Emergency Management/ Homeland Security Higher Education Regional Academic Collaborative Region II

After-Action Review and Improvement Plan

August 7, 2019

The After-Action Report and Improvement Plan (AAR/IP) align the collaborative engagement objectives with preparedness doctrine to include the National Preparedness Goal and related frameworks and guidance.

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ENGAGEMENT OVERVIEW

Engagement Name

Emergency Management/Homeland Security Higher Education Regional Academic Collaborative Region II

Engagement Date

Wednesday, August 7, 2019

Scope

The collaborative engagement was a 1-day, 6-hour long event for academics and practitioners from FEMA Region II held at St. John's University in Queens, New York. There were also two "hub" locations within the Region, established for convenience and better accessibility to the meeting. These gathering hubs were located at The University at Albany, Albany, NY, and Plaza Universitaria, Puerto Rico, including participants from Puerto Rico and the U.S. Virgin Islands. The engagement consisted of presentations sharing examples of successful and forthcoming efforts to move academic and research outputs to emergency management practice followed by a short, open discussion engaging all participants.

Engagement Theme

Practices of collaboration among faculty, researchers, students, and emergency management practitioners within FEMA Region II.

Purpose

To identify untapped opportunities, build awareness, and capture successful regional practices of collaboration with faculty, students, and researchers working with emergency management practitioners.

Objectives

- 1. To bring together emergency management and homeland security academics and practitioners to share efforts and discuss opportunities.
- 2. To support regional community connection and collaboration and begin to create a dynamic regionally specific report to identify academic resources, capabilities, and expertise to support ongoing regional academic and practitioner partnerships.
- 3. To capture the proceedings of the workshop in a shareable document to promote ongoing collaboration.

Sponsor

FEMA Emergency Management Higher Education Program

Participating Organizations

Forty-three participants attended, both in-person and virtually, representing a variety of academic institutions, organizations, and governmental agencies. A comprehensive list of participants is available in Appendix A.

Point of Contact

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EXECUTIVE SUMMARY

On Wednesday, August 7, a group of practitioners and academics from FEMA Region II gathered at St. John's University in Queens, New York, to discuss collaborations among emergency management organizations and colleges and universities within the Region. The engagement created an opportunity for members of the regional emergency management community to form new relationships, engage in discussion, and share ongoing and planned best practices for successful collaboration. This event was sponsored by FEMA's Emergency Management Higher Education Program, and it was the latest in a series of workshops intended to foster collaboration and promote networking within the FEMA Regions. Before this event, similar workshops had been held in various FEMA Regions across the country. The event design allows for presenters to engage in 5–7-minute "lightning briefs" to share their program, need, or specific collaborative project. This was the seventh regional collaboration event so far. Reports from each Region are posted on the FEMA Higher Education Program website when completed.

Dr. Bernard Jones, Assistant Professor, Homeland Security and Emergency Management at St. John's University, provided welcoming comments to the group. Wendy Walsh, FEMA Higher Education Program Manager, National Training and Education Division (NTED), National Training and Education System (NTES), followed with opening remarks on behalf of the FEMA Higher Education Program (Hi Ed). Following self-introductions by all of those attending the meeting, both in-person and virtually, the workshop followed with a series of presentations. The presentations provided a diverse set of topics and included examples of successful collaborations that are currently underway, identified challenges and suggested future opportunities. Those delivering presentations represented a variety of organizations, including the Naval Postgraduate School's University and Agency Partnership Initiative, the FEMA Higher Education Program, St. John's University, NYC OEM, the University at Albany, Columbia University, Rensselaer Polytechnic Institute, John Jay College, the University of Puerto Rico – Río Piedras, and the New York State Homeland Security and Emergency Services. Topics covered by the presentations included fostering collaborations among academic and professional organizations, building and maintaining strong alumni relations, incorporating training and practical experience into university programs, enhancing student learning and professional development, and using technologies to promote community resilience.

After the presentations, all attendees, both in-person and virtual, participated in a large group engagement discussion revolving around several diverse topics of concern within the emergency management academic community. The topics included more involvement in emergency management on college campuses, graduate student internship opportunities, service-learning work post-hurricane disaster events, disaster messaging, the increased Threat and Hazard Identification Risk Assessment (THIRA) use at college campuses, community preparedness versus community risk knowledge, fostering a culture of preparedness, faith-based curriculum models, and how to engage Ph.D. students and volunteer agencies to this forum.

ENGAGEMENT PRESENTATIONS

The collaborative engagement began with opening remarks. After self-introductions by all participants, both in-person and virtual, presentations on collaborative practices were delivered in 5–7-minute "lightning briefs." Key areas addressed included disaster response logistics, building resilient communities, managing chaos, engaging the whole community on emergency management, improving post-disaster debris removal performance, disaster scholar engagement in post-catastrophe environments, creating a strong network of academic collaboration and support for current students, incorporating training and experiential learning, strengthening the emergency management profession, using technology to promote community resilience, and disaster response logistics. As discussed during the planning group sessions, the purpose of regional academic collaborative events is to help build awareness and capture successful regional practices of collaboration with faculty, practitioners, researchers, and students within the emergency management space.

Wendy Walsh: Collaboration, Gracious Space, and FEMA/NTED/NTES Higher Education Program – Collaboration Opportunities



Wendy Walsh, the FEMA Higher Education Program Manager delivered an in-person presentation on FEMA's Higher Education Program, which included how it continues to serve the emergency management higher education academic community. Wendy did an excellent job of articulating the purpose and objective of the regional academic collaborative events and stressed the desire is to connect the Nation. With engagements like this one, we can identify points of coordination and collaboration within FEMA Region II and beyond.

To help encourage the group to engage in collaboration, Wendy set the stage by presenting *The Center for Ethical Leadership's "Gracious Spaces"* presentation. This presentation is intended to set a positive tone for collaboration. Fundamental principles which help enable this are:

- Set a spirit of inclusiveness Whether you are a practitioner, an academic, or a student, it is vital that the focus is on creating a "we" instead of "us and them."
- Create a welcoming environment Make every person feel comfortable, regardless of how the meeting is being presented, whether that be in-person, virtual, or a combination of the two.
- Welcoming the guest We all come from different backgrounds and professions and may have different values that offer unique perspectives. FEMA values the concept of "serving the whole community," and not just serving people who think like us.
- Learning in public There are high expectations from both practitioners and academics to know and understand their practice, thus, it is important to always leave space to learn and grow.

Wendy presented on the *National Preparedness System*, which is an integrated set of guidance, programs, and processes that enables the whole community to meet the goal of a secure and resilient Nation. The National Preparedness System is depicted as a wheel that includes three major components: the Whole Community, Core Capabilities, and the National Incident Management System (NIMS). It was noted that the Hi Ed Program and NTES assist by providing relevance training and education and professional development opportunities to other areas to reach out and push boundaries with other organizations.

Wendy next discussed the FEMA Strategic Plan and the people-centric aspect to support communities and individuals before, during, and after disasters. The FEMA strategic plan is a comprehensive plan, including three major components:

- Build a culture of preparedness
- Ready the Nation for catastrophic disasters
- Reduce the complexity of FEMA



Engagement of FEMA regional partners provided an opportunity to extend an invitation to the partners as well as provided examples to help foster engagement and collaboration among the Regions. Examples include hosting regional engagements, participating in Special Interest Groups (SIGs) and focus groups, as well as submitting newsletter submissions and participating in the annual FEMA Higher Education Program emergency management symposium. Wendy articulated the success of the SIGs as self-organized focus groups and encouraged and welcomed all to join any of the 15 current SIGs. Through successful regional collaboration events, we continue to build awareness, capture successful practices, and identify untapped opportunities.

Wendy discussed past regional collaborations, which have been conducted over the past 2 years, beginning with FEMA Region IX in August of 2017. On the subject of building thriving learning communities, Wendy presented a slide which included a quote: "Evidence-based implementation teams realize 80% of their programmatic desired change in 3 years compared to efforts without implementation teams who achieve only 14% in 17 years." She went on to discuss the significant role that the Higher Education Program plays in building and sustaining the concept of a vibrant and engaged, learning community.

The final subject that Wendy touched on was informational updates from the Higher Education Program:

- Higher Education Program Monthly Community Call We seek to further increase engagement on the monthly community calls.
- Growing Connections Wendy encourages continued connections between community partners, as expressed through the concept of Aspen Trees, which connect via the roots. Using the Aspen Trees as an example, Wendy would like our community to continue to grow and thrive together.

- Regional Collaborations Hosting collaborative sessions like this to learn everything that everyone is doing.
- Security Builds Community We need to continue to collaborate to survive.
- Higher Education Program College List Database Please review the list and let us know if your institution is not on the list.

More information can be found at <u>FEMA's Emergency Management Institute's Higher Education</u> <u>Program</u> site (https://training.fema.gov/hiedu/).

Steve Recca: NPS/CHDS UAPI-Program and Opportunities Overview



Steve Recca, University and Agency Partnership Initiative (UAPI) Director from the Naval Postgraduate School (NPS) Center for Homeland Defense and Security (CHDS), delivered an in-person presentation on the program and opportunities. (CHDS UAPI Academic Programs at www.chds.us/c/academic-programs/uapi)

The concept for the CHDS was developed in 2002 with the Department of Justice, from which CHDS

receives direction and funding from both the Department of Homeland Security (DHS) and the Federal Emergency Management Agency (FEMA). CHDS was designed as an enabler of the community of practice across homeland security professions. UAPI is a university homeland security support program placed under the CHDS and located in Monterey, California. UAPI's mission is to "facilitate educational collaboration among institutions and agencies to support development of academic programs that enable a professional workforce and promote critical thinking in homeland security." A primary UAPI goal is to "increase the number and diversity of students receiving homeland security education, accelerate the establishment of high-quality academic programs, and provide opportunities for collaboration that create an intellectual multiplier effect that furthers the study of homeland security."

As mentioned by Mr. Recca, there are several priority areas that UAPI is focused on. These priority areas include conducting an annual education summit, facilitating the community of practice in homeland security-related higher education, and serving as a resource hub for partners.

UAPI opens up the CHDS's "curriculum, distance learning technology, Homeland Security Digital Library, and all other resources. In return, partners share their curriculum and specialized expertise with the UAPI partners. This provides a cost-effective way to educate thousands of students beyond the NPS campus by reducing the time and resources required of universities and agencies having to build their curricula and programs from scratch. It also brings synergy to addressing critical research issues, accelerates the development of the homeland security academic discipline, and more rapidly serves knowledge to support the nation's security efforts." Visit CHDS UAPI (www.uapi.us) for additional resources.

Information regarding this year's annual summit was provided during the presentation. The annual summit will take place from October 30 through November 1 in Monterey, California. The conference theme is entitled: "Pubic Interest Security: Leveraging Education to Connect Policy and Operations with American Perspectives of Homeland Security." Information on the call for proposal registration and agenda for the 12th Annual Homeland Defense/Security Education Summit 2019 can be found at: www.uapi.us/programs/2077.

For additional information on CHDS and UAPI, please visit the following websites:

- CHDS UAPI (www.uapi.us)
- CHDS US (www.chds.us/c/)
- <u>CHDS/Ed</u> (https://www.chds.us/ed/)

Dr. Jenniffer Santos-Hernandez: Perspectives on Developing a Certificate Course and Researchers Working in Disaster Environments

Dr. Jenniffer Santos-Hernandez from the University of Puerto Rico, College of Social Sciences, Graduate School of Planning, presented virtually and provided perspectives on developing an academic program where disaster scholars work in post-catastrophe environments. Dr. Santos-Hernandez is a sociologist with 18 years of experience and advocates that disaster research can serve as a field of academic inquiry. She mentioned the importance of building a disaster research community, which would include core and periodic researchers as well as local residents who would provide an enhanced perspective on local preparedness that outsiders could not. One particular context that she addressed was conducting disaster research in Post-Maria Puerto Rico. Additionally, a critical report Dr. Santos-Hernandez mentioned was developed by the National Research Council in 2006 entitled *Facing Hazards and Disasters: Understanding Human Dimensions*.

Next, Dr. Santos-Hernandez discussed the concept of sympathy vis-à-vis empathy. She noted an example of this concept provided by Dr. Brené Brown at the University of Houston, Graduate School of Social Work. Dr. Brown's book entitled *The Power of Vulnerability* explores the question "how do you show that you care?" Dr. Santos-Hernandez discussed this concept as it relates to the convergence between emergency management and disaster science.

Dr. Santos-Hernandez completed her presentation discussing two final points on developing an academic program for a Disaster Planning Certificate at the University of Puerto Rico – Rio Piedras and the proposed competencies within a graduate student profile, as drafted by Graduate School of Planning (EGP) faculty. Dr. Santos-Hernandez provided information on the course requirements regarding the Disaster Planning Certificate, where students would complete courses in Disaster Planning Theory, Natural Hazards and Risks, Research Methods for Disaster Planning, and Introduction to Critical Infrastructure Systems, just to name a few. Lastly, the graduate student profile can be summarized having competencies within the areas of knowledge, skills, and values.

Dr. Lucia Velotti: Engaging the Whole Community: Teaching and Research Experiences in Emergency Management



Dr. Lucia Velotti, Assistant Professor, Department of Security, Fire and Emergency Management, John Jay College of Criminal Justice delivered an in-person presentation on engaging the whole community in teaching and research experience in emergency management. Dr. Velotti articulated an overall theme that proposed the importance of engaging the community in working together with a focus on emergency management. Dr. Velotti used her presentation to articulate two overarching topics: teaching emergency management through service learning and the researching of Volunteer Management Systems (VMSs) through field work.

Dr. Velotti discussed the significance of teaching emergency management through service learning and cited a successful community partner in the World Cares Center (WCC). The goal of this initiative is to align service-learning course objectives with community service thus providing a hands-on approach while also meeting the needs of the community. A WCC tabletop exercise was held at John Jay College on May 3, 2018, allowing for student engagement and participation. The service-learning activity supported the development, implementation, and assessment of the WCC tabletop exercise. Students had the opportunity to revise the tabletop exercise scenario, create real-time exercise injects, evaluate the exercise, and develop an After-Action Report (AAR). Lastly, the students also conducted a test and assessment of the WCC "Ready Responder Network" information-sharing portal.

Dr. Velotti ended her presentation by discussing a study which was conducted with the goal of understanding and measuring the performance of Volunteer Management Systems (VMSs). VMSs are the process an organization follows in acquiring spontaneous volunteers and assigning them to duties. Using semi-structured interviews, participant observations with volunteer coordinators, volunteers and beneficiaries, Dr. Velotti was able to conduct qualitative data collection for the study. Three disaster events served as the locations of data collection: Hurricane Florence in Wilmington and New Bern, North Carolina; a tornado event (February 23, 2019) in Columbus, Mississippi; and a tornado event (March 3, 2019) in Lee County, Alabama. Using an NSF-RAPID grant, the study helped with understanding and measuring the performance of VMSs, which allowed the ability to better incorporate volunteers into official response, lessening both emergency response and disaster recovery efforts.

Kaylan Sobel: NYCEM and Logistics101



Kaylan Sobel delivered an in-person presentation on the New York City Emergency Management (NYCEM), University Partnership Program. The NYCEM's University Partnership Program's two overarching goals are to help bridge the gap between theory and practice by strengthening students' understanding of how emergency management is practiced in New York City and the advancing of emergency management through researcher and practitioner collaboration. One successful example of strengthening students' understanding of how emergency management is practiced in New York, has students participating in NYCEM-led classes at the Emergency Operations Center (EOC) at the New York City Emergency

Management (NYCEM) in Brooklyn, where NYC coordinates response to large-scale disasters and emergencies. Two classes that students are exposed to are Introduction to Emergency Management in NYC and Logistics for Emergency Management. As part of the hands-on student experience at the NYC EOC, students are provided with lectures from experts and experienced emergency management practitioners who serve as guest lecturers. The lectures center on emergency management in general as well as specific areas of emergency management related to the two course offerings mentioned earlier.

Ms. Sobel then went on to discuss the subject of collaboration between emergency management practitioners and researchers. She closed her presentation by mentioning that the NYCEM University Partnership Program fosters opportunities for collaboration with NYCEM staff to research emergency management questions that help improve the understanding of emergency response and recovery.

Terry Hastings: Managing Chaos Workshop: A Successful Academic/Practical Partnership

Terry Hastings from the NY State DHSES presented virtually about an emergency management workshop targeting senior officials with funding from a FEMA grant. Mr. Hastings began the presentation and discussed the workshop. Through the use of video and case studies, the Managing Chaos Workshop was described as highly engaging, innovative, and empowering. The workshop was successfully presented as a blend of academic and practical insights with an overall objective of collaboration. Several essential themes regarding emergency management were discussed during the workshop including:

- Collaboration
- Crisis Leadership
- Roles and Responsibilities
- Meta-Leadership (Harvard NPLI)
- Crisis Learners
- Accountability
- Crisis Decision Making Sense Making
- Crisis Communication
- Symbolism
- The Media (Social Media)
- The Message (Rule of 3)
- The Messenger (Empathy)

Three key findings that Mr. Hastings articulated were first, the fact that crisis leadership is both multiphased as well as multi-directional. The second finding discussed the concept that crisis decision making is about doing more with less. Lastly, the third finding articulated the fact that crisis communication requires effective use of the media, the message, and the messenger. Mr. Hastings provided specifics regarding each of the three findings.

Mr. Hastings then ended his presentation by providing a poignant statement on leadership regarding what he defines as a "formula for success." The formula he defined as *Relationships* + *Readiness* = *Resilience*. He articulated that readiness and relationships help and guide communities through crisis events.

Dr. Michele Guannel: Engaging Youth in Recovery Efforts

Dr. Michele Guannel, Assistant Professor of Biology, University of the Virgin Islands, presented virtually on *Engaging Youth in Recovery Efforts: Service Learning at the University of the Virgin Islands*. Co-contributors to this presentation include Michelle Peterson and Greg Guannel (University of the Virgin Islands, Biology and Engineering), Imani Daniel (St. Thomas Recovery Team), and Elizabeth Jaeger, Nisha Clavier, and Molly Perry (University of the Virgin Islands, Social Science). Dr. Guannel began the presentation by articulating that disasters amplify existing problems. She mentioned that disasters pose both Science, Technology, Engineering, and Mathematics (STEM) as well as social science challenges that must be addressed by emerging scientists and leaders, namely the youth of the Virgin Islands. Specific examples include challenges regarding waste management and drainage with respect to disasters.

Dr. Guannel then discussed a general education science course entitled *Science 100*, which represents a formal learning community of adults in the territory. Comprised of 79% African Caribbean and 17% Latinx of any race, *Science 100* focuses on natural disasters and the ecosystems of the Caribbean since 1995. The course is required of all incoming freshmen of all majors and attracts 80–100 students per semester, per campus. Of note, the territory of the Virgin Islands has the lowest SAT scores, and the highest poverty rate than all 50 U.S. states, and 80% of University of the Virgin Islands students require either remedial math or English.

Dr. Guannel pointed out that *Science 100* can be seen as a gateway to engage STEM students in the skills needed for survival. *Science 100* promotes a culture of preparedness for all by engaging students in emergency preparedness plans, real-time hurricane recovery and research content, as well as the writing of essays on hurricanes. *Science 100* also promotes STEM skills for resilience for some though partnerships with the <u>St. Thomas Recovery Team, RESTRT</u> (https://strtvi.org/); (Rethink, Rebuild, Reinvest, Recovery, Resiliently) program, and the <u>Saint Croix Environmental Association</u> (https://www.stxenvironmental.org/), by providing service-learning related to recovery, resilience, and the stewardship of resources. One real-life example of *Science 100* student engagement was the Great Shakeout 2018, which was run by *Science 100* students.

Dr. Guannel proceeded to discuss how service-learning projects are successful alternatives to traditional classroom written paper assignments. Regarding topics like food security and mangrove restoration, students are assigned a semester-long assignment with multiple assignment milestones. Students are also given the option of conducting service related to hurricane impacts or marine ecosystems. The particular assignment is quite comprehensive and requires students to conduct background research, provide reflections and photos, and conclude with both written and oral presentations. More than 50 students participated in this assignment across 3 semesters and on 2 campuses.

Dr. Guannel concluded her presentation by providing a hypothesis, "Service learning in natural and social science courses, conducted by hurricane survivors in their communities, provides many tangible and positive results." These results include:

- Helps increase course engagement
- Helps in the building of 21st century skills (e.g., communication, collaboration, creativity, critical thinking)
- Helps strengthen science identity
- Increases retention and persistence
- Helps build emergency management professionals who are culturally competent

Dr. Eric Stern: The University at Albany's College of Emergency Preparedness, Homeland Security, and Cybersecurity Projects and Efforts

Dr. Eric Stern from the University at Albany presented virtually about core values and convergence thinking. He began his presentation describing the evolution of the College of Emergency Preparedness, which is the newest college in the State University of New York system in 2015 and has grown to a college offering 1,000 majors, with 600+ in EHC. An important component of the subject of core values and convergence is the fact that faculty are from a diverse set of disciplines, bringing different experiences. A few of the core values and priorities for the college include:



- Student success, diversity, and inclusion
- Research driving excellence and internationalization
- Engagement and service
- A model which is
 - Multi-disciplinary
 - o Practically Relevant
 - Student-Centric
 - Publicly Engaging

Dr. Stern went on to discuss the importance of the concept of Learning by Doing. He highlighted initiatives and projects to support how they are exhibiting the concept of learning by doing. Dr. Stern concluded his presentation by articulating several examples of successful partnerships and forms of engagement. Partners include DHS, FEMA, IAEM, USCG, CBP, TSA, NY DHSES, and County EM in NYS, FCC Emergency Bureau, and the National Association of Fire Chiefs. The forms of engagement examples include internship opportunities, Capstone Policy Analysis Projects, Education Opportunities, Training Exercises, Advanced Red Teaming, and Applied Research and Policy Support.

Dr. Bernard Jones: St. John's Academic Programs and Homeland Security Simulation Lab



Dr. Bernard Jones, Assistant Professor of Emergency Management and Homeland Security at St. John's University, Criminal Justice, Legal Studies and Homeland Security (https://www.stjohns.edu/resources/places/criminal-justice-legal-studies-and-homeland-security) delivered an in-person presentation on St. John University's academic programs in emergency management and homeland security including a discussion on the homeland security simulation lab. St. John's University proudly offers a Bachelor of Science in Homeland Security, Homeland Security and Criminal Justice Leadership Master of Professional Studies, and Homeland Security Doctor of Professional Studies degree programs. The Bachelor of

Science in Homeland Security degree program is designed to provide a professional dimension for the managerial and technological phases of homeland and organizational security. Students are exposed to a diverse curriculum, including topics such as terrorism, intelligence, and investigations, critical infrastructure and protections, as well as asset and facility protection. What makes the Bachelor of Science in Homeland Security degree program unique is the fact that students have the opportunity to select from one of four concentrated "tracks." The tracks are organizational security, emergency management, intelligence, and national security.

Placing an emphasis on the changing nature of crime and terrorism, the Homeland Security and Criminal Justice Leadership, Master of Professional Studies degree program was developed. Terrorism, new technologies, and increasingly sophisticated international crime organizations have led to dramatic changes in homeland security and criminal justice leadership. These master's degree programs allow students the ability to gain knowledge, skills, and credentials to be prepared to face these new changes as they begin a career in homeland security and criminal justice.

The Homeland Security, Doctor of Professional Studies degree program, is an innovative 78-credit program designed to qualify candidates to fill mid- to high-level executive positions in government, law enforcement, the public and private security industries, non-governmental organizations, and academia. Within the doctoral degree program, students gain an understanding of the range of local, national, international, and organizational security issues faced by public and private actors and entities within the Homeland Security Enterprise. The program also includes components unique to St. John's University including the Homeland Security/Emergency Management Simulation Lab and Cyber Security Lab, which provide state-of-the-art laboratory simulation and cyber security exercise capabilities.

The Homeland Security Simulation Lab provides a true-to-life virtual reality environment where students supplement theoretical examination with the practical experiences, decision-making skills, and confidence critical to the successful resolution of real-life incidents and emergency management scenarios. The lab can create, simulate, and escalate a variety of large-scale incidents, either natural or manmade, all in a realistic experiential learning environment. The lab is used as both a classroom and research center supporting the Homeland Security Center of Excellence.

To learn more about the <u>St. John's University Homeland Security Lab</u> and to take a 3D virtual tour, access the following link: https://www.stjohns.edu/academics/schools/college-professional-studies/cps-centers-and-laboratories#homeland.

Concerning his teaching philosophy, Dr. Jones articulated the fact that it is vital to blend current events within homeland security and emergency management course content. Unfortunately, with the world we live in, there is no shortage of emergency events, natural and manmade, to draw from and highlight and discuss in class. Dr. Jones is excited about the prospect of developing and implementing a set of business continuity courses and business continuity track.

Dr. Jones ended his presentation by once again thanking all those attending the collaborative meeting at St. John's University. He also apologized for the technical issues which surfaced earlier in the day and hoped that St. John's would have the opportunity to host many more FEMA Region II meetings in the future. With its location in Queens, New York, close to area airports, major highways, and major train stations, St. John's University is a worthy candidate from a logistics standpoint as a meeting locale for FEMA Region II.

David Mendonça: Prospects and challenges for improving post-disaster debris removal performance: Observations from 9/11 to the present



David Mendonça, Associate Professor in the Department of Industrial and Systems Engineering at Rensselaer Polytechnic Institute, presented virtually on the performance of post-disaster debris removal. The title of his presentation was "Prospects and challenges for improving post-disaster debris removal performance: Observations from 9/11 to the present."

The presentation provided a comprehensive look at the technology which supports debris removal related to large-scale disaster events.

Dr. Mendonça began the presentation vividly displaying images of debris from post-9/11, Hurricane Katrina, the 2011 severe tornado outbreak in Alabama, and Superstorm Sandy.

The images were provided by the Federal Emergency Management Agency (FEMA), the United States Army Corps of Engineers (USACE), Design During Construction (DDC), and the Division of Homeland Security and Emergency Services (DHSES). Through the use of images and statistical charts, Dr. Mendonça comprehensively articulated the challenges regarding the performance of post-disaster debris. Dr. Mendonça went on to discuss possible education opportunities, which include:

- Simulation-based tools for training the trainer
- A "how-to" for data collection, visualization, and communication
- Tools to support system-level monitoring and control
- Understanding of team and organizational factors
- Development of educational/outreach materials

Dr. Mendonça concluded his presentation discussing that the material within his presentation is based on grant support from the National Science Foundation and that the debris removal-related publications are available upon request.

Dr. José Holguín-Veras: Disaster Response Logistics: Chief Findings from Fieldwork, Behavior, and Analytical Research

Dr. José Holguín - Veras, William H. Hart Professor and Director of the VREF Center of Excellence for Sustainable Urban Freight Systems at Rensselaer Polytechnic Institute, presented virtually on the disaster response logistics which included chief findings from fieldwork, analytical, and behavior research. An overview of the research conducted was summarized as the following:



- Fieldwork Research:
 - o To characterize disaster response operations
 - o To identify lessons that ought to be learned
 - To inform disaster response procedures and policy
 - o Almost two decades of continuous research
- Analytical Research:
 - To develop mathematical models to improve disaster response operations and develop Decision Support Tools
- Behavior Research
 - o To gain insight into best ways to change detrimental behaviors, e.g., donations of supplies to cash

Dr. Holguín-Veras also mentioned funding in the amount of \$4 million from the National Science Foundation (NSF), the United States Department of Transportation (USDOT), The Qatar Foundation, and others.

With regard to the fieldwork research, it entailed focusing on catastrophic events through in-depth interview with a diverse cross-section of actors. The data collected was then coupled with content from multi-media news sources (e.g., articles, webpages, pictures, and videos) which were downloaded from major news outlets in the impacted areas). The fieldwork research effort helps to construct a timeline of key events with regard to post-disaster humanitarian logistics. Sample projects included Hurricane Katrina (2005), earthquakes in Haiti (2010), earthquakes in Japan (2011), the Nepal earthquake (2015), and Hurricanes Harvey, Irma, and Maria (2017). A few of the lessons from the fieldwork research included:

- Disaster response is a socio-technical process.
- Controlling material convergence is a must.
- Effective private sector integration is key.
- Preventing the collapse of private supply chains helps.

Regarding analytical and behavior research, the focus was on welfare economics, the impacts on relief groups, as well as the impacts on the beneficiaries. Dr. Holguín-Veras provided an example of

measuring the economic value of human suffering due to the lack of access to a good or service, water for example. He then presented the challenges with many different relief groups that converge on an impacted area and the issues regarding overlapping and the need to provide optimal coverage.

Dr. Holguín-Veras concluded his discussion by providing an update on research in progress. The research included:

- Further analysis of the fieldwork conducted in the aftermath of Hurricanes Harvey, Irma, and Maria
- Development of a network influence model using social media to induce changes in the behavior of donors
- Development of an optimization model to optimally allocate disaster relief supplies

Jackie Ratner: Resilient Children Resilient Communities Initiative



Jackie Ratner from Columbia University delivered an in-person presentation on an initiative to help build resilient children and resilient communities. Ms. Ratner began her presentation by providing an overview of the National Center for Disaster Preparedness (NCDP) at Columbia University's Earth Institute. (https://ncdp.columbia.edu/). The NCDP works to understand and improve the Nation's capacity to prepare for, respond to, and recover from disasters. Additionally, the NCDP focuses on the readiness of governmental and non-governmental systems, the complexities of population recovery, the power of community engagement, and the risks of human vulnerability, with particular focus on children.

Ms. Ratner then provided an overview of The Resilient Children Resilient Communities (RCRC), which is an approach to model child-focused community resilience that is sustainable and replicable. This is achieved through three drivers: Community Resilience Coalitions (CRCs), research and evidence, and National Policy Leadership. It is important to note that the model of child-focused community resilience is locally designed and implemented as well as including a secure integration of emergency management linked with the childcare community. RCRC child-focused community resilience begins with Community Resilience Coalitions outreach with the child and also includes family/friends, child-serving institutions, the community, state, and Nation.

Next, Ms. Ratner discussed the Community Preparedness Index (CPI), which was co-developed by Save the Children and the NCDP. The CPI is an online self-assessment to help communities identify their strengths and weaknesses in caring for children in disasters. The target sectors regarding the CPI included:

- Child Care Centers
- Family Child Care Providers
- Private and Public Schools
- Foster Care

- Hospitals
- Emergency Shelters
- Lead Organizations
- Community-wide Organizations

The output generated from the CPI provided a measure of a jurisdiction's preparedness to meet the needs of children after a disaster. Ms. Ratner articulated that the CPI is a "snapshot in time" and measures how well the jurisdiction is doing on developing policies and protocols to protect children. One example provided was a community that achieved a community-wide CPI score of 49. Based on the particular community-wide CPI score, many strengths (e.g., entire jurisdiction covered by hazard mitigation plan, etc.) as well as several areas for improvement (e.g., add capability for EOC to track location of children in child-serving institutions, etc.) were noted.

Ms. Ratner also presented valuable information regarding community action planning and an example of an initiative in New Hanover County in North Carolina. The RCRC Initiative has also developed an RCRC Toolbox (https://rcrctoolbox.org/), which is a dynamic collection of resources developed for the benefit of helping to make our communities and children more resilient to disasters.

Ms. Ratner then discussed examples of additional essential components of the RCRC Initiative, which include systemic reform at the top policy level, systemic reform at the grassroots and community levels, and the campaign to develop a communications agenda providing national media outreach promoting the concept of enhanced community resilience for children. Of note, there are several award winning programs to mention:

- Arkansas Emergency Management Association Community and Public Service Award (Regional) (https://arkansas-ema.org/)
- <u>Putman County Fred L. Dill Community Service Networking Award</u> (Local) (https://events.cornell.edu/event/putnam community service network awards breakfast)
- Safe America Foundation (National) (https://safeamerica.org/)
- <u>U.S. Chamber of Commerce Foundation Corporate Citizens Award</u>, Finalist for Best Disaster Response and Community Resilience Program (National) (https://www.uschamberfoundation.org/citizens-awards/categories)

Lastly, Ms. Ratner closed her presentation by discussing the concept of building a community of practice. Building a community of practice is achieved through the adoption of a Peer Assistance Network. The objectives of the Peer Assistance Network include:

- Connecting peers involved with resilience building from pilot communities
- Developing a database of volunteers willing to mentor peers in similar roles
- Providing virtual technical assistance on planning, exercises, and stakeholder engagement
- Expanding to include Phase II partners assisting others in their state/territory and nationally

Mike Chumer: Student Involvement in Emergency Management Response Exercises and Actual Events



Dr. Michael Chumer, Managing Member UAS CORE and Research Professor (ret.) at the New Jersey Institute of Technology, presented virtually about student involvement in emergency management response exercises and actual events. Dr. Chumer, a retired U.S. Marine Corps Officer, provided information on emergency management response exercises and actual events in the form of three diverse examples.

Event #1 involved the Department of Homeland Security (DHS) National Level Exercises (NLE) program. This particular NLE saw Dr. Chumer, along with students, stand up the <u>U.S. Army Armament Research</u>,

Development, and Engineering Center (ARDEC) (https://asc.army.mil/web/tag/ardec/) TestBED Emergency Operations Center (EOC) to address the simulation of a New Madrid Earthquake. The exercise demonstrated a reduction in both decision-making and cycle times using a generic application of command and control (C2). Additional examples include simulating an emergency response to a hurricane in the National Capital Region as well as a cyber-security attack on the water sector. This particular simulation exercise was facilitated at the Command and Control (C2) lab on the campus of the New Jersey Institute of Technology (NJIT) in Newark, New Jersey. This exercise demonstrated both a reduction in decision-making and cycle times through the use of a generic application of C2. One particular finding from the cyber-security attack on the water sector supervisory control and data acquisition (SCADA) system was the feeble Federal response to the emergency. In each case, there was direct and significant student involvement within each exercise, one of the primary overarching objectives.

Event #2 involved an actual event, Superstorm Sandy, which caused significant impacts through FEMA Region II. During Superstorm Sandy, students were embedded within the City of Newark EOC to assist with response efforts. The City of Newark EOC also allowed for the testing of a technology called Mutualink. Mutualink provides state-of-the-art communications solutions allowing for enhanced interoperability. During Superstorm Sandy, a test of Mutualink allowed interoperability with several New Jersey EOCs, Atlantic City Casinos, and a Maryland EOC. Not every interoperability solution earns Department of Homeland Security (DHS) Support Anti-terrorism by Fostering Effective Technologies (SAFETY) Act certification. This purpose is to show that DHS determined that the technology will perform as intended, conforms to specifications, and is safe for use as intended. DHS component agencies, state emergency management facilities, and local, county, and state government agencies, hospitals, schools, and private enterprises across the Nation use Mutualink to enable secure, interoperable communications across radio, video, and other technology systems.

Dr. Chumer also discussed a separate Superstorm Sandy initiative entitled the *Amtrak Train of Hope*. Based out of Slidell, Louisiana, Amtrak train #20, The Crescent, was used to transport supplies to help Hurricane Sandy survivors in New Jersey and New York. Residents of the Greater New Orleans Metro Area, Tammany Parish decided to raise money and gather supplies to send to New Jersey and New York hurricane survivors.

Event #3 involved the use of unmanned aerial systems (UAS) technology in emergency management. This event encompassed the use of UAS activities in support of first responders and EOCs. Under

direction from Dr. Chumer, the first UAS flights under a Certificate of Authorization (COA) within the Federal Aviation Administration (FAA) were flown at the U.S. Coast Guard Training Center in Cape May, New Jersey. During the UAS flights, video from a camera mounted on the tail of the UAS drone transmitted video to five New Jersey EOCs and the State of New York EOC in Albany, New York. While there was significant student involvement within these various emergency events, Dr. Chumer notes the importance of being persistent with maintaining a high degree of student involvement with emergency management.

ENGAGEMENT DISCUSSION

After the presentations, there was a large group, open engagement discussion. All participants in the meeting, including both in-person and virtual, engaged in a larger group discussion to identify critical issues, challenges, and opportunities for future collaborations. From this discussion, five key themes emerged: (1) expanding our circle by maximizing stakeholder engagement, (2) fostering a culture of preparedness, (3) campus preparedness, (4) promoting emergency management as a community resilience leader, and (5) promoting academic institutions as a source of knowledge and expertise.

The first theme that emerged from the discussion was *expanding our circle by* maximizing *stakeholder engagement*. During the engagement discussion, a few questions were posed:

- Who was not here and should be a part of this FEMA regional meeting?
- How do we expand our circle and get engagement from schools, public health organizations, faith-based organizations, volunteer agencies, and Public Administration and Ph.D. students?

It was noted that there were no representatives from state or local emergency management agencies among the workshop participants. Consensus emerged among the workshop participants that future collaborative efforts should include a wider and more diverse set of stakeholders beyond universities and FEMA regional personnel. Establishing engagement and a dialogue among all these new and diverse stakeholders can only help strengthen partnerships and collaboration opportunities and can contribute to a more effective and efficient response when disaster events hit.

A second theme that emerged from the group discussion was the importance of *fostering a culture of preparedness*. During the workshop, it was mentioned the importance and need to include the community to help support building cultures of preparedness. One prominent example was presented by Jackie Ratner regarding the Resilient Children Resilient Communities (RCRC) Initiative. The purpose of this initiative is to work to foster both resilient children as well as resilient communities.

A third theme that emerged from the discussion was the importance of *campus preparedness*.

A fourth theme that emerged from the discussion was the importance of promoting *emergency* management as a community resilience leader.

The fifth theme that emerged from the discussion was the importance of balancing homeland security issues and emergency management principles in college and university programs.

MOVING FORWARD

From the individual presentations and the group discussion that ensued, three broad themes emerged in terms of moving forward: (1) *sustaining collaborations*, (2) establishing *new multidisciplinary partners*, and (3) *harnessing new simulation-based technology*.

In terms of *sustaining collaborations*, participants in the meeting agreed that there was value in coming together at St. John's University for this regional meeting, developing new partnerships, networking with others within the Region, discussing a diverse range of topics, as well as sharing best practices. The participants agree that we should meet on a more regular basis. As the meeting concluded, there was a preliminary discussion to plan and organize another collaborative meeting, and a member of the group (medical college) has offered to host the next meeting. The participants are encouraged to use this successful meeting as motivation for further collaboration and discussion as we work to cultivate a culture of collaboration within the Region.

With regard to *establishing new multidisciplinary partners*, participants agreed that we should look to enhance our future engagements by including multidisciplinary partners. One example mentioned is the Voluntary Organizations Active in Disaster (VOAD), an organization whose members form a coalition of nonprofit organizations that respond to disasters as a part of their overall mission. In addition, it was mentioned that having more engagement with the private sector would help address the need for a more multidisciplinary perspective. With regard to establishing new multidisciplinary partners, there could be the potential for the establishment of future opportunities regarding service-learning and internship.

Finally, in terms of harnessing new simulation-based technology, participants agreed that there are new innovative and advanced tools available to assist how emergency management is taught in the classroom, as well as practiced in the field. One example highlighted during the individual presentations is the Advanced Disaster Management Simulator (ADMS) developed by Environmental Tectonics Corporation. The ADMS simulator is a world-class virtual reality simulator for disaster management training used to effectively train all phases of on-scene emergency management and incident command. The ADMS simulator was implemented at St. John's University and is an important component of its Homeland Security/Emergency Management Degree Program. St. John's is eager in establishing partnership with members of FEMA Region II to allow the future hands-on use of the ADMS system for simulation exercises, training workshops, help with enhancing emergency management course content, and providing exposure to emergency management faculty and students. Directly after the group discussion, a tour of the St. John's University Homeland Security Lab took place, which included a tour of the Homeland Security and Cyber Security Lab as well as a live demonstration of the ADMS simulator. Harnessing these tools both in the classroom and in our communities is essential to building a more resilient society in the future. Lastly, implementation of the ADMS simulator was made possible through a combination of both outside private donations and grants and serves as a model which can be adopted by other academic institutions in FEMA Region II.

Lastly, the subjects of risk and risk assessment were discussed, and the future exploration of the Threat and Hazard Identification and Risk Assessment (THIRA) tool was identified. THIRA is a risk assessment process that helps communities understand their risks and determine the level of capability they need to address those risks.

SUCCESSES AND AREAS FOR IMPROVEMENT

Planning, Logistics, and Technology

Strengths: The event was attended and represented by all states in Region II (New Jersey, New York, the Commonwealth of Puerto Rico, and the territory of the U.S. Virgin Islands). Invitations to the event were sent electronically and collected through Eventbrite, including the participant's name, institution, if he/she is attending in-person or virtually, and email. Of the 43 participants, 27 attended in-person at St. John's University, and the remaining 16 attended virtually. St. John's University provided the academic collaboration with ample space for the in-person attendants, and virtual participation was facilitated via Cisco WebEx.

Area for Improvement I: Ensure technology, network, and virtual connectivity capabilities are tested and operational

Action: Prior to the event, practice with all the virtual presenters on presenting their materials through Cisco WebEx, Skype, or the chosen application so they may become more acquainted with the program and know what to do to in case of any issues that may arise. As a requirement, all regional events going forward must ensure the event is recorded to allow post-event review of the content to assist with the creation of the report.

Meeting Content

Strengths: The presentations addressed a number of diverse and important issues, including improving community engagement, fostering collaborations, managing chaos, engaging youth in recovery efforts, building both resilient children and resilient communities, and conducting disaster logistics research. At the conclusion of the in-person and virtual presentations, the group engaged in a spirited discussion to raise questions, identify challenges, and suggest future directions.

Strengths: The expanded workshop time, including the new lightning briefs (5–7-minute) presentation format allowed for many more presentations to be included, more participation, and a richer, more diverse array of content.

Area for Improvement II: Ensure support staff is in place and have backups.

Action: The importance of having support staff (e.g., note takers) is vital to ensuring the ability to adequately and successfully capture important discussion and dialog from each FEMA regional event. It is advisable to have a backup plan if support staff become unavailable.

Area for Improvement III: Allow more time for group discussion.

Action: Limit the amount of time allotted for individual presentations and strictly enforce time limits on each presenter. Related to this, reduce delays associated with the virtual presentations. Otherwise, consider lengthening the meeting.

Area for Improvement IV: Include a broader range of stakeholders.

Action: Invite more practitioners from local, county, regional, and state agencies. Aside from university representatives and FEMA personnel, there few participants from these other important and relevant stakeholder groups. Their experience may provide more insights about the profession, and it may help to bridge the gap between academic and practice. Participation from public health, Ph.D. students, public administration, volunteer agencies, and faith-based groups were cited as possible stakeholders to be included in future workshop events.

APPENDIX A: ENGAGEMENT PARTICIPANTS

HIGHER EDUCATION PROGRAM



EMERGENCY MANAGEMENT/ HIGHER EDUCATION REGION/ REGION II	HOMELAND SECURITY AL ACADEMIC COLLABORATIVE		Inesday, August 7, 2019 10:00 am to 4:00 pm in's University — Queens
Name	Agency or Institution	Email address	Location
Harold Broderick	St. John's University	broderih@stjohns.edu	St. John's
2. Mike Chumer	New Jersey Institute of Technology	mchumer@gmail.com	St. John's
3. Howard Apsan	The City University of New York	Howard.apsan@cuny.edu	St John's
4. George Contreras	New York Medical College	gwcontreras@gmail.com	St. John's
5. José Davila	FEMA Intergovernmental and Tribal	José.davila@fema.dhs.gov	St. John's
6. Russell Fox	FEMA Region II	Russell.fox@fema.dhs.gov	St. John's
7. Glenn Garibaldi	NJ Office of Emergency Management	Glenn.garibaldi@gmail.com	St. John's
8. Rosa Gonzalez	Erie Community College	gonzalezr@ecc.edu	St. John's
9. Jeannine Jennette	Columbia University	Jmj2102@cumc.columbia.edu	St. John's
10. Bernard Jones	St. John's University	jonesb1@stjohns.edu	St. John's
11. Doris Korona	Winthrop University Hospital	dak866@msn.com	St. John's
12. Patrick Maury	FEMA Region II Intern	Patrick.maury@fema.dhs.gov	St. John's
13. Lawrence O'Reilly	FEMA Region II	Lawrence.o'reilly@fema.dhs.gov	St. John's
14. Jennifer Pearsall	NYC Emergency Management	jpearsall@oem.nyc.gov	St. John's
15. Sal Puglisi	Urban Assembly School for EM	puglisi@uasem.org	St. John's
16. Jacqueline Ratner	Columbia University	jjr2200@columbia.edu	St. John's
17. Steve Recca	CHDS	sprecca@nps.edu	St. John's
18. Debra Schneck	FEMA	Debra.a.schneck@fema.dhs.gov	St. John's
19. Kaylan Sobel	NYC Emergency Management	ksobel@OEM.NYC.GOV	St. John's
20. Shanise Stephens	Pratt Institute	ssteph30@pratt.edu	St. John's
21. Mark Strohoefer	FEMA Region II	Mark.strohoefer@fema.dhs.gov	St. John's
22. Lucia Velotti	John Jay City University of New York	lvelotti@jjay.cuny.edu	St. John's

Name	Agency or Institution	Email address	Location
23. Wendy Walsh	FEMA Higher Education Program	Wendy.walsh@fema.dhs.gov	St. John's
24. Patrick Wing	St. John's University	wingp@st.johns.edu	St. John's
25. Lawrence Zacarese	Stony Brook University	Lawrence.zacarese@stonybrook.edu	St. John's
26. Rodric Bowman	American Red Cross	sheabowman68@gmail.com	St. John's
27. Stephen Conard	University at Albany	sconard@albany.edu	SUNY Albany
28. Terry Hastings	NY Division of HS and Emergency Services	terry.hastings@dhses.ny.gov	SUNY Albany
29. Richard Nicklas	FEMA	richard.nicklas@fema.dhs.gov	SUNY Albany
30. Eric Stern	University of Albany	ekstern@albany.edu	SUNY Albany
31. Katherine Gonzalez	FEMA	katherine.gonzalez@fema.dhs.gov	Puerto Rico
32. Greg Guannel	University of the Virgin Islands	Gregory.guannel@uvi.edu	Puerto Rico
33. Michele Guannel	University of the Virgin Islands	michele.guannel@uvi.edu	Puerto Rico
34. Ashley Méndez- Heavilin	University of Puerto Rico	ashley.mendez2@upr.edu	Puerto Rico
35. Norma Peña Rivera	Centro de Investigaciones Sociales	orma.pena1@upr.edu	Puerto Rico
36. Jeffrey Quinones	U.S. Customs and Border Protection	jeffrey.h.quinones@cbp.dhs.gov	Puerto Rico
37. Jenniffer Santos- Hernandez	University of Puerto Rico	jenniffer.santos1@upr.edu	Puerto Rico
38. Gordon Bass		gbass@fscj.edu	Virtual
39. Jordan Guido	Slippery Rock University	jordan.guido@sru.edu	Virtual
40. Barbara Johnson	FEMA Higher Education Program	Barbara.Johnson3@fema.dhs.gov	Virtual
41. David Mendonça	Rensselaer Polytechnic Institute	mendod@gmail.com	Virtual
42. Christopher Schultz	Thomas Edison State University	cschultz@tesu.edu	Virtual

Did Not Attend

Last Name	First Name	Email address	Agency or Institution
Beck	Randi	beck.randikay@gmail.com	Sam Houston State University
Capshaw	Kayli	kcapshaw@OEM.NYC.GOV	St. John's
Denham	Magdalena	magdalena@shsu.edu	Sam Houston State University
Khemka	Ashish	akk012@shsu.edu	Sam Houston State University

APPENDIX B: ENGAGEMENT BROCHURE

Emergency Management/Homeland Security Higher Education Regional Academic Collaborative Region II

Wednesday, August 7th, 10:00 a.m.-4:00 p.m.

St. John's University Queens Campus:

8000 Utopia Parkway Queens, NY 11439

Albany, NY satellite hub:

Milne Hall Room 001, University at Albany Downtown Campus, 135 Western Ave Albany, NY 12203

Puerto Rico satellite hub:

Graduate School of Planning, UPR-Rio Piedras; Plaza Universitaria, Torre Central 7th floor, Rm 7033

Virtual participant information will be provided prior to the event

<u>Purpose:</u> To build awareness, capture successful regional practices of collaboration with faculty, students, and researchers working with emergency management practitioners, as well as to identify untapped opportunities.

Desired outcome: To support regional community connection and collaboration, as well as create a dynamic regional-specific report identifying academic and broader community resources, capabilities, and expertise to support ongoing regional academic and practitioner partnerships.



Agenda:

10:00-10:30 - Welcome and Introductions

- St. John's University Dr. Bernard Jones
- FEMA Region II Russell Fox and Devin Kerins
- Participant Introductions Wendy Walsh

10:30–12:30 – Quick overview of FEMA Higher Education and UAPI programs and successful regional practices to be briefed in 57 minutes with a couple of minutes for questions:

- FEMA/NTED/NTES Higher Education Program Collaboration Opportunities Wendy Walsh, FEMA Higher Education Program
- FEMA/NPS/CHDS UAPI Program and Opportunities Overview Steve Recca, Center for Homeland Defense and Security
- Perspectives on Developing a Certificate Course and Researchers Working in Disaster Environments
 Dr. Jenniffer Santos Hernández, University of Puerto Rico
- The University at Albany's College of Emergency Preparedness, Homeland Security, and Cybersecurity Projects and Efforts Dr. Eric Stern, University of Albany
- Engaging Youth in Recovery Efforts Dr. Michele Guannel, University of the Virgin Islands
- St. John's Academic Programs and Simulation Center Dr. Bernard Jones, St. John's University
- Managing Chaos Workshop: A Successful Academic/Practical Partnership Terry Hastings, DHSES NY State, and Dr. Eric Stern, University at Albany
- Disaster Response Logistics: Chief Findings from Fieldwork, Behavior, and Analytical Research –
 Dr. José Holguín-Veras, Rensselaer Polytechnic Institute

- NYCEM and Logistics101 Kayli Capshaw, Jennifer Pearsall, and Kaylan Sobel, New York City Emergency Management
- Prospects and Challenges for Improving Post-disaster Debris Removal Performance: Observations from 9/11 to the Present David Mendonça, Rensselaer Polytechnic Institute
- Resilient Children Resilient Communities Jackie Ratner, Columbia University
- Student Involvement in Emergency Management Response Exercises and Actual Events Mike Chumer, New Jersey Institute of Technology

12:30–1:30 – Working lunch: Small group dialogues to develop idea pathways to practice

• Discuss presentations, other successful practices, and topical areas

1:30–2:50 – Deeper dive into regional discussion topics

- How do we teach, research, and implement public engagement to promote preparedness and build a culture of preparedness?
- What resources are being used to develop curricula from various sources (FEMA, Department of Ed/REMS, HHS, DHS OAE...)
- What Actions are Individuals and Communities Taking to Shrink Their Carbon Footprint?

Other discussion topics:

- What opportunities are there for internships in the Region in diverse practice settings (i.e., FEMA, local/state/territory government, private sector, academia, hospitals...)?
- Successful approaches to teaching how to identify and prioritize risk
- Efforts underway and possibilities toward professionalizing the EM/HS professions
- What are the ways we currently or could employ to manage EM/HS knowledge?
- What are the exemplar efforts in Region II to educate and develop future EM/HS professionals?
- How are we integrating the impact of politics to practice into EM/HS education?

2:50-3:00 - Short Break

3:00-3:40 - Discussion group report-outs

3:40-4:00 - Next steps, wrap-up, and gratitude

Next Steps:

- Who else should we include who are the missing critical stakeholders in the Region?
- What other synergistic efforts, meetings, or gatherings could be leveraged to convene this group?
- What are our collaborative challenges?
- What is possible?
- What structure and leadership are needed to move forward?

4:00-4:30 - Tour of Simulation Center, Dr. Bernard Jones