

## Why GAO Did This Study

Flight delays and cancellations are disruptive and costly for passengers, airlines, and the economy. Long tarmac delays have created hardships for some passengers. To enhance passenger protections in the event of flight disruptions, the U.S. Department of Transportation (DOT) recently introduced passenger protection regulations, including a rule that took effect in April 2010 designed to prevent tarmac delays more than 3 hours (the tarmac delay rule), as well as other efforts to improve passenger welfare. As requested, this report addresses (1) whether flight delays and cancellations differ by community size; (2) how DOT's tarmac delay rule has affected passengers and airlines; and (3) how passenger protection requirements in the United States, Canada, and the European Union (EU) affect passengers and airlines. GAO analyzed DOT data, including through the use of regression models, as well as data from FlightStats, a private source of flight performance information. GAO also reviewed documents and interviewed government, airline, and consumer group officials in the United States, Canada, and the EU.

## What GAO Recommends

GAO recommends that DOT collect and publicize more comprehensive data on airlines' on-time performance and assess the full range of the tarmac delay rule's costs and benefits and, if warranted, refine the rule's requirements and implementation. DOT did not comment directly on the recommendations, but indicated that it would soon begin a study of the effect of the tarmac delay rule.

[View GAO-11-733 or key components.](#)

For more information, contact Susan Fleming at (202) 512-2834 or [flemings@gao.gov](mailto:flemings@gao.gov).

# AIRLINE PASSENGER PROTECTIONS

## More Data and Analysis Needed to Understand Effects of Flight Delays

### What GAO Found

Airports in rural communities have higher rates of delays and cancellations than airports in larger communities, but DOT data provide an incomplete picture of this difference. DOT's data include flights operated by the largest airlines, representing about 70 percent of all scheduled flights. GAO analysis of FlightStats data, representing about 98 percent of all scheduled flights, show more substantial differences in flight performance trends by community size than DOT data. DOT has historically not collected data from smaller airlines because of the burden it could impose on these airlines, but without this information, DOT cannot fully achieve the purpose of providing consumers with information on airlines' quality of service.

DOT's tarmac delay rule has nearly eliminated tarmac delays of more than 3 hours (180 minutes), declining from 693 to 20 incidents in the 12 months following the introduction of the rule in April 2010. While this has reduced the hardship of long on-board delays for some passengers, GAO analysis suggests the rule is also correlated with a greater likelihood of flight cancellations. Such cancellations can lead to long overall passenger travel times. Airlines and other aviation stakeholders maintain that the tarmac delay rule has changed airline decision-making in ways that could make cancellations more likely. To test this claim, GAO developed two regression models, which controlled for a variety of factors that can cause cancellations and measured whether the time period following the imposition of the tarmac delay rule is correlated with an increase in cancellations. The two models assessed flights canceled before and after leaving the gate, for the same 5 months (May through September) in 2009 and 2010. In both cases, GAO found that there was an increased likelihood of cancellation in 2010 compared to 2009 (see table).

**Percent Difference in Likelihood of Flight Cancellation**

Time on tarmac	Increased likelihood of cancellation in 2010 compared to 2009
Before taxi out (at gate)	24 percent more likely
1–60 minutes	31 percent more likely
61–120 minutes	More than twice as likely (214 percent)
121–180 minutes	More than 3 times as likely (359 percent)

Source: GAO analysis of DOT data.

EU requirements provide airline passengers with more extensive protections, such as care and compensation, for flight delays, cancellations, and denied boardings than do U.S. or Canadian requirements. But these protections may also increase costs for airlines and passengers. For example, some airline officials in the United States and the EU told GAO that increases in the amount of denied boarding compensation has increased their overall costs. Additionally, enhanced passenger protections, such as those in the EU, can create enforcement challenges if regulations are unclear or not universally enforced.