

# Air travelers don't mind delays if security checks consistent

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A new study finds that people are willing to endure the wait for airport security screening, especially if delays are consistent among airports and at different times of day. Findings also show that preferences vary between men and women, travelers in different income groups and other categories.

"The most fundamental finding was that wait time is important, but not the only major factor determining how well airline customers tolerate airport-security screening procedures," said Fred Mannering, a professor of civil engineering at Purdue University. "Another important finding is that passengers are more likely to be satisfied if wait times are consistent from airport to airport and at different times of day at the same airport."

A paper detailing findings from the study will appear Sept. 25 in the *Journal of Air Transportation Management*. The paper was written by Purdue civil engineering doctoral student Konstantina Gkritza; Debbie Niemeier, a professor of civil and environmental engineering at the University of California, Davis, where she is director of the John Muir Institute of the Environment and the UC Davis-Caltrans Air Quality Project; and Mannering.

The researchers used mathematical formulas in a "multinomial logit model" to calculate various probabilities based on data collected in national surveys. The surveys polled 828 air travelers in 2002 and 1,079 in 2003, after which the surveys were discontinued. The data were collected as part of the Omnibus Household Surveys, conducted every

two months from January 2002 through October 2003 by the U.S. Bureau of Transportation Statistics.

The new study, however, suggests that travelers be surveyed annually because customer preferences may vary drastically from year to year.

Some specific probabilities detailed in the research paper regarding 2003 survey results showed that:

- Men were 3.9 percent less likely than women to be satisfied with the speed of airport-security screening;
- Passengers with a four-year college degree or a master's degree were 23 percent more likely to be satisfied;
- People earning more than \$75,000 per year were 5 percent more likely to be satisfied; and
- Customers indicating that they were reluctant to travel after the Sept. 11 terrorist attacks were 17.9 percent less likely to be satisfied.

However, probabilities calculated for some of the same categories using 2002 survey results showed dramatically different preferences. For example, in 2002 higher earning people were less likely to be satisfied, and men were more likely to be satisfied. These results were opposite the 2003 findings.

"Two major things that didn't change between those two years were that wait time was still very important and, also, was the need to have consistency in screening," said Mannering, who also holds a courtesy appointment in Purdue's Department of Economics and is associate director for research at the university's Center for the Advancement of Transportation Safety.

The study results could be useful in shaping security procedures and providing ways to improve customer satisfaction as the airline industry struggles to maintain profitability amid economic factors such as high fuel costs and labor-management disputes, Mannering said.

"The take-home message for government and industry is that you should not focus solely on reducing wait time if you want to improve customer satisfaction," Mannering said. "Of course, you should reduce wait time, but you should reduce the variation in wait time as well. After all, people don't necessarily have to fly, especially for some of the shorter trips."

Although some airports have recently started using a system that speeds the security screening process for travelers who pre-register, it would be important to determine the specific preferences among people who are likely to choose this type of system, researchers said in the paper.

To be effective, however, policy and management decisions must be based on recent data.

"We don't know why there was so much of a difference from one year to the next, but we can speculate that customer satisfaction is highly unstable because people are always adjusting their expectations, and expectations play a major role in customer satisfaction," Mannering said. "If you are expecting a 10- or 15-minute wait, and you end up with a 30-minute wait, you are going to be less likely to be satisfied."

Source: by Emil Venere, Purdue University

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