Center for Accelerating Operational Efficiency (CAOE)

Homeland Security
Science and Technology

A DHS **Center of Excellence**

CAOE develops and applies advanced analytical tools and technologies to enhance planning and real-time decision-making in homeland security operations.

LAUNCH ▶	2017
PARTNERS ▶	More than 16 university, private industry, and national laboratory partners
EXPERTISE ▶	Global security, computer science, engineering, cybersecurity, economics, risk science, policy studies, and operational research
DHS ALIGNMENT ▶	Transportation Security Administration (TSA), DHS Office of Intelligence and Analysis, DHS Office of Health Affairs, DHS Office of Policy, U.S. Customs and Border Protection, U.S. Coast Guard, U.S. Citizenship and Immigration Services, National Protection and Programs Directorate

Research and Education Capabilities

- Policy, risk, and cost analysis
- Design and implementation of efficient security measures
- Process improvement to reduce decision time
- Education and training for the current and future homeland security workforce

CAOE | **CENTER FOR ACCELERATING OPERATIONAL EFFICIENCY**
A DEPARTMENT OF HOMELAND SECURITY CENTER OF EXCELLENCE

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Feedback from Our Partners

*"TSA greatly values its partnership with CAOE. This new partnership **provides TSA with continued access to world-class academic resources to better manage risk, improve the security of the Transportation Sector**, and to proactively address operational challenges."*

Jerry C. Booker, Director
Risk Management Division, TSA, 2017

*"To continue to improve homeland security strategic planning, the Department must integrate technical analysis to understand issues arising in the dynamic threat environment and prioritize opportunities to address them. This new Center of Excellence will make a **significant contribution to Departmental strategic planning and the cascading impacts on resource management, accountability, and oversight.**"*

Susan Monarez, Deputy Assistant Secretary
DHS Strategy and Analysis, Office of Policy, 2017

Impacts

Improving airport checkpoint performance

With more than 2.5 million passengers flying each day through U.S. airports, CAOE is working with TSA to improve airport checkpoint performance through resource allocation decision tools that evaluate passenger demand. Outcomes include reduced average wait time, improved customer service, and quicker responses to unplanned events without compromising security.

Planning for lifeline supply chain restoration in the wake of disasters

CAOE is developing a real-time, command-and-control decision tool for more efficient restoration of vital transportation, electrical power and diesel-fuel supply chains, to address challenges in planning for natural disasters and national emergencies.

Improving detection of border threats

With the U.S. government's increased investment in both physical and virtual infrastructure to prevent illegal smuggling and trafficking, CAOE projects identify potential "hot paths" of activity, allowing for better resource allocation to improve capacity and return-on-investment of tactical and surveillance infrastructure.

Detecting and tracking isolated malicious activities

Recent airport security breaches, mass shootings at public events, and cyber-attacks on sensitive data, present the challenge of combating diverse, Isolated Malicious Activities (IMAs) or "lone wolf" type of attacks. CAOE is creating technology that will give law enforcement the ability to identify rare signals that indicate probable activities from IMAs.