

Why GAO Did This Study

TSA's EBSP, one of DHS's largest acquisition programs, aims to improve security and lower program life cycle costs by optimizing checked baggage screening systems that best meet the needs of the nation's airports. This includes, among other things, the integration of baggage screening equipment into baggage handling systems, referred to as in-line systems. Installing in-line systems typically requires airports to undertake costly facility modification projects, for which TSA will generally reimburse up to the applicable federal cost share. As requested, GAO examined (1) the status of TSA's efforts to install optimal checked baggage screening systems in collaboration with airports, (2) how reducing the federal cost share for eligible airport modification projects from 90 percent to its previous level of 75 percent would affect the amount that TSA pays for modifications, and (3) whether TSA's methods for estimating and validating costs for the EBSP are consistent with best practices. GAO reviewed EBSP planning and status documents, compared TSA's cost estimation approach against GAO best practices, and visited 10 airports selected in part based on the status of the EBSP optimization at these airports. Although the results from these visits are not generalizable, they provided insights into the program.

What GAO Recommends

GAO recommends that TSA ensure that its life cycle cost estimates conform to cost estimating best practices. DHS concurred with GAO's recommendation.

View [GAO-12-266](#). For more information, contact Stephen M. Lord at (202) 512-4379 or lords@gao.gov.

CHECKED BAGGAGE SCREENING

TSA Has Deployed Optimal Systems at the Majority of TSA-Regulated Airports, but Could Strengthen Cost Estimates

What GAO Found

The Transportation Security Administration's (TSA) Electronic Baggage Screening Program (EBSP) reports that 76 percent of the airports (337 of 446) the agency regulates for security have a mix of in-line and stand-alone baggage screening configurations that best meet airport needs (i.e., optimal systems). However, only 36 percent (10 of 28) of the nation's larger airports—based on factors such as the total number of takeoffs and landings annually—have complete optimal systems. This is because the larger airports generally need more complex in-line systems and often require a significant amount of airport infrastructure modification and construction. In August 2011, TSA shifted its focus from installing optimal baggage screening systems to replacing aging machines (recapitalization). However, TSA plans to continue to optimize systems during many of its recapitalization projects.

Using TSA cost estimates, GAO estimates that reducing the portion of costs that TSA pays for facility modifications associated with the installation of optimal baggage screening systems, from 90 percent to 75 percent, would lower the federal government's cost for airport modification projects it supports by roughly \$300 million from fiscal year 2012 through fiscal year 2030. Officials from all 10 airports with whom GAO spoke stated that airports benefit from the installation of integrated, in-line baggage screening systems. The primary benefit—cited by representatives from 9 of the airports GAO visited—is that passenger congestion is reduced by removing stand-alone machines from lobbies or ticketing areas. Other benefits cited by airports included a reduction in lost baggage and increased screening and passenger throughput. However, for a variety of reasons, representatives from 8 of 10 airports GAO visited opposed a reduction in the federal cost share for related airport modifications.

TSA established cost estimates for the EBSP to help identify total program cost, recapitalization cost, and potential savings resulting from installing optimal systems, but its processes for developing these estimates do not fully comply with best practices. These include, among other things, ensuring that the estimates comprise all costs and are well documented. For example, TSA's estimates were properly adjusted for inflation and were developed using relevant data, such as existing contracts for equipment purchases and maintenance costs. However, the estimates did not include all costs, for example, the costs associated with detecting all security threats, and many assumptions and methodologies underlying the cost model were not clearly documented. As highlighted in GAO's past work, a high-quality, reliable cost estimation process provides a sound basis for making accurate and well-informed decisions about resource investments and budgets and thus is critical to the success of a program. Developing accurate cost estimates would help ensure that the program does not experience unanticipated cost growth and program funding needs resulting from future recapitalization and facility modification activities. In addition, TSA is working with the Department of Homeland Security (DHS) to develop an approved acquisition program baseline, which according to DHS guidance is the contract between program and departmental oversight officials for what will be delivered, how it will perform, and what it will cost. TSA expects the baseline to be approved in May 2012.