A significant increase in aviation security could be achieved while reducing the incidence of lost and misrouted checked bags, at a cost of less than 50 cents per ticket, according to a recent report.

Titled "Safe at Home? An Experiment in Airline Security", the report in the March-April 2001 issue of Operations Research by Dr. Arnold Barnett and four co-authors highlights the results of a positive bag-match trial conducted under the auspices of the Federal Aviation Administration (FAA) in May of 1997. Barnett is a professor at the Massachusetts Institute of Technology (MIT) Sloan School of Management. Under positive passenger-bag match, or PPBM, all bags loaded into the belly hold are matched to a passenger expected to be aboard. If the passenger checks a bag but does not board, the bag would be pulled off the airplane before departure. PPBM is designed to identify and remove any "rogue" bags that could contain bombs. PPBM is based on the premise that terrorists involved in a bombing attack on a U.S. airliner are not suicidal and would seek to have a bomb placed aboard a target airplane they had no intention of boarding.