1271 respondents who completed the survey, the analysis was subset to 970 respondents who passed an attention check that was integrated into the middle of the survey.

Respondents were prompted with questions relating to the impact of travel restrictions on their life and happiness, their positive and negative sentiments around returning to air travel, their concerns with various stages of the travel process, their perceptions of healthy airport strategies. Many of the questions were designed to refer to general 'health' as opposed to the virus and avoided prompting respondents with specific technological capabilities of healthy airport strategies in order to avoid biasing the results.



Geographic distribution of survey respondents

Demographics

The responses reflected a widespread geographical distribution, with the most common locations of respondents being California (141 respondents), Texas (102), Florida (71), New York (64) and Pennsylvania (64). The tables below present a breakdown of respondent demographics. Respondents were also grouped into three traveler types (heavy, moderate, infrequent) based on their estimated monthly flights in 2019 for business and for personal reasons.

Respondent demographics

Demographic		% of Respondents
Age	20s	29%
	30s	42%
	40s	17%
	50s	8%
	60s	4%
Gender	Male	66%
	Female	33%
	Other	0.6%
Employment Status	Employed	88%
	30+ hours/week	88%
	20-30 hours/week	5%
	10-20 hours/week	2%
	<10 hours/week	5%
	Furloughed	5%
	Unemployed	7%

Travel Type	Distribution of Respondents by Traveler Type (% of respondents in each category, based on reported 2019 travel volume)		
	Heavy	Moderate	Infrequent
Business	4+ business flight legs per month in 2019 39%	1-3 business flight legs per month in 2019 29%	0 business flight legs per month in 2019 30%
Personal	4+ personal flight legs per month in 2019 40%	1-3 personal flight legs per month in 2019 39%	0 personal flight legs per month in 2019 19%
Total Travel	6+ total flight legs per month in 2019 44%	1-5 total flight legs per month in 2019 39%	0 total flight legs per month in 2019 13%

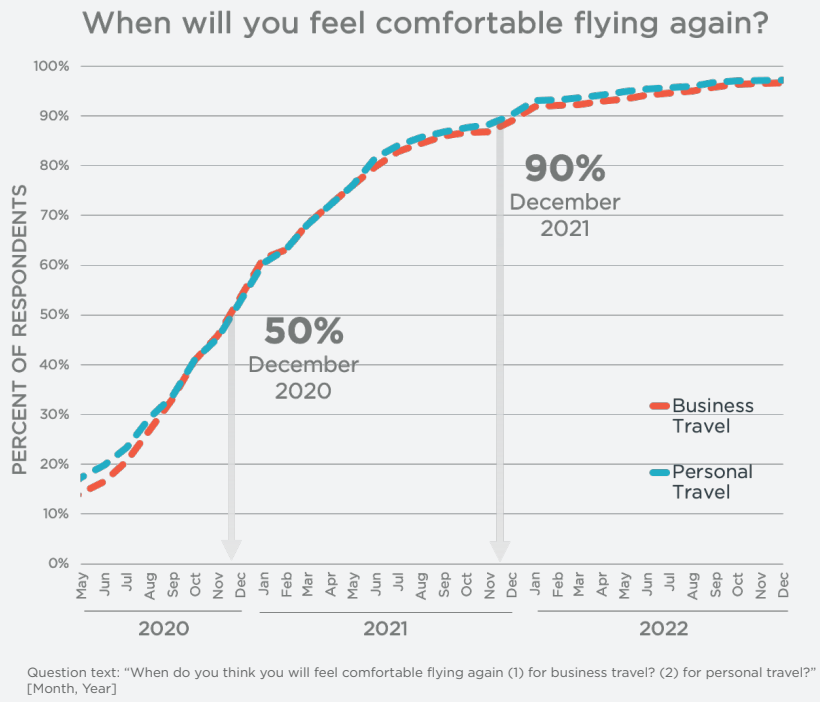
Question text: "On average, how many flights per month did you take in 2019? Count each one-way leg separately." General traveler type ("Total travel") was obtained from the sum of the monthly flight legs reported by respondents for business and personal reasons. Among those who reported at least one flight per month, respondents reporting 6+ total flight legs per month were in the upper 50th percentile of travel volume and were categorized as "heavy travelers", and those reporting 1-5 flight legs per month were in the lower 50th percentile and were categorized as "moderate travelers".

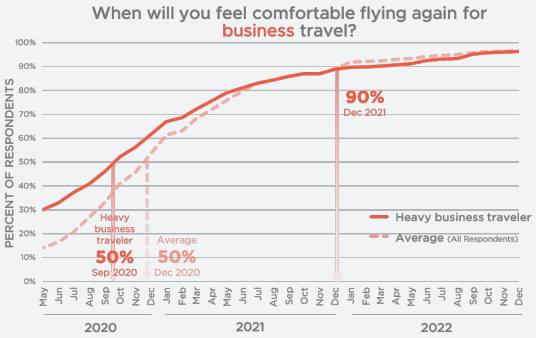
The age distribution of respondents was similar across traveler types, with approximately 70% of travelers in each traveler group (heavy, moderate, infrequent) in their 20s to 30s, and approximately 24% of travelers in each traveler group in their 40s to 50s. Current employment status differed across traveler types, with 96% employment among heavy travelers, 87% employment among moderate travelers, and 71% employment among infrequent travelers.

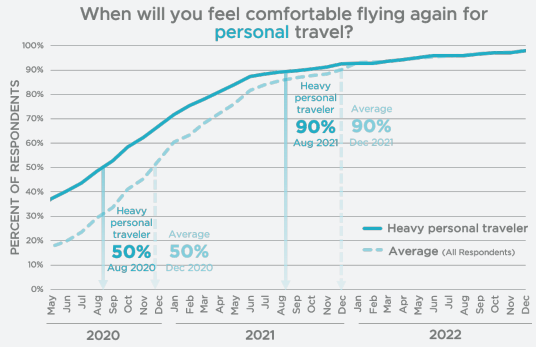
Results

The return to air travel

Consumer confidence in the aviation industry has been shaken to all-time lows by the COVID-19 pandemic, with less than 20% of people comfortable traveling by air as of May 14th. The return to normal passenger volumes will be predicated by rebounding confidence in the safety of air travel. When asked about travel expectations, 50% of respondents reported they would feel comfortable flying again by December of 2020 and 90% by December of 2021, suggesting that air travel faces an 18-month recovery to return to pre-COVID-19 passenger volumes.







Question text: "When do you think you will feel comfortable flying again (1) for business travel? (2) for personal travel?" [Month, Year]

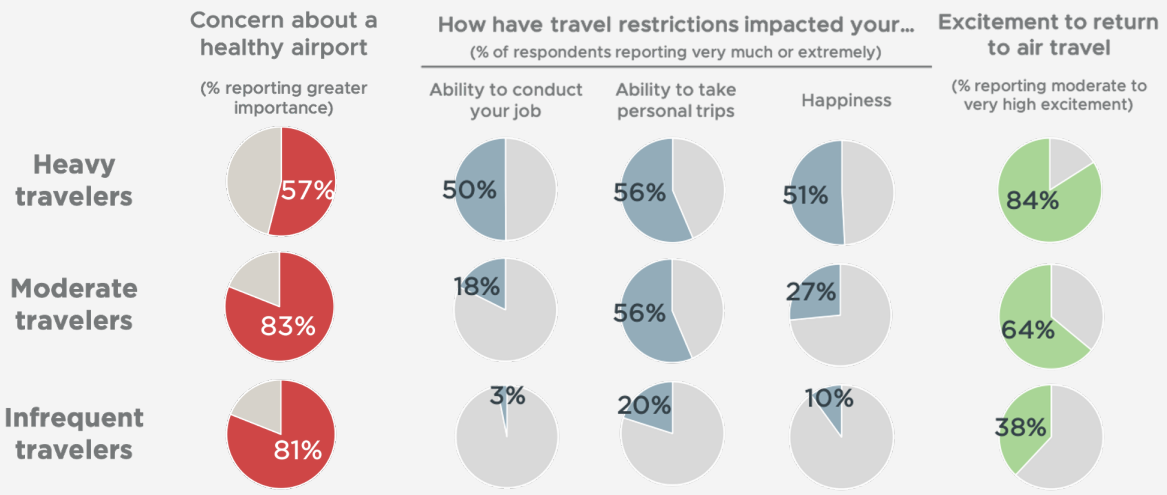
The speed of recovery will depend on the most frequent travelers, which drive a significant portion of total air travel expenditures. 40% of respondents were heavy business travelers or heavy personal travelers (taking 4 or more individual flights per month for those respective reasons), but because of the frequency of their travel they actually represent the majority of airfares. These respondents tend to be more comfortable with air travel currently and were quicker to become comfortable with returning to air travel. Among heavy business travelers, 50% of respondents were comfortable returning by September of 2020, two months earlier than the general respondent pool. Personal travel is expected to rebound even earlier among heavy personal travelers: in August of 2020 and August of 2021 for the 50th and 90th percentiles respectively, three months earlier than the general respondent pool.

Traveler concerns

Unsurprisingly, 71% of respondents felt that a healthy airport is more important to them now than pre-COVID-19. The concern with the healthiness of the airport was more pronounced among infrequent travelers (81% reporting greater importance of a healthy airport) than heavy travelers (57%), indicating that heavy travelers perceive less risk with the travel experience. While safety remained a top priority for travelers, it was not without consequence. Respondents reported that travel restrictions have significantly impacted their jobs, their ability to take personal trips and their overall happiness. 38% of people reported that restrictions on travel have lowered their happiness either very much or extremely. Among heavy travelers, the percentage was even higher at 51%. The ability to take personal trips were impacted across the board, while impacts to respondents' ability to conduct their job were felt primarily by heavy travelers.

Importance of a healthy airport environment

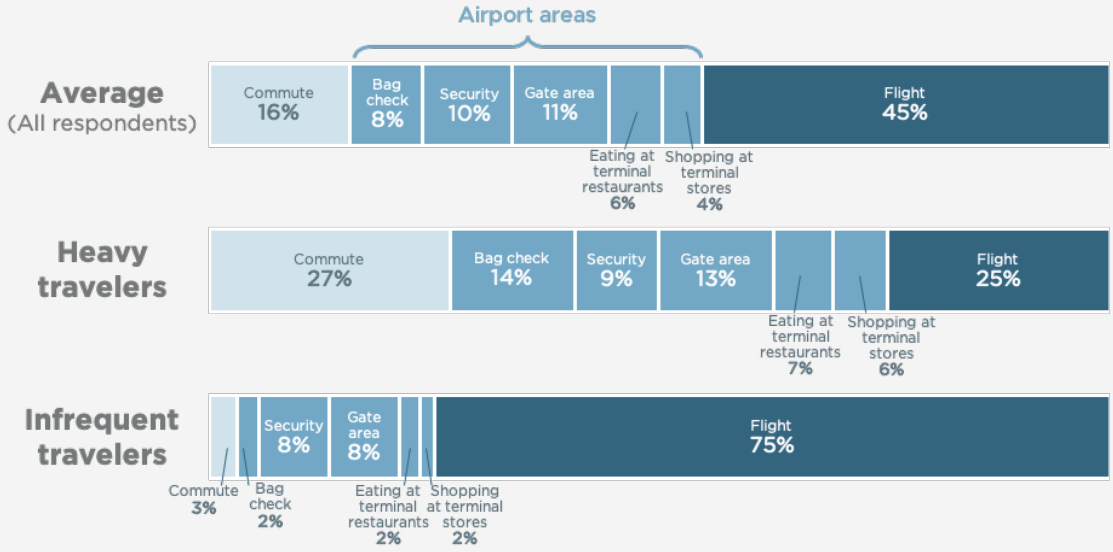
While people are concerned about the safety of air travel, they are also noting an excitement and a pent-up demand to return to air travel, as restrictions have impacted their professional lives, personal lives, and overall happiness.



Question text: "How important is a healthy airport environment to you now compared to January?" [1-5 scale from "1 – Much less important" to "5 – Much more important"
Question text: "How significantly have travel restrictions impacted your...." (1) Ability to conduct your job? (2) Your ability to take personal trips and visit family and friends? (3) Your happiness?" For each question, respondents were prompted with a 1-5 scale from "1 - Not at all" to "5 - Extremely".

When it came to understanding which part of the travel journey people felt most concerned about, the majority of infrequent travelers were more concerned about the flight, while the majority of heavy travelers were more concerned about the airport. Those with more experience traveling were more likely to perceive the airport as a greater risk for disease transmission. 75% of infrequent travelers ranked the flight as their top concern for disease transmission and only 22% ranked various areas of the airport as their top concern, while only 25% of heavy travelers ranked the flight as their top concern and 49% ranked various airport areas as their top concern.

What part of the travel journey are people most concerned about?



Question text:
"When you return to air travel, which parts of the travel process are you most concerned about for disease transmission? [Rank from highest to lowest concern: The commute to the airport, Checking my bags, The security screening process, The gate area, Eating at terminal restaurants, Shopping in the terminal, The flight"]

Healthy Airport Strategies

Passengers will have new expectations for the travel process when they return to traveling. The majority of respondents expect airports to have implemented handwashing signage and temperature scanning the next time they travel, followed by monitored social distancing, regularly cleaned surfaces, touchless technology, continuous environmental monitoring, proper ventilation, real-time display of environmental conditions and natural light. Overall, heavy travelers were less likely to expect implementation of strategies the next time they travel; this may be related to their sooner return to travel or their relatively lower level of concern. While expectation of implementation varied across strategies, the majority of respondents placed high importance on all of the aforementioned airport strategies, and the top rated strategies for importance (regularly cleaned surfaces, monitored social distancing, touchless technology and handwashing/hygiene signage) were not necessarily the ones that they expected the most.

Strategies ranked for **expectation**

Do you expect implementation of this strategy the next time you travel by air?

(% of respondents reporting 'Yes')

1	Temperature scanning	58%
2	Handwashing/hygiene signage	56%
3	Monitored social distancing	50%
4	Regularly cleaned surfaces	46%
5	Touchless technology	42%
6	Continuous environmental monitoring	36%
7	Proper ventilation	33%
8	Real time display of environmental conditions	24%
9	Access to natural light	23%

Strategies that may boost **confidence**

Which of these strategies relate to traveler confidence in the airport?

(% increased likelihood of confidence in the airport if the strategy is expected)

1	Real time display of environmental conditions	49% (p=0.013)
2	Continuous environmental monitoring	44% (p=0.012)
3	Touchless technology	42% (p=0.02)
4	Proper ventilation	
5	Access to natural light	
6	Monitored social distancing	
7	Handwashing/hygiene signage	
8	Temperature scanning	
9	Regularly cleaned surfaces	

In order of positive correlation with confidence

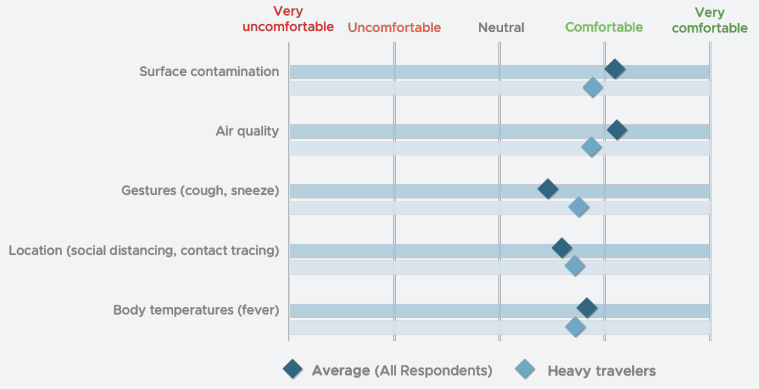
(Statistically non-significant)

Question text: "Which of the following do you expect to be implemented the next time you travel by air?"
Question text: "How confident are you that airports will create a safe travel experience at the airport for you and other travelers?" [1-5 scale, from "1 – Not at all" to "5 – Extremely confident"]
Results of a generalized linear effect model testing the association between expectation of each strategy and confidence in the airport entity.
Data presented above represents all respondents.

In addition, peoples' expectations did not always align with the factors that influenced their confidence in the airport. Generalized linear effect models were used to test the correlation between whether a respondent expected a specific strategy to be present at the airport the next time they travel and their confidence in the airport in creating a safe travel experience , controlling for frequency of travel. Temperature scanning and proper handwashing signage were the two most heavily anticipated strategies but respondents expecting those strategies were no more confident in the airport than those that did not expect those strategies.

Conversely, respondents who expected continuous environmental monitoring, real-time display of environmental conditions, and touchless technology were 44%, 49% and 42% more likely to have high confidence in the airport than those who did not expect those strategies. While proper ventilation and access to daylight had positive correlations, the odds ratios were not statistically significant. Generally, passengers were supportive of measures and monitoring technologies designed to promote healthy and safe travel at the airport.

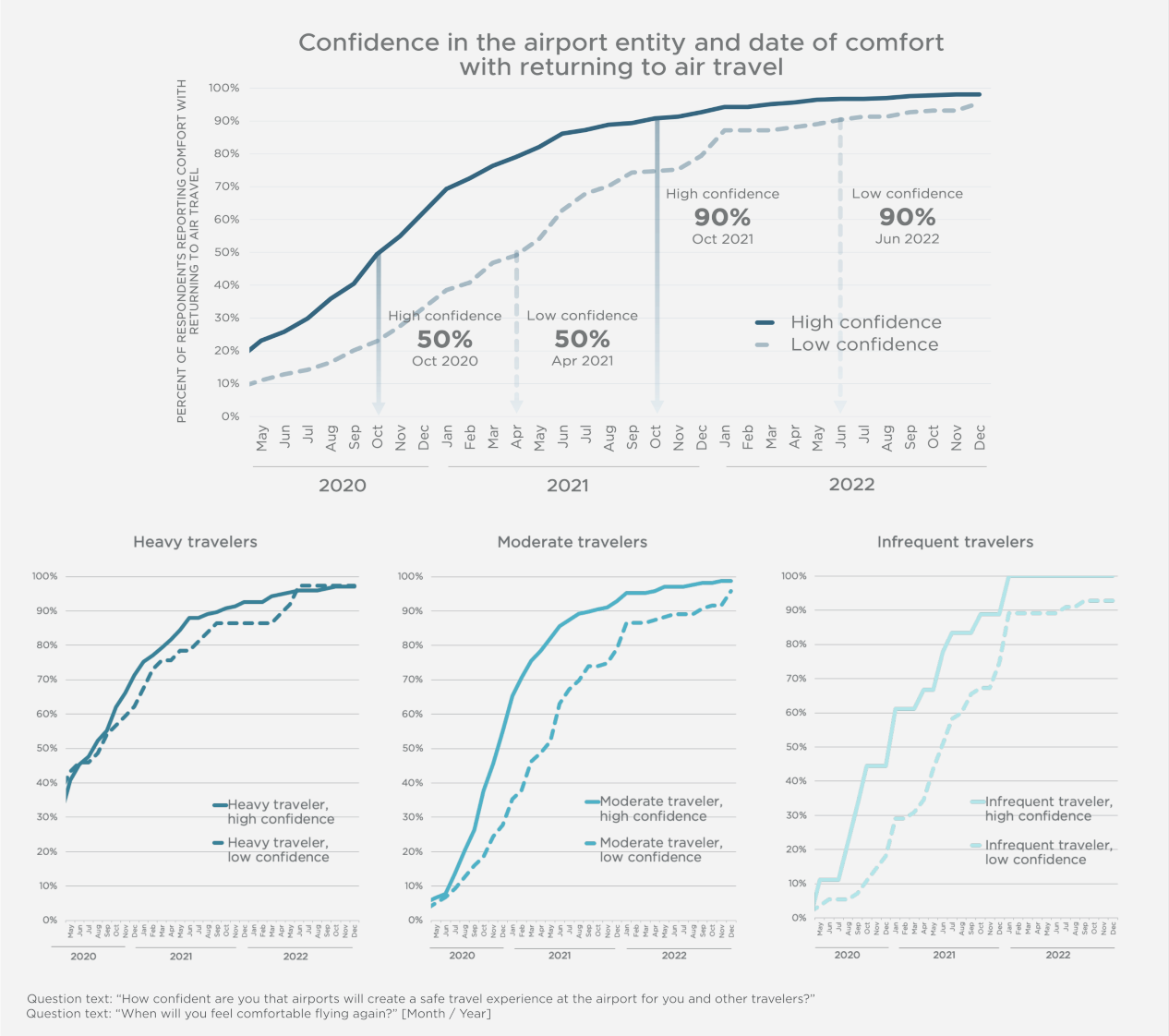
How comfortable are you with the airport monitoring the following?



Question text: "Please rate your comfort with the airport monitoring the following, for the purpose of ensuring a healthy airport." [1-5 scale, from "1 – Very uncomfortable" to "5 – Very comfortable"]

The Importance of Regaining Traveler Confidence

Confidence in the airport is the key factor in how quickly people return to traveling. Regardless of travel frequency, respondents were more comfortable returning to air travel sooner by up to 6-8 months if they had high confidence in the airport compared to those that did not have confidence in the airport. By the end of 2020, 38% of travelers with low confidence in the airport will feel comfortable flying again compared to 69% among those with high confidence in the airport. 90% of travelers with high confidence see themselves traveling again by October of 2021, a level of return that is not matched by travelers with low confidence until June of 2022, about 8 months later. This relationship between a quicker return to air travel and confidence in the airport is observed across all three traveler types.



Question text: "How confident are you that airports will create a safe travel experience at the airport for you and other travelers?"
Question text: "When will you feel comfortable flying again?" [Month / Year]

Conclusions

Less than 20% of people currently feel comfortable traveling, but that number will increase over the next two years to approach pre-COVID-19 levels. The main factors driving the recovery of passenger volume are the pent up demand to travel and the traveler confidence in the airport and the health and safety of the travel journey. 38% of respondents reported that travel restrictions impact their overall happiness, which will motivate a return to travel as soon as it is perceived safe. Of the strategies listed to improve safety of the travel process, continuous environmental monitoring, real-time display of environmental conditions, and touchless technology were the only three that were statistically significantly associated with confidence in the airport. Restoring confidence in the airport has the potential to accelerate the return to travel, bringing in the time it takes to return to 90% of pre-COVID-19 levels by 8 months, from June 2022 to October 2021.

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