Screening Partnership Program: TSA's Cost and Performance Independent Study

Briefing for Congressional Committees

Updated

Introduction

- Pursuant to the Aviation and Transportation Security Act (ATSA), the Department of Homeland Security's Transportation Security Administration (TSA) is responsible for ensuring the security of the traveling public through, among other things, screening passengers and baggage traveling by aircraft.[1]
- To fulfill this responsibility, TSA maintains a federal workforce of screeners at a majority of the nation's commercial airports and also oversees a smaller workforce of private screeners employed by companies under contract to TSA at airports that participate in TSA's Screening Partnership Program (SPP).[2]
- The Explanatory Statement accompanying the Consolidated Appropriations Act, 2014, directed TSA to allocate resources for an independent study of the performance of screening at federalized airports (non-SPP airports) in comparison with the performance of screening at privatized airports under the SPP program (SPP airports).[3]
- Specifically, the study was to include, but was not limited to, security effectiveness, cost, throughput, wait times, management efficiencies, and customer satisfaction.[4]

[1] See generally Pub. L. No. 107-71, 115 Stat. 597 (2001); see also 49 U.S.C. §§ 114, 44901.

[2] For purposes of this briefing, the term "commercial airport" includes all airports in the United States at which TSA performs or oversees the performance of security screening activities. In November 2002, in accordance with the Aviation and Transportation Security Act, TSA began a 2-year pilot program at five airports using private screening companies to screen passengers and checked baggage. See 49 U.S.C. § 44919. In November 2004, TSA subsequently established the Screening Partnership Program through which all airports with a federal screener workforce can apply to "opt out" of federal screening in favor of a private screener workforce. See 49 U.S.C. § 44920.

[3] See 160 Cong. Rec. H475, H931 (daily ed. Jan. 15, 2014) (explanatory statement), accompanying Pub. L. No. 113-76, 128 Stat. 5 (2014). See also S. Rpt. No. 113-77, at 59-60 (2013).

[4] The Study included a cost assessment to provide screening at SPP airports and the estimated cost if the same services were conducted under the federal model at these SPP airports.

Introduction
(continued)

- In June 2014, TSA awarded a contract to complete an independent study. The study was provided to TSA on November 21, 2014.[5] [Herein referred to as "the Study"]
- The Study included an assessment of the costs of providing screening services at SPP airports and an estimated cost if those airports were to operate as non-SPP airports as well as a comparison of security performance of at least one SPP airport in each security risk category with security performance at a non-SPP airport in each category for fiscal year 2013.[6]
- The Study's cost assessment concluded that, in general, the cost estimates for non-SPP screeners are higher for larger airports, whereas cost estimates for SPP screeners are generally higher for smaller airports.[7] In addition, the Study concluded that contractors provide wages and benefits to SPP screeners that are comparable to those available to non-SPP screeners.
- The Study's performance assessment of available data on security effectiveness, throughput, wait time, customer satisfaction, and management efficiencies concluded that SPP airports compared with non-SPP airports in aggregate or at the program level are generally operating at the same level of performance.[8]

[5] BDO USA, LLP, and its partner, Triumph Enterprises, Inc., Transportation Security Administration Screening Partnership Program Study, as prepared for TSA, 2014.

[6] TSA classifies commercial airports in the United States into one of five security risk categories (X,I, II, III, and IV) based on various factors, such as the total number of takeoffs and landings annually, the extent of passenger screening at the airport, and other security considerations. In general, category X airports have the largest number of passenger boardings, and category IV airports have the smallest.

[7] At the program level, or in aggregate, the fiscal year 2013 estimate for all SPP airports indicated the federal estimate is $15.75 million, or 9.2 percent higher than the SPP contractor estimate.

[8] Specifically, the Study concluded that the performance of contractor screeners at the program level appears to be on par with the performance of federal screeners.

Objectives

- The Explanatory Statement accompanying the Consolidated Appropriations Act, 2014, Public Law 113-76, provides that GAO shall brief the committees on the strengths and weaknesses of the independent study TSA funded on the performance of screening at non-SPP airports compared with screening at SPP airports.[9]
- The Explanatory Statement specified that GAO is to brief the committees within 90 days of receipt of the report from TSA, which TSA provided on January 13, 2015.
- GAO addressed the following objectives:
  1. What are the strengths and limitations of the independent study's comparison of the estimated cost of screening at SPP and non-SPP airports?
  2. What are the strengths and limitations of the independent study's comparison of the performance of screeners at SPP and non-SPP airports?

[9] Specifically, GAO was directed to brief the Senate Appropriations Subcommittee on the Department of Homeland Security and the House Appropriations Subcommittee on Homeland Security.

Scope and Methodology

- The strengths and limitations included are limited to the information provided in the Study based on the criteria we applied.
- To determine the strengths and limitations of the Study's assessment of the costs of operating SPP and non-SPP airports, we compared the Study's methodological approach against best practices we identified in GAO's *Cost Estimating and Assessment Guide*.[10]
- To determine the strengths and limitations of the Study's assessment of the performance of SPP and non-SPP airports, we compared the study's methodological approach against generally accepted research standards related to study design, measurement, analysis, and reporting.[11]

[10] GAO, *GAO Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Capital Program Costs*, GAO-09-3SP (Washington, D.C.: March 2009). The methodology outlined in this guide is a compilation of best practices that federal cost-estimating organizations and industry use to develop and maintain reliable cost estimates throughout the life of a government acquisition program. The leading practices were developed in conjunction with government and industry experts in the cost-estimating community. By default, the guide also serves as a guiding principle for our auditors to evaluate the economy, efficiency, and effectiveness of government programs.

[11] GAO, *Designing Evaluations: 2012 Revision,* GAO-12-208G (Washington, D.C.: Jan. 31, 2012), and other social science methodological research. GAO-12-208G addresses the logic of program evaluation design and generally accepted statistical principles, and describes different types of evaluations for answering varied questions about program performance, the process of designing evaluation studies, and key issues to consider toward ensuring overall study quality.

Summary of Findings

- The Study's comparison of the costs of providing screening services under SPP and non-SPP airport operations as some strengths, such as comparing costs consistently between SPP and non-SPP airports. However, based on our comparison of the Study against best practices, our analysis suggests that the Study's cost assessment has limitations that affect its accuracy and credibility. For example, to develop 5-year estimates, the Study uses data from a single year (fiscal year 2013), which do not account for variables that can change from year to year such as staffing and wages.
- The Study's comparison of the performance of screeners at SPP and screeners at non-SPP airports has some strengths, such as recognizing the challenge of assessing performance across airports, given the unique characteristics of each airport. However, based on generally accepted research standards, our analysis suggests that the Study's performance comparison has limitations that affect the ability to draw conclusions that are supported by the data analysis. For example, the Study draws conclusions for all airports studied based on analysis where data were not available for many airports.

Background

- In November 2004, in accordance with Aviation and Transportation Security Act, all commercial airports became eligible to apply to the SPP.

- While an airport operator may apply to the SPP to use a private company's screening personnel to screen passengers and checked baggage at its airport, TSA continues to be responsible for overseeing screening operations at SPP airports and for ensuring that contract screening companies provide effective and efficient security operations.

- At the time the Study began, in June 2014, 14 airports were operating with contracted screeners. As of May 2015, there are 21 airports of varying security risk categories in the program.[12]

[12] Twenty of the 21 airports are operating with contracted screeners and the other one is a seasonal airport and plans to have contracted screeners in place when flights resume on June 1, 2015.

Objective 1: Comparison of the Study's Cost Methodology against Best Practices

The Study's comparison of the costs of providing screening services at SPP and non-SPP airports has some strengths, but also has limitations that affect its accuracy and credibility. Our analysis of the Study's cost comparison indicated that the estimates developed did not fully meet the standards of a high-quality and reliable cost estimate which require it to be comprehensive, well documented, accurate, and credible.[13]

A reliable and valid cost estimate should be comprehensive

Identified strengths:

- The Study's cost estimates include other federal costs incurred in addition to what TSA incurs.
- The Study establishes a cost-estimating structure for the SPP and non-SPP airports.[14]
- The Study documents the assumptions used to develop each cost element structure.
- The Study compares SPP and non-SPP cost estimates consistently and establishes the period of performance for the comparison.

Identified limitations:

- We did not identify any key limitations based on the best practices criteria we applied.

[13] A cost estimate is considered reliable if the overall assessment ratings for each of the four characteristics are substantially or fully met. If any of the characteristics are not met, minimally met, or partially met, then the cost estimate does not fully reflect the characteristics of a high-quality estimate and cannot be considered reliable.

[14] The Study defines a cost breakdown structure as the subdivision of the overall cost into discrete components that can be more easily estimated. These subdivisions are referred to as cost elements.

Objective 1: Comparison of the Study's Cost Methodology against Best Practices (continued)

A reliable and valid cost estimate should be well documented.

Identified strengths:

- The Study's documentation provides a brief program description.
- The Study includes the source data used for analysis.

Identified limitations:

- The Study's documentation is not detailed such that an analyst unfamiliar with the program could understand what was done and replicate it to determine if it is valid and credible, consistent with best practices.
- The Study does not have documented evidence of an internal management review prior to providing TSA with the final study. According to best practices, a cost estimate is not considered valid until it is approved by management.

Objective 1: Comparison of the Study's Cost Methodology against Best Practices (continued)

A reliable and valid cost estimate should be accurate.

Identified strengths:

- The Study uses actual program cost data, rather than estimated data.
- The Study discusses baseline assumptions provided by TSA officials to develop the estimate.

Identified limitations:

- The Study does not use the most recent actual data for all airports. Moreover, the Study does not include data for certain airports in its conclusions although the Study had more recent data for those airports. Best practices state that an estimate should be based on the most recent data available.
- The Study uses staffing and cost data for a single year across a 5-year estimate, which does not account for changes in staffing and inflation that could significantly affect the estimate.[15] Best practices state that historical data should be used to check the reasonableness of an estimate.
- The Study does not account for policies and procedures implemented by TSA outside of the selected year, such as expedited screening, which could cause the data in the study to be outdated and, therefore, affect the estimated costs. Best practices state that the estimate should account for background circumstances that could affect the data.

[15] The Study states that fiscal year 2013 data were used to estimate all airports except four western Montana airports. The Study used fiscal year 2013 data with projected fiscal year 2014 staffing data for the four western Montana airports that converted to the SPP in fiscal year 2014. A full set of fiscal year 2014 cost data was not available at the time of the study. For this reason, the Study's cost estimates for the western Montana airports were not used to draw cost conclusions.

Objective 1: Comparison of the Study's Cost Methodology against Best Practices (continued)

A reliable and valid cost estimate should be credible.

Identified strengths:

- We did not identify any key strengths based on the best practices criteria we applied.

Identified limitations:

- The Study includes a risk and uncertainty assessment, however, it does not establish a quantifiable analysis that allows for the assessment of the variability of the point estimate at each airport, consistent with best practices. Risk and uncertainty refer to the fact that because a cost estimate is a forecast, there is always a chance that the actual cost will differ from the estimate.
- The Study does not show whether crosschecks, as well as a sensitivity analysis, were performed, as called for by best practices.[16]

[16] GAO best practices state that the main purpose of cross-checking is to determine whether alternative methods produce similar results. In addition, when a sensitivity analysis to identify the effect of uncertainties associated with different assumptions is not conducted, this increases the chance that decisions will be made without a clear understanding of these impacts on costs.

Objective 2: Comparison of the Study's Performance Assessment against Generally Accepted Research Standards

The Study's comparison of the performance of screeners at specific SPP and selected non-SPP airports has some strengths, but is limited in that it did not conduct the analysis necessary to make comparisons of the performance of screeners at SPP and non-SPP airports as called for by generally accepted research standards.[17]

The study should be designed to fully address the required tasks.

Identified strengths:

- The Study's selection criteria use available data for comparison of SPP and non-SPP airports.
- The Study includes a discussion on each of the five categories for which the contractor was asked to compare performance across SPP and non-SPP airports.

Identified limitations:

- We did not identify any key limitations based on the best practices criteria we applied.

[17] These standards define a well-documented and clearly presented study, and were accumulated from a number of research organizations, including GAO, the Department of Defense, and private research centers.

Objective 2: Comparison of the Study's Performance Assessment against Generally Accepted Research Standards (continued)

The measures chosen for evaluation should be valid and reliable.

Identified strengths:

- We did not identify any key strengths based on the best practices criteria we applied.

Identified limitations:

- The Study does not determine if the screener performance data were reasonably complete and accurate for analysis. For example, the Study identifies inconsistencies in how data on wait times were collected but does not adjust its methods or conclusions to account for the inconsistencies.
- The Study does not adequately adjust for data that were not available for many airports. For example, the Study chose to compare utilization of Advanced Imaging Technology (AIT) when 8 of 14 airports did not have or use AIT equipment in calendar year 2013.

Objective 2: Comparison of the Study's Performance Assessment against Generally Accepted Research Standards (continued)

The methodology, including statistical techniques, should support accomplishing the objectives of the study.

Identified strengths:

- We did not identify any key strengths based on the best practices criteria we applied.

Identified limitations:

- The data analysis is not adequate to support performance comparisons between SPP and non-SPP airports. For example, the Study's design, which compared only the specific SPP airports with the selected comparison non-SPP airports, instead of comparing combined data for all of the SPP airports with all of the non-SPP airports limits the ability to make general conclusions about the SPP program as a whole.

Objective 2: Comparison of the Study's Performance Assessment against Generally Accepted Research Standards (continued)

The study should report all methodological limitations, including their potential effect on the results.

Identified strengths:

- The Study recognizes several methodological limitations for comparing performance of SPP and non-SPP airports such as airport layouts, number of security checkpoints and types of screening equipment available.

Identified limitations:

- The Study does not thoroughly address the impact of the limitations identified in the results. For example, the Study identifies the challenge of obtaining complete data for smaller airports (categories III and IV) where few or no data points were available, but does not address this limitation when making conclusions about the performance of SPP screeners compared with that of non-SPP screeners.
- The Study's assessment is limited to comparison of TSA performance measure data for a single calendar year and does not identify how this limitation affected its results.

Objective 2: Comparison of the Study's Performance Assessment against Generally Accepted Research Standards (continued)

The reported conclusions of a study should be linked to the results.

Identified strengths:

We did not identify any key strengths based on the best practices criteria we applied.

Identified limitations:

- A high-quality study should link results to the conclusions with appropriate caveats where limitations exist. The Study's conclusion that, in aggregate, SPP and non-SPP airports are performing similarly across all categories assessed is not supported by the Study's results and does not include the appropriate caveats to address limitations. For example, the Study concludes that, based on available data, the performance of SPP screeners is generally on par with that of non-SPP screeners but does not include that this conclusion was based on an analysis in which data were unavailable for many airports.

TSA's Response to the Study

In a letter transmitting the study to GAO, TSA provided its comments on the Study.

Regarding the final independent assessment of SPP versus non-SPP costs, TSA plans to incorporate several aspects of the Study's methodology into TSA's Federal Cost Estimate (FCE) used to estimate operational costs. However, TSA disagreed with three areas of the Study's cost methodology:

- The Study's use of staffing and cost data for a single year across a 5-year estimate that does not account for changes in staffing and inflation, which could affect the estimate. **We agree that this is a limitation of the study and make similar observations in our assessment.**
- The Study does not separate imputed costs such as unfunded retirement liabilities and general liability insurance as non-TSA costs, for which TSA is not allocated money in its appropriation acts, in its estimates. **We recognize that TSA is not allocated funds to pay contractors for non-TSA costs. However, for the purposes of providing a comprehensive cost estimate, we consider the inclusion of other federal costs and not solely those costs incurred by TSA as a strength of the Study that is in line with best practices.**
- The Study's estimate of indirect overhead costs did not take into account fiscal year 2013 cuts due to sequestration. According to TSA, the estimated overhead costs are likely overstated by millions of dollars. **While we did not specifically look at the extent to which sequestration was addressed, we agree that this is a potential limitation of the Study.**

TSA's Response to the Study (continued)

TSA concurred with the overall assessment that, generally, the performance of SPP airports appears to be equivalent to the performance of non-SPP airports. However, TSA highlighted limitations including the following:

- Several performance measures chosen for analysis in the Study, such as the percentage of passengers screened by AIT, are dependent on factors other than performance and are therefore not a standalone measure of the airport's performance. **We agree that this is a limitation of the Study.**
- Operational changes outside of the airports control affected data elements. For example, according to TSA, airports processing more passengers through TSA Pre✓ ™ operate more efficiently than those with fewer participants, diminishing the accuracy of the comparison.[18] **We agree that this is a limitation of the Study.**

[18] TSA Pre✓ ™ is the program through which TSA designates passengers as low risk for expedited screening in advance of their arrival at the passenger screening checkpoint. Expedited screening typically includes walk-through metal detector screening and X-ray screening of the passenger's accessible property, but unlike in standard screening, travelers do not have to, among other things, remove their belts, shoes, or light outerwear. Managed Inclusion operates only at checkpoints with TSA Pre✓ ™ lanes.

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