What Pilots Could Tell Us

By Jon A. Krosnick

The crash of a Conrail jet in Kentucky on Sunday ended the longest safety streak in aviation history: it's been almost five years since a passenger died in a commercial airline jet accident in the United States.

Crashes are actually very crude gauges of the safety of air travel because they remain so rare. We must pay attention instead to the little events that happen every day in the skies and on the ground that very, very slightly increase the risk of another disaster.

For instance, a pilot attempts to talk to an air traffic controller but is unable to get through. A plane flies higher than the air traffic controller requested. Or a pilot turns onto the wrong runway for takeoff, as happened in Kentucky. To prevent devastating accidents, we need to monitor these little events and find ways to reduce their frequency.

Amazingly, a federal program has been doing just that for years, but the data are being kept under lock and key, and the program is quietly being ended.

In 1997, the White House Commission on Aviation Safety and Security set a goal of reducing the risk of air travel accidents by 80 percent over the next 10 years. Federal agencies soon realized, however, that they had no way to measure progress toward this goal. Airplane black boxes yield colossal amounts of data that can't be analyzed easily or quickly. And on-board computers can't detect many risk-increasing events, especially those involving human behavior in the cockpit and air traffic control tower.

So in 1998, NASA created an ambitious program, the National Aviation Operations Monitoring Service, using survey methods to collect information efficiently and inexpensively. Every day of every month for years, large, random samples of commercial airline pilots were interviewed in depth about how often they witnessed many different sorts of risk-increasing events. (Disclosure: I helped NASA develop the questionnaire and survey methods.)

More than 24,000 interviews have been conducted, and examining the air travel system through the eyes of pilots has helped to deepen our understanding of what's been happening in the skies. If NASA had pursued its original plan to develop similar reporting systems for air traffic controllers, flight attendants and airplane mechanics, we'd have even more insight.

Together, the ensemble of surveys could be like canaries in a mine, documenting increases in particular types of risk and allowing air travel professionals to take preventive steps before catastrophes happen. Expanding the program's mission to collect data on aircraft security as well might even help reduce the threat of terrorism.

But instead, NASA stopped the interviewing of pilots last January and called off all plans to expand the project.

This is a big mistake. Many experts, working to increase your safety when you board an airplane, built a great tool that costs relatively little and could help prevent just the sort of disaster we saw in Kentucky.

But their work was terminated, and you can't find out what they learned, even though you paid for it. Now is the time to bring this program back to life.

Jon A. Krosnick is a professor of communication, political science and psychology at Stanford.