

Airline passengers in developing countries face 13 times crash risk as US: study

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Passengers who fly in Developing World countries face 13 times the risk of being killed in an air accident as passengers in the First World. The more economically advanced countries in the Developing World have better overall safety records than the others, but even their death risk per flight is seven times as high as that in First World countries.

These statistics are among the findings in the new study *Cross National Differences in Aviation Safety Records* by Arnold Barnett, which appears in the current issue of *Transportation Science*, a journal of the Institute for Operations Research and the Management Sciences (INFORMS). Barnett is a Professor of Operations Research at MIT's Sloan School of Management and a long-term researcher on [aviation safety](#).

Using worldwide air-safety data, Prof. Barnett calculated that, over 2000-07, the chance of dying on a scheduled flight in a First World nation like the U.S., Japan, or Ireland was 1 in 14 million (this statistic considers propeller planes as well as jets). At that rate, a passenger who took one flight every day would on average go 38,000 years before succumbing to a fatal accident. On the airlines of economically advancing countries in the [Developing World](#) such as Taiwan, India, and Brazil, the death risk per flight was 1 in 2 million. In less economically-advanced Developing-World countries, the [death risk](#) per flight was 1 in 800,000. Prof. Barnett calculates that the risk differences in this three-group model "are not statistically significant within groups, but are highly significant across groups."

All these statistics reflect major advances in safety in the last decade, and Prof. Barnett points out that the distinction he makes is "between safe and very safe, and not between safe and dangerous." Indeed, Prof. Barnett notes that "it is not uncommon for a month to pass without any fatal passenger-jet crashes anywhere in the world."

While the study ends in 2007, the patterns it depicts continue to persist. So far in 2010, there have been eight fatal accidents on scheduled passenger flights. All eight of them occurred in the Developing World.

Prof. Barnett questioned why the economically-advancing countries in the Developing World did not have safety records closer to those in the First World, given that they approach First-World standards in life expectancy and per capita income. He cites research that indicates that, in terms of deference to authority and "individualism," the economically advancing Developing-World countries are on average far from those in the First World but almost identical to other Developing-World countries. Prof. Barnett concedes that he should "not get too caught up in speculation," but notes that one possible explanation for why the economically-advancing countries did not fare better is that "their economic shift towards the First World has not been accompanied by a corresponding cultural shift."

Provided by Institute for Operations Research and the Management Sciences

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