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Fellowship Capstone | Policy Brief

Improving Passenger Communication and Airport Security in U.S. Aviation

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I. Executive summary

Air travel is a major part of the United States transportation system, but passengers often face confusion during delays, airport security, tight connections, baggage delays, and family pickup coordination. This brief will examine how clearer passenger communication can improve the travel experience while supporting airport efficiency and aviation safety. It will focus on how airlines, airports, TSA, and federal agencies can better prepare travelers with accessible information about security procedures, connection timing, pickup areas, and passenger rights.

II. Overview

Commercial aviation depends on coordination between airlines, airports, TSA, baggage systems, terminal operations, ground transportation, and passengers. Although travelers usually experience all of this as one trip, these systems often communicate separately. A passenger may need to check an airline app for gate changes, an airport website for pickup information, TSA guidance for security rules, and federal resources for passenger rights. During stressful moments, that fragmented information can be difficult to use. One major problem is that travelers often do not know how much time they actually need. A short connection may be manageable at a small airport but risky at a large hub with terminal changes, checked baggage, weather delays, security re-screening, or international processing. Airport pickup can also become confusing when family members do not know whether the traveler has landed, reached the gate, collected baggage, or arrived at the correct pickup zone. Airport security adds another layer to the issue. TSA screening is necessary for aviation safety, but passengers may be unprepared for identification checks, carry-on rules, prohibited items, electronics, liquids, accessibility assistance, or additional screening. Unexpected challenges at the checkpoint such as not knowing the proper procedure can slow down lines and increase stress for both travelers and security officers. This issue is not about weakening security or blaming airlines, airports, or TSA. It is about improving how information reaches passengers before and during travel. Clearer communication about security preparation, layover risk, baggage timing, accessibility options, pickup areas, and delay responses could make the aviation system easier to navigate and more efficient for everyday travelers.

A. Relevance

Air travel affects millions of Americans and connects families, students, workers, and businesses across the country. Because of this, communication problems in aviation can have serious effects. A missed connection can lead to extra costs, missed events, and long delays.

Confusing security procedures can cause passengers to arrive late to their gates. Poor pickup coordination can create congestion around airport terminals and stress for families. This issue is especially important for first-time flyers, elderly travelers, minors, international passengers, and people with disabilities or mobility needs. These passengers may need more time, clearer instructions, or extra support. If aviation systems assume that every traveler already understands airport procedures, the system becomes less accessible. Passenger communication also connects to aviation policy. Agencies such as the U.S. Department of Transportation and TSA already provide resources on passenger rights, airline commitments, and security screening. However, this information is often spread across different websites and apps. A more coordinated approach would make it easier for travelers to understand what to do during delays, security screening, missed connections, baggage problems, and airport pickup. This topic is relevant to me because I am interested in aerospace engineering, aviation systems, and public policy. Aviation is not only about aircraft technology; it is also about how people interact with airports, airlines, and public transportation systems. Improving passenger communication would make aviation more efficient, accessible, and passenger-centered.

III. History

A. Current Stances

The United States aviation system currently divides passenger communication among several groups. Airlines provide flight updates, gate changes, boarding information, baggage alerts, and customer service. Airports provide terminal maps, parking information, pickup rules, and facility updates. TSA provides security screening rules and passenger support information. The U.S. Department of Transportation provides consumer protection resources related to delays, cancellations, refunds, family seating, and airline commitments.

There has been progress in this area. Many airlines now use mobile apps and text alerts to update passengers. The Department of Transportation's Airline Customer Service Dashboard allows travelers to compare airline commitments during controllable delays and cancellations. TSA also provides public guidance on security screening and support for travelers who need additional assistance. These tools show that airlines, airports, and federal agencies recognize the importance of passenger communication. However, the current system remains fragmented. Passengers are often expected to check several different sources at once. During a delay, cancellation, tight layover, international connection, or security issue, this can become difficult. Information may exist, but it is not always organized around the decisions passengers need to make in real time. Airlines generally support communication tools that improve customer service, but they may be cautious about requirements that increase costs or operational responsibilities. Airports generally support smoother passenger flow because it can reduce congestion in terminals, security lines, baggage claim areas, and curbside pickup zones. TSA's main priority is security, but passenger preparedness can help checkpoints operate more efficiently. Consumer advocates generally support

clearer passenger rights, stronger delay information, and easier access to assistance. Airport security policy also changed significantly after the September 11 attacks, when the federal government created TSA and expanded federal responsibility for passenger and baggage screening. Since then, security has remained one of the most visible parts of the airport experience. Even as screening technology improves, passengers still need clear instructions so they can prepare properly and move through checkpoints without unnecessary confusion.

IV. Policy Problem

A. Stakeholders

The primary stakeholders in this issue are passengers, especially those who depend on clear and timely information to move through airports safely and efficiently. This includes first-time flyers, students, families, elderly travelers, international passengers, people with disabilities, and passengers with tight connections. These groups are affected when communication about delays, security screening, terminal changes, baggage claim, pickup areas, or passenger rights is unclear.

Airlines are also major stakeholders because they are responsible for communicating flight updates, gate changes, delays, cancellations, baggage information, and rebooking options. Clearer communication can improve customer trust and reduce confusion at gates and customer service desks. However, airlines may also be concerned about the cost of improving communication systems or being held responsible for information that changes quickly during travel disruptions. Airports are stakeholders because passenger confusion affects terminal flow, curbside traffic, baggage claim areas, parking, and security lines. When travelers and pickup drivers do not know where to go or when to arrive, airports can experience unnecessary congestion. Better communication can support smoother airport operations, especially at large hub airports where passengers often face longer walking distances, terminal changes, and more complicated pickup areas.

TSA is another important stakeholder. TSA's main responsibility is aviation security, but security screening works better when passengers are prepared before they reach the checkpoint. If passengers understand identification requirements, carry-on rules, liquid limits, electronics procedures, and accessibility assistance options, checkpoints can move more efficiently without weakening security.

The U.S. Department of Transportation and federal policymakers are also stakeholders because they oversee passenger protection, airline accountability, and consumer-facing aviation policy. Their role is not to manage every airport interaction directly, but to encourage clear, accessible, and consistent communication standards that support both passengers and aviation operations.

B. Risks of Indifference

The risk of ignoring this issue is that passenger confusion will continue to create avoidable stress, missed connections, airport congestion, and unequal travel experiences. If passengers are left to gather information from scattered airline apps, airport websites, TSA pages, and customer service desks, many travelers will continue to make

decisions without a complete understanding of their situation.

One risk is missed flights and missed connections. Passengers may underestimate how long security, walking between terminals, baggage pickup, or international processing will take. A connection that looks reasonable on paper may become unrealistic when airport size, terminal changes, baggage recheck, mobility needs, or delays are considered. This can create financial costs, long waits, and frustration for passengers.

Another risk is increased congestion at airports. Poor pickup coordination can cause drivers to arrive too early, circle airport roads, wait in crowded curbside areas, or stop in the wrong pickup zones. This creates stress for families and can also make airport traffic less efficient. Better communication could help travelers and pickup drivers understand when to leave, where to go, and when to wait.

There is also a risk to accessibility. Passengers with disabilities, elderly travelers, minors, and first-time flyers may need clearer instructions or additional time. If communication systems assume every traveler already understands airport procedures, the aviation system becomes less accessible. This can make travel more difficult for people who already face barriers.

Indifference also affects airport security. TSA screening is essential, but unprepared passengers can slow down checkpoints when they do not understand rules for identification, liquids, electronics, carry-on items, or additional screening. This does not mean security should be weakened. Instead, it shows that better preparation can help security systems operate more smoothly.

C. Nonpartisan Reasoning

Improving passenger communication in aviation is a nonpartisan issue because it supports safety, efficiency, accessibility, and consumer protection without depending on one political ideology. People across the political spectrum rely on airports for family travel, business, education, emergencies, and national transportation. A clearer communication system would benefit passengers, airlines, airports, and security staff.

First, improving communication supports economic efficiency. Airports and airlines lose time and resources when passengers miss connections, crowd service desks, wait in the wrong pickup areas, or need repeated explanations during delays. Clearer passenger information can reduce avoidable confusion and help the system move more smoothly.

Second, this issue supports public safety and security. Better airport security preparation does not reduce TSA authority or weaken screening procedures. Instead, it helps passengers understand what they need to do before arriving at the checkpoint. This can reduce delays caused by preventable mistakes and allow security officers to focus on actual risks.

Third, better communication supports accessibility and fairness. A passenger-centered aviation system should work not only for frequent travelers, but also for families, elderly passengers, students, international travelers, and people with disabilities. Making information easier to understand helps ensure that more people can use

the aviation system confidently.

Finally, this issue supports local communities. Airports are connected to local roads, public transportation, rideshare systems, parking, and pickup zones. When passengers and families communicate poorly, congestion can spread beyond the terminal itself. Improving communication can make travel easier for both passengers and the surrounding community.

V. Tried Policy

A major existing effort in this area is the U.S. Department of Transportation's Airline Customer Service Dashboard. This tool allows passengers to compare airline commitments for controllable delays and cancellations, including meals, hotels, rebooking, transportation, and family seating. The dashboard is useful because it makes airline commitments more visible and gives passengers a clearer way to understand what airlines have promised.

However, the dashboard does not solve the entire communication problem. It focuses mainly on airline commitments during certain disruptions, but it does not fully guide passengers through real-time decisions such as whether a connection is too risky, how much time security may require, where a pickup driver should go, or how airport layout affects travel timing. It is helpful, but still only one part of a larger system.

TSA has also created public resources for security screening and passenger support. These resources explain screening procedures, prohibited items, disability assistance, and other travel preparation topics. TSA also offers passenger support programs for travelers who may need additional assistance. These policies are important because they recognize that security is not only about enforcement, but also about helping passengers understand the process.

However, TSA resources are often separate from airline and airport information. A traveler may know their flight is delayed through an airline app, but still need to visit TSA resources for security guidance and an airport website for terminal or pickup information. During a stressful trip, this separation can make the passenger experience harder.

Airline mobile apps are another attempted solution. Many airlines now provide boarding passes, gate changes, baggage tracking, delay alerts, and rebooking options through mobile apps. These tools have improved the travel experience for many passengers. However, each airline's app works differently, and airport security, pickup coordination, and airport-specific guidance are usually not fully connected to these airline tools.

Overall, current policies and tools show progress, but they remain fragmented. The United States has useful passenger communication resources, but they are not always organized around the decisions passengers need to make during real travel situations.

VI. Policy Options

Passenger Communication Standard

One policy option is to create a basic passenger communication standard for airlines and airports. This would not require every airline or airport to use the exact same app, but it would encourage consistent communication categories that

passengers can easily understand. These categories could include delay status, gate changes, baggage status, connection risk, security reminders, pickup area guidance, accessibility assistance, and rebooking information.

This option would help passengers because it would make information easier to compare and understand across different airlines and airports. It would also help airports and airlines by reducing repeated questions at gates, service desks, and pickup areas. The challenge is implementation. Airlines and airports have different technology systems, budgets, and operational responsibilities. Because of this, a communication standard should begin as a flexible guideline or pilot program before becoming a broader requirement.

Security Preparedness Integration

A second policy option is to better integrate TSA security preparedness information into airline and airport communication systems. For example, airline apps and airport websites could provide clearer reminders about identification, carry-on rules, prohibited items, liquids, electronics, accessibility assistance, and recommended arrival timing. This information should be presented before the passenger reaches the airport, not only at the checkpoint.

This policy would support both passenger convenience and aviation security. Prepared passengers are less likely to slow down lines because of preventable mistakes. This would not change security standards or reduce screening authority. Instead, it would make the existing security process easier to understand.

The main challenge is making sure the information stays accurate and does not overwhelm passengers. Security information should be simple, timely, and based on official TSA guidance. It should also be available in accessible formats for passengers with disabilities, language barriers, or limited travel experience.

Airport Pickup and Connection Coordination Pilot

A third policy option is to create a pilot program at large hub airports that improves communication about pickups, layovers, and passenger movement. Airports could provide clearer digital guidance for pickup zones, cell phone lots, baggage claim timing, terminal changes, and connection planning. This could be especially useful at airports with heavy traffic and large terminal layouts.

For example, passengers could receive simple guidance such as whether their pickup driver should wait in a cell phone lot, use short-term parking, or proceed to the arrivals curb. Travelers with tight connections could receive reminders to check terminal maps, avoid unnecessary stops, and prepare for possible re-screening. This would not replace airline or airport staff, but it would help travelers make better decisions.

A local version of this policy could be tested at major Texas airports such as Dallas Fort Worth International Airport or Dallas Love Field. These airports serve large numbers of families, students, business travelers, and connecting passengers. A pilot program could measure whether better pickup and connection communication reduces curbside confusion, missed connections, or passenger complaints.

The challenge is coordination between airports,

airlines, TSA, and ground transportation systems. However, a limited pilot program would allow policymakers and airport officials to test the idea without requiring immediate nationwide implementation.

VII. Conclusions

Passenger communication is a major part of the aviation experience, but it is often treated as secondary to aircraft operations and security enforcement. This brief has explored how fragmented communication between airlines, airports, TSA, federal agencies, passengers, and families can create confusion during delays, security screening, tight connections, baggage pickup, and airport transportation.

The strongest policy option is a passenger-centered communication approach that combines clearer airline updates, better airport pickup guidance, and stronger TSA security preparedness information. This option is practical because it does not require weakening airport security or completely redesigning airline operations. Instead, it improves the way existing information reaches passengers.

Aviation policy should not only focus on aircraft and airlines. It should also consider how people move through airports and understand the system around them. Clear communication can reduce missed connections, support airport efficiency, improve accessibility, and make security procedures easier to follow.

Ultimately, improving passenger communication would make U.S. aviation more efficient, accessible, and passenger-centered. A stronger communication system would help travelers prepare before problems happen, make better decisions during disruptions, and move through airports with more confidence.

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References

[1] U.S. Department of Transportation. “Airline Customer Service Dashboard.” Office of Aviation Consumer Protection.

[2] U.S. Department of Transportation. “Fly Rights: A Consumer Guide to Air Travel.” Office of Aviation Consumer Protection.

[3] Transportation Security Administration. “Security Screening.”

[4] Transportation Security Administration. “Passenger Support.”

[5] Transportation Security Administration. “TSA Cares.”

[6] Aviation and Transportation Security Act, 2001.

[7] Federal Aviation Administration. “Airport Compliance Program.”

[8] Airports Council International. “Passenger Experience and Airport Operations.”

[9] Cao, Shangqing, Aparimit Kasliwal, Huangyi Zheng, Masoud Reihanifar, and Francesc Robuste. “Robust Management of Airport Security Queues Considering Passenger Non-compliance with Chance-Constrained Optimization.” arXiv, 2025.

[10] Kim, Sang Hyun, Eric Feron, John-Paul Clarke, Aude Marzuoli, and Daniel Delahaye. “Airport Gate Scheduling for Passengers, Aircraft, and Operation.” arXiv, 2013.