



Higher Education (HiEd) Program

Research Status Report

December 4, 2020



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Introduction

FEMA's National Training and Education Division (NTED) manages the Emergency Management Higher Education (HiEd) Program. The program was established at the Emergency Management Institute (EMI) in 1994 and reassigned to NTED in 2017. The HiEd Program mission is to engage emergency management academia, professional organizations, and practitioners to work together to foster a culture of continuous learning and innovation through education and research to meet the challenges that confront the Nation. The HiEd Program works collaboratively across NPD, FEMA and DHS to leverage related resources and efforts. As leaders in the fields of emergency management and homeland security education, EMI and the Center for Homeland Defense and Security (CHDS) are key partners.

In 2018, the HiEd Program sponsored development of a proposed [research agenda](#) on hazards, disasters, and emergency management. The agenda is written to inform ongoing and future research, workforce development, education, and emergency management practice over a three to five-year horizon (to be updated in 2021 as funds permit). It is aimed at connecting research and practice to seek answers to real-world complex problems. It is intended for academic researchers and students from multiple disciplines, emergency management organizations, and Federal agencies.

Each year, the HiEd Program funds a limited number of research inquiries through micro-purchase contracts (up to \$10,000). Moving forward, research inquiries must align with the research agenda in order to be considered for funding. Proposals from [Special Interest Groups \(SIGs\)](#) are highly encouraged. SIGs are self-organized and bring academics and practitioners together to discuss and potentially co-author research, recognize and disseminate scholarly work, and serve as mentors and subject matter experts. Research inquiries result in reports and other materials. The HiEd Program reviews the materials for content, format and 508 compliance and disseminates final versions to FEMA and the community of practice via the HiEd Program website. As appropriate, highlights are shared via the newsletter, webinars, and the annual Symposium.

In 2020, the HiEd Program is sponsoring the following research:

1. Annual State of the Community
2. What to Teach in Emergency Management - Workshop for the 2021 Symposium
3. Geographic Information Systems (GIS) Workshop for 2021 Symposium
4. Disaster and Emergency Management (DEM) Teaching Cases Repository
5. Scholarship of Teaching and Learning (SoTL) Workshop Series & Handbook
6. Resilience Analysis and Planning Tool (RAPT)/GIS Data Module
7. Minority-Serving Institutions (MSI) & Diverse Students Voices Sessions & Guidebook
8. Case studies on Race, Ethnicity, & Economic Disparity
9. Case Study Based Course: Improvisation
10. COVID-19 & Climate Change: Tribal Communities
11. Utah Case Study

Ms. Michelle Norphlet, interim HiEd program manager, conducted in progress reviews and compiled this report with the assistance of the HiEd team. Researcher reports in first person are in *italic* font. Should you have questions, please contact the HiEd Program at FEMA-HiEd@fema.dhs.gov.



2021 Annual State of the Community Analysis and Report

Dr. DeeDee Bennett, Assistant Professor, State University of New York-Albany

Period of Performance

July 27, 2020 – May 4, 2021

Update as of October 13, 2020

Status

During our call we discussed the statement of work (SOW) I received from the FEMA HiEd team over the summer to conduct the Annual State of the Community survey, in which I administer a survey to the FEMA HiEd list of contacts for the emergency management academic programs. The deliverables are a report of the survey findings and a presentation during the annual Symposium. I usually need at least 40-45 minutes to cover the survey during the presentation. I mentioned that this has been a recurring role for me and that I have taken over from Carol Cwiak in 2017. This year the deadline is earlier than it was in the previous years, therefore the database of contacts will have to be provided earlier, as well. We discussed that FEMA HiEd would provide a .csv file of the list sometime in early January. The list will need to include the name, email address, program, and university of the representatives.

Pre-Symposium Workshop - What to Teach in Emergency Management: Thoughts for Those New to Teaching the Discipline

Dr. David McEntire, Dean, College of Health and Public Service, Utah Valley University

Period of Performance

July 27, 2020 – June 4, 2021

Update as of October 7, 2020

Description

Are you new to the disaster, emergency management, and homeland security disciplines, fields and professions? Do you desire additional knowledge about the fundamental concepts, issues, theories, debates, and literature for your courses in emergency management? If so, this workshop is for you! “What to Teach in Emergency Management” will trace the evolution of emergency management research and discuss important disaster topics and disaster case studies. The workshop will also identify significant schools of thought in emergency management, novel teaching techniques, and future projections in this increasingly important discipline and profession.

Status

My presentation is generally done, but I always add new material and change some of the presentation based on new issues. For instance, I have collected several more references to include about disaster recovery. I also have some articles on SoTL so I will mention those as well. I will probably make some comments about COVID-19 as well.

My goal is to add some additional information in my presentation this year (such as the FEMA EM Competencies). I will also streamline my power point presentation (combining various sections such as functional studies and foundational works).

I'm finalizing my research project (on the COVID-19/earthquake response) right now. I will complete several interviews in the next 10-12 days, and then write this paper. After that (mid-January), I will return my attention to the FEMA Workshop. I imagine I will have the presentation updated by mid-March so I will be fully ready for the presentation.

Pre-Symposium Workshop: Survey of GIS for Disaster Management Research, Teaching and Service

Kevin Mickey, Director Professional Development and Geospatial Technologies Education, The Polis Center at IUPUI, School of Informatics and Computing – Indianapolis

Period of Performance

July 27, 2020 – June 4, 2021
Update as of October 8, 2020

Status

Following our discussion, I gave a lot of thought to how best to deliver my workshop in a virtual 2021 Symposium. I suggested that we could pursue something along the lines of what we did for the 2020 Symposium. However, I have decided that a better approach would be to stick with the intended content and purpose described in the SOW we have in place with some slight modifications noted below.

The key differences would be:

- 1. We should split the content into two 3-hour blocks over two days vs having one 8-hour workshop. I propose either June 7 and 8 from 8:30 to 11:30 Eastern or June 7 and 14 from 8:30 to 11:30 Eastern. I need to nail these dates/times down ASAP as my schedule is already getting full through June thanks to having to move many commitments from the last seven months to Q1/Q2 2021.*
- 2. We should still try to make this a hands-on experience in the portions of the workshop where hands-on activities exist. However, I propose the following modifications to accommodate a virtual delivery.*
 - a. Those participants that can access a computer with ArcGIS Pro and/or Hazus-MH installed should do so. We can make the activity data available for download for them. My guess is that most participants will be from universities that, like my own, have ArcGIS accessible via a virtual platform.*
 - b. For those participants who do not have access to the software, I will be demonstrating the process of using the software so they will still benefit from the experience.*

I have attached a draft of the slide deck that I plan to use for the workshop. This is not in final form at this point. A few weeks before the workshop I will want to verify URLs have not changed

that are cited in the slide deck (which they could easily do over the next nine months) as well as possibly add or remove a few slides based on changes in the industry. For the student handout, I will deliver a student guide PDF that has two-slides to a page along with URLs that were referenced in the class presentation. I will also provide a URL from which participants that have access to the GIS software can download activity data.

I propose the following abstract for the workshop.

Abstract

This two-part workshop explores how GIS software and methods can and are being used to support disaster management. The first portion introduces tools for visualizing and exploring the population, infrastructure, buildings and other aspects of a community as well as the hazards that impact them. Participants then learn how GIS can be used by practitioners and researchers to model the economic and social impacts of disasters along with ways to mitigate, prepare for and respond to those impacts. Next, the capabilities of GIS for communicating risk as well as solutions to homeowners, businesses, elected officials and other stakeholders are explored. Finally, guidance is offered on where to find GIS teaching resources, additional instruction on GIS software and methods and opportunities for getting involved in the GIS community through professional and academic organizations.

The workshop provides multiple opportunities to experience a variety of GIS related technologies to include ArcGIS Pro, Hazus-MH and various web resources. While participants are not expected to develop expertise with these technologies during the workshop, they will gain an appreciation for their capabilities and guidance for how to expand their knowledge in line with their service, teaching and research goals. Participants that have access to a computer installed with ArcGIS Pro software and/or Hazus-MH software are encouraged to complete activities demonstrated by the instructor. Those without access to these software applications will still benefit from attending by observing how these tools can be applied.

No previous GIS experience is required to attend this workshop.

Learning Objectives

1. Participants will be able to identify opportunities for using visualization and exploration of information through GIS to augment emergency management academic program and practice.
2. Participants will be able to analyze the value of GIS to model and manage disaster impacts integrating FEMA products such as HAZUS and RAPT.
3. Participants will be able to evaluate the benefits of using GIS to communicate risk and solutions (GIS on the Web).
4. Participants will develop knowledge that can inform the creation of a plan to grow and sustain their geographic capacities through leveraging GIS resources, additional GIS training, classroom resources, and opportunities to get involved in the practitioner and academic GIS communities.

DEM Teaching Cases Repository Database Development

Dr. David Thornton, Professor, Mathematical, Computing, and Information Sciences
Department, Jacksonville State University

Period of Performance

August 1, 2020 – December 31, 2020
Update as of October 16, 2020

Status

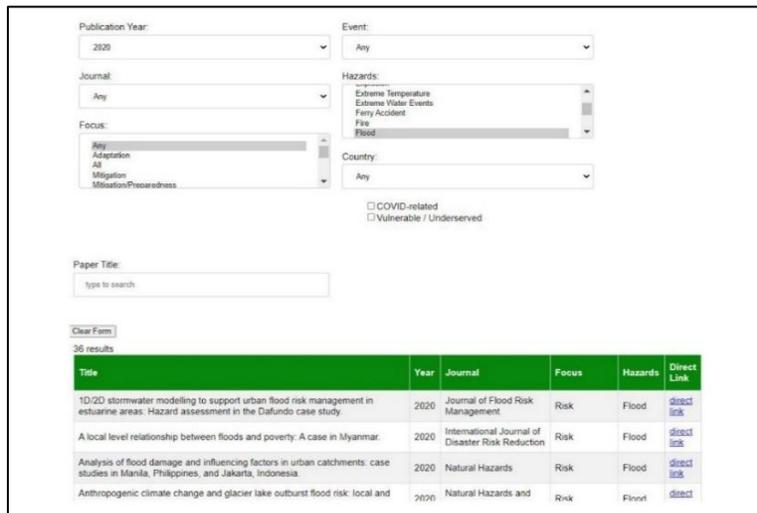
*The final project deliverable is complete, and available at:
jsu.edu/emergency-management/cdcr/repository/articleSearcher.html.*

The database allows for easy search of a current set of 1260 DEM articles, with the ability to search by several different attributes, as shown in the screenshot below.

Search attributes include the following:

- *Publication Year*
- *Journal*
- *Stage (adaptation, mitigation, preparedness, response, recovery, etc.)*
- *Event (Hurricane Katrina, Fukushima Disaster, etc.)*
- *Hazards (Active Shooter, Flood, Chemical Threat, etc.)*
- *Country*
- *Title*
- *COVID-19 related*
- *Vulnerable/Underserved Populations*

The page is formatted to work equally well with desktop and mobile devices. More cases are added to the spreadsheet on an ongoing basis by Dr. David Thornton, as provided by Dr. Kushma (Case Study Teaching and Learning SIG co-lead), and her graduate research students.



| Title | Year | Journal | Focus | Hazards | Direct Link |
|---|------|--|-------|---------|-----------------------------|
| 1D/2D stormwater modeling to support urban flood risk management in estuarine areas: Hazard assessment in the Dafundo case study | 2020 | Journal of Flood Risk Management | Risk | Flood | direct link |
| A local level relationship between floods and poverty: A case in Myanmar. | 2020 | International Journal of Disaster Risk Reduction | Risk | Flood | direct link |
| Analysis of flood damage and influencing factors in urban catchments: case studies in Manila, Philippines, and Jakarta, Indonesia | 2020 | Natural Hazards | Risk | Flood | direct link |
| Anthropogenic climate change and glacier lake outburst flood risk: local and | 2020 | Natural Hazards and | Risk | Flood | direct link |



DEM Teaching Cases Repository – Ongoing Development and Sustainment

Jacob Fast, M.Ed., M.B.A., Assistant Professor of Disaster and Healthcare Mission Management, Lee University

Period of Performance

August 10, 2020 – May 15, 2021

Update as of October 22, 2020

Status

This project is a continuation and follow-up to a previous initiative designed to create a snapshot (2017-2020) of scholarly articles that might be suitable for teaching cases in DEM curricula. Through this initial effort, over 70 hazards and disaster journals were manually scoured for any articles within the snapshot window that could depict and pertain to case studies. This initial sweep resulted in 1,116 articles compiled into a spreadsheet with the following information: Author, Publication Year, Title, Journal, Hazard, Event, Country, EM Focus, Key Terms, Citation, and Direct Link. This information was subsequently passed to Dr. Jane Kushma to oversee the creation of a database which is now available at: jsu.edu/emergency-management/cdcr/repository/articleSearcher.html

The current SOW was then created to achieve a number of objectives including a plan for ongoing development, maintenance and sustainment of the database with regular additions being made over time; an exploration of non-academic case studies to be included within the database (from sources such as FEMA, HUD, EPA, etc.); ongoing support for teaching cases and teaching notes; and a strategy for recruitment of others to increase sustainability of these tools and resources long-term.

The author has continually updated, revised, and adapted the initial spreadsheet of articles. This not only provides for a database with articles that are less than one month from publication but also allows for a more clearly refined means of searching for potentially useful cases that can be used by others who volunteer to be involved in the continual sustainment of the database. Beyond this task, while the implementation plan is fully developed, the author will be completing the objective for non-academic cases to be added by year's end and will simultaneously be providing a plan for continual refinement of this process. Throughout this endeavor, the Case Teaching and Learning SIG will provide support for those within the discipline interested in seeing case studies used to their full potential. Through these connections, recruitment and expansion of faculty, researchers, and other case study contributors to support sustainability will be achieved.

The specific deliverables within the present SOW will continue to be developed throughout this process of updating the database and strategizing a means to persistently advance the utilization of case studies within higher education. These elements are anticipated to be completed and delivered in early 2021.

DEM Teaching Cases Repository – Special Collections Development

Antoine Richards, Doctor of Science Student, Jacksonville State University

Period of Performance

August 10, 2020 – May 15, 2021

Update as of October 21, 2020

Overview

The HiEd Program sponsored a Case Study Development Products project that included the development of a snapshot (2017-20) of scholarly articles suitable for adaptation for teaching cases. The initiative has provided a strong foundation to expand the use of teaching cases in DEM curriculum, bolstered by the active support of the Caster Teaching and Learning SIG to develop and maintain the system.

As this effort matures, a searchable and scalable electronic database accessible to the emergency management, homeland security and related discipline faculty will be established. This will be complemented by an implementation plan for the ongoing development, maintenance and sustainment of the database which will include the development of specific case collections.

The SOW supports time to design and develop two case collections:

- A1) The collections will be informed through community outreach and research to identify cases and case topic.
- A2) The first collection will be for cases that address the current global COVID-19 pandemic caused by SARS-COV-2.
- A3) The second collection will be for cases that address the unique experiences of underserved communities and populations made increasingly vulnerable as a result of experiencing disasters and hazards.

These collections will curate existing cases, identify promising sources for cases and case development as well as identify knowledge gap areas where cases should be developed that would advance the knowledge and the emergency management professional practice.

Specific deliverables include:

- B1) The creation of the collections demonstrated in providing web-based links to access the collections. It is expected that each collection will have at least 2-10+ cases, which follow the prescribed template.
- B2) A short write up (5-10 pages) that describes the process taken to build the collections, initial findings, knowledge gap areas, recommendations for sustainability and dissemination.
- B3) Prepare a presentation of the collections to include in a community webinar to disseminate the availability of the collection, opportunities to the collection as well as to contribute cases to the collection.

Status

Currently, data collection for items A1, A2, and A3 are ongoing under the supervision of Case Teaching and Learning SIG Lead Dr. Jane Kushma. Data is stored in a protected folder under the title “DEM Teaching Cases Repository” which includes two sub-folders entitled “COVID-19” and “Vulnerable Population.” Articles and cases are reviewed weekly and discussed during a bi-weekly 1:1 with Dr. Kushma to identify key themes, potential inclusion/exclusion criteria, and processes for developing two additional database or building on the pre-existing database housed under the Center for Disaster and Community Resilience at Jacksonville State University. Out of scope, the author is planning to prepare an interim analysis by December 31, 2020 to serve as a high-level summary of progress, findings, and key themes which will help inform the remainder of the project (Spring 2021). Should we choose to utilize the pre-existing data platform, deliverable B1 is 50% complete and will only require building two special databases. Deliverables B2 and B3 are have not been started as the project remains ongoing.

Project Recruitment Process

Dr. Kushma serves as the author’s faculty mentor at Jacksonville State University. Under her mentorship, the author participated in the HiEd Program’s Case Development Process Focus Group, featuring collaborative researchers from the United States and Puerto Rico following Hurricane Maria (Fall 2017). He then attended the HiEd Symposium (Summer 2018) where he joined the Case Teaching and Learning SIG led by Dr. Kushma and Dr. Jean Slick. He has attended the HiEd Symposium thereafter (2019 and 2020) as well as numerous additional conferences and workshops (i.e. the Natural Hazards Workshop at UC Boulder). Following the completion of a case repository project between Dr. Kushma and Jake Fast, there were conversations on extending the database into the current COVID-19 pandemic and underserved populations wherein Dr. Kushma recommended me, with FEMA’s confirmation, due to my public health background and current work with the Institute for Diversity and Inclusion in Emergency Management (I-DIEM).

FEMA HiEd Program Experiences

Strengths: The HiEd Program has been one of the most influential programs / symposiums that have contributed to my success as a doctoral student. As President of the JSU-IAEM student chapter, I have been able to coordinate educators and practitioners to speak with students at the University, I was informed of the Bill Anderson Fund representing minority doctoral students in hazards and disaster research and, most importantly, I was able to grow a network of academics and practitioners that has provided a wealth of opportunity. Much of this came as a result of my faculty mentor, my willingness to volunteer throughout the Symposium and to get involved with SIGs and projects. Additionally, the HiEd newsletter was a great source of information that sought to really continue to expand the emergency management field. Overall, the academic and practitioner community has become much smaller due to welcoming nature of the program, especially under the constant advocacy for “Gracious Space.”

Opportunities: While my experience was favorable, I believe the program could benefit from strengthening more relationships with students. Academics are key stakeholders, as are students, and students must often find their own way in the program if they are not as outgoing. Moreover, student perspectives can greatly inform academic growth among professors and universities and this experience should be used for its mutual beneficence.

Emergency Management SoTL Handbook

Dr. Caroline Hackerott, Assistant Professor, Department of Emergency Management, North Dakota State University

Period of Performance

August 3, 2020 – May 30, 2021

Update as of October 14, 2020

Growing out of the SoTL SIG-sponsored SoTL Focus Group in 2018, the focus group co-chairs (C. Hackerott and C. Knox) with member Shirley Jensen presented a pre-Symposium workshop in two parts. The first part covered the basics of research as related to SoTL. The second part was devoted to individual coaching to participants on their SoTL research proposals. Feedback indicated participants desired repeated presentation of the first session. Attempts to reschedule the workshop were unsuccessful due to limited time slots and availability of presenters. Hackerott recruited co-presenters from the SoTL SIG and created a small number of webinars over the past 2 years. The webinar format provided only enough time to introduce a limited number of facets of SoTL research and feedback consistently indicated a desire for a full workshop and/or supporting written materials. The focus of the SoTL SIG shifted to webinars / workshops on topics involving empirically supported pedagogies for online education to support community members as they pivoted to online educational delivery due to COVID19. Events were well attended; however, the need for SoTL research education and training remained.

Because most of the community active in the HiEd program are not employed at research institutions, they are under-prepared to contribute to this essential aspect of our discipline. To meet the need for basic SoTL research methodology, FEMA HiEd contracted with C. Hackerott to produce a short and simple handbook intended for non-research faculty. The handbook will be available on the HiEd website and via a webinar or presentation at the annual Symposium.

Developing Outline

- 1) Introduction to SoTL
 - a) Definition (Felten, 2013)
 - b) History and Relationship to Other Disciplines' Work
 - i) Public Administration
 - ii) Nursing
 - iii) Medicine
 - iv) Pharmacy
 - v) Engineering
 - vi) Social Sciences
 - c) Potential Benefits to the EM Discipline
 - i) 2018 FEMA HiEd Focus Group (Knox & Hackerott, 2018)
 - ii) Jensen et al., 2019
 - iii) EMI HiEd Pre-Symposium Workshop 2019 (Hackerott, Jensen, & Knox, 2019)
- 2) Developing a Research Question
 - a) Interest/Need
 - b) Suitability for SoTL (Biggs, 1999; Felten, 2013; Huber & Morreale, 2002)
 - c) Process (Creswell & Creswell, 2018; Single, 2010)

- 3) Research Ethics
 - a) Classroom Considerations
 - i) Power Structure
 - ii) Participation
 - iii) Access and Inclusion
 - b) Institutional Requirements
 - i) IRB
 - c) EM-specific Research Considerations
 - i) FEMA HiEd EM Scholars Focus Group (Jensen, 2015)
- 4) Data Collection
 - a) Quantitative Methods
 - i) Survey
 - ii) Secondary Data
 - iii) Computer-based data
 - b) Qualitative Methods
 - i) Interview
 - ii) Observation
 - iii) Video
 - iv) Student Feedback (Open)
 - c) Mixed Methods
- 5) Data Analysis
 - a) Quantitative Analysis
 - i) Overview
 - ii) Resources
 - b) Qualitative Analysis
 - i) Overview
 - ii) Resources
 - c) Common Software
- 6) Writing and Dissemination of Findings
 - a) Journal Articles
 - i) Writing Strategies (Belcher, 2009; Single, 2010)
 - ii) Selecting a Journal
 - iii) Formatting
 - b) Report
- 7) Conclusion

Status

I continue to pull literature to support the topics included in the handbook. I have also reached out to other members of the FEMA HiEd community to explore if they'd be willing to serve as reviewers/editors. Presenting our Association for the Study of Higher Education (ASHE) paper at their annual conference provided valuable feedback not only on our paper but also on the SoTL process in general. The handbook outline reflects this feedback and the inclusion of key resources. With multiple demands associated with COVID19 protocols at NDSU, my progress is not as rapid as desired or planned. However, I am hopeful I will be able to devote significant time to the project over the semester break.

Community Risk, Vulnerability, and Resilience Data Module

Dr. Theresa (Tari) Martin, GIS Professional, Director, National and Federal, National Alliance for Public Safety GIS (NAPSG) Foundation

Period of Performance

August 14, 2020 – May 30, 2021

Update as of October 30, 2020

Introductions

Tari Martin and Tricia Lawson (NAPSG) provided background on the organization and shared previous relevant work to include: the recent collaboration with the Urban and Regional Information Systems Association (URISA) Community Resilience Task Force on a Social Indices Study to produce Guidance on Risk, Resilience, and Vulnerability Indices for the community; ongoing work to develop tutorials on geospatial skills applied to common public safety tasks; and developing content on FEMA’s Preparedness Toolkit to assist the community in integrating geospatial data and analysis in preparedness activities, such as Threat and Hazard Identification and Risk Assessment (THIRA) development and exercises.

Module Development Update

NAPSG received the signed contract on 9/1/20. Since then, we have requested FEMA guidance and resources for module development and have begun reviewing and curating supplemental resources. Currently building out foundational content for instruction materials on the factors that may relate to community resilience and the relevance for understanding community characteristics to the functions and roles of emergency management.

Timeline

- November/December – Building out example assignments and hands-on tutorials.
- January – Submit module components in-development by Jan 15 for mid-project review.
- February – Workshop course materials for feedback.
- March – Complete updates based on workshop feedback and submit to FEMA HiEd for client review by mid-March.
- April/May – NAPSG to complete final updates based on HiEd review and feedback. Conduct a basic 508 compliance review.

Upcoming

- Templates undergoing an update. FEMA will provide when completed.
- HiEd Newsletter Article. The HiEd team will reach out to feature in a future newsletter.
- HiEd Symposium. FEMA is looking for NAPSG to participate. More info to come.

Emergency Management MSI and Diverse Student Voices Sessions and Guidebook

Chauncia Willis, Co-Founder and Chief Executive Officer, Institute for Diversity and Inclusion in Emergency Management (I-DIEM)

Period of Performance

August 3, 2020 – June 30, 2021

Update as of October 29, 2020

Background

The Institute for Diversity and Inclusion in Emergency Management (I-DIEM) leads efforts to increase representation of women and people of color in the field of emergency management, including positions of leadership, through awareness, training, and education. I-DIEM serves as the conduit for research on diversity and inclusion, equity, and the practical application of equitable emergency management practices to improve outcomes and build resilience.

Goals

- Promote, support, and disseminate research regarding diversity and inclusion in emergency management.
- Increase the number of women and people of color within the emergency management profession.
- Educate and train the emergency management enterprise on diversity, inclusion and equity issues as it relates to women, people of color, people with disabilities, Lesbian, Gay, Bisexual, Transgender, and Questioning (LGBTQ), various religious beliefs, low-income, disadvantaged communities, and other underrepresented groups within each phase of emergency management.
- Cultivate women and people of color emergency management leaders through training programs.
- Promote efforts to integrate social equity within emergency management to improve outcomes for communities of color and vulnerable populations.
- Build resilience in communities of color and underserved communities by supporting innovative mitigation and adaptation projects.
- Diversify participation in the resilience and emergency management economy.
- Highlight innovative diversity and inclusion best practices enhancing community resilience.



Research Project

Students of color, primarily, as well as women, LGBTQ and those with disabilities can often have a challenging time in academic institutions. I-DIEM has heard from several college



students who have not received needed support from their institution and faculty in addressing issues related to inequities and bias. It is their perspectives, centered on the need for intentional diversity and representation, that will be highlighted and documented throughout this project.

I-DIEM proposes to develop four (4) virtual convenings for up to five hundred (500) participants each session to address the needs of diverse students attending emergency management and homeland security-focused programs, and who may have experienced bias and/or discrimination of any kind in their academic or professional careers. The goal of the convenings is to outline solutions that better support diverse students and their journey to academic success in their chosen career field. These virtual convenings will be facilitated by I-DIEM appointed facilitators and/or coaches who will offer opportunities to develop solutions.

Students will be recruited using online promotion and accessing I-DIEM's network of academic institutions. I-DIEM will encourage other academic institutions to participate, as well. I-DIEM will recruit diverse students for participation by promoting the overarching convening purpose and our organizational mission: increased representation within emergency management, to include academic programs. At the conclusion of each virtual convening, transcription of the audio will be provided online. A feedback survey will be distributed to attendees and data gathered will be used to create a guidebook that can better inform academic faculty on how best to support diverse students as they matriculate through academic programs. Their perspectives will serve as a resource, in addition to known data, to inform creation of the guidebook. The guidebook will be a report of findings and provide a roadmap for potential satellite dialogues at college campuses. Guidebook completion will occur within six weeks of the final virtual convening session.

Status

The project is on track for completion. All facilitators have been selected and existing technology upgraded to accommodate larger audiences.

Developing Case Studies to Demonstrate the Impact of Race or Ethnicity, Culture, and Economic Disparity on the Development or Implementation of Emergency Management Policy and Practice

Meldon Hollis, Visiting Faculty, Savannah State University

Period of Performance

August 30, 2020 – May 30, 2021

Update as of October 21, 2020

Race, Ethnicity, and Economic Impacts SIG

I chair the Race, Ethnicity and Economic Impact SIG, which will examine the disparate impact of disasters and disaster policy and procedures across racial, ethnic, and economic groups. It is hoped that the work of the SIG will identify or develop information and/or materials addressing

these issues. We hope that the resulting material can be integrated into EM academic and training programs. The SIG will also develop a presentation for the annual HiEd Symposium.

HBCU Participation in EMI Programs

My experience with HBCUs included time as the first executive director of the White House Initiative (WHI) on HBCUs and a second five-year stint as Associate Director of the WHI. The second term at the WHI came after years at FEMA in the Individual Assistance, Public Assistance and External Affairs (Intergovernmental Affairs) programs. During the time at FEMA and the WHI, I initiated programs to increase HBCU participation in FEMA and DHS programs. That activity included securing DHS funding for Emergency Management and Homeland Security programs at HBCUs, developing and executing an MOU between FEMA and the UNCF, and developing a special offering at EMI for HBCU faculty and administrators to familiarize them with program supports and resources available through EMI.

That special offering, E390, was offered simultaneously with the HiEd Symposium. The financial support for the program was provided through the Mitigation Division at EMI. Pursuant to executive orders issued by each president since Jimmy Carter, every federal agency has designated an office and person with the responsibility to coordinate outreach to HBCUs and where possible, to develop a working relationship with the institutions. As a feature of the E390 program, I invited federal agencies such as DoD, DHS, the Department of Education, the Energy Department, the Nuclear Regulatory Commission, etc. to make presentations to HBCU faculty to familiarize the institutions with their programs.

The Gullah/Geechee Case Study

I am developing a case study of the Gullah/Geechee communities of the South Carolina sea islands. The Gullah/Geechee people are the descendants of freed slaves who lived in isolated communities on abandoned island plantations from the end of the civil war until the recent building of bridges from the mainland to the islands. The Gullah/Geechee communities have developed a distinct culture to include a distinctive dialect. The Gullah/Geechee communities withstood hurricanes for more than a century and more recently flooding and more recently are facing the impact of sea level rise along the coast. The applications and procedures of national individual assistance policies and procedures seem to conflict with the culture and history of the Gullah communities. For more information read the article by Katherine Schulz Richard at: thoughtco.com/the-gullah-language-1434488.

The case study will identify and interview local emergency management officials and community leaders. It will also review FEMA individual assistance policies and procedures to determine if the implementation of those policies raise cultural, racial, economic, and historical issues. The materials will be assembled into a print format appropriate for classroom use. The material will also be organized into visual and audio formats and submitted to the Jacksonville State University archives.

Status

Partial payment of the contract will be necessary in November to complete the project. An invoice for partial payment of the work will be submitted in November.



Case-Study Based Course: Improvisation in Emergency Response

Dr. David Mendonca, Professor, Industrial and Systems Engineering Department Rensselaer Polytechnic Institute Troy

Period of Performance

August 14, 2020 – May 14, 2021

Update as of October 26, 2020

Background

My involvement with FEMA, including HiEd, stretches back to the 1990s. I am familiar with some of the educational offerings and the HiEd mission. I did research at EMI in the late 90s. I had sporadic contact with FEMA HiEd in the following years. I participated in a HiEd workshop on research needs for FEMA HiEd, as well as a more recent one-day workshop. I proposed the idea of this course some months ago, which then led to the proposal in the form of an SOW.

Status

The course has six modules. My plan is to complete modules 3-5 first, then (in rough order) modules 2, 6 and 1. Progress is as follows:

- 1. Overview: Not started. To be done last.*
- 2. Theoretical Basis: raw materials have been organized.*
- 3. Case Studies: three of the case studies are largely completed; raw materials have been organized for two other anticipated cases.*
- 4. Situation Assessment: raw materials have been organized for most of the content.*
- 5. Decision Making: raw materials have been organized.*
- 6. Lessons Learned: some raw materials have been organized.*

Pending further discussions with FEMA, I expect course materials will be in the form of MS Office (PowerPoint, Word) and/or PDF files for the lecture notes. Format of other materials (data, sound, video) is to be determined through our discussions. At this point, my only question is regarding acceptable formats for the course materials, as well as any standards or restrictions that might apply. For example, I expect to provide data sets. Can these be in plain text files, or is MS Excel (or some other format) preferred? I might provide video. What formats are acceptable? What are the standards/restrictions on linking to external sources (e.g., other databases, YouTube, etc.)?

COVID-19 and Climate Change: Experiences of the Tribal and Indigenous Communities

Dr. Julie Maldonado, Livelihoods, Knowledge, Exchange Network (LiKEN)

Period of Performance

August 30, 2020 – June 30, 2021

Update as of October 28, 2020

Background

FEMA HiEd contacted Dr. Maldonado in Summer 2020 about developing curriculum focused on experiences of tribal and indigenous communities related to COVID-19 and climate change. Based on this initial conversation, Maldonado recruited a team of indigenous scholars, educators, and students to develop teaching modules focused on tribal and indigenous communities' experiences of COVID-19 and climate change, including ethical considerations, possible case studies and narratives integrated into the curricula. The modules will be geared towards delivering as part of undergraduate courses, including at tribal colleges and universities.

The plan was to develop 9 total modules (3 each by Greene, Iaukea, and Montgomery) to include instructions, slides, assignments, activities, case studies, and literary reference and resources list. Greene, Iaukea, and Montgomery, all native educators, will develop the teaching modules, selecting a variety of themes and topics to focus on within the context of COVID-19 and climate change. Blanchard and Rivera, native students with combined experiences at tribal colleges, other universities, and university graduate programs, will provide input into the process and review the modules from their perspectives and experiences. LiKEN (lead, Maldonado) will serve as the administrator for the work.

There will still be 9 modules developed; however, they will now include 3 each by Greene and Iaukea and 3 by Rivera and Neosh (brought on to the team in October) together, with support from Montgomery and Freeland. Blanchard will contribute input into the process and review of the modules overall. The teaching modules will be publicly available through the FEMA HiEd website to promote equitable emergency management education. The project team will maintain the rights to post the modules on their own educational websites for dissemination and be fully credited with the work.

Status

Each team member is working on developing their modules, and meeting together over online communication as needed.

Timeline

- February 28: 1st draft of the 9 modules.
- March 1–May 1: Iteration, review, and revisions of the 9 modules.
- May 1–May 15: Graphic design-work of the 9 modules.
- May 15: Final draft modules delivered to the HiEd Program.
- May 15–June 30: Iteration between HiEd Program and the Contract Team.
- June 30: Final modules completed and signed off by the HiEd Program.

Recommendations for HiEd Program

The following recommendations are from some of the Culture and Disaster Action Network members who worked on the “Building Cultures of Disaster Preparedness” report, among other projects with FEMA HiEd, as compiled by Maldonado:

- *Work with leaders in the field asking their advice in terms of the FEMA mission and issues relevant to the field of emergency management in general. Core competencies and curriculum needs to be expanded, including theories of change, cultural awareness, and historical contexts. This also includes recognizing and expanding the range of*

perspectives to the many people outside the realm of Homeland Security and Emergency Management teaching about disasters.

- *There is very little attention given to scholarly work that helps lay out the stakes of and methods for building trust and long-term relationships with diverse communities to meet the FEMA mission “before, during, and after disasters.” In addition to its work with state and local partners, FEMA’s HiEd Program could help provide guidance and leadership focused on building trust and long-term relationships with diverse communities.*
- *There is also very little scholarly work related to how FEMA’s culture could reduce the suffering of survivors. FEMA’s HiEd Program could support work to fill this gap.*
- *Academic work for FEMA HiEd could help address the above issues but this first requires the development of methodologies through pilot testing to be move forward effectively and appropriately. One suggestion is for FEMA HiEd to fund a few pilot studies designed to produce such methodologies, which would feed right back into FEMA and could help bolster the significance of FEMA HiEd to FEMA overall.*

The FEMA HiEd Program has successfully funded many small initiatives. However, there has been limited connection back to disaster practitioners or the agency overall through these project-based initiatives. One recommendation is to develop a strategic plan that builds out a roadmap for how the FEMA HiEd Program can connect initiatives together to build a greater whole, and to develop a pathway for funded initiatives to connect back to both practitioners and the agency.

2020 Utah Earthquake/COVID Response

Dr. David McEntire, Dean, College of Health and Public Service, Utah Valley University

Period of Performance

August 3, 2020 – May 30, 2021

Update as of October 7, 2020

Status

I have one other contract and that is to work on a paper that examines how difficult it is to respond to disasters while COVID-19 is going on. I received this contract in the summer and immediately turned in my IRB application. I received approval a week ago to proceed. In the last few days, I contacted Daniel Green (FEMA Region VIII) to let him know my application was approved. He is going to help me identify people to interview at the local, state and federal levels. I also asked my administrative assistant to block off days for interviews and she has completed that. So, I will be interviewing people in October and November. I will also transcribe the interviews over these months. In December I will write up my findings in a manuscript. At that point, I will get this published in one of two venues: In an academic journal or on the FEMA HiEd website. Let me know if you have a preference. I also plan to present my findings at the annual Symposium.

FEMA Region IX Higher Education – Practice Collaboration Tool

Dr. Melanie Gall, Co-Director, Clinical Professor, Center for Emergency Management & Homeland Security, Arizona State University

Period of Performance

August 3, 2020 – May 30, 2021

Update as of October 29, 2020

Background

The idea of the Practice Collaboration Tool originated during the monthly FEMA HiEd Collaborative Planning Team Region IX meetings throughout 2020 and which later formed the FEMA HiEd Wildland Urban-Interface Governance (WUI) SIG. The web-based tool will not include any proprietary or personal information. The tool will be maintained by the WUI SIG and supported by Arizona State University. The tool is built on the Esri ArcGIS Online platform and will utilize the ASU educational GIS license. The web-based tool will connect applied emergency management projects with higher education resources and vice versa. The goal of this project is two-fold:

- A. Immerse graduate and/or undergraduate students in community projects that allow them to apply, expand, and translate their emergency management core competencies acquired during their academic studies into work-ready skills.
- B. Connect emergency managers and other community stakeholders with faculty and students to implement community projects through in-class projects, virtual internships, guided studies, and similar.

Team Members

- Melanie Gall, ASU Center for Emergency Management and Homeland Security.
- Nerrisa Pinto, ASU Center for Emergency Management and Homeland Security.

Projected Timeline

| Step | Deadline | Status |
|--|------------|-------------|
| Collect data on higher education degrees/programs in emergency management and related disciplines, key program features and/or university/assets along with relevant points of contacts (from FEMA HiEd website) | 1/31/2021 | In progress |
| Create FEMA HiEd AGOL data layer | 1/31/2021 | In progress |
| Create draft of story map page | 10/1/2020 | Completed |
| Create dashboard wireframe | 10/15/2020 | Completed |
| Contact Lori Peek (Natural Hazards Center) regarding SSEER to allow for use of researchers' network dataset | 10/15/2020 | Completed |
| Create draft question of project intake form | 12/15/2020 | In progress |
| Create Survey123 survey form | 12/31/2020 | In progress |
| Finalize project dashboard draft | 2/15/2021 | |
| Finalize story map text draft | 2/15/2021 | |
| Share with WUI SIG members | 3/1/2021 | |



| | | |
|--------------------------------|-----------|--|
| Collate feedback | 3/15/2021 | |
| Implement suggestions | 3/30/2021 | |
| Finalize Survey123 survey form | 4/15/2021 | |
| Finalize project dashboard | 4/15/2021 | |
| Finalize story map | 4/15/2021 | |

Tool Location

storymaps.arcgis.com/stories/0a6f4da3fdef4503be8563dfb0560172.

Concept Paper: Ethics Course Module

Dr. Andrea Adams, Assistant Professor of Crime, Justice and Security Studies, University of the District of Columbia

Period of Performance

August 14, 2020 – April 30, 2021
Update as of October 27, 2020

Status

I am pleased to announce that we launched the Global Ethics Day Student Video Contest on October 21, 2020, Global Ethics Day 2020! As a part of the Ethics SIG, the Global Ethics Day sub-committee of Alyssa Provencio, Sandy Smith, David Etkin, Jude Colle, and our adopted member Daniel Scott developed an internet platform that students will use to enter a video contest. I have included the ad for the competition below. The next step is for the committee to publicize the competition so that we will have several entries. We invite your help by sharing the link to the competition: globlethicsday.wishpondpages.com/emergencymanagementvideo2020/.

Thanks to Daniel Scott, we launched the session during his podcast and started publicizing the competition. Here is a link to the podcast: sitchradio.com/our-shows/em-student/.

The Carnegie Council is the group that sponsors Global Ethics Day internationally and will share the link on their website. We have invited Deborah Caroll, responsible for Global Ethics Day at the Carnegie Council, to participate as a judge for the competition, and she has accepted.

As you can see, the competition runs until February 28, 2021. Once the videos are submitted, we will invite the emergency management community and others to vote for the best video, and the judges will decide the order of the winners. We plan to announce the winners on or about April 1, 2021.

What's exciting about the contest is that we are using the competition process to garner student's perspectives on the ethics of access and equity in emergency management. We will use that information to inform a Course Module on the same topic for the FEMA HiEd Program. The course module will also be a part of our Curriculum committee content.