

Airport Security: Time for a New Model

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Overview

ATSA (2001) created TSA and federalized airport screening.

Three basic flaws in TSA model:

- ⌘ **TSA's conflict of interest**
- ⌘ **Overcentralization**
- ⌘ **Equal-risk assumption**



The Equal-Risk Assumption

All passengers and bags deemed equally likely to be dangerous; hence, equal resources applied to each (e.g. 100% EDS screening of checked bags).

Consequences:

- ⌘ Long checkpoint lines
- ⌘ Much larger screener workforce than expected (3X former size)
- ⌘ Huge cost of equipment and facility modifications (\$2.5B just on explosive-detection equipment thus far)



Overcentralization

Airports vary greatly in size, type, and configuration. But TSA decides too much in Washington.

- ⌘ Screeners re-allocated among airports only once a year.
- ⌘ Opt-out potential foregone, because too centralized.



Dynamic airlines change every month

Monthly Changes in Enplaned Passengers, Top 100 U.S. Airports, 2003

Month	No. airports with +/-10%	No. airports with +/-15%	Airport with greatest change	Amount of change
January	77	54	Pensacola	-26%
February	7	1	San Juan	-19%
March	95	81	Myrtle Beach	76%
April	24	6	Salt Lake City	-18%
May	29	15	Palm Springs	-37%
June	20	7	Anchorage	57%
July	19	10	Islip	26%
August	11	0	Wichita	-15%
September	82	56	San Juan	-38%
October	64	35	Palm Springs	39%
November	23	9	St. Louis	-47%
December	14	3	Myrtle Beach	-22%

Source: U.S. DOT T-100 carrier reports



Over-centralized screening opt-out program

Under ATSA, all airports can now opt for TSA-certified screening company instead of TSA screeners. But:

- ⌘ TSA selects the contractor and assigns to the airport
 - ⌘ TSA manages the contract, not the airport
 - ⌘ TSA must OK hiring, training (takes months)
 - ⌘ Little opportunity for innovation and efficiencies
 - ⌘ Airport liability increased by outsourcing
- Hence, only 6 airports in program.



Conflict of Interest

Per ATSA, TSA is both the aviation security regulator *and* the provider of airport screening

This is a reaction to failed pre-9/11 policy:

- ⌘ FAA failed to produce or enforce performance standards on screening contractors.
- ⌘ Airlines, rather than airports, were responsible for screening.

TSA regulating itself is a conflict of interest, akin to former Atomic Energy Commission



Rethinking the TSA, 2005

Reports by DHS IG (March 2005) and GAO (May 2005) found airport screening performance little better than shortly after 9/11, prior to TSA screening workforce.

Largest single TSA expenditure is \$2.5B/year for screener payroll, yet bad objects still getting past screening.

GAO report found performance of contract screeners at 5 pilot airports was modestly better.

Maybe we need a new approach.



A Three-Part TSA Reform Agenda:

- ⌘ **Separate TSA policy/regulation role from service provision.**
- ⌘ **Devolve screening responsibility to airports, under TSA supervision.**
- ⌘ **Shift to a risk-based approach to airport security.**



1. Separating Regulation from Operations

- ⌘ Administration has already proposed shifting TSA's information-centered programs to a new DHS office (Secure Flight, Registered Traveler, TWIC, US VISIT)
- ⌘ New DHS Secretary Chertoff proposing other reorganization steps, some of which need legislation
- ⌘ Hence, DHS/TSA legislation will be needed in any case.



Political feasibility of changing TSA role

- ⌘ **Europe uses the model of national regulation of airport-based security.**
- ⌘ **Airport and airline trade associations favor this approach.**
- ⌘ **Ideological opposition to “privatization” may be softened by airports’ key role: It’s devolution, not privatization.**



2. Airport-Centered Security

- ⌘ **Make-or-buy authority**
- ⌘ **Monthly funding allocations**
- ⌘ **Incentives for in-line EDS**
- ⌘ **Liability protection**



Make-or-buy authority

Airports free to provide screening with own workforce (TSA-approved) or hire TSA-certified contractor.

If the latter, airport would

- ⌘ Issue RFP and select best proposal
- ⌘ Sign and manage contract with selected bidder

In either case, TSA's local FSD would:

- ⌘ Oversee local hiring and training
- ⌘ Oversee screening operations



Funding allocations

- ⌘ **Screening workload formula based on originating passenger numbers, terminal configurations, etc.**
- ⌘ **Adjusted at least quarterly, preferably monthly to track changes in airline passenger service.**
- ⌘ **Provide lump-sum for screening, without detailed spending mandates.**



Incentives for in-line EDS

- ⌘ **Lobby EDS is slow, labor-intensive**
- ⌘ **In-line design puts EDS in baggage area, fed by conveyors.**
- ⌘ **On-screen resolution further reduces labor.**
- ⌘ **Savings in labor costs offset one-time cost of in-line system in 1 or 2 years, in many cases.**
- ⌘ **If airports had lump-sum screening funds, would finance in-line installations.**



Potential labor savings from optimized bag screening systems

Potential Labor Savings from Optimized Bag Screening Systems

Airport Category	No. of airports	Average bags per year (M)	Workload (bags x airports)	% of total	No. of screeners	% Reduced	No. reduced
X	21	15	315	54	12,150	78	9,477
I	61	3	183	31	6,975	68.5	4,778
II	50	1	50	9	2,025	68.5	1,387
III	124	0.2	25	4	900	59	531
IV	190	0.05	9	2	450	0	0
Total	446		582	100	22,500		16,173

Source: Reason calculations from TSA and GAO data



Liability issue

- ⌘ **Screening contractors can be covered under SAFETY Act, limiting liability.**
- ⌘ **Airports that opt out are not covered by SAFETY Act.**
- ⌘ **Airports that hired their own screeners would also not be covered.**
- ⌘ **Congress needs to extend SAFETY Act coverage to airports for screening.**



3. Risk-Based Model

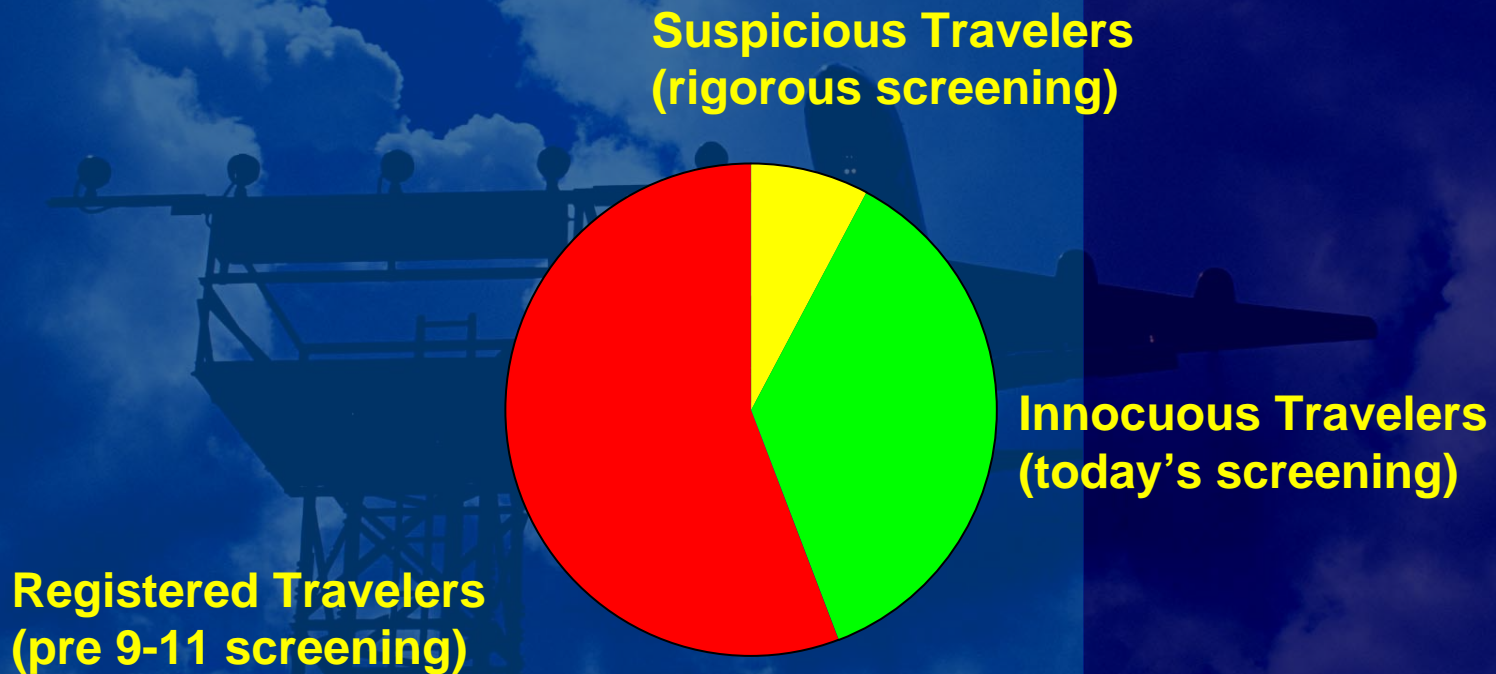
Three-tiered approach to passengers:

- ⌘ Low-risk, about whom much is known.
- ⌘ High-risk, either no knowledge or negative information.
- ⌘ Ordinary passengers, mostly infrequent and leisure.

A different screening approach is needed for each.



Sorting Passengers by Risk



Registered Traveler

Carnegie-Mellon model (2003)

- ⌘ **Assumed 40% sign-up**
- ⌘ **First-class members' time cut in half; coach members wait cut from 19.5 min. to 1.35 min.**
- ⌘ **Regular lane time cut from 19.5 to 12.1 minutes.**

TSA five-airport pilot program

- ⌘ **Only 10,000 members**
- ⌘ **Single-airport, single-airline**

Private-sector CLEAR program

- ⌘ **All-airport, all-airline model**
- ⌘ **Launched in July at Orlando**



Separate ordinary from high-risk passengers

Integrated, up-to-date Watch List

- ⌘ **TSA to do the checking, not airlines**

Verify passenger identity

- ⌘ **Use info in Pass. Name Record**
- ⌘ **Replace CAPPS with Secure Flight**

Consider “behavioral profiling” in terminal

- ⌘ **Israel, Boston Logan**
- ⌘ **Las Vegas casinos**



Redesigning Passenger Checkpoints

RT lanes and regular lanes

RT kiosks on approach to RT lanes

Expanded secondary screening past checkpoint:

- ⌘ All high-risk and some ordinary travelers.
- ⌘ Body-scan booths to check beneath clothing
- ⌘ EDS/ETD inspection of carry-on bags

Overall, less space before checkpoint (shorter lines) and more space after (expanded secondary screening).



Redesigning Baggage Screening

- ⌘ RT greatly reduces need for EDS bag screening.
- ⌘ RAND study, assuming 60% RT, finds EDS need reduced from 6,000 to 2,500.
- ⌘ One design could use no bag screening for RT bags, high-speed X-ray for ordinary bags, and EDS only for high-risk bags (plus a random sample of others).



Cost Implications

EDS Costs

- ⌘ **At least 50% reduction due to RT**
- ⌘ **Optimized in-line reduces workforce by 64%**
- ⌘ **Combined impact is over \$900M savings/year.**

Uses of Savings:

- ⌘ **Expand passenger checkpoints to reduce lines**
- ⌘ **Increase lobby security**
- ⌘ **Expand access control and perimeter security**
- ⌘ **Increased emphasis on non-aviation security**



Conclusion: Benefits of Reform

- ⌘ **Target more resources toward greater risks.**
- ⌘ **End fragmentation, with all airport security provided by the airport.**
- ⌘ **Increase accountability, with TSA regulating but not providing security services.**
- ⌘ **Reduce passenger checkpoint delays.**
- ⌘ **Shift some funds to other security needs.**



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