

BTI Institute

Borders • Trade • Immigration

A Department of Homeland Security Center of Excellence

Newsletter

October to December 2020 | Program Year 6 Quarter 2

IN THIS ISSUE
2020 Portfolio Impact
A Busy 2021
In the News



INSTITUTE STAFF

Anthony Ambler, Ph.D.
Director

Kurt Berens
Executive Director

Maura Pereira De Leon, Ph.D.
Senior Researcher

Philip Boedeker, J.D.
Manager, Communications and Outreach

Virginia Hernandez
Administrative Assistant

RESEARCH COMMITTEE

George Zouridakis, Ph.D.
Chair

Luca Pollonini, Ph.D.

Elaine Liu, Ph.D.

Richard Willson, Ph.D.

CONNECT WITH US



www.uh.edu/bti/



Company: Borders, Trade,
and Immigration



@BTI_UH

This document, along with everything we do, is dedicated to the men and women of the United States Department of Homeland Security. We thank them for their tireless efforts to secure our Nation and safeguard our economic prosperity by facilitating lawful travel and trade.



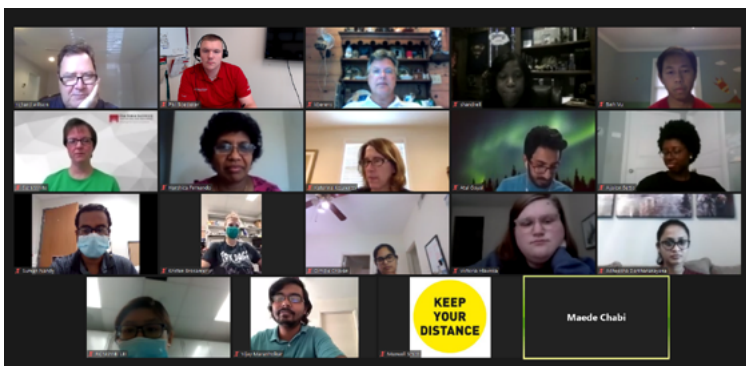
YEAR OF IMPACT

2020 In The Rear View

Despite a year that made “unprecedented” an overused word and the “new normal” not normal at all, the BTI Institute conducted research and developed education that continued to enhance our nation’s ability to secure our borders, facilitate legitimate trade and travel, and ensure the integrity of our immigration system.

We applaud our leadership, researchers, and staff who, in between setting up home offices and home schoolhouses, continued to deliver exceptional data-driven research and resources with little to no delay.

The team at BTI also gives thanks to the Department of Homeland Security personnel for their tireless efforts to secure our nation and safeguard our economic prosperity. We specifically thank the champions of our research projects and contributing stakeholders for their efforts in ensuring the research we oversee is valuable to the Homeland Security Enterprise.



(Above) Brian Harrell, Assistant Director for Infrastructure security at the Cybersecurity and Infrastructure Security Agency, provides the opening keynote during the Port of the Future Conference at the University of Houston on 11 March 2020.

(Below) The CBP OFO Director of Field Operations Houston visited the University of Houston Technology Bridge to see a live demonstration of the “Exploring Homeland Security Applications for Unmanned Autonomous Systems” project on 20 February 2020.

Richard Willson, Ph.D., Research Committee member, oversaw the kickoff meeting for the BTI Institute’s Department of Homeland Security Minority Serving Institution Summer Research Team on Zoom on 20 May 2020.

9 Kicked Off

In collaboration with the Department of Homeland Security Office of Strategy, Policy, and Plans, the Institute kicked off four projects focused on prosperity and security in Central America. The projects covered economic motivations, regional policy limitations, the role that alternative nations could play in migration, and the impact of the narrative used to develop policy. Collaborative research partners include the National Center for Risk and Economic Analysis of Terrorism Events (CREATE), the Migration Policy Institute, National Consortium for the Study of Terrorism and Responses to Terrorism (START), and Oklahoma State University.



Economic Motivations of Migrants from the Northern Triangle



Developing a Regional Approach to Managing Migration Flows



The Road Less Traveled: Bolstering the Absorptive Capacity of Southern Central American States to Facilitate the Southern Flow of Northern Triangle Immigrants



Mexican and Northern Triangle Perspectives on Mass Migration: Identifying and Assessing Strategic Narrative Alignment

To enhance our nation's ability to facilitate legitimate trade and travel, the Institute kicked off five projects in collaboration with multiple components within US Customs and Border Protection (including the Office of Field Operations, Office of Trade, and US Border Patrol) and Immigration and Customs Enforcement. Collaborative partners include the University of Houston, CTStrategies, the Hunt Institute, and Texas A&M Transportation Institute.



Addressing Cross Border E-Commerce Challenges with Emerging Technologies



DNA Assays for Determining Honey Origins



Assessment of Customs-Trade Partnership Against Terrorism Program



Tactical Mapping of Border Security Impacts: El Paso Sector



Measuring Border Wait Time at Land Ports of Entry: Technology Assessment and Data Dissemination

5 Transitioned

Five research projects concluded and final deliverables were transitioned to various DHS components, including CBP Office of Trade and DHS Countering Weapons of Mass Destruction Office. Collaborative research partners include the Migration Policy Institute, ANSER, Lantern UAS, and the University of Houston.



Venezuela and Nicaragua: A Regional Migration Crisis in the Making



Validating Deterrence Models for Scanning Technologies



Exploring Homeland Security Applications for Unmanned Autonomous Systems at Maritime Ports



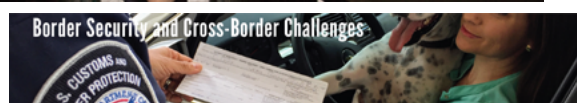
Transforming Trade and Ensuring Global Supply Chain Security with Blockchain



EDGE: The "Eye in the Woods" Image-based Human Detection and Recognition System

Education for the HSE

The Institute's curriculum development initiative produced seven new courses developed from the ground up with 37 students piloting three courses and three CBP employees beginning the online course work towards certification.



Upcoming Events

With 2020 in the rear view, 2021 comes with its own set of opportunities. The Institute team looks forward to continuing to deliver quality research and growing participation in our education initiatives. Additionally, we invite you to mark your calendars and plan on attending the below conference opportunities.

15 - 18
March
2021

2021 Port of the Future Conference

Virtual

<https://www.portofthefutureconference.com/>



The 2021 Port of the Future Virtual Conference will offer corporate leaders, trade and logistic professionals, government officials, and leading researchers the opportunity to examine an expanding and evolving vision of future Ports of Entry. The conference will address the urgent and immediate issues facing ports of entry, regulators and associated industries, including:

- decarbonization, sustainability and alternative fuels
- port resiliency and security challenges and solutions
- digitalization and data sharing
- automation opportunities
- advances in biometrics



4 - 6
May
2021

BTI Institute Annual Research Meeting

Virtual

The 2021 BTI Institute Annual Research Meeting provides a focused transition opportunity for researchers associated with the Institute to detail their projects to representatives of the Homeland Security Enterprise. While each project was championed by a specific component of the Department of Homeland Security, the deliverables of most DHS Science and Technology Office of University Programs funded research has potential impact across components.



18 - 21
May
2021

DHS COE Summit 2021

Virtual

The 2021 Department of Homeland Security Centers of Excellence Summit is sponsored by the national network of university-led U.S. DHS COEs. The COE network is an extended consortium of hundreds of universities conducting research and education to address a host of priority homeland security challenges. The summit will spotlight research and solutions from all current COEs. Attendees can explore how these COEs work closely with the homeland security community to develop customer-driven, innovative tools and technologies to solve real-world challenges.



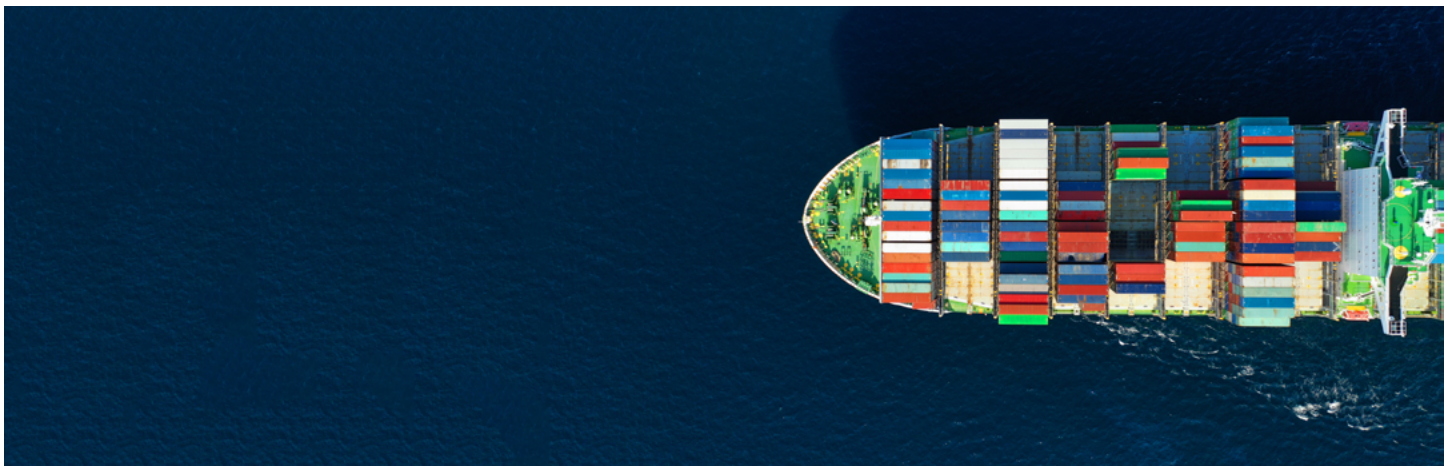
Information on the 2019 DHS COE Summit can be found by visiting <https://cina.gmu.edu/coe-summit-2019/>

2 - 4
Nov
2021

2021 Maritime Risk Symposium

Hilton University Houston
Houston, TX

The College of Technology University of Houston will host the 12th Annual Maritime Risk Symposium. This symposium is currently planned to be an in-person event. MRS 2020 was hosted by the Critical Infrastructure Resilience Institute (CIRI), a Department of Homeland Center of Excellence in collaboration with the National Academy of Sciences. Through presentations, panels and open forums, the symposium will focus on key risks and opportunities presented in the maritime domain.



The BTI Institute was featured in an article by Kate Macri at GovernmentCIO Media & Research. The article highlights Dr. Richard Willson's DNA Assays for Determining Honey Origins project as well as mentioning several other BTI projects completed in the previous five years.



You can read the article by clicking <https://governmentciomedia.com/how-sampling-honey-helps-dhs-encourage-legal-trade>.

“Eleven million shipping containers come into this country every year, and it's quite a task to make sure bad actors aren't slipping items into those containers, whether they be nuclear material for weapons of mass destruction, biological weapons, or even smuggling of humans and wildlife.
- Kurt Berens, Executive Director, BTI Institute

From Our Partners

Hunt Institute for Global Competitiveness	<u>Newsletter</u> utep.edu/hunt-institute/newsletter/index.html
Migration Policy Institute	<u>Research Publications</u> migrationpolicy.org/research
Texas A&M Transportation Institute	<u>Publications</u> tti.tamu.edu/publications/
National Consortium for the Study of Terrorism and Responses to Terrorism, University of Maryland	<u>Publications</u> start.umd.edu/publications
National Center for Risk and Economic Analysis of Terrorism Events, University of Southern California	<u>Publications</u> create.usc.edu/publications-recent/

For more information on the Department of Homeland Security Science and Technology Directorate and the DHS Center of Excellence Network, visit www.dhs.gov/science-and-technology/centers-excellence.

BTI Institute Newsletter

A Department of Homeland
Security Center of Excellence

October to December 2020 | Program Year 6 Quarter 2

Acknowledgment: This material is based upon work supported by the U.S. Department of Homeland Security under Grant Award Number 17STBTI00001-02-06, formerly 2015-ST-061-BSH001.

Disclaimer: The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U.S. Department of Homeland Security.

