Emergency Management Higher Education Degree Programs, Standards Alignment, & Workforce Analysis

A Strategic Mapping of Emergency Management Degree Programs, Standards Alignment, and Workforce Systems developing the next generation of Emergency Managers.

May 2024

FEMA

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Preface

This project was sponsored and funded by the FEMA Higher Education Program, National Training & Exercise Division (NTED). The FEMA Higher Education Program annually funds competitive multidisciplinary applied research proposals that examine real-world complex problems and provide actionable recommendations to advance the discipline of Emergency Management. This report underwent peer review and FEMA Higher Education Program review prior to acceptance to ensure sound research methodology and writing practices were demonstrated.

Executive Summary

While the collegiate atmosphere is preparing emergency managers for the field, the organizations and communities are increasing their need to hire emergency managers to inform, protect, and lead in the face of disasters. The increasing frequencies of natural, human-made, and technological disasters have resulted in communities and organizations requesting more support and resources. Even with FEMA doubling their response, organizations and communities are seeking immediate internal support to prepare for the next disaster. An emergency manager's role and responsibilities are ever evolving and changing to meet the needs of all disaster survivors. However, when aspiring emergency managers, who have earned their bachelor's degree, begin their job search, many of them may struggle to qualify for entry level positions. Many organizations need immediate relief and security from potential hazards within their community. As employers seek Emergency Managers, there appears to be a vast difference of role responsibilities and requirements for entry level positions. Seeking to lessen the gap between identified core competencies in bachelor's degree programs across the nation and employer needs, it is important to mitigate this for emergency management organizations and their communities by gaining insight from the general core competencies and standards in the academic field to provide employers with a workforce that can best support the job needs.

The emergency management field continues to grow in its responsibilities and actions. The Whole Community approach has required emergency managers to take on a myriad of challenging problems and a rapidly evolving skill set to perform the job effectively. While emergency management education has been around since 1951 with the Civil Defense Staff College and closing with FEMA's birth in 1979 to become the National Emergency Training Center and quickly becoming today's Emergency Management Institute (EMI), and following the impact of Hurricane Andrew in 1992, FEMA decided to take its programs into the training realm while transitioning its educational programs to colleges and universities around the nation (FEMA.gov, 2022a). With FEMA focusing on the immediate training needs of the emergency management community, colleges and universities could begin developing the programs aimed at the next generation of emergency managers with college degrees.

Having a college degree presumes the recipient has a broad enough education to cover soft skills such as critical thinking, leadership, ethical behavior, communication, problem-solving, organizational and conflict resolution skills while defining hard skills toward the profession in which they study. Some of these might include analytical, computer, strategic and project management, presentation, and writing skills. For emergency managers, the ability to remain calm under pressure, the flexibility to make quick decisions as incidents change, and political savviness require thorough exposure to the challenges of the field while developing the skills to be a well-educated emergency manager ready for all the job brings.

Today, a plethora of colleges and universities have developed emergency management programs from associate degrees to doctorates as well as non-degree certificates to provide an educational structure around the field (CollegeChoice.net, 2022). FEMA's

Emergency Management Higher Education Program established some common objectives and practices of the emergency manager, particularly through EMI's many training courses, but with FEMA moving its education programs into the academic community, the standards of a degree program more often aligned with the institution itself as opposed to any fundamental standards within the emergency management community (FEMA.gov, 2022b). To further the challenge, programmatic accreditation has been particularly challenging to develop over the past 70+ years. Only recently has the academic community developed programmatic accreditation to align common practices and standards of the emergency manager. Unfortunately, there is still no federal Education Department or Council for Higher Education Accreditation (CHEA) recognition of such accrediting bodies (CAEMHSE, 2022). However, the Council for the Accreditation of Emergency Management and Homeland Security Education (CAEMHSE) developed the first higher education programmatic accreditation seeking appropriate recognition. Still, time necessitates demonstrative success in accreditation for these programs before they are fully recognized in both the academic community and the emergency management field. Identifying common standards necessary for the emergency management profession that colleges and universities can align their programs' outcomes mapping to and assure the students and employers that they are receiving an education grounded in fundamental emergency management practices also exacerbates the challenges.

Another emergency management-based organization is the Emergency Management Accreditation Program (EMAP) which conducts peer reviews of emergency management field programs at the local, tribal, state, federal, and international levels to ensure the programs that emergency managers work in are aligned under the fundamental needs of the emergency management community, typically as an Office of Emergency Management (OEM) within a given jurisdiction (EMAP.org, 2022). This process is strictly voluntary by the OEM or other jurisdictional emergency management entity, resulting in a dearth of accreditations made by EMAP across the United States at this time.

Between FEMA, CAEMHSE, and EMAP, standards embraced by the emergency management community are slowly gelling for colleges and universities to build sound academic programs across the nation. Doing so would seemingly produce effective, well-educated, and field knowledgeable emergency manager candidates for the next generation.

Purpose of the Study

The primary goal of this study was to provide an understanding of core competencies within bachelor's degree programs and emergency management job market trends in alignment with the *FEMA Strategic Plan 2022-2026*.

This study reviewed the composition of bachelor's degree emergency management programs, if and what they are aligned with in the field, and what requires further development to address novel or emerging issues in the field (i.e., climate change, public health epidemics/pandemics, etc.). This study additionally analyzed the emergency management workforce market in the early months of 2024 with the alignment of competencies of an emergency management bachelor's degree. This study focused on entry level positions in the government, private, and non-profit sectors to identify any differences between entry level positions and how it relates to the core components of the FEMA strategic plan.

Additionally, this study analyzed the links between higher education standards outlined by the Next Generation Core Competencies (Feldmann-Jensen et. al, 2019), the Council for the Accreditation of Emergency Management and Homeland Security Education (CAEMHSE), and the Emergency Management Accreditation Program (EMAP). The study focused solely on bachelor's degree programs as they are the requirement for most entry-level positions in the field of emergency management. Master's degree programs are beyond the scope of this study but will undoubtedly offer another academic area ripe for investigation into what drivers should be implemented at the bachelor's level and what constitutes the next level of standards in the emergency management field. In addition, a small number of doctorate programs in the field, or related field, exist that would be instrumental in understanding their contributions to further the scholarly impact related to the practitioner needs of emergency management. This study further provided opportunities to communicate its findings through the FEMA Emergency Management Higher Education Program at the 26th annual FEMA Emergency Management Higher Education Symposium, June 2-4, 2024. More opportunities must be identified to further bridge the gap between employers and next generation Emergency Managers.

1. Support for the FEMA Higher Education Program Research Agenda

This project's methodology supports the FEMA Higher Education Program Research Agenda Thrust Areas as follows:

1. Justice, Equity, and Capacity Development – This study addressed how justice and equity are incorporated into the courses that, with the proper skill development, will produce degreed emergency management professionals that will influence the entire disaster life cycle, as well as the ways in which capacity might be developed among those remaining at

elevated risk post-disaster. This principal research thrust cuts across the remaining four thrust areas.

2. Risk Buildup and Disaster Exposure – This study examined how customized ethics, systems thinking, and communications curriculum can address how cumulative personal and collective disaster loss influences developmental trajectories for individuals, family dynamics, and neighborhood and community resilience.

3. High-Risk Habitation Zones – This study examined how emerging issues in emergency management (climate change) provide attention to the environmental and social vulnerability to both high-impact and chronic disasters.

4. Data, Technology, and Societal Impacts – This study examined how emerging technology is incorporated into the cross-disciplinary curriculum, including statistics and data analysis, technology, and societal impacts that focus on both innovation and risks associated with old new, and emerging technologies.

5. Infrastructure for Humanity – This study is multi-dimensional in that it explored existing emergency management degree programs against standards within the field while uncovering gaps in programs that may provide the academic deans and directors with insights for program revisions, provide FEMA with insights into the best practices for collaborating with higher education institutions, provide accrediting bodies with insights about how higher education programs are, or could be, structured to align the field, and provide deeper reflection into how these programs address the human skillset required of a 21st Century Emergency Manager.

2. Objectives and Outcomes

This study attempted to capture any gaps within the current job market trends and emerging emergency managers and to provide an understanding of core competencies within bachelor's programs, FEMA strategic plans, and job market trends.

Additionally, this project identified how current emergency management bachelor's degree programs are built and how the courses are aligned relative to established emergency management standards from NGCC, CAEMHSE, and EMAP.

The study addressed the following fundamental questions:

1. Is the program aligned with any definitive emergency management practices and/or standards?
2. Are there any areas not aligned with NGCC, CAEMHSE, and/or EMAP standards?
3. What are the program's emerging outcomes and skills development?
4. What are the gaps in the current job market and next generation Emergency Managers.

This study captured common themes to provide FEMA with an understanding of how emergency management bachelor's degree programs are developed and aligned with any reputable emergency management standards and practices.

This study uncovered areas within emergency management programs that need further development with emerging concepts in 21st Century Emergency Management.

The result of this study provided an alignment of job market trends, FEMA Strategic plan and academic core competencies. Additionally, this study may provide additional information to FEMA, CAEMHSE, and/or EMAP to assist in alignment across each of these entities with academic programs, goals, and objectives.

The results of this study provide insights for further research, especially with how bachelor's degrees may feed into graduate degree study, what graduate degrees should look like, and what research should be incorporated into graduate degree study.

3. Project Alignment

This project aligns with the *FEMA Strategic Plan 2022-2026*, the *Higher Education Research Program Agenda*, and the *Next Generation Core Competencies* as follows:

FEMA Strategic Plan 2022-2026: This project supports the FEMA Strategic Plan by addressing the following goals:

1. Instill Equity as a Foundation of Emergency Management: This study examined whether and the extent to which emergency management degree programs incorporate equity specifically within the emergency management community. Typically, ethics courses are required but often fall under general education requirements rather than a customized emergency management ethics course to address the nuances of this area. Further, the sociology curriculum was examined to determine the extent of equity captured within the well-rounded degree program's objectives.

2. Lead Whole of Community in Climate Resilience: This study examined whether and how emerging issues in emergency management are captured within the courses, particularly regarding climate change. Additionally. It examined whether the program has any requirements, such as an environmental science course that will also be reviewed for the extent it captures climate change. The study will synthesize this information to determine whether and how the Whole Community and Resilience concepts are captured in the course objectives.

3. Promote and Sustain a Ready FEMA and Prepared Nation: This study hopes to serve as an information point for FEMA to have conversations with higher education institutions about collaborative processes to strengthen academic programs and develop more robust and more efficient emergency managers for the workforce.

FEMA Higher Education Program Research Agenda: This project supports the FEMA Higher Education Program Research Agenda as addressed under the Methodology section. It further ensures that the project itself aligns with the following standards:

1. Scanning the Horizon: This study emphasizes the review of several emergency management bachelor's degree level programs across public, private, and for-profit higher education institutions. Reviews of emergency management programs are numerous, but with the relatively recent programmatic accreditation availability, very little has been provided to address the alignment of academic degree programs with emergency management education standards.

2. Fostering the Interdisciplinary: This study requires collaboration with not only higher education institutions but with colleagues from FEMA, CAEMHSE, and EMAP. Understanding the true needs of the 21st Century Emergency Manager necessitates an examination of how all of these entities align.

3. Embracing Ethics: This study specifically seeks to understand if and how ethics courses are provided to the emergency management major and whether, by virtue of the standards outlined by FEMA, CAEMHSE, and EMAP, they need to be customized for the field.

4. Transferring Knowledge: This study is sensitive to academic institutions' other emergency management degrees. While this study focuses on bachelor's degrees, it is expected to provide insights into other educational programs across disciplines and graduate degree program content. Therefore, this information will be shared with the University and Agency Partnership Program at the Center for Homeland Defense and Security, which has over 400 higher education institutions with emergency management and/or homeland security programs.

5. Maximizing Impact: This study can reach a broad audience toward many change opportunities. It can inform higher education on emergency management program revisions, advise FEMA as a conduit for standards alignment at the field level, inform CAEMHSE about academic programs that might want programmatic accreditation, and inform EMAP about what OEMs might wish to accredit their programs. It further allows students to learn a holistic approach to emergency management with a standards-based curriculum supported by field agencies and FEMA.

Next Generation Core Competencies: The Next Generation Core Competencies essentially establish the core standards upon which bachelor's degrees may be built. The following competencies build,

- Relationships: Disaster Risk Management − Community Engagement − Governance & Civics − Leadership

- The Practitioner: Scientific Literacy − Geographic Literacy − Sociocultural Literacy − Technological Literacy − Systems Literacy

- The Individual: Operate within the EM Framework, Principles, & Body of Knowledge − Possess Critical Thinking − Abide by Professional Ethics − Value Continual Learning

This was uncovered through a detailed review of the course descriptions and objectives from each emergency management bachelor's degree program. This examination will inform the gap analysis, leading to an understanding of what is missing and what recommendations may be made from this study.

Chapter 1: Emergency Workforce Job Opportunities

This portion of the report consists of the findings from the qualitative analysis of job descriptions for positions related to emergency management from late 2023 through early 2024, across FEMA Regions 1 through 10 in the United States. This analysis is based on an examination of 133 emergency management-related job descriptions, requiring a bachelor's degree or specifying no minimum education requirement. The findings are presented in aggregate; however, a list of companies or entities from which job descriptions were analyzed is provided in the appendix.

1. Purpose of the Study

The purpose of this study is to gain an understanding of the emergency management workforce market by examining job descriptions requiring a bachelor's degree and those that are entry-level. This study explores trends or themes among job descriptions in general and specifically related to job titles, sector types, qualifications, and the alignment with the Next Generation Core Competencies listed in publicly available information.

2. Methodology

2.1. Job Description selection

Job descriptions were searched for, identified, and selected using Google.com and the Job search function. The initial terms used for searching for job descriptions included: emergency management, emergency planning, emergency preparedness, emergency response, and emergency recovery. Additional terms identified in the search results were also explored in the search and selection of job descriptions, and were typically associated with disaster planning, preparedness, recovery, and hazard mitigation. All positions selected included specific reference to either one or more initial or additional search term. The research team also included geographic locations in their search, to ensure representation of job descriptions across the United States. Once the job descriptions were found and aligned with the aforementioned criteria, those selected for inclusion in the study either listed a minimum education requirement of a bachelor's degree or did not specify an education level requirement.

2.2. Analysis

For this analysis, a combination of descriptive and qualitative analysis was used to understand the emergency management workforce market. Descriptive analysis, consisting of counts, frequencies, and percentages are used to describe the sample of job descriptions wholistically. Such analysis is focused on understanding the distribution of job descriptions among FEMA's 10 Regions, by educational requirement, by experience required, by emergency management area, by title, and by sector, as well as trends associated with such variables. Job descriptions were collected and sampled from the end of 2023 and beginning of 2024 due to study timeframe limitations and contractual requirements.

Qualitative analysis was used to understand broader themes related to job, qualifications, and the Next Generation Core Competencies (Feldman-Jensen et al., 2017). Both analysis and research triangulation were used to support the rigor and trustworthiness of this analysis (Leech and Onwuegbuzie, 2007; Shenton, 2004). Constant comparative analysis (Glaser & Strauss, 1967), and classical content analysis (Berelson, 1952) were used as the primary analytic techniques. The use of two or more techniques in qualitative research is important as it supports triangulation of the findings (Leech and Onwuegbuzie, 2007) to better understand a phenomenon more fully. In addition, the analysis of the job descriptions by a team of two researchers also supports analysis triangulation, as extensive conversation was undertaking and refinement of codes to further the rigor and trustworthiness of this study. Lastly, to ensure representation of job descriptions across the United States, FEMA's 10 Regions were used to identify and select job samples for this study, to support trustworthiness of the findings (Yardly, 2000).

To conduct constant comparative analysis, the job descriptions were viewed wholistically, which required and preferred qualifications were analyzed together as not all job descriptions made delineation between the two. A priori categories were established prior to analysis based on the general understanding of typical content in job descriptions, and a cursory review of job descriptions during the selection phase. For analysis, inductive, or open codes were identified by the research team as they emerged from the data. Utilizing the comparative method as stipulated by Glaser and Strauss (1967), open codes are applied to job descriptions while also being compared against previously coded text segments, as a means to refine or combine said codes. From this process, codes for most categories were "abstracted from the language of the research situation" (Glaser & Strauss, 1967, p. 107), and were grouped together in additional subcategories as appropriate. Classical content analysis was then undertaken to evaluate which categories and applied open codes were most prevalent in the job descriptions. Using the results of the constant comparative, counts were tabulated based on the number of times a job was coded with a category and associated open code(s). From the counts a relative frequency percentage was computed and is presented along with the results as applicable.

Classical content analysis was also used to examine job descriptions for the Next Generation Core Competencies. For this analysis, both the categories and codes were established a priori, and did not undergo expansion by inductive or open coding. This approach was used because explicit references to each competency were not provided, and the language associated with each was varied. Therefore, job descriptions were reviewed, and codes applied based on inference utilizing key words aligned with the behavior anchors/key actions from the Next Generation Core Competencies (Feldman-Jensen et al., 2017). As such, the analysis of these competencies is presented according to frequencies, along with example excerpts selected from the job descriptions for elucidatory purposes.

2.3. Sample

A total of 133 job descriptions were included in the analysis. Job descriptions represent all 10 of FEMA's regions (Figure 1.1); however, no job descriptions were found for the territories in Region-9 (American Samoa, Commonwealth of Northern Mariana Islands, Republic of Marshall Islands, and Federated States of Micronesia).

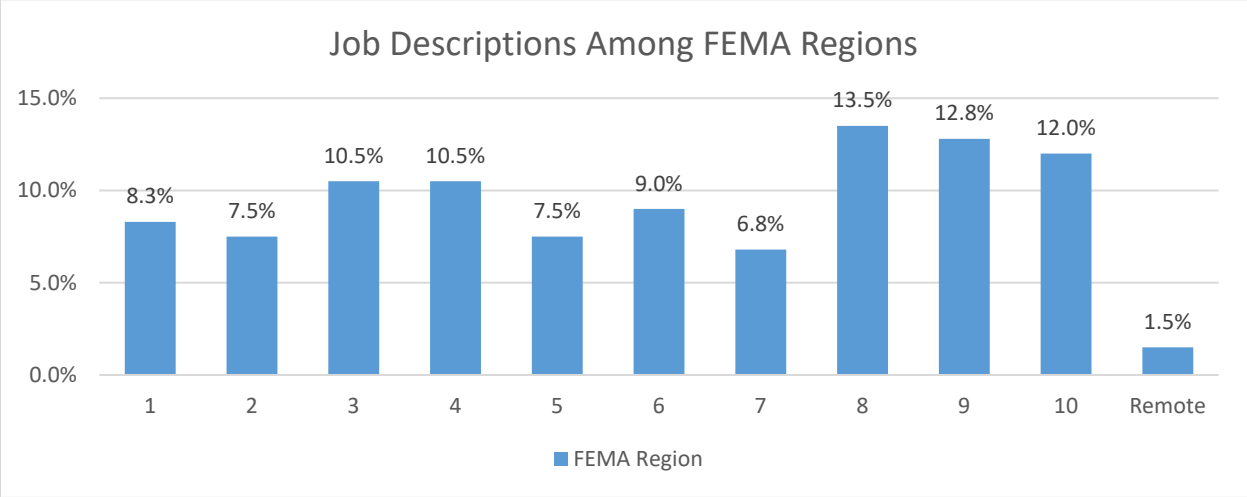


Figure. 1.1: Distribution of job descriptions among FEMA's 10 Regions

3. Descriptive Findings

The subsequent descriptive findings are derived from counts and frequencies calculated across all job positions, aimed at offering a comprehensive overview and facilitating meaningful interpretation of job descriptions. This section specifically highlights educational requirements and experience requirements extracted from the analysis of 133 job descriptions. Educational and experience requirements will serve as the primary segmentation criteria for the results presented in this section.

3.1. Educational Requirements

Among the 133 job descriptions, 81.2% required a bachelor's degree (n=108), and 18.8% did not specify an education level requirement (n=25). Job descriptions were coded to identify the specific degree field required for each position. A total of 47 degree fields were indicated among these job descriptions, which consists of all job descriptions requiring a Bachelor's degree, as well as seven job positions which did not specify an education requirement. Appendix B provides the list of all 47 degree fields indicated in the job descriptions with their respective 2020 Classification of Instructional Programs (CIP) codes (IES-NCES, 2020). Table 1.1 shows the relative frequency with which each classification appeared among the job descriptions specifying a degree field requirement. The CIP code, 43) HOMELAND SECURITY, LAW ENFORCEMENT, FIREFIGHTING AND RELATED PROTECTIVE SERVICES., was the most frequently occurring degree fields specified in 85.2% of the job descriptions.

Table 1.1: Degree field CIP Code, Job Count, and Relative Frequency

CIP Code	*Job Count*	*Relative Frequency*
43) HOMELAND SECURITY, LAW ENFORCEMENT, FIREFIGHTING AND RELATED PROTECTIVE SERVICES.	98	85.2%
52) BUSINESS, MANAGEMENT, MARKETING, AND RELATED SUPPORT SERVICES.	52	45.2%
51) HEALTH PROFESSIONS AND RELATED PROGRAMS.	30	26.1%
04) ARCHITECTURE AND RELATED SERVICES.	11	9.6%
14) ENGINEERING.	11	9.6%
45) SOCIAL SCIENCES.	8	7.0%
40) PHYSICAL SCIENCES.	6	5.2%
44) PUBLIC ADMINISTRATION AND SOCIAL SERVICE PROFESSIONS.	4	3.5%
26) BIOLOGICAL AND BIOMEDICAL SCIENCES.	3	2.6%
24) LIBERAL ARTS AND SCIENCES, GENERAL STUDIES AND HUMANITIES.	2	1.7%
27) MATHEMATICS AND STATISTICS	2	1.7%
42) PSYCHOLOGY.	2	1.7%
03) NATURAL RESOURCES AND CONSERVATION.	1	0.9%
11) COMPUTER AND INFORMATION SCIENCES AND SUPPORT SERVICES.	1	0.9%
15) ENGINEERING/ENGINEERING-RELATED TECHNOLOGIES/TECHNICIANS.	1	0.9%

3.2. Experience Requirements

None of the job descriptions in this study were found to explicitly indicate they were entry-level, and only 106 (79.7%) of the job descriptions provided experience requirements. Among these, only one position, for a planning specialist, indicated that a bachelor's degree and 1 year of experience or successful internship completion would be accepted. The other experience requirements found when coding all data are presented in Figure 1.2, segmented by educational requirement.

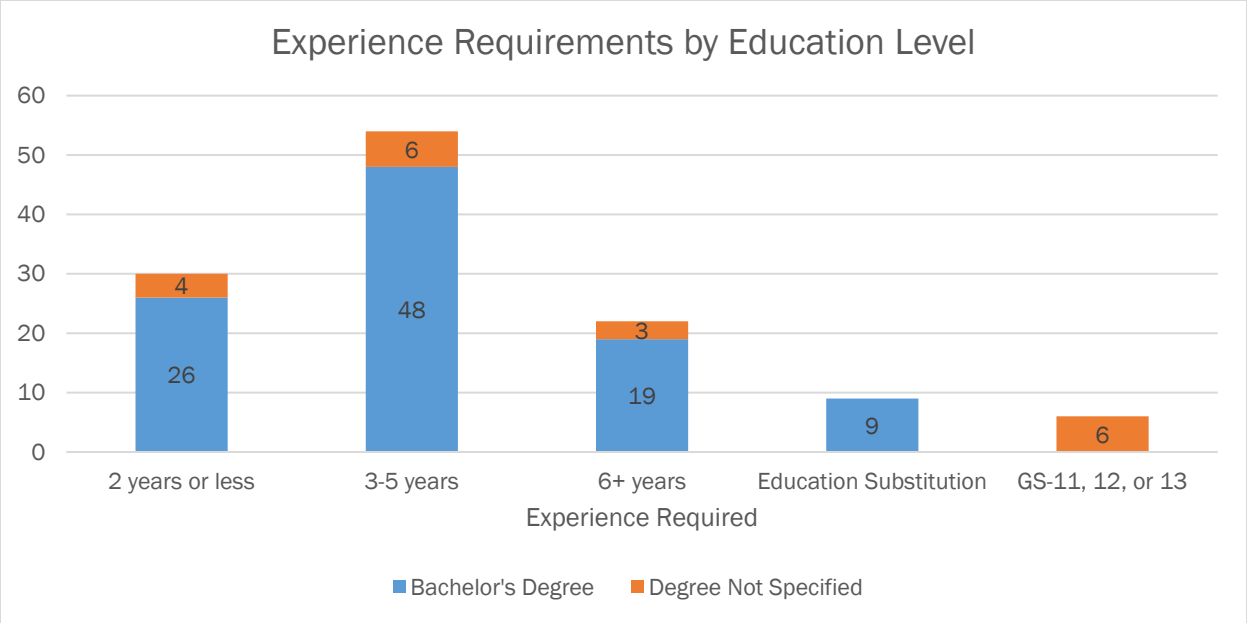


Figure 1.2. Chart indicating experience requirements by education level.

Most job descriptions indicate experience requirements between 3-5 years (40.6%), followed by 2 years or less (22.6%), then followed by 6 or more years (14.3%). This trend persists regardless of whether the job description specifies a bachelor's degree or not. As a result, this sample of job descriptions favors more experienced potential hires with 77.4% of descriptions requiring more than three years of experience.

3.3. Cross References of Emergency Management Areas

All job descriptions included in the analysis were selected because they were positions explicitly related to emergency management, emergency planning, emergency preparedness, emergency response, emergency recovery, disaster planning, disaster preparedness, disaster recovery, and/or hazard mitigation. In addition to these terms, it was found that references to multiple areas of emergency and disaster management was a common trend among job descriptions. As such, while a job description primarily indicated responsibilities around emergency management, it was common to find references to emergency preparedness, emergency response, and variety of other areas as either part of the position overview or requirements. This trend emerged regardless of length or brevity of job description. Figure 1.3 below presents the frequency with which each emergency management area was referenced among job descriptions if it appeared in more than 5% ($n \geq 7$) of job descriptions.

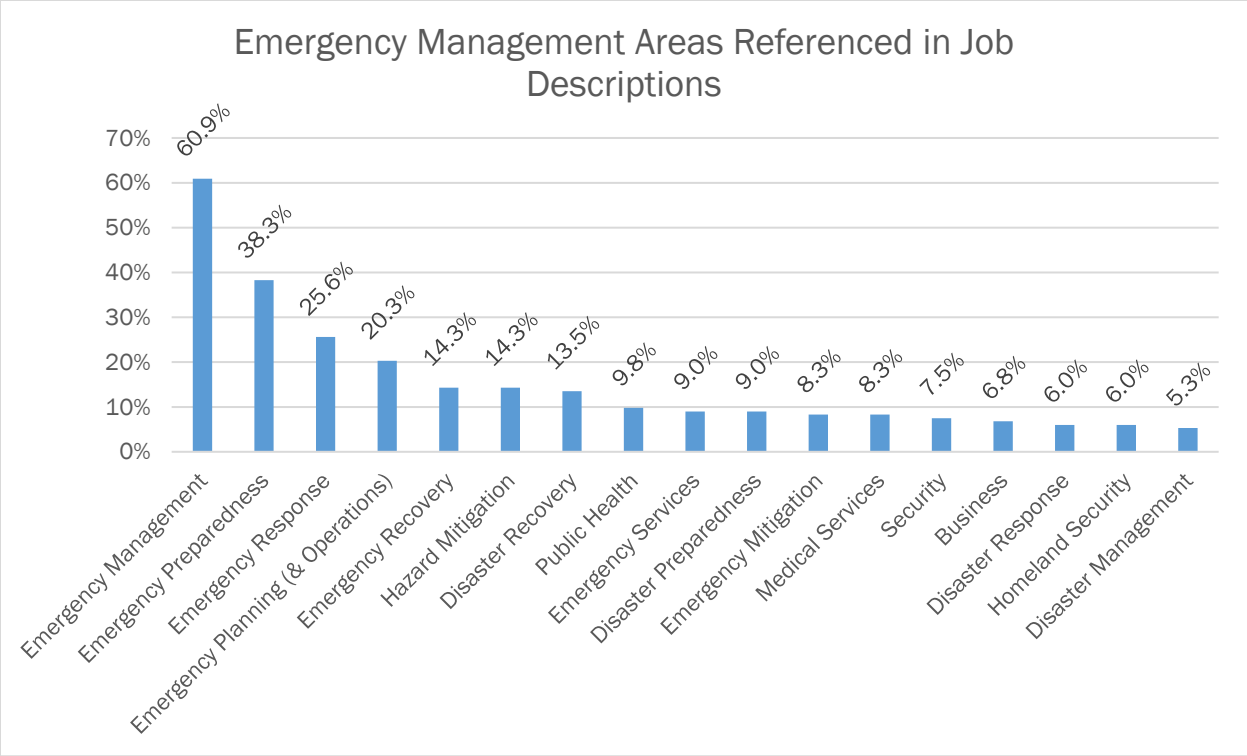


Figure 1.3. The frequency of emergency management areas referenced in among job descriptions.

The number of cross references were calculated for each of the job descriptions to explore how many jobs list one emergency management area in its description or more. As shown in Figure 1.4, references to a single emergency management area were found among 42.1% (n=56) job descriptions, with 57.9% (n=77) job descriptions referencing two or more areas of emergency management within the same job descriptions. While some overlap is understandable, it is important to note that 11.3% (n=15) job descriptions referenced between five and 10 emergency management areas in the individual job descriptions.

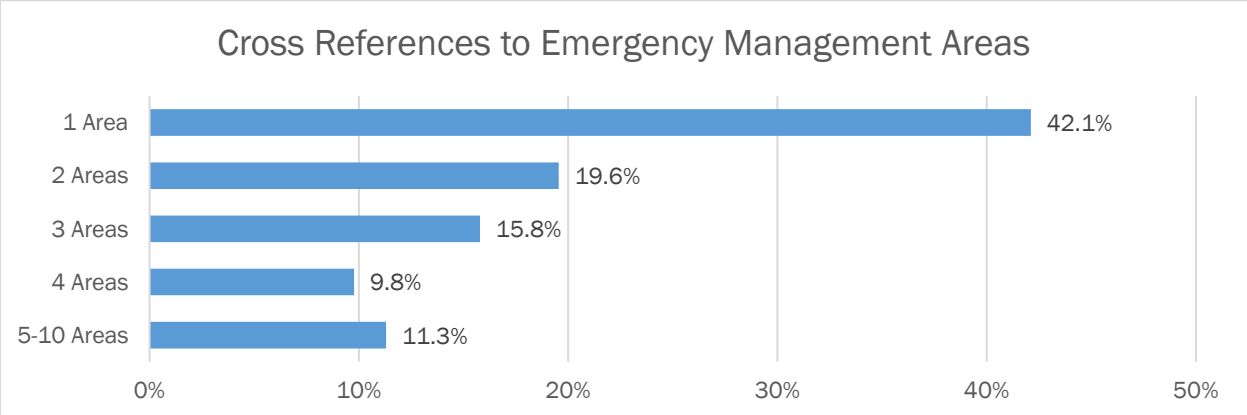


Figure 1.4. The percentage of cross references to one or more emergency management area among the job descriptions.

3.4. Job Titles

Job descriptions were coded for the specific position title listed in the posting. The five most common job titles consisted of *Specialist* (28.6%, n=38), *Coordinator* (22.6%, n=30), *Manager or Supervisor* (18.8%, n=25), *Planner* (10.5%, n=14), and *Director* (9.0%, n=12). Job titles such as Officer, Battalion Chief, Administrator, Analyst, Consultant, Leader, Strategist, Team Member, and Technician were coded as *Other* (10.5%, n=14). When examining job descriptions by required education level, the *Specialist* position is the most frequent job title found for both bachelor's degrees and when the education level is not specified (see Figure 1.5).

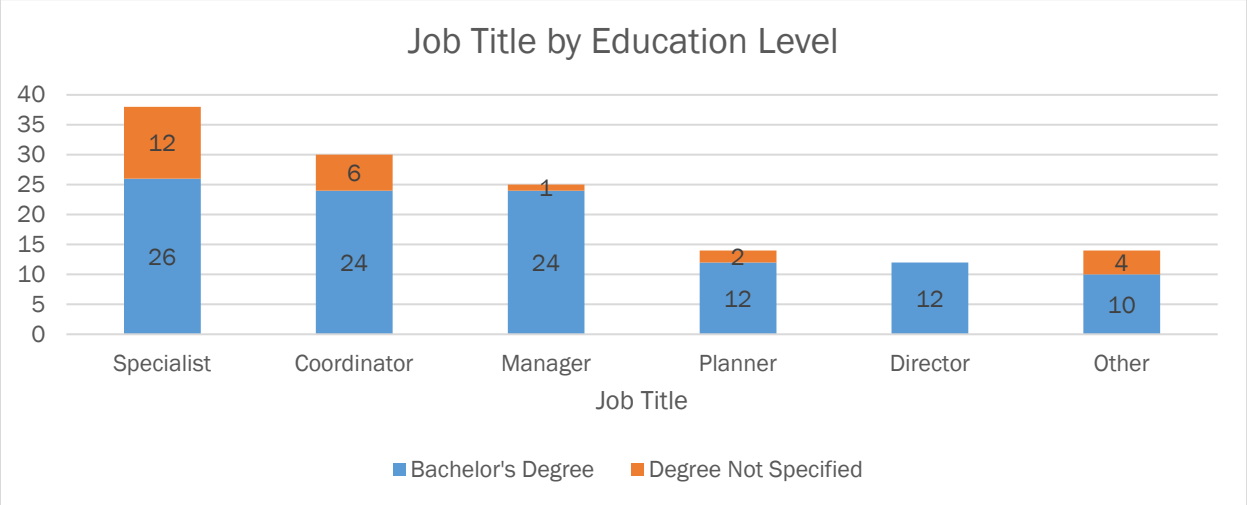


Figure 1.5. The number of different job titles by education level.

When job titles are examined by experience required (Figure 1.6), the combination of frequencies of title and experience are similar to the trends found separately. Among the *Specialist*, *Coordinator*, and *Manager* titles, 2-5 years of experience is the most common experience requirement, followed by less than 2 year of experience for the *Specialist*, *Coordinator*, and *Planner* titles.

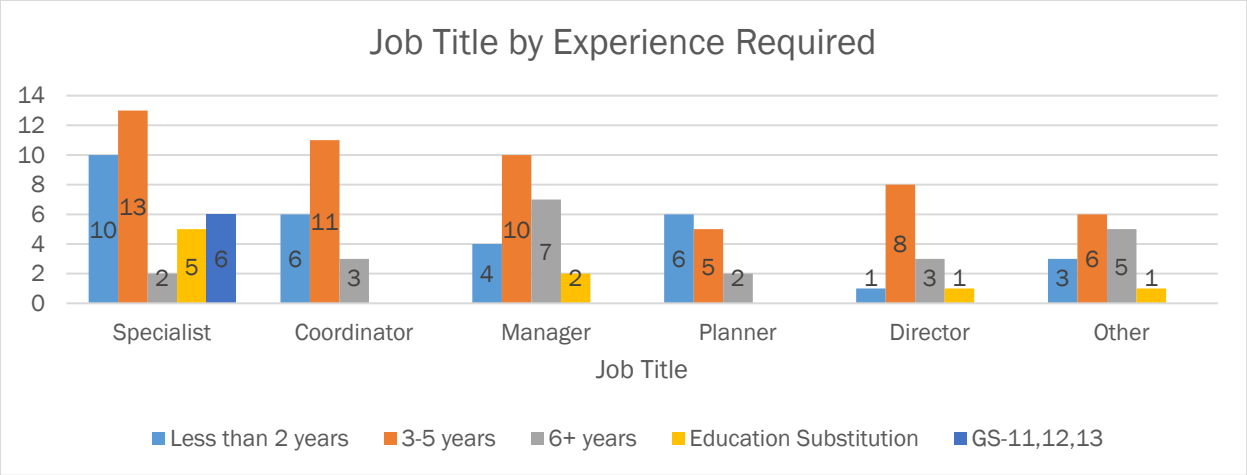


Figure 1.6. The number of different job titles by experience required.

3.5. Sector Types

Job descriptions fell into one of the following five job sectors, listed from most positions to least: *Government* (53.4%, n=71), *For-Profit* (22.6%, n=30), *Non-Profit* (11.3%, n=15), *Educational Institutions* (9.8%, n=13), and *Not-for-Profit* (3.0%, n=4). Figure 1.7 also shows the number of positions by sector type and education level.

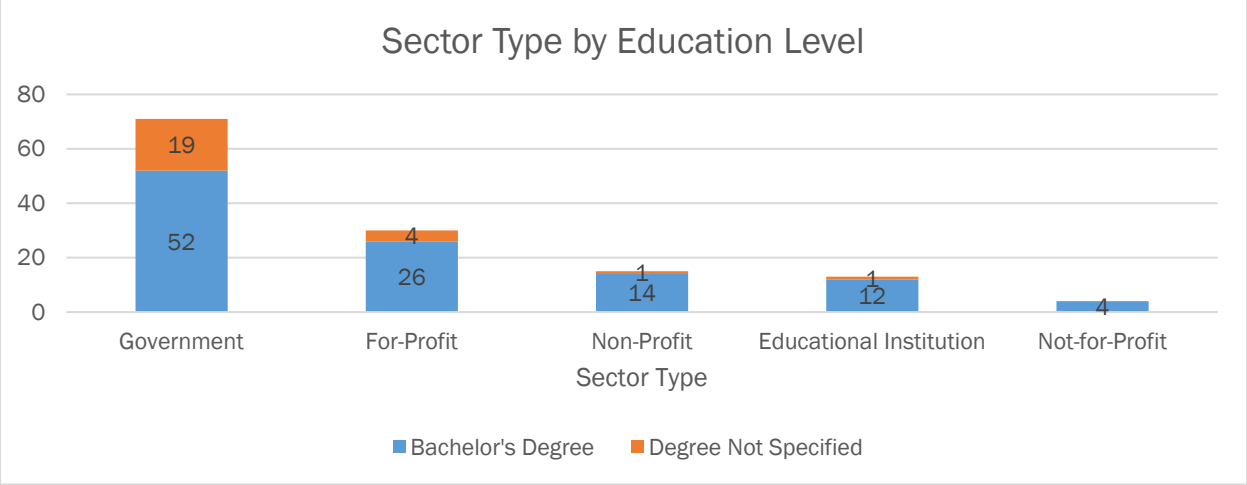


Figure 1.7. The number of jobs by sector and education level.

An examination of jobs by sector type and experience required was also undertaken (Figure 1.8). These results indicate that the largest proportion of jobs requiring less than 2 years of experience, or 3-5 years of experience are found within the Government sector. The Government sector also had the greatest number of job descriptions in which education could be substituted for experience. Additionally, the Government and For-Profit sectors were similar in the number of jobs requiring 6 or more years of experience.

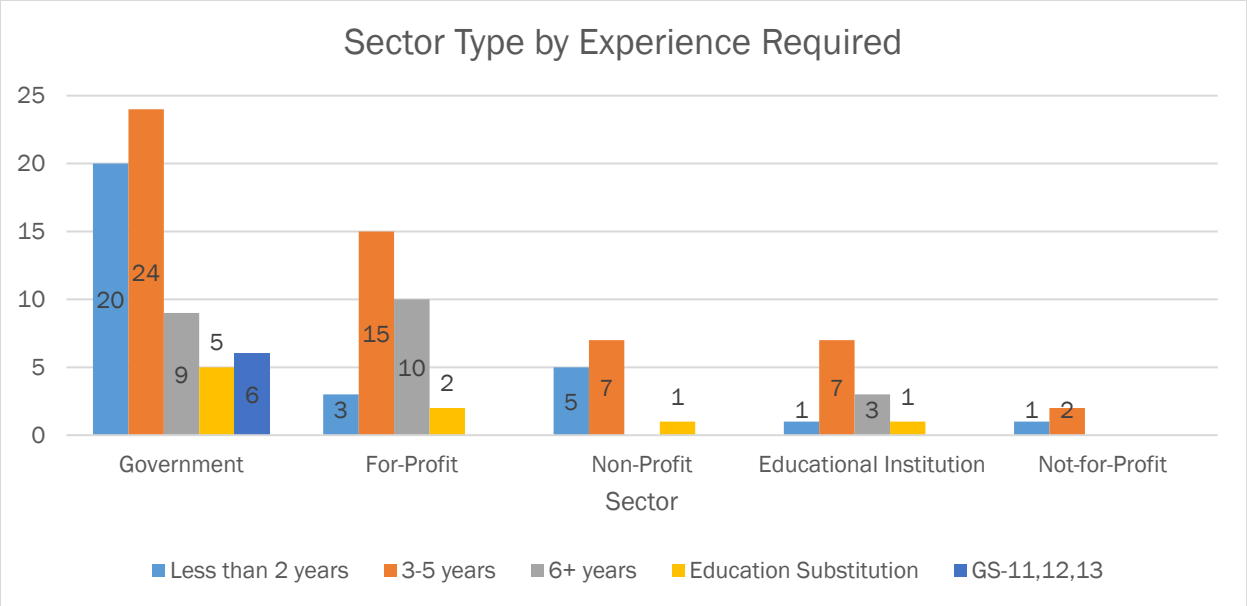


Figure 1.8. The number of jobs by sector and experience required.

4. Qualitative Findings

The following section presents the results of the qualitative findings from the analysis all of 133 job descriptions. These results are reported in aggregate, as disaggregation by education or experience requirement would not support meaningful interpretation due to low counts among codes found within the data.

4.1. Qualification Requirements

Three a priori codes related to job qualification requirements were identified prior to coding: clearances, required course completion, and certifications. The following section describes the findings from open codes developed during the analysis of each job description.

4.1.1. CLEARANCES

References to security clearance requirements were found in 8.3% of job descriptions. Among these, all references to Clearance (n=3), Secret Clearance (n=4,) and Security Clearance (n=2) provided no other specification. The two remaining references to clearances referred to DOE Q-Level Clearance. Notably, none of these positions required the clearances prior to hire, but instead indicated that they had to possess the ability to secure the necessary clearance to remain employed in the position.

4.1.2. COURSE COMPLETION

A total of 27 distinct ICS or NIMS courses were listed among the requirements of the job descriptions. Core Courses (FEMA, n.d.b) were identified, and then further separated into

Baseline Courses, Additional Courses, Emergency Operations Center Courses (FEMA, n.d.a). These courses and their frequencies are shown in Table 1.2. The successful completion of these courses was a requirement prior to being hired for most positions in which these courses were listed. By a notable margin, the primary courses required of applicants were ICS 100, IS-700, ICS-200, IS-800, ICS-400, and ICS-300.

Table 1.2: Required Core Courses in Job Descriptions

Core Courses Group	Course Title	Count	Percentage
Baseline Courses	ICS-100 Introduction to the Incident Command System	29	21.8%
	IS-700 NIMS, an Introduction	26	19.5%
Additional Courses	ICS-200 Basic Incident Command System for Initial Response	29	21.8%
	IS-800 National Response Framework (NRF), an Introduction	22	16.5%
	ICS-400 Advanced ICS	20	15.0%
	ICS-300: Intermediate ICS for Expanding Incidents	19	14.3%
Emergency Operations Center Courses	IS-2200 Basic Emergency Operations Center Functions	4	3.0%
	E/L/G 2300 Intermediate Emergency Operations Center Functions	2	1.5%
	G-191 Incident Command System/Emergency Operations Center Interface	2	1.5%
Other	IS-703: NIMS Resource Management	1	0.8%

Table 1.3 also shows the other courses listed in the job descriptions, which were found in notably fewer job descriptions as compared to the Core Courses. Among these courses, there was considerable variability regarding when the courses needed to be completed – either prior to employment or within a specified time after being hired. As a result, no discernable trend was found.

Table 1.3: Other Required Courses in Job Descriptions

Course Title	Count	Percentage
Homeland Security Exercise Evaluation Program (HSEEP)	7	5.3%
IS 240, Leadership and Influence.	5	3.8%
IS 241, Decision Making and Problem Solving.	5	3.8%
FEMA's Professional Development Series	4	3.0%
IS-120.C: An Introduction to Exercises	3	2.3%
IS-230.E: Fundamentals of Emergency Management	3	2.3%
IS-235.C: Emergency Planning	3	2.3%
IS-360: Preparing for Mass Casualty Incidents	2	1.5%
IS-362.A: Multi-Hazard Emergency Planning for Schools	2	1.5%
IS-363 Introduction to Emergency Management for Higher Education	2	1.5%

4.1.3. CERTIFICATIONS

Given the nature of emergency management, job descriptions were examined to identify the specific certifications required of potential applicants. This revealed 20 distinct certifications (see Table 1.4, listed in 47 job descriptions. Among these, the most commonly listed certification was the Certified Emergency Manager (CEM) (8.3%, n=11).

Table 1.4: Certifications listed in job descriptions

Certification	Count	Percentage
Certified Emergency Manager (CEM)	11	8.3%
CPR / AED	4	3.0%
Hazardous Material Technician (HazMat Tech)	4	3.0%
Program Management Professional (PMP)	4	3.0%
Healthcare Emergency Management Certification (HEMC)	3	2.3%
Associate Emergency Management (AEM)	2	1.5%
Certified Healthcare Emergency Professional (CEHP)	2	1.5%
FEMA Professional Development Series (PD Series)	2	1.5%
Hazardous Materials Certification	2	1.5%

Certification	Count	Percentage
Instructor Methodology Course	2	1.5%
Security	2	1.5%
Certified Healthcare Facility Manager (CHFM)	1	0.8%
Certified Healthcare Operations Professional (CHOP)	1	0.8%
Certified Safety Professional (CSP)	1	0.8%
Certified Wildfire Mitigation Specialist (CWMS)	1	0.8%
FEMA Basic Applied Practice Series (BAPS)	1	0.8%
First Aid	1	0.8%
International Association for Healthcare Security and Safety (IAHSS)	1	0.8%
Master Exercise Practitioner (MEP)	1	0.8%
National Fire Protection Association NFPA	1	0.8%

4.2. Next Generation Core Competencies

This section presents the results from codes applied to the job descriptions aligned with the Next Generation Core Competencies. Codes were based on inference utilizing key words aligned to each competency due to the lack of explicit references to each competency, and variability among language attributed to each. While explicit references were minimal, associations with job descriptions and the Next Generation Core Competencies were robust, as shown in Figure 1.9.

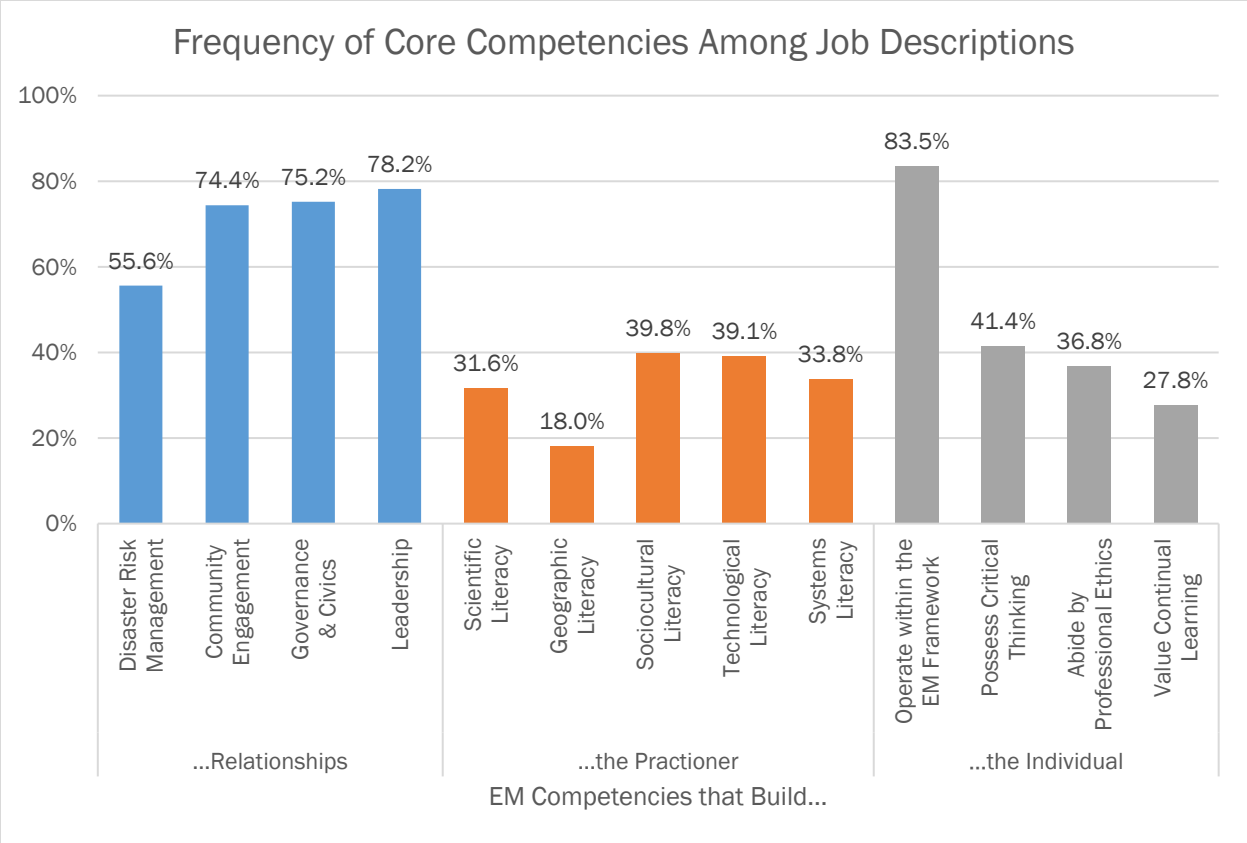


Figure 1.9. Frequency of Core Competencies Among Job Descriptions

4.2.1. EM COMPETENCIES THAT BUILD RELATIONSHIPS

EM Competences that Build Relationships focus on the foundations needed to develop an experienced emergency manager (Feldman-Jensen et al., 2017). Within this competency are the following four behavior anchors or key actions, and the definitions used by the research team for coding the job descriptions:

- **Disaster Risk Management** involves communicating and applying strategies across stakeholders to assess, reduce, and manage disaster risk, aiming for resilience and thriving communities through an understanding of interconnected systems and social interdependence.
- **Community Engagement** fosters community ownership of risk through open dialogue, collaboration, and inclusivity, promoting shared responsibility and resilience in disaster risk reduction.
- **Governance & Civics** is the participation in civic and legal processes, including governance dynamics within power structures, fostering collaborative processes across diverse sectors to achieve public value.

- **Leadership** is leading within and across organizations, emphasizing team building, collaboration, informed decision-making, shared vision, empowerment, effective communication, and an outcome-oriented environment for continual improvement in addressing complex risks.

Among the 133 job descriptions, 93.2% (n=124) were found to be associated with building relationships. Within this competency, more than 75% of all job descriptions found associations with the behavior anchors/key actions of Leadership (78.2%, n=104), Governance & Civics (75.2%, n=100). Examples of excerpts associated with all four of the behavior anchors/key actions associated with competencies that build relationships are shown in Table 1.5.

Table 1.5: Excerpts Aligned with Competencies that Build Relationships

Behavior Anchor / Key Action	Job Description Excerpts
Disaster Risk Management	▪ Conduct an annual hazard vulnerability assessment (HVA)/ risk analysis to determine the facility's risk for natural (e.g., hurricanes, floods, earthquakes), technological (e.g., Energy power plant emergencies or hazardous materials spills), human-caused (e.g., active shooter or hostage situations), and other disasters.
Community Engagement	▪ Provides guidance for levels and types of training needed for campus emergency responders including the EOC, and other key members of the campus community. ▪ Establish a schedule of training and exercises to practice/ test the emergency plans and participate with community partners in community or statewide exercises maintaining compliance with accrediting agencies. ▪ Desire to improve community resilience to public health emergencies.
Governance & Civics	▪ Previous experience working with local government, not-for-profit organizations, or an open space program. ▪ Demonstrated skill to effectively represent the campus to local, state, & federal authorities, community groups, private sector partners, and nongovernmental organizations
Leadership	▪ The ability to train others and provide lead work direction. ▪ Demonstrated conflict resolution skills to effectively lead and motivate others. ▪ Operating in key functional and leadership roles during responses to actual incidents.

4.2.2. EM COMPETENCIES THAT BUILD THE PRACTITIONER

EM Competences that Build the Practitioner focus on the capabilities and content knowledge needed to protect communities from disasters (Feldman-Jensen et al., 2017). The following definitions were used to guide the coding of the job descriptions in alignment with scientific, technological, sociocultural, geographic, and systems literacy:

- Scientific Literacy is being equipped with a broad understanding of scientific processes across disciplines, essential for managing disaster risks and vulnerabilities, using the scientific method to inform decision-making and communicate results effectively to enhance community resilience.
- Geographic Literacy is having a strong grasp of geographic configurations of hazards, vulnerability, and risk, utilizing spatial knowledge to conceptualize and analyze the interconnections across physical, built, and social environments, informing decision-making and tracking changing disaster risk profiles.
- Sociocultural Literacy recognizes that disasters' risks and impacts are socially influenced, using a sociocultural perspective to understand human behavior and its collective impact on resilience.
- Systems Literacy utilizes systems literacy to understand interrelationships and patterns of change, adapting to dynamic, complex systems by focusing on interdependent relationships and leveraging this understanding to develop future-focused strategies for adaptation and resilience.
- Technological literacy means understanding and adopting evolving technologies relevant to their practice, integrating current innovations while evaluating their utility, utilizing them effectively, and ensuring necessary security measures.

Overall, 69.2% (n=92) of job descriptions were associated with building the practitioner. Among these job descriptions, the behavior anchors/key skills associated with Sociocultural Literacy (39.8%, n-53) and Technological Literacy (39.1%, n=52) were found most frequently followed by Systems Literacy (33.8%, n-45) and Scientific Literacy (31.6%, n=42). Examples are provided in Table 1.6 of excerpts associated with scientific, technological, sociocultural, geographic, and systems literacy.

Table 1.6: Excerpts Aligned with Competencies that Build the Practitioner

Behavior Anchor / Key Action	Job Description Excerpts
Scientific Literacy	▪ Develops instructional materials and makes presentations to groups to provide information on emergency plans and the implementation process. ▪ Gathers, analyzes, and distributes public health information concerning the emergency. ▪ Studies emergency plans used elsewhere to gather information for plan development and improvement.
Technological Literacy	▪ Prepare emergency plans and procedures for natural, manmade, or technological. ▪ Responsible to test, maintain, and operate various telephony, radio frequency, and Internet-based communications, warning, and information technology systems.
Sociocultural Literacy	▪ The position also assumes a vital role in forming relationships with key constituents. There is a high level of visibility in internal and external relations between this position and law enforcement personnel, institutional units and resources, mental health organizations, courts and the community which requires a high degree of responsiveness, initiative, and judgment in building and maintaining those relationships. ▪ Ability to build strong relationships with different communities. ▪ Develop relationships and collaborate with partners/ stakeholders, both internal and external to the organization, such as: other local hospital disaster coordinators, the area healthcare coalition, and emergency medical services, public health, fire, and law enforcement agencies.
Geographic Literacy	▪ Conduct an annual hazard vulnerability assessment (HVA)/ risk analysis to determine the facility's risk for natural (e.g., hurricanes, floods, earthquakes) disasters.
Systems Literacy	▪ Coordinates and participates in communication drills to ensure functional communication systems. ▪ Lead in the design, development, implementation, and management of existing and new programs, systems, procedures, and methods of operation related to emergency operations administration on Campus.

4.2.3. EM COMPETENCIES THAT BUILD THE INDIVIDUAL

EM Competences that Build Relationships focus on connecting communities, government, and agencies to necessary information, while also listening to various perspectives to better prepare before disasters occur (Feldman-Jensen et al., 2017). To code the job descriptions in alignment with building the individual, the following definitions were used for the four associated competencies:

- **Operate within The EM Framework, Principles & Body of Knowledge** is the understanding that one will carry out job responsibilities within established frameworks, employing proactive and innovative strategies to foster safer communities through comprehensive, collaborative actions aimed at mitigating, preparing for, responding to, and recovering from hazards.

- **Possess Critical Thinking** is utilizing a disciplined process encompassing problem-solving, strategic, adaptive, and innovative thinking, to identify and mitigate disaster risk in communities, by recognizing evidence, understanding complex data relationships, and making clear cause-and-effect connections, thereby facilitating effective decision-making, adaptive actions, and thriving in uncertain environments.

- **Abide by Professional Ethics** results in one who adheres to and advocates for professional ethics, which delineate expected conduct, principles, and moral values guiding practice in various environments, emphasizing that ethics should be viewed holistically as a set of principles guiding actions rather than as individual guidelines.

- **Value Continual Learning** is when one prioritizes on going learning and professional development to expand the ability of navigating dynamic risks, fostering adaptability, and ongoing improvement in uncertain futures.

A total of 90.2% (n=120) job descriptions were associated with building the individual. The behavior anchor/key action of Operating within the EM Framework, Principles & Body of Knowledge (83.5%, n=111) was most associated with job descriptions, in comparison to the other behavior anchor/key action. Table 1.7 provides examples of excerpts that were associated with all four of the behavior anchor/key actions related to building the individual.

Table 1.7: Excerpts Aligned with Competencies that Build the Individual

Behavior Anchor / Key Action	Job Description Excerpts
Operate within the EM Framework, Principles & Body of Knowledge	▪ Functional Area Evaluation: Assess functions, processes, principles, requirements, methods, and procedures used in preparedness, prevention, response, and recovery through on-site reviews, performance tests, drills, and exercises. ▪ Knowledge of principles, concepts and terminology in emergency preparedness and of legal/regulatory basis for current emergency management programs. ▪ A thorough knowledge of the fundamental principles of emergency management planning (e.g. mitigation, preparedness, prevention, continuity of operations, recovery, and response).
Possess Critical Thinking	▪ Experience in complex issue analysis and creative problem solving along with the ability to provide strategic options and recommendation. ▪ Responsible for the administration, operation, emergency preparedness, staff development, strategic planning. ▪ Providing a high level of strategic coordination.
Abide by Professional Ethics	▪ Ensures compliance with federal and state preparedness requirements. ▪ The Emergency Manager (1) serves as a liaison with local, state, and federal agencies to ensure compliance, (2) the Emergency Manager participates in State, County and Chancellor's Office planning and compliance audits as they relate to emergency management. ▪ Ensure the facility meets all standards and compliance with federal regulations related to emergency management planning, such as The Joint Commission (TJC), Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA), National Fire Protection Association (NFPA), Centers for Medicare & Medicaid Services (CMS), and Department of Homeland Security (DHS) regulations and standards.
Value Continual Learning	▪ The ability to learn specialized databases. ▪ Attends meetings, conferences, and workshops related to emergency management to learn new information and to develop working relationships with other … emergency managers and studies emergency plans used elsewhere to gather information for plan development and improvement.

5. Limitations

The primary limitations of this study consist of sample size, and timespan from which job descriptions were selected. This sample consists of only 133 job descriptions, which is a small number in comparison with the total number of annual emergency management job openings. Similarly, selecting job descriptions at the end of 2023 and beginning of 2024, represents only a small timeframe of available job postings was due to study timeframe limitations and contractual requirements. This is further compounded by the fact that job-related search engines typically do not return results that are older than 30 days. As a result, to develop a sample of job descriptions across an entire year, would require year-round data collection. Future studies could utilize year-round data collection to address both limitations related to timespan and sample size.

6. Conclusion

In concluding Chapter 1, the findings from the analysis of 133 job descriptions across FEMA's regions, of which 81.2% of positions required a bachelor's degree. Among these, the most prevalent degree fields listed as a requirement were related to Homeland Security, Law Enforcement, Firefighting, and Related Protective Services, accounting for 85.2% of specified degree requirements. Experience prerequisites varied, with 79.7% of job descriptions detailing experience requirements. Among those specifying experience requirements, 40.6% sought candidates with 3-5 years of experience, while 22.6% required 2 years or less.

In terms of job titles, the analysis identified a diverse range, with the most common being Specialist (28.6%), Coordinator (22.6%), and Manager or Supervisor (18.8%). Sector distribution revealed that 53.4% of positions were in the Government sector, followed by For-Profit (22.6%), Non-Profit (11.3%), Educational Institutions (9.8%), and Not-for-Profit (3.0%). Jobs requiring less and two years of experience or requiring 3-5years of experience were largely found within the Government sector.

Beyond educational and experience requirements, specific qualifications were also examined. Security clearances were mentioned in 8.3% of job descriptions, primarily Secret Clearance and Security Clearance. Additionally, completion of designated courses like ICS and NIMS was required for most positions, with courses such as ICS 100, IS-700, and ICS-200 being the most commonly mentioned. Certifications such as Certified Emergency Manager (CEM) were also sought after, appearing in 8.3% of job descriptions.

When examining job descriptions for the Next Generation Core Competencies, no explicit references to the three competencies nor the behavior anchor/key actions were found. Instead, each the behavior anchor/key actions were inferred based on an established

definition by the research team. This approach revealed that there was significant association between job descriptions and the Next Generation Core Competencies, but considerable variability in the language used.

Overall, the findings underscore a multidimensional nature of job descriptions related to emergency management. From educational to experience requirements, and from specific qualifications to competency expectations, these job descriptions reflect the diverse and complex landscape of emergency management roles. They highlight the importance of not only technical expertise but also leadership, relationship-building, and continual learning in effectively mitigating, preparing for, responding to, and recovering from disasters. As organizations navigate evolving challenges in emergency management, understanding and aligning with these multifaceted job descriptions becomes crucial for job seekers, recruiters, and the field of emergency management as a whole to ensure the resilience and safety of communities.

Chapter 2: FEMA Higher Education Degree Program Analysis

An Examination of Degree Program Concentration Areas

This portion of the report consists of the findings from the examination and analysis of homeland security and emergency management degree program core curriculum. 492 university and college degree programs were examined and included in this analysis. A thematic analysis using a ChatGPT coding technique was conducted to categorize and identify themes among core course concentration subject areas. Those themes were then system mapped and examined to determine alignment and gaps in curriculum against Next Generation Core Competencies identified as operational field standards, the Council for the Accreditation of Emergency Management and Homeland Security Education (CAEMHSE) identified as emerging programmatic accreditation standards for academic degrees, and the Emergency Management Accreditation Program (EMAP), identified as the workforce standards. The alignment and gaps of are examined further in Chapter 3. This chapter examines the bachelor's degree core and concentration review and findings. The results of other degree program and concentration types (doctorate, masters, associates, certificate) were separately examined and are listed in **Appendix E.**

1. Purpose of the Study

The purpose of this study was to examine undergraduate degree programs in homeland security and emergency management to thematically identify degree program core concentration areas/specializations and course topic and subject areas being taught at the bachelor's degree level. The degree program data was used to map degree program subject areas and then later evaluate strengths, gaps, and various emergency management standards in Chapter 3. This data is critical to evaluating emergency management undergraduate education and examining strengths and gaps in curriculum and alignment/misalignment with other emergency management standards and accreditation components including the workforce.

2. Methodology

Online searches of homeland security and emergency management degree programs were obtained from the FEMA Higher Education Colleges List website and the program information provided by higher education institutions' websites. Qualifying degree programs included:

1. Fully independent bachelor's degree program in emergency/disaster management, emergency services administration/management, emergency preparedness, and any closely related titles that identify the program as being 100% focused on emergency management.
2. Combined bachelor's degree programs in homeland security and emergency management, criminal justice and emergency management, public health and emergency management, environmental science and emergency management, and any closely related titles that identify two separate but complementary fields.
3. Bachelor's degree in public safety management, public administration, public service, or public policy with a concentration or specialization in emergency management, and any closely related titles that identify a non-emergency management primary field with a concentration in emergency management.
4. Bachelor's degree in homeland security or criminal justice with less than five courses specifically related to emergency management.

For each program identified, a datasheet describing the following was created:

1. Degree Type
2. Program description
3. Course list with:
    1. core course / major concentration requirements,
    2. course descriptions,
    3. course keywords / subject areas taught within the course.
4. Common themes and verbiage from the programs and courses.

2.1. Emergency Management Degree Program Selection

Emergency Management degree programs were identified for the dataset using the *FEMA Higher Education College List* as the master source list of degree programs (FEMA, n.d.c.)

Only degree programs listed as Homeland Security or Emergency Management were included in the data. 492 university and college degree programs were selected from the FEMA Higher Education List retrieved January – April 2024 and were examined and included in this analysis. The programs included in this study represent colleges and universities across the United States and across the globe. A map representing the location of these colleges and university programs is displayed in Figures 2.1 and 2.2.

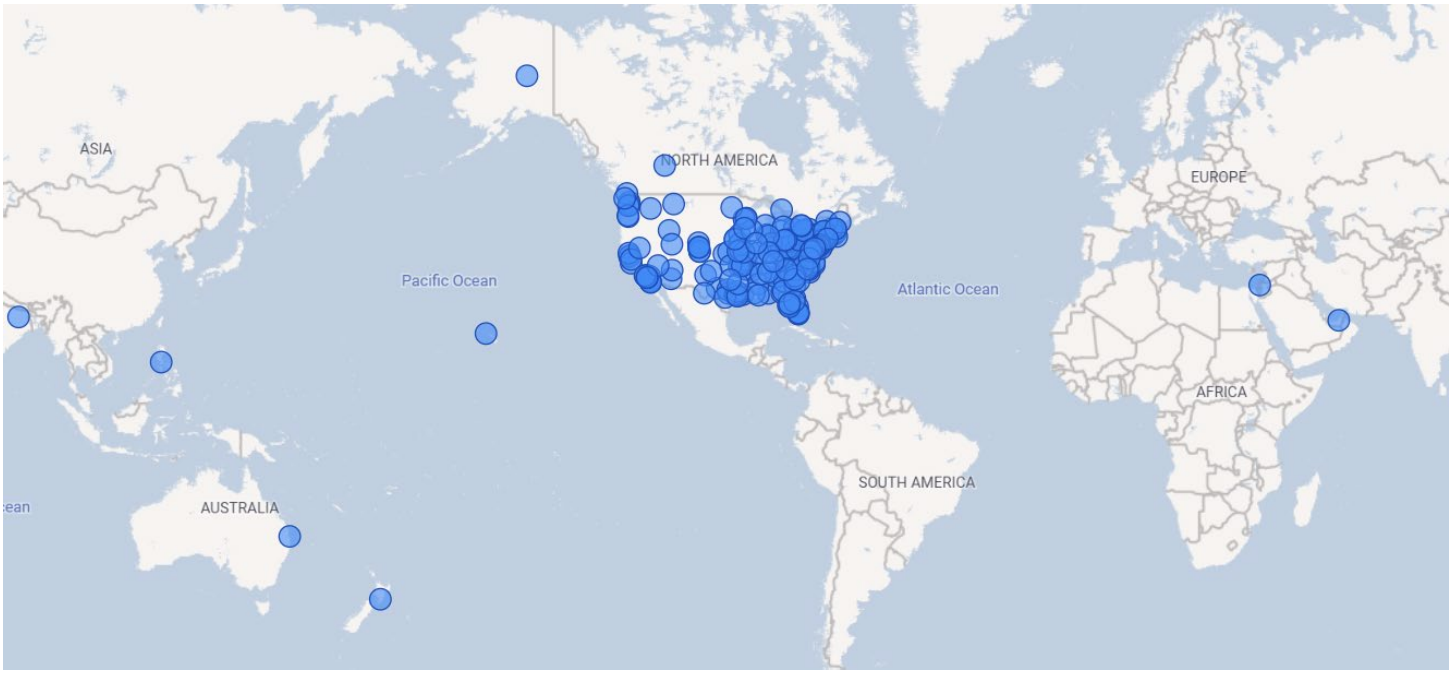


Figure 2.1. Map of College & University Degree Program Locations

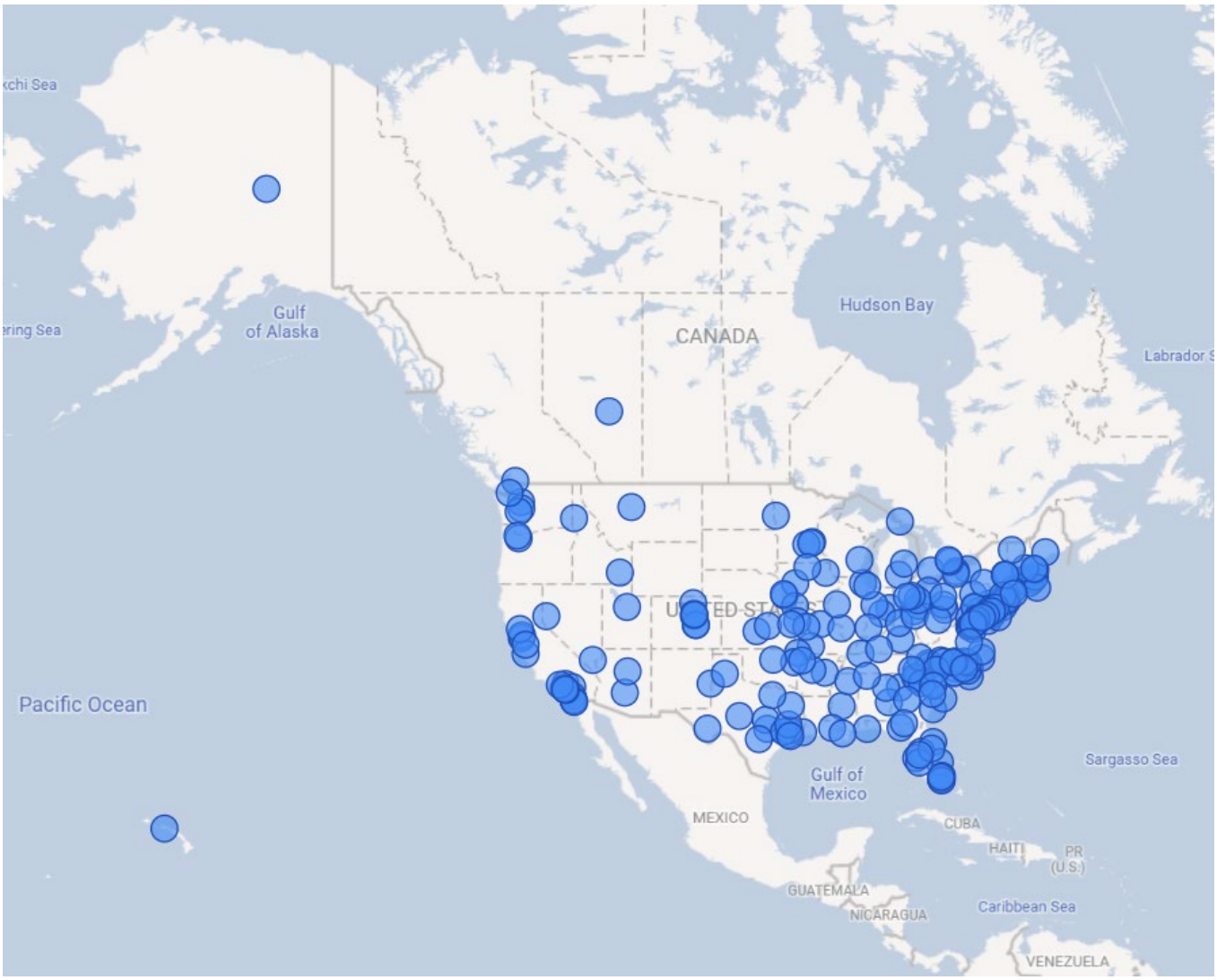


Figure 2.2. Map of College & University Degree Programs in the United States

In determining what constituted a qualifying homeland security and emergency management degree, the following definitions were developed and accepted for use as operational definitions and as a test in which to evaluate whether a listed degree program and its description fell under a qualifying degree program for this study. While it is recognized that there is no single accepted definition of homeland security or emergency management, the Key Study Definitions listed below were developed from classic definitions and authoritative sources from Bellavita (2008) and Blanchard et al. (2007):

Classic Homeland Security Definition:	Classic Emergency Management Definition:
"The national effort to protect the United States, its territories, and its protectorates as	"Emergency management is the managerial function charged with creating the framework within which communities reduce vulnerability

well as its national interests from terrorism and natural disasters" (Bellavita, 2008). Bellavita. (2008). Changing Homeland Security: What is Homeland Security.	to hazards and cope with disasters" (Blanchard et al., 2007). FEMA EMI. (2023). IS-0230.E: Fundamentals of Emergency Management.

2.1.1. KEY STUDY DEFINITIONS:

1. National Security
   Protect US sovereignty from other nations.

2. Homeland Defense
   Protect US territory from other nations.

3. Homeland Security
   Safeguard the US from catastrophic destruction.

4. Emergency Management
   Safeguards communities by leading, directing, and coordinating whole of government and community efforts to address all-hazards across all phases: prevention, protection, mitigation, preparedness, response, and recovery.

Under the FEMA Higher Education College List, many non-qualifying degree programs were listed that span several other related disciplines and sub-disciplines including:

- Information Technology
- Public Health
- Criminal Justice
- Hazardous Materials Management
- Public Administration
- Environmental Management
- Emergency Services Administration
- Public Safety
- Fire Protection / Fire Service / Fire Science Technology
- Geographic Information Systems
- Emergency Services
- Cybersecurity Management

These programs were related but standalone in that they did not have nexus or core concentration applicable to homeland security & emergency management. Some degree programs were additionally excluded if they were not publicly available or easily accessible.

In categorizing the FEMA Higher Education College list of accepted homeland security and emergency management programs, a total of 492 degree programs were listed. This spanned degree programs of all types from certificates to doctoral degrees. Of the 492 qualifying degrees, 191 were certificate programs, 56 associate's degrees, 125 bachelor's degrees, 114 master's degrees, and 6 doctoral degrees. The breakdown of these degree program levels by type can be seen listed in Figure 2.3.

Total Degrees by Type	Sum of Total Degree Count
Certificates	191
Bachelor's	125
Masters	114
Associates	56
Doctoral	6
Total	**492**

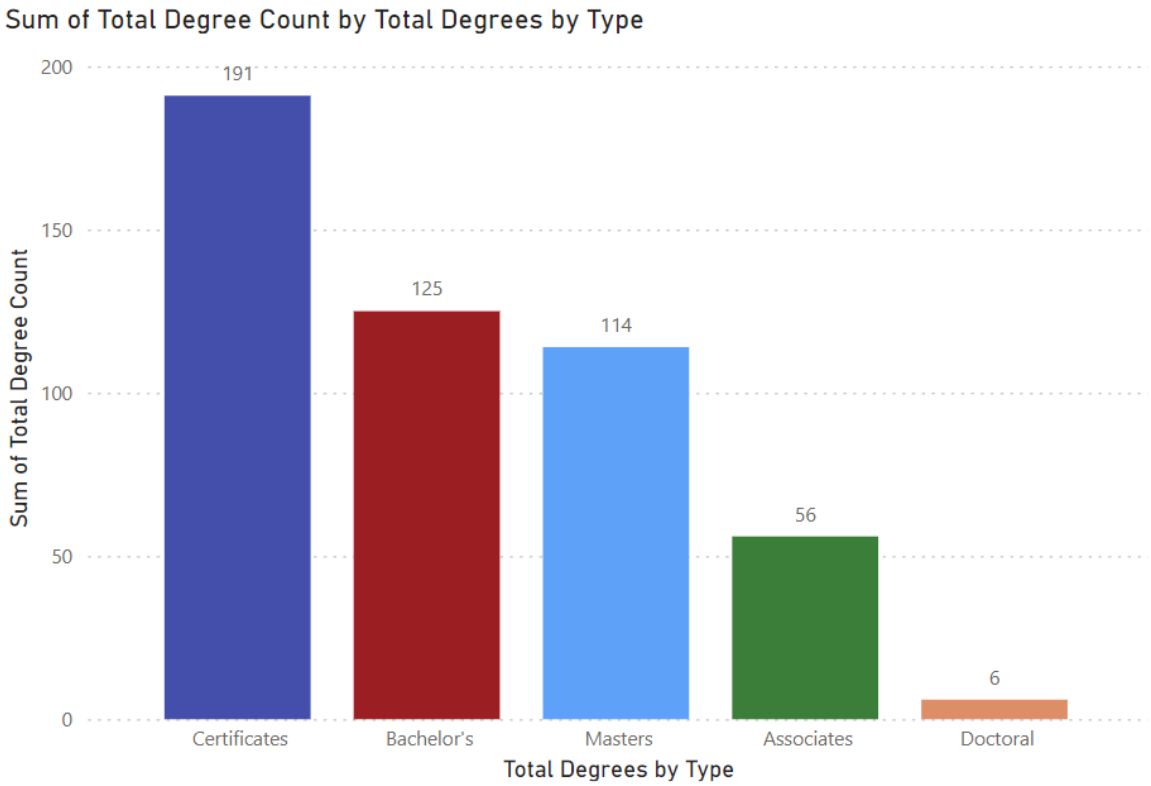


Figure 2.3. Breakdown of Homeland Security & Emergency Management Degree Program Types from the FEMA Higher Education List.

The thematic analysis of all degree program core and concentrations in emergency management for all degree program levels can be found in **Appendix E.**

Qualifying bachelor's degree program information was then collected and organized into an excel workbook for thematic coding and analysis. For the analysis and categorization an AI – ChatGPT coding technique was used to conduct thematic analysis of degree programs and course titles/subject areas. Bachelor's degree program concentration areas were tabulated, coded, and themed manually via an excel workbook.

ChatGPT prompt:

"Categorize and count the number of courses in each category and calculate the percentage."

Using this coding technique, a total of 47 core thematic categories were identified from the entire 1,756 courses under which core and concentration courses were subsequently refined and further organized more concisely. These parent categories can be seen in Table 2.1.

Themes & Subject Area Categories

Arts & Humanities: 8 courses	Law: 7 courses
Business: 5 courses	Leadership Development: 24 courses
Business Continuity Management: 22 courses	Legal Studies: 5 courses
Communications: 6 courses	Mathematics: 4 courses
Criminal Justice: 161 courses	Meteorology: 2 courses
Crisis Communication: 3 courses	Military Science: 8 courses
Cybersecurity: 68 courses	Nursing: 5 courses
Disaster Management: 63 courses	Philosophy: 2 courses
Emergency Management: 363 courses	Political Philosophy: 1 course
Environmental Science: 1 course	Political Science: 29 courses
Financial Management: 4 courses	Psychology: 25 courses
Geography and History: 14 courses	Public Administration: 27 courses
Health and Healthcare: 8 courses	Public Health & Safety: 9 courses (combined "Public Health" and "Public Health & Safety")
Health Sciences: 4 courses	Public Service: 1 course
Hazard Mitigation and Preparedness: 16 courses	Risk Assessment and Mitigation: 11 courses
Homeland Security: 372 courses	Security Studies: 10 courses
Humanities: 8 courses	Sociology: 69 courses
Industrial Management: 2 courses	Statistics: 14 courses
Information Security: 9 courses	Supply Chain Management: 6 courses
Information Technology: 8 courses	Social Work: 5 courses
Intelligence & Homeland Security: 21 courses	Terrorism and WMD: 12 courses
Interdisciplinary Studies: 5 courses	Terrorism Studies: 19 courses
International Relations: 10 courses	
International Security: 15 courses	Other: 16 (Other) + 1 (Public Service) + 1 (Environmental Science) + 1 (Political Philosophy) + 1 (Religion and Faith) + 1 (Public Health) + 1 (Juvenile Justice) + 1 (Information Technology) = 22 courses
Justice Studies: 25 courses	

Table 2.1: Undergraduate Emergency Management Core Concentration Area Themes & Parent Categories

3. Findings

The homeland security and emergency management bachelor's degree programs examined demonstrate overwhelmingly that degree programs are focused on a handful of specific areas with little divergence in specialization. This can be seen in Figure 2.4. The top five identified bachelor's degree programs were in the following concentration areas culminating in 68.8% of the 125 bachelor's degree programs.

1. Homeland Security – 20.8%
2. Disaster & Emergency Management – 18.4%
3. Emergency Management – 10.4%
4. Emergency Management & Homeland Security – 10.4%
5. Criminal Justice & Homeland Security 8.8%

Findings further demonstrate that there are many one-off programs across the 125 identified bachelor's degree programs representing the remaining 31.2% of the 125 bachelor's degree programs.

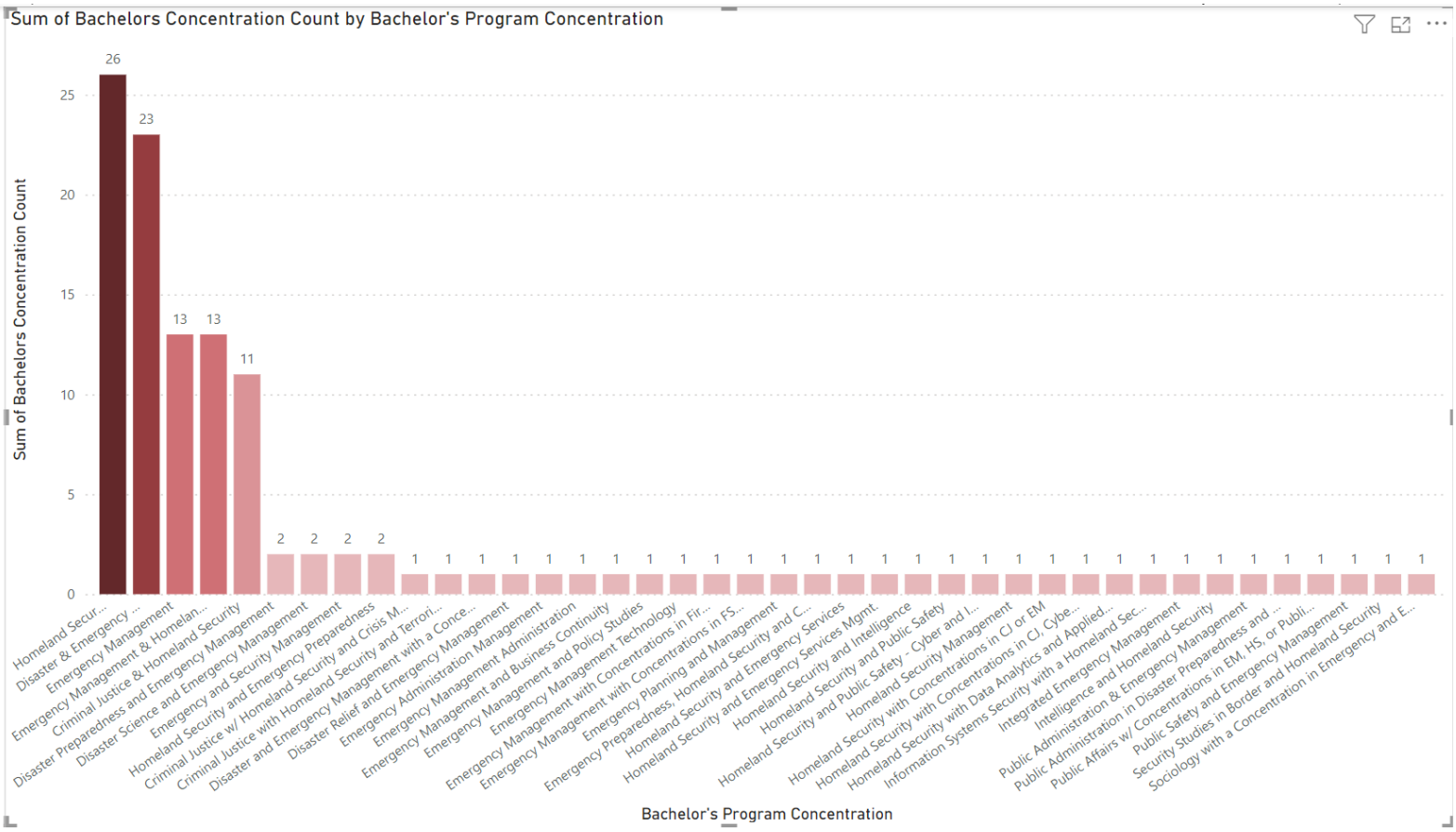


Figure 2.4: Homeland Security & Emergency Management Degree Program Core & Concentration Areas.

3.1 Bachelor's Degree Program Course/Subject Area Examination Findings

The 1,756 homeland security and emergency management bachelor's degree courses were further examined and thematically organized by theme/subject area under 13 parent categories from the original 47 categories listed in Figure 2.4. The refined 13 parent categories can be seen in Table 2.2.

1. Criminal Justice (CJ) Related Courses:	**2. Emergency Management, Homeland Security, and Disaster Management Courses:**
Criminal Justice (104)	Emergency Management (223)
Juvenile Justice (1)	Homeland Security (91)
Justice Studies (25)	Homeland Security & Emergency Management (66)
Law (7)	Disaster Management (63)
Legal Studies (5)	Emergency and Disaster Management (10)
Military Science (8)	

	Hazard Mitigation and Preparedness (16) Crisis Communication (3) Risk Assessment and Mitigation (11) Terrorism and WMD (12) Terrorism Studies (19) Intelligence & Homeland Security (21) Security Studies (10) Critical Infrastructure Protection (1) Global Perspectives in Disaster Preparedness (1) NGO Agencies in Disaster and Emergency Management (4) Grant Writing (2) Exercise and Simulation Design (1) Community Response (1) Incident Management (1)
3. Business Continuity and Risk Management Courses: Business Continuity Management (7) Business Continuity (15) Risk Management (1) Risk Identification and Prevention (1)	**4. Cybersecurity and Information Technology Courses:** Cybersecurity (2) Information Security (9) Technology and Cybersecurity (33) Information Technology (2)
5. Political Science and Public Administration Courses: Political Science (POLS) (5) Public Administration (PAD) (25) International Relations (INTL) (10) Political Philosophy (POLI) (1)	**6. Psychology and Sociology Courses:** Psychology (PSYC) (1) Sociology (SOCI) (1) Sociology (34) Disaster Psychology (1) Trauma Healing (2)
7. Healthcare and Public Health Courses: Health Care (1) Health and Healthcare (8) Public Health & Safety (6) Public Health (1) Physical Care of CBRNE Injuries (1) Environmental Health (1) Physical Care of CBRNE Injuries (1)	**8. Leadership and Management Courses:** Leadership Development (1) Team Leadership (1) Operational Leadership (1) Leadership and Management (14)
9. Communications and Public Information Courses: Communications (COMM) (1) Public Information Skills (1) Crisis Communication (3) Information Officer (1) Communication (2)	**10. Ethics and Social Work Courses:** Ethics (1) Cultural Competence (1) Social Work (5)
11. Finance, Accounting, and Supply Chain Management Courses: Finance and Accounting (1)	**12. Research Methods and Statistics Courses:** Research Methods (1)

Financial Management (4) Supply Chain Management (6)	Statistics (1) Statistics and Research Methods (12)
13. Other Specialized Courses: Maritime Security (1) Space Imagery and Security (1) UAVs (1) Economic Principles (1) Adult Learning Theory (1) Curriculum Design (1) Humanitarian Relief (1) Hazardous Materials Management (1) Nonprofit Management (1)	

Table 2.2: Homeland Security & Emergency Management Bachelor's Degree Course Subject Areas

These categories were then system mapped as shown in Figure 2.5 to categorize their placement against FEMA's Next Generation Core Competencies for operational field standards, the Council for the Accreditation of Emergency Management and Homeland Security Education (CAEMHSE) for emerging programmatic accreditation standards for academic degrees, and the Emergency Management Accreditation Program (EMAP), identified as workforce standards. The findings are examined more thoroughly in Chapter 3.

3.2 Notable Findings:

- No course descriptions address climate change, although there are a handful of programs that have environmental courses. One would have to infer whether or not climate change is addressed in these programs and to what degree.
- No course descriptions address indigenous peoples. Some have "diversity" courses, but they are not EM-specific in this area as described.
- Most EM programs contain a significant amount of homeland security courses (Critical Infrastructure Protection, Intelligence, Border/Transportation, Cybersecurity, Terrorism)– Not consistent with EM content standards (FEMA, EMAP, CAEMHSE).
- Many programs contain a hodgepodge of CJ, Public Health, or Tactical First Responder Operations (fire/hazmat) – Not consistent with EM content standards (FEMA, EMAP, CAEMHSE).
- A handful (<10) of the of 126 bachelor's degree programs examined had between 0 – 4 homeland security or emergency management courses required as part of their core curriculum despite being labeled as a homeland security or emergency management degree. This was primarily found in criminal justice and homeland security/emergency management degrees.

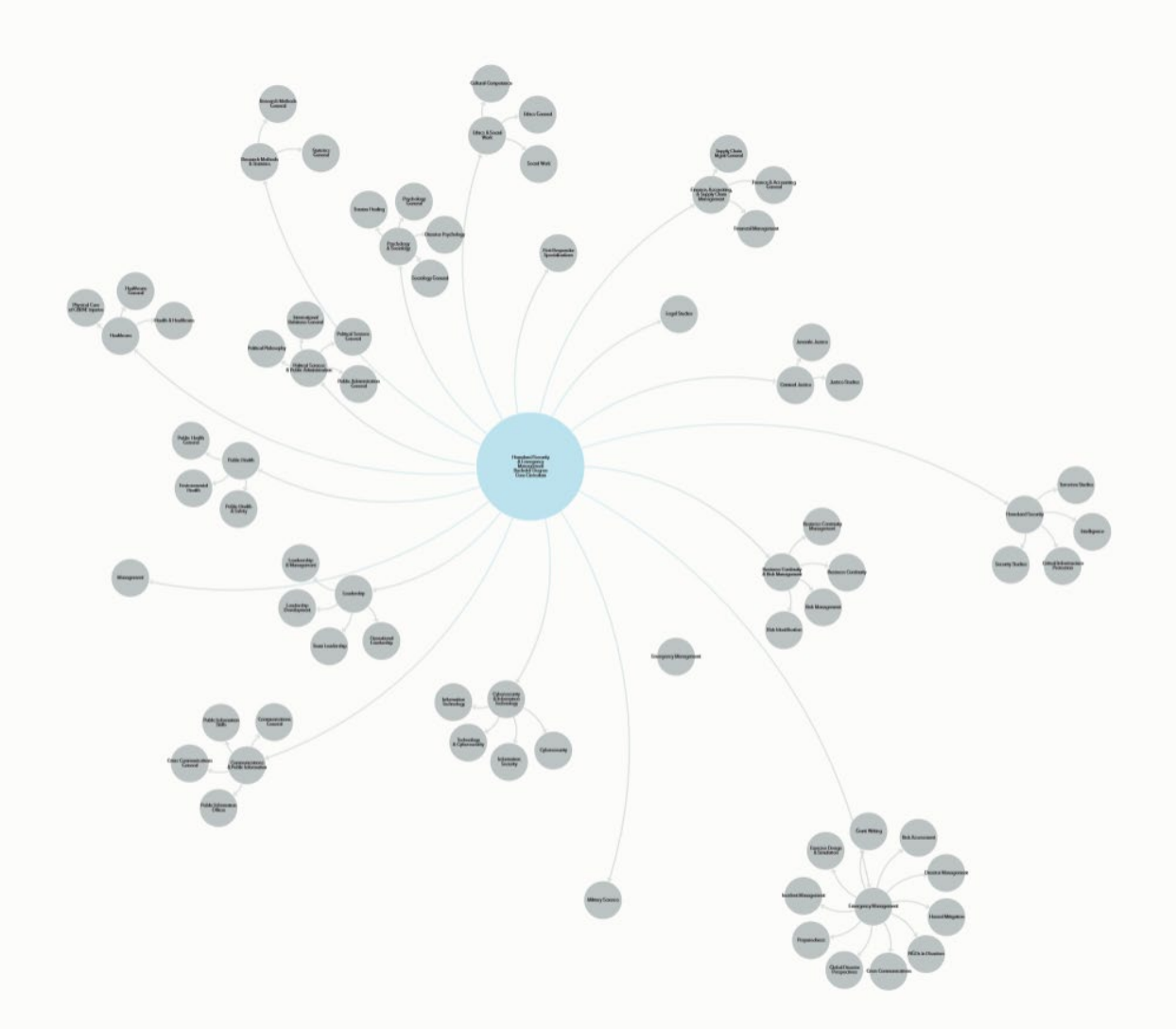


Figure 2.5. Systems Map: Homeland Security & Emergency Management Degree Program Subject Areas

Additionally, the top 100 ranked colleges and universities on the Annual Forbes – America's Top Colleges List (2023) was examined to determine if any top 100 ranked colleges and universities included bachelor's degrees in homeland security and emergency management. None of the Forbes top ranked 100 colleges and universities had homeland security or emergency management degree programs. Interestingly, many did however have hard science or degrees with nexuses to climate science and some climate science/climate change degrees had some, although notably few links to disasters or emergency management included. These links were primarily in the periphery as part of these programs and/or courses on climate science, climate change, and climate adaptation. See Figure 2.6.

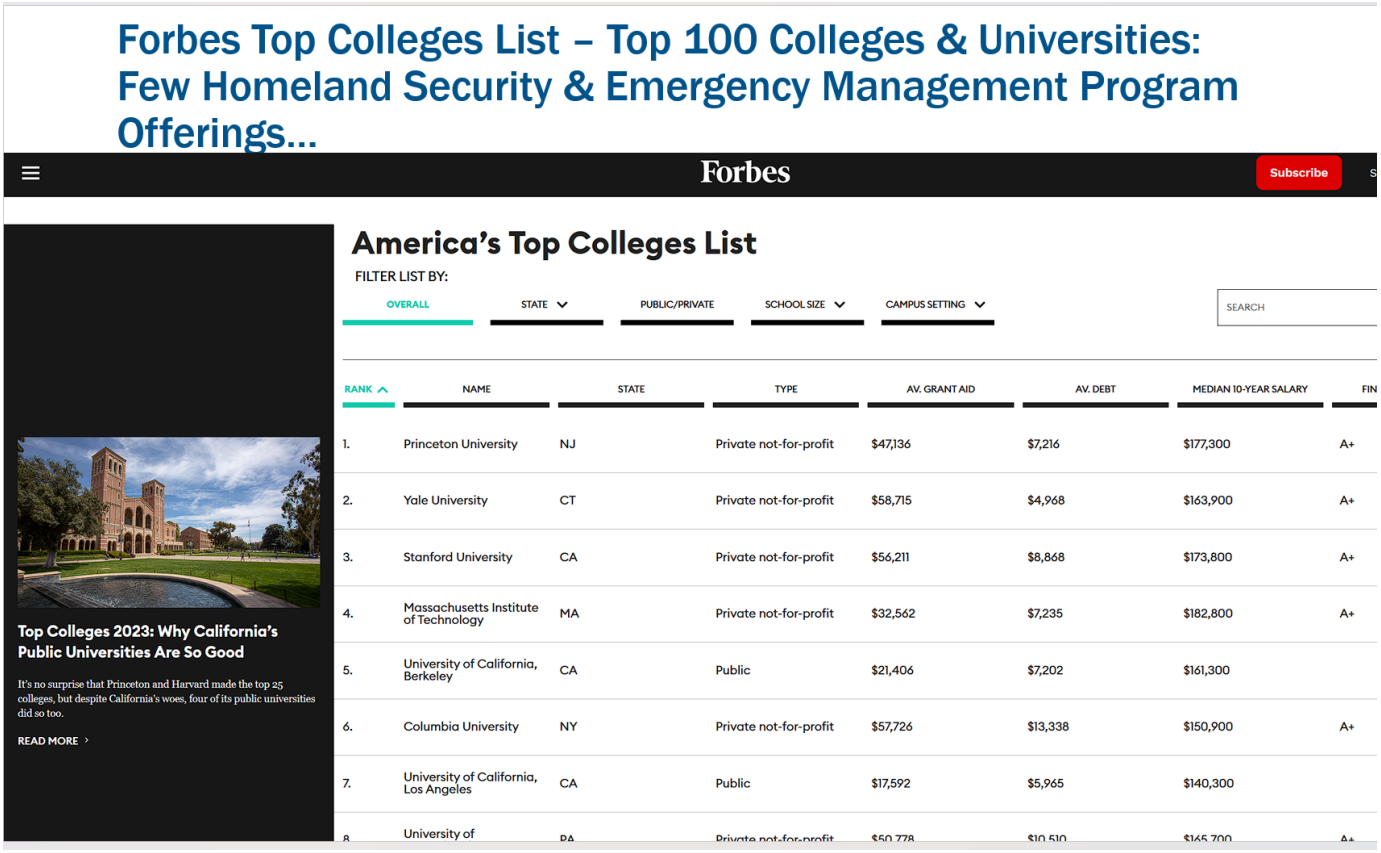


Figure 2.6. Forbes 2023 America's Top Colleges List Image.

4. Limitations

The primary limitations of this study consist of the data being limited to homeland security and emergency management degree programs sourced exclusively from the *FEMA Higher Education College List* website. FEMA's Higher Education College List is not all inclusive or representative of the total number of homeland security and emergency management degree programs. Further, this study focused on examining bachelor's degree programs and did not account for other degree program levels including certificates, associate degrees, master's degrees, and doctoral degrees.

5. Conclusion

In concluding Chapter 2, we focused on core and concentration courses to obtain key insights and implications unearthed through rigorous examination and evaluation. A majority of bachelor's degree programs in homeland security and emergency management remain centralized around core domains while little variance and specialization is seen among degree programs. Further, course subject and content analysis demonstrate that actual

emergency management course subject areas are highly disorganized and scattered across many other disciplinary areas including criminal justice, public health, or tactical first responder operations and other homeland security and counter-terrorism focused areas. A clear lack of alignment to the workforce, or any accreditation programs or standards can be seen and raises the questions: Do bachelor's degree programs in emergency management sufficiently prepare a candidate to enter into the emergency management workforce and is as little as 0 – 15 credit hours in a homeland security or emergency management degree program truly sufficient to prepare a student for the workforce?

The results of this segment of the study strongly suggest no. Although, it should be noted that there were some exemplary program models examined during this study, although being relatively few, those programs could serve as a model for other emergency management degree programs to follow.

Chapter 3: Emergency Management Undergraduate Degree Program Standards Alignment Analysis

This portion of the report consists of the findings from the qualitative analysis of bachelor's degree programs in or related to emergency management to address the education and skills necessary for the 21st Century Emergency Manager as outlined in the Next Generation Core Competencies, The Council for the Accreditation of Emergency Management and Homeland Security Education (CAEMHSE), and the Emergency Management Accreditation Program (EMAP).

1. Purpose of the Study

This section of the study evaluated the alignment between FEMA's Next Generation Core Competencies identified as operational field standards, the Council for the Accreditation of Emergency Management and Homeland Security Education (CAEMHSE) identified as emerging programmatic accreditation standards for academic degrees, and the Emergency Management Accreditation Program (EMAP) identified to "provide validated and recognized standards and assessment processes to enhance protection, prevention, response, recovery, and mitigation programs for all agencies and organizations to maintain appropriate and actionable capabilities in preparing for the consequences of a disaster. The standards describe what constitutes an effective program rather than how it should be managed" (EMAP, 2022a).

This section further sought to understand how current emergency management bachelor's degree programs are built and how the courses are aligned relative to established emergency management standards from FEMA, CAEMHSE, and EMAP by surveying degree programs' deans and/or directors across the colleges and universities listed on the FEMA Higher Education website, members of the University and Agency Partnership Program of the Center for Homeland Defense and Security at the Naval Postgraduate School, and across multiple LinkedIn groups found dedicated to emergency management higher education.

Additionally, this analysis explored areas where emerging concepts, consistent with the FEMA Strategic Plan 2022-2026, were found in some programs to include practicing diversity, equity, and inclusion; customized ethics courses for the emergency manager; interpersonal, crisis, and de-escalation communication; systems thinking; statistics and data

analysis development; and understanding 21st Century technology available to the emergency manager.

2. Methodology

2.1 Degree Program Selection

Degree programs were identified from the colleges and universities listed on the FEMA Higher Education College List (FEMA, n.d.c.) (N=492). Only schools with degrees in emergency management and/or homeland security were selected for evaluation (revised N=455). For purposes of this study's section, only the bachelor's degrees identified in Table 3.1 were selected for analysis.

University	Degree Programs
Adelphi University	Bachelor of Science in Emergency Services Administration (Online)
American Military University, American Public University	Bachelor of Arts in Emergency and Disaster Management (Online)
Anderson University	BA in Homeland Security and Emergency Services: Emergency Services Mgmt. (Traditional and Online)
Anderson University	Bachelor of Arts in Homeland Security and Emergency Services (Traditional and Online)
Anna Maria College	Bachelor of Science in Emergency Management
Arapahoe Community College	Bachelor of Applied Science in Emergency Service Administration (Online)
Arkansas State University	Bachelor of Science in Disaster Preparedness and Emergency Management (Online)
Arkansas Tech University	Bachelor of Science in Emergency Administration Management
Barry University	Bachelor of Science in Emergency Management (Traditional and Online)
Bellevue University	Bachelor of Science in Emergency Management
Bethel University	Bachelor of Science in Emergency Services Management
Columbia College	Bachelor of Arts in Disaster and Emergency Management (Online)
Columbia College	Bachelor of Science in Disaster and Emergency Management with a Concen. in Fire Science (Online)
Columbia International University	Bachelor of Science in Disaster Relief and Emergency Management (Online)
Crown College	Bachelor of Science in Disaster and Emergency Management (Online)
Drury University	Bachelor of Science in Emergency Management (Online)
Elizabeth City State University	Bachelor of Science in Emergency Management
Embry-Riddle Aeronautical University	Bachelor of Science in Emergency Services
Fayetteville State University	Bachelor of Science in Fire and Emergency Services Administration
Franklin University	Bachelor of Science in Emergency Management and Homeland Security (Online)
Idaho State University	Bachelor of Science in Homeland Security and Emergency Management
Immaculata University	Bachelor of Science in Emergency Planning and Management
Jacksonville State University	Bachelor of Science in Emergency Management with Minor Options (Online)

John Jay College, City University of New York	Bachelor of Science in Emergency Services Administration
Justice Institute of British Columbia	Bachelor of Emergency and Security Management (Online)
Kansas Wesleyan University	Bachelor of Arts in Emergency Management
Lake Superior State University	Bachelor of Science in Emergency Management
Lone Star College System	Bachelor of Applied Science in Emergency Management
Massachusetts Maritime Academy	Bachelor of Science in Emergency Management
Mercer University	Bachelor of Science in Homeland Security and Emergency Management (Online)
Metropolitan College of New York	Bachelor of Arts in Emergency Management and Business Continuity
Millersville University	Bachelor of Science in Emergency Management
Mount Vernon Nazarene University	Bachelor of Arts in Emergency Management and Homeland Security (Traditional and Online)
National University	Bachelor of Science in Homeland Security and Emergency Management
New England College	Bachelor of Arts in Homeland Security and Emergency Preparedness (Online)
North Dakota State University	Bachelor of Science in Emergency Management
Northeastern State University	Bachelor of Science in Homeland Security and Emergency Management
Northern Arizona University, Extended Campus	Bachelor of Applied Science or Interdisciplinary Studies in Emergency Management (Online)
Northwest Missouri State University	Bachelor of Science in Emergency and Disaster Management
Notre Dame College	Bachelor of Arts in Emergency Management and Policy Studies (Traditional and Online)
Ohio Christian University	Bachelor of Arts in Emergency and Disaster Management
Pacific Union College	Bachelor of Science in Emergency Management
Pennsylvania College of Technology	Bachelor of Science in Emergency Management and Homeland Security
Pierce College	Bachelor of Applied Science in Emergency Management
Pikes Peak State College	Bachelor of Applied Science in Emergency Service Administration (Online)
Post University	Bachelor of Science in Emergency Management and Homeland Security
Purdue University Global	Bachelor of Science in Fire and Emergency Management (Online)
Rabdan Academy	Bachelor of Science in Integrated Emergency Management
Rowan University	Bachelor of Arts in Disaster Preparedness and Emergency Management
Saint Leo University	Bachelor of Arts in Emergency Management (Online)
Saint Louis University	Bachelor of Science in Emergency Management
Savannah State University	Bachelor of Arts in Homeland Security and Emergency Management
State College of Florida, Manatee-Sarasota	Bachelor of Applied Science in Public Safety and Emergency Management
State University of New York, Canton College of Technology	Bachelor of Science in Emergency Management (Online)
State University of New York, University at Albany	BA or BS in Emergency Preparedness, Homeland Security and Cybersecurity
Texas Southern University	Bachelor of Science in Emergency Management and Homeland Security
Thomas Edison State University	Bachelor of Science in Homeland Security and Emergency Management (Online)
Truckee Meadows Community College	Bachelor of Applied Science in Emergency Management and Homeland Security
Tyler Junior College	Bachelor of Applied Science in Emergency Management (Online)

University of Alaska, Fairbanks	Bachelor of Security and Emergency Management
University of Central Florida, School of Public Administration	Bachelor of Arts/Bachelor of Science in Emergency Management
University of Hawaii, West Oahu	Bachelor of Arts in Public Admin in Disaster Preparedness and Emergency Management
University of Nebraska, Omaha	Bachelor of Science in Emergency Management and Disaster Science
University of New Haven	Bachelor of Science in Homeland Security and Emergency Management (Traditional and Online)
Utah Valley University	Emergency Management and Disaster Assistance (major)
Virginia Commonwealth University	Bachelor of Arts in Homeland Security and Emergency Preparedness
Voorhees University	Bachelor of Science in Emergency Management and Homeland Security
Waldorf University	Bachelor of Applied Science in Emergency Management with Conc in Fire or EM
West Texas A&M University	Bachelor of Applied Arts and Science in Emergency Management Administration
Western Carolina University	Bachelor of Science in Emergency & Disaster Management
Western Illinois University	Bachelor of Science in Emergency Management
York University	Bachelor in Disaster and Emergency Management

Table 3.1: The FEMA Higher Education College List

2.2 Sample

For this analysis, 74 (16.3%, N = 455) designated bachelor's degrees in emergency management, administration, or preparedness; homeland security and emergency management (combined); disaster management; or a combination of any of these terms in a related bachelor's degree were utilized. Descriptive analyses were used to understand the makeup of these degree programs. Descriptive analysis, consisting of counts, frequencies, and percentages are used to describe the sample wholistically. The makeup of the degree and certificate programs in the FEMA Higher Education College List are identified in Figure 3.1.

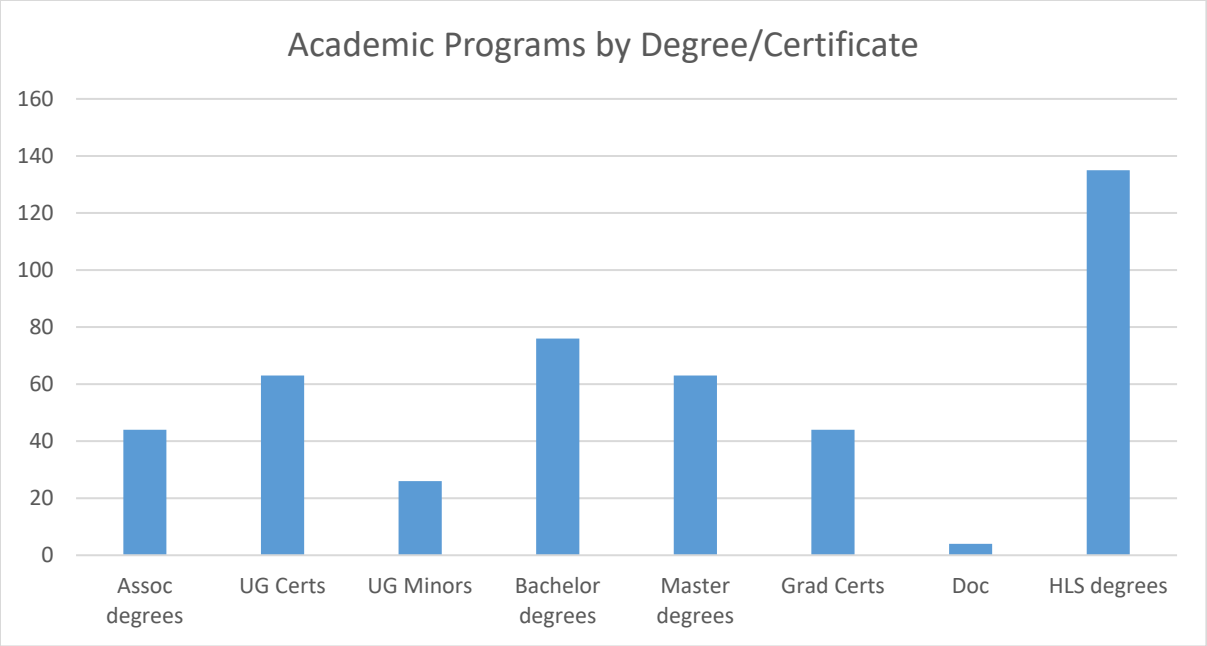


Figure 3.1. Academic Programs by Degree/Certificate

2.3 Analysis

Only 67 (14.7%, N = 455) bachelor's degree programs were included in the analysis. Each college's website was reviewed to verify the program title as represented on the FEMA Higher Education College List webpage along with the courses listed in their respective catalogs, if provided. Seven programs (10.4%, n = 67) did not reveal their specific courses on their websites or did not have catalogs to reference. The bachelor's degree programs were categorized into the following areas (breakout represented in Figure 3.2):

- BAEM/D - Bachelor of Arts in Emergency Management and Disaster Management
- BHSEM - Bachelor of Emergency Management and Homeland Security
- BA/BSEM - Bachelor of Arts or Science (solely) in Emergency Management
- B – FIRE/EM - Bachelor of Science in Emergency Management specific to the fire service
- B-Applied EM - Bachelor of Applied Science in Emergency Management or Emergency Services Administration
- B-EM Conc - Bachelor of Science, Art, or Applied in another program with a concentration or specialization in Emergency Management

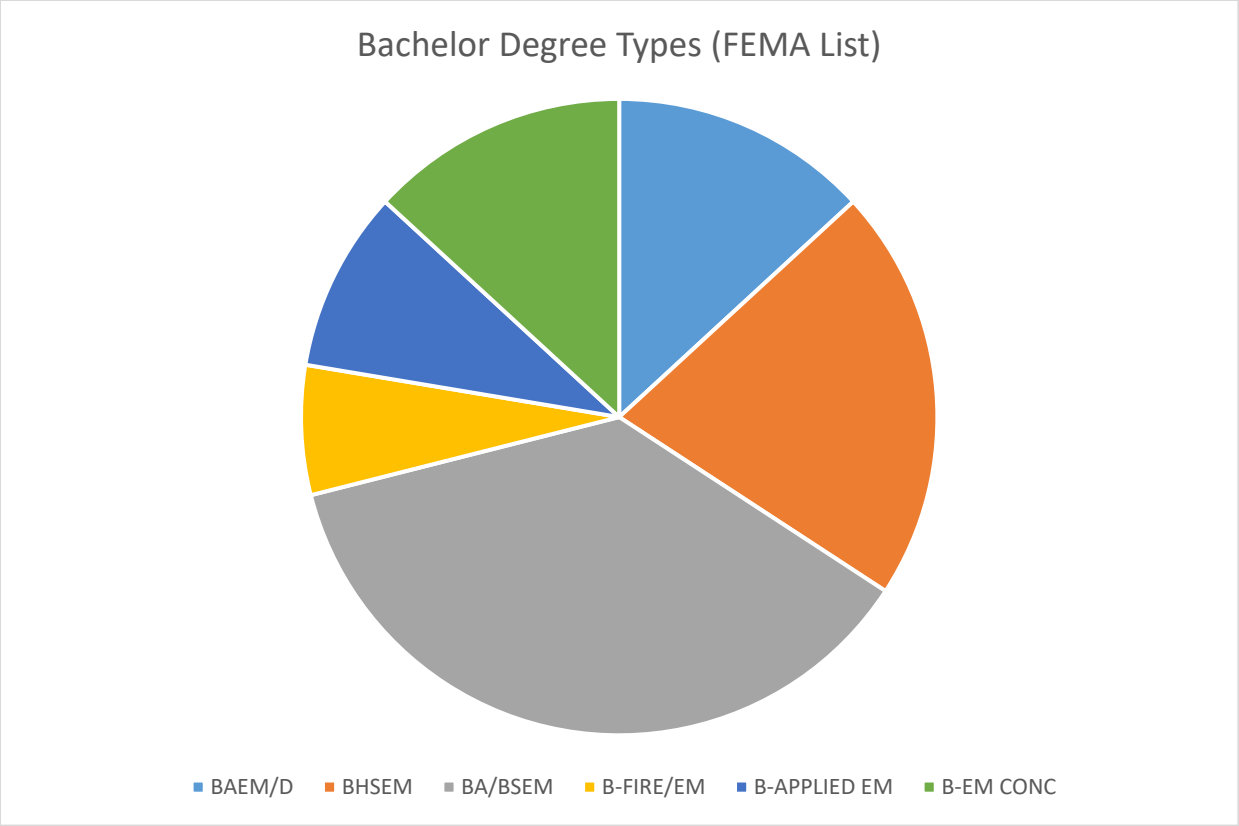


Figure 3.2. Bachelor's Degree Types (FEMA List)

3. Findings

The subsequent descriptive findings are derived from counts and frequencies calculated across all bachelor's degrees, aimed at offering a comprehensive overview and facilitating meaningful interpretation of program content. This section specifically highlights program requirements and extracted from the analysis of 67 bachelor's degrees specifically depicting the terms emergency or disaster management, administration, or safety.

3.1 Industry Standards Mapping

Industry standards crosswalks were developed to align the Next Generation Core Competencies as described in Tables 1.5, 1.6, and 1.7 in Chapter 1 of this report, CAEMHSE programmatic accreditation standards for emergency management bachelor's degrees, and the EMAP emergency management agency accreditation standards (EMAP, 2022b). Findings indicate that all areas of standards align across all three of these entities. Tables 3.20 – 3.32 depict the crosswalk of standards found in **Appendix C**.

3.2 Educational Content

Figure 3.3 depicts the occurrence of content areas across all bachelor's degree programs reviewed in this study as they relate to the industry standards found among the Next Generation Core Competencies as described in Tables 1.5, 1.6, and 1.7 in Chapter 1 of this report and the crosswalks for CAEMHSE programmatic accreditation standards for emergency management bachelor's degrees and the EMAP emergency management agency accreditation standards depicted in Tables 3.20-3.32.

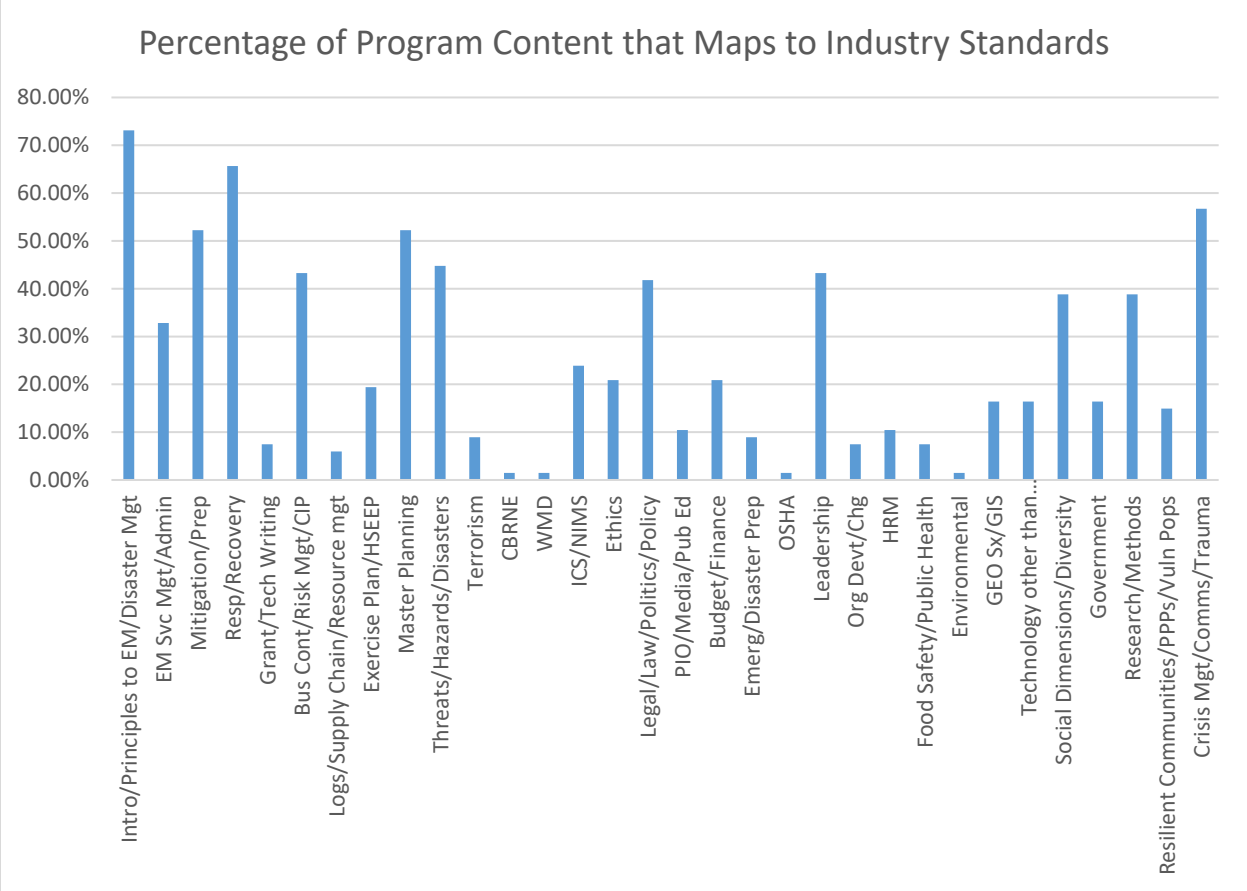


Figure 3.3. Percentage of Program Content that Maps to Industry Standards

With respect to the **Support for the FEMA Higher Education Program Research Agenda**, the following findings provide insights into these areas:

1. *Justice, Equity, and Capacity Development* – Social constructs were demonstrated in 38.8% of programs analyzed. These constructs included diversity, equity, and inclusion principles and some addressed social justice as a component of community resilience. Most community resiliency found in 14.9% of the programs focused on public education and training.

2. *Risk Buildup and Disaster Exposure* – Custom ethics courses were found in 20.9% of the programs with the remaining programs deferring their ethics to general education courses

primarily in philosophy. Systems thinking was only found in two programs that were analyzed. This content area provides an opportunity rich for developing an emergency manager with higher order critical thinking and optimum decision-making skills. Communications was found in both the leadership content area (43.3%) and in managing crises (56.8%).

3. *High-Risk Habitation Zones* – Only one program provided a specific course in environmental studies to address climate change whereas 44.8% of programs incorporated climate change as one type of threat when exploring threats, hazards, and disasters.

4. *Data, Technology, and Societal Impacts* – Statistics and data analysis, research, and methods were included in 38.8% of the programs. Technology was included with 16.4% dedicated specifically to GIS/GPS technology and another 16.4% was dedicated to non-GIS/GPS tech such as IT and cybersecurity.

5. *Infrastructure for Humanity* – A few programs contained courses that focused on areas such as international disaster management, humanitarian relief, and other similar global emergency management efforts leaving this area ripe for development.

Objectives and Outcomes

The study addressed the following fundamental questions:

1. Is the program aligned with any definitive emergency management practices and/or standards? and,

    - The self-report in the survey said "No" to the question of whether their degree programs were aligned with any industry standards, but the content in the degree programs can be aligned to the standards outlined in the crosswalks for Next Generation Core Competencies, CAEMHSE, and EMAP as outlined in **Appendix C.**
        - Are there any areas not aligned with FEMA, CAEMHSE, and/or EMAP standards?

2. Are there any areas not aligned with FEMA, CAEMHSE, and/or EMAP standards?

    - There are general management principles, public administration, and other "general" areas of curriculum that are not specifically aligned with emergency management standards per se; however, the fundamentals found in the Intro courses, mitigation, preparedness, response, recovery, planning, and crisis management and communication were represented in over 50% of the programs. Standards addressing business continuity, law/policy, leadership, social dimensions, and research were among the next highest representation of aligned content within 40-50% of the programs. Areas that are reflected in the standards below 40% include writing skills, logistics, ICS/NIMS, PIO,

ethics, budget/finance, and government literacy, all areas outlined in the Next Generation, CAEMHSE, and EMAP standards reviewed in this study.
- There were courses specifically focused on disaster management, humanitarian relief, and global emergency management. There is some emerging conversation around the definition of an emergency manager as an emergency management professional or a disaster management professional indicated in some of the course descriptions.
- Many of the general business and/or management courses such as finance management or human resources were no dedicated to the public sector and fell within general business administration programs most frequently.

3. What are the program's emerging outcomes and skills development? A small amount of climate change, human resource/personnel management, disaster-specific management, food safety, public health, languages, trauma, and stress and wellness of the public servant.

This study uncovered areas within emergency management programs that need further development with emerging concepts in 21st Century Emergency Management. Develop soft skills through technical writing, research activities, and ethics specific to EM or public safety. For example, considering the ICS requires all four sections (the FLOP), most courses cover the O and P with relatively little addressing the F and L sections.

Then there are other areas in question such as how interpersonal communications is addressed, theories in emergency management, leadership and decision-making styles (systems thinking or optimal choices), and how courses such as *psychology of disaster* cover, or even mean in the EM community.

Project Alignment

This project aligns with the *FEMA Strategic Plan 2022-2026*, the *Higher Education Research Program Agenda*, and the *Next Generation Core Competencies* as follows:

FEMA Strategic Plan 2022-2026: This project supports the FEMA Strategic Plan by addressing the following goals:

- It was found to be true that the findings in this study demonstrated that the programs do, in fact, Instill Equity as a Foundation of Emergency Management through the social and psychological courses required in most of the degrees' general education requirements.
- Lead Whole of Community in Climate Resilience: There was very little on emerging issues in emergency management captured within the courses, particularly regarding climate change and only one program offering an environmental studies course was found. The Whole Community and Resilience concepts were captured in the courses with most focusing on community resiliency as a public education effort.

FEMA Higher Education Program Research Agenda: This project supports the FEMA Higher Education Program Research Agenda as addressed under the Methodology section by additionally evaluating whether the degree programs themselves were found to align with the following standards:

Scanning the Horizon: This was evident by the survey responses. However, most programs do have alignment about 50% of the time.

Fostering the Interdisciplinary: Future research should include the content and concepts provided in the IAEM CEM program as it is a certification often sought by the workforce.

Embracing Ethics: Not specifically to emergency management but was evident in 21% of the programs evaluated.

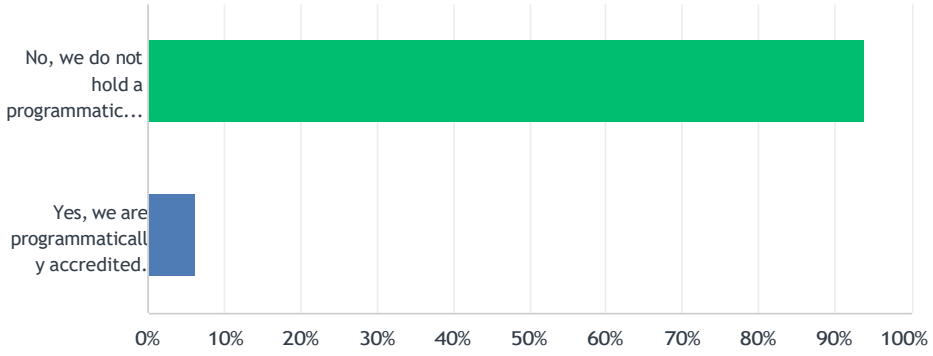
3.3 Survey Results

A survey to capture any gaps within the current job market for emerging professional emergency mangers to provide an understanding of core competencies within emergency management academic degree programs and job market trends was sent out through the Center for Homeland Defense and Security University and Agency Partnership Program membership listserv, the FEMA Higher Education Colleges List, and various emergency management groups in LinkedIn. Eighteen respondents participated in the survey of which only three were not from colleges or universities already listed on the FEMA site. Although the descriptive data is negligent from these three schools and the rest are captured in the above data, some interesting comments were provided by the respondents. Respondents stated they have graduated anywhere from 0 – 196 students in the last three years and currently have between 2 – 343 students enrolled. For those who track program success rates, 90 – 100% were in retention and 90 – 95% for graduation; however, many reported that their students are currently employed in the emergency management field. It was interesting that no respondents reported collecting any employer or student satisfaction surveys which would assumably provide an indication if the programs were aligned with employer expectations and job functions. Further research in this area may provide a much-needed link between the degree/certificate programs and the workforce.

Other interesting reports are identified in the following figures 3.4 – 3.7.

Q9 Is your emergency management degree program programmaticaly accredited?

Answered: 16 Skipped: 2

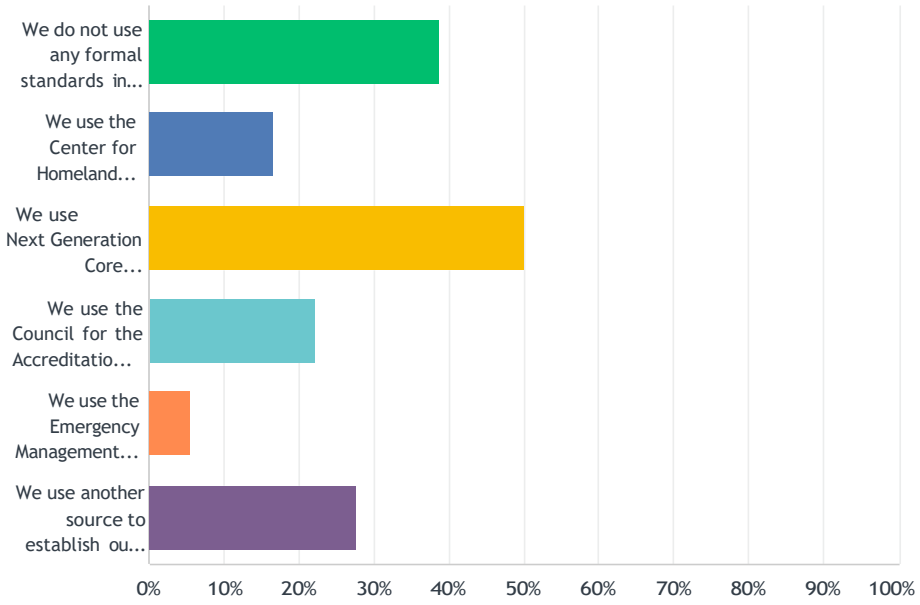


ANSWER CHOICES	RESPONSES	
No, we do not hold a programmatic accreditation in emergency management.	93.75%	15
Yes, we are programmatically accredited.	6.25%	1
TOTAL		16

Figure 3.4. Emergency Management Degree Accreditation

Q10 Do your program(s) and individual courses align with any emergency management industry standards? If No, go to next question. If Yes, please identify from where you derive these standards. Select all that apply.

Answered: 18 Skipped: 0

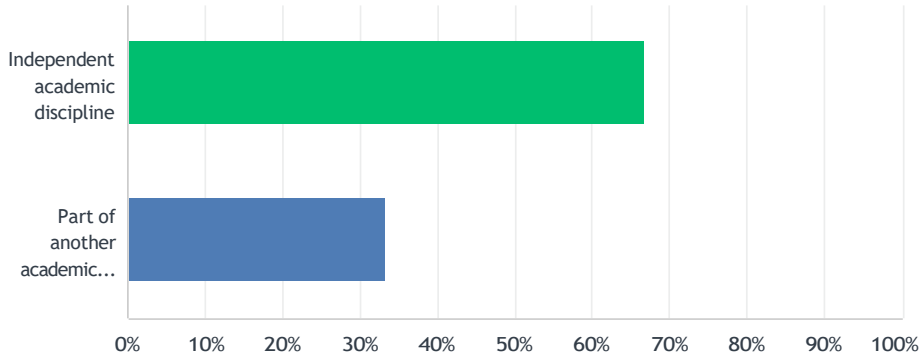


ANSWER CHOICES	RESPONSES	
We do not use any formal standards in our emergency management degree program.	38.89%	7
We use the Center for Homeland Defense & Security University & Agency Partnership Program's to establish our standards for our emergency management degree program.	16.67%	3
We use Next Generation Core Competencies to establish our emergency management program standards.	50.00%	9
We use the Council for the Accreditation of Emergency Management and Homeland Security Education to establish our emergency management program standards.	22.22%	4
We use the Emergency Management Accreditation Program to establish our emergency management program standards.	5.56%	1
We use another source to establish our emergency management program standards (please specify).	27.78%	5
Total Respondents: 18		

Figure 3.5. Degree Program Standards Alignment

Q19 When you design or revise your program(s), do you do this with emergency management in mind as a/an:

Answered: 15 Skipped: 3

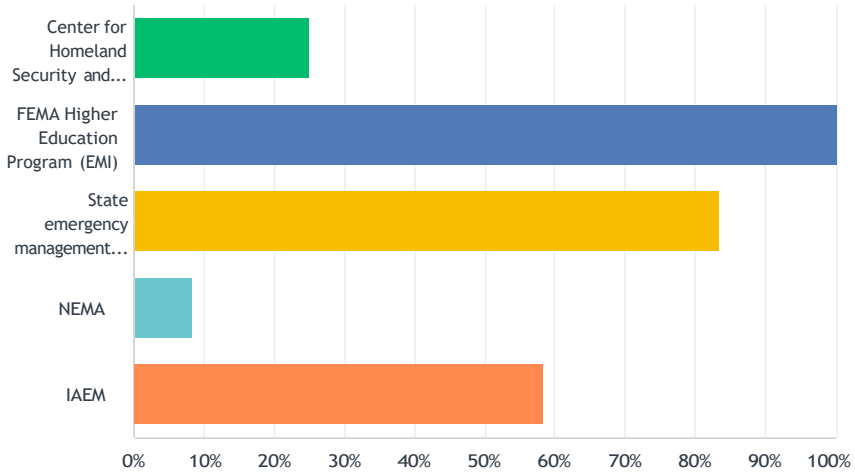


ANSWER CHOICES	RESPONSES	
Independent academic discipline	66.67%	10
Part of another academic discipline (criminal justice, public administration, political science, etc.)?	33.33%	5
TOTAL		15

Figure 3.6. Emergency Management as an Academic Discipline

Q21 Do you actively participate in any emergency management related organizations? Select all that apply.

Answered: 12 Skipped: 6



ANSWER CHOICES	RESPONSES	
Center for Homeland Security and Defense (CHDS), University and Agency Partnership Program (UAPP)	25.00%	3
FEMA Higher Education Program (EMI) Note: The FEMA HiEd Program is under the FEMA Emergency Management Institute	100.00%	12
State emergency management association (i.e., Colorado Emergency Management Association)	83.33%	10
NEMA	8.33%	1
IAEM	58.33%	7
Total Respondents: 12		

Figure 3.7. Participation in Emergency Management Organizations

4. Limitations

The primary limitations of this section consist of using only the bachelor's degree programs identified through the FEMA Higher Education Colleges List consisting of 455 total emergency management-related degrees and certificates with 67 usable bachelor's degrees given that a handful of these degrees contained no information on the website linked through the FEMA site. Efforts were made to obtain a sample of programs beyond the FEMA list through the survey outlined in **Appendix D** of this report. A more comprehensive list may be obtained by performing a Google search to identify any degree or certificate programs not listed with FEMA. The timeframe for this study was not conducive to such a search. In addition, the survey did not yield much usable data outside of what was already identified through other means, but the respondents' answers did provide some interesting areas for further research. Content was only able to be determined from course descriptions. Course syllabi would be helpful and most of the survey respondents indicated they would be willing to provide them. Finally, regarding the workforce component, job searches were limited to

searching indeed and did not include USA jobs which is exclusive of federal jobs in emergency management as this study was not primarily focused on examining federal emergency management workforce requirements.

5. Conclusion

In concluding Chapter 3, we encapsulate the outcomes derived from the comprehensive analysis conducted on the 67 bachelor's degree emergency management programs given that 81.2% of the emergency management workforce positions identified in Chapter 1 of this report required a bachelor's degree.

In terms of program titles, all the programs reviewed in this study included emergency or disaster management, preparedness, or administration in some form that clearly identified them as degrees befitting of the emergency management workforce needs.

When examining degrees for standards via the Next Generation Core Competencies, CAEMHSE, and EMAP, very few programs provided more than 50% of its content in the areas identified in the standards crosswalk. However, some content was inferred based on an established definition by the research team as it aligned with the crosswalk. This approach revealed that there was some association between degree program content and the industry standards reviewed herein, but there was considerable variability in the language used.

The job descriptions identified in Chapter 1 outlined the requirements for a basic understanding of terms (acronyms) such as EOC, ICS, NIMS, NRF, PDS, HSEEP, and others, that coincide with standards outlined in the Next Generation Core Competencies, CAEMHSE, and EMAP crosswalks. Therefore, it can be inferred that those requirements address the operational needs of the job when comparing the data outlined in these two areas.

However, what is missing here are the expected soft skills typically identified in job descriptions that Chapter 1 discusses relative to the core competencies that Build the Individual. First, we can only infer the content is covered by our academic expertise in such courses relative to this study. Second, we can only discern if that content included in the curriculum through a deeper dive into the course syllabi and/or master course outlines. We would then be able to see to what degree the general education requirements of bachelor's degrees cover the needed soft skills necessary for the professional emergency manager.

It is important to note that while a large percentage of job descriptions required completion of several FEMA independent study courses, these are not designed to develop the scholar or mature the soft skills necessary for today's emergency manager as they focus on training from an operational perspective. This is not to say that these courses are not valid or valuable especially since they are among the standards required within the workforce,

however, including these courses embedded within the academic content of degree programs will allow for the ripening of these skills across the time of the emerging emergency manager's academic career.

Overall, the findings underscore the multidimensional nature of bachelor's degree programs related to emergency management. From educational content to established industry competencies, these programs reflect the diverse and complex landscape of emergency management education. They highlight the importance of not only technical expertise but also leadership, relationship-building, and continual learning in effectively mitigating, preparing for, responding to, and recovering from disasters. As higher education navigates evolving challenges in emergency management, understanding and aligning degrees with the multifaceted job descriptions becomes crucial for degree program and course developers along with job seekers, recruiters, and the field of emergency management as a whole to ensure the resilience and safety of communities.

Chapter 4: Study Conclusion & Recommendations

In conclusion, the analysis of 133 job descriptions across FEMA's regions reveals several key trends in educational and experience requirements for prospective candidates. A significant majority, 81.2%, of these positions necessitate a bachelor's degree, underscoring the agency's emphasis on higher education. When it comes to experience, 40.6% of the job listings seek candidates with 3-5 years of relevant experience, while 22.6% are open to those with 2 years or less. Additionally, specific courses such as Incident Command System (ICS) and National Incident Management System (NIMS) are frequently mandated, highlighting the importance of specialized training in FEMA's hiring criteria.

Moreover, although there were no explicit references to the Next Generation Core Competencies or their associated behavior anchors/key actions among the job descriptions, these elements were inferred based on established definitions by the research team. This approach revealed a significant association between the job descriptions and the Next Generation Core Competencies, albeit with considerable variability in the language used.

When examining degree programs for standards via the Next Generation Core Competencies, the Council for the Accreditation of Emergency Management and Homeland Security Education (CAEMHSE), and the Emergency Management Accreditation Program (EMAP), very few programs provided more than 50% of their content in the areas identified in the standards crosswalk. However, some content was inferred based on an established definition by the research team by aligning with the crosswalk. This approach revealed that there was some association between degree program content and the industry standards reviewed, but considerable variability in the language used as well.

These findings underscore the multidimensional nature of bachelor’s degree programs related to the emergency management workforce. From educational content to established industry competencies, these programs reflect the diverse and complex landscape of emergency management education. They highlight the importance of not only technical expertise but also leadership, relationship-building, and continual learning in effectively mitigating, preparing for, responding to, and recovering from disasters. As higher education navigates evolving challenges in emergency management, understanding and aligning degrees with the multifaceted job descriptions becomes crucial. This alignment is essential for degree programs and course developers, job seekers, recruiters, and the field of emergency management as a whole to ensure the resilience and safety of communities.

This study opened the door for opportunities for collaboration between the workforce, the academic community, and FEMA in a more enlightened way. It would appear we are at a crossroads about whether an educated emergency manager can *do* the job based on the education and training they avail themselves of or if they can *be* effective emergency managers requiring next level critical thinking, strategic management, optimal decision-making, and crisis communication at the highest levels, across jurisdictions, political paradigms, and for the unexpected future.

The fact that we have varied programs that address different aspects of emergency management is exactly what we want and need in the field – that is, a sense of uniqueness among our communities that are supported by the colleges and universities among them. This gives emerging emergency managers a variety of options to explore based on their interests, their desired geography, and their desired community demographics. The standards in emergency management have been developed and are showing up in the academic programs about 50% of the time. What is needed is the commitment and collaboration between higher education and FEMA to develop the next level of skills that address the gaps found in this study.

What we found in this study is not just whether degrees have some alignment with what we think they should or what the workforce thinks they need now but highlighting the importance of not only needing the technical and practical expertise along with the leadership, relationship-building, personal and professional development, and continual learning discernment to be most effective in mitigating, preparing for, responding to, and recovering from incidents, events, or disasters. It is now our duty to remember that all incidents start at the local community level, and we must educate skilled, respectable, thoughtful, and formative professional emergency management teams for the 21st Century. The workforce needs it, and the industry demands it.

Final Recommendations

1. Establish a FEMA Higher Education Accreditation & Advisory Committee. FEMA Higher Education Program is recommended to establish an independent committee with FEMA EMI & Higher Education Leadership, Universities, Colleges, Deans, Faculty, Professors, Emergency Managers, EM Professional Associations / or recommend a subcommittee under the FEMA's National Advisory Council to develop guidelines and support higher education accreditation standards.
2. Facilitate interagency discussions, support, and collaboration for Emergency Management degree program accreditation with the Department of Education.
3. Support Continued Investment into Emergency Management Research, Collaboration, & Partnerships with the Academic & Research Community (Affiliated,

Individuals, Emergency Managers, or Homeland Security and Emergency Management groups public/private).

4. Update the FEMA Higher Education List removing all non-Homeland Security & Emergency Management Programs. Ensure the links work and schools are providing relevant programs and content information.
5. Develop a more robust repository of academic programs on FEMA's colleges list including course syllabi or master course outlines, program success statistics, and other relevant information as needed to benefit and support degree seekers and further research.
6. Facilitate collaborative emergency management working groups to develop degree program models and guidelines for universities and colleges to adopt as best practices.
7. Develop awards to recognize excellence in emergency management higher education.
8. Working with each FEMA Region's Leadership & Administrator, publish an annual list of challenges and research questions for the academic and research community to respond to. Support with grant funding awards.
9. As part of EMI's Strategic Plan 2026-2028 include goals and objectives to support and increase collaboration with emergency management higher education programs, degree modeling, and accreditation in an advisory capacity.

Future Research Recommendations

Based on the findings and outcomes of this study the following areas are recommended for future research to examine:

1. Identify if the degree programs align directly with the job postings and identify gaps.
2. Identify the role a master's degree or certificate plays in the emergency management workforce.
3. Further examination of emergency management higher education degree program alignment focusing on graduate degrees, associate degrees, and certificate programs.
4. Identify what areas programs can address to strengthen, improve, and align with industry standards and workforce needs.

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Appendix A.

Companies or entities from which job descriptions were found:

- Akima
- Alabama A&M University
- Allied Universal
- American Red Cross
- APTIM
- Armada Ltd
- Baptist Health Arkansas
- Baylor University
- Boone County Fiscal Court
- California State University, East Bay
- Calvert County Maryland
- Catholic Charities
- CDM Smith
- Centers for Disease Control and Prevention
- Children's Hospital Colorado
- Children's National
- Christiana Care Health System
- Churchill County
- City and County of Butte-Silver Bow, MT
- City of Chicago
- City of Eugene, OR
- City of Fayetteville
- City of Lenexa
- City of Mesa
- City of Scottsdale
- City of Waco
- Clinical Management Consultants
- College of Southern Maryland
- Commander, Navy Installations
- Connecticut Department of Energy and Environmental Protection (DEEP)
- Deloitte
- Department Of Homeland Security Doyon, Limited
- Energy Northwest
- EVERSOURCE
- FEMA
- Fluor Corporation
- Greenwood County
- Hamilton County, Ohio
- Hawaiian Electric Companies
- HazTek Inc.
- HealthTrust Workforce Solutions
- Hinds Community College
- Innovative Emergency Management
- Jacobs
- Jefferson County, Colorado
- Jefferson Parish Government
- Klamath County
- Lee Health
- Maine Health
- MBL Technologies
- Medina County, OH
- National Renewable Energy Laboratory
- New York City
- New York University
- New Jersey Transit
- North Carolina Department of Public Safety
- Northwestern Counseling

- NYC Department of Environmental Protection
- NYU
- Ohio Department of Taxation
- Oklahoma State Department of Health
- Oregon Metro
- Ozaukee County Paul Davis Restoration of Idaho
- Peraton's United States Coast Guard
- PPL Corporation
- Putnam School District
- Resolute Management Group LLC
- Rutherford County Government
- RWJBarnabas Health
- Samaritan Health Services
- San Francisco
- San Francisco Department of Public Health
- Scott County
- Serco North America
- Seven Counties Services
- Skagit County
- South Metro Fire Rescue
- SouthEast Alaska Regional Health Consortium (SEARHC)
- State of New Hampshire
- State of Arizona
- State of Arkansas
- State of Colorado
- State of Idaho
- State of Illinois
- State of Iowa Talent Gateway
- State of Louisiana
- State of Missouri
- State of Montana
- State of New Mexico
- State of Washington
- State of Wyoming
- Stearns County
- Tetra Tech
- The New York City Department of Social Services' Emergency Management Division's (DSS EM)
- Town of Natick
- U.S. Department of Defense
- UICGS / Bowhead Family of Companies
- UNC Health Careers
- UnityPoint Health
- University of Idaho
- University of Nebraska at Omaha
- University of Nevada Las Vegas
- University of Utah
- US Army Corps of Engineers
- Utah Valley University
- Village of Oak Park
- Warren County, Iowa
- Washington County
- Wentworth-Douglass Hospital
- Witt O'Brien's Infrastructure Practice
- WSP

Appendix B.

Degree fields and their respective 2020 Classification of Instructional Programs (CIP) codes are listed below. Two-digit CIP codes precede the description in capital letters, with the specified degree field bulleted below.

03) NATURAL RESOURCES AND CONSERVATION.

- Forestry

04) ARCHITECTURE AND RELATED SERVICES.

- Planning

11) COMPUTER AND INFORMATION SCIENCES AND SUPPORT SERVICES.

- Information Technology

14) ENGINEERING.

- Engineering

15) ENGINEERING/ENGINEERING-RELATED TECHNOLOGIES/TECHNICIANS.

- Industrial Hygiene

24) LIBERAL ARTS AND SCIENCES, GENERAL STUDIES AND HUMANITIES.

- English

26) BIOLOGICAL AND BIOMEDICAL SCIENCES.

- Biological sciences
- Epidemiology

40) PHYSICAL SCIENCES.

- Chemistry
- Meteorology
- Physical Science

42) PSYCHOLOGY.

- Psychology

43) HOMELAND SECURITY, LAW ENFORCEMENT, FIREFIGHTING AND RELATED PROTECTIVE SERVICES.

- Criminal Justice
- Crisis Management
- Disaster Management
- Disaster Planning
- Disaster Science
- Emergency Communications
- Emergency Management
- Emergency Preparedness
- Emergency Planning
- Emergency Training
- Fire Admin

- Mathematics

43) HOMELAND SECURITY, LAW ENFORCEMENT, FIREFIGHTING AND RELATED PROTECTIVE SERVICES.(con't)

- Homeland
- Public Safety
- Security

44) PUBLIC ADMINISTRATION AND SOCIAL SERVICE PROFESSIONS.

- Public Policy
- Social Work

45) SOCIAL SCIENCES.

- Government
- Political Science
- Social Science

51) HEALTH PROFESSIONS AND RELATED PROGRAMS.

- Emergency Health Services
- Nursing
- Public Assistance
- Public Health
- Healthcare Management
- Fire Science

52) BUSINESS, MANAGEMENT, MARKETING, AND RELATED SUPPORT SERVICES.

- Accounting
- Business Continuity
- Business Management
- Business Administration
- Public Administration
- Economics
- Project Management
- Risk Management

Appendix C.

Industry standards alignment crosswalks.

Table 3.20 Next Generation Core Competencies: Behavioral Anchors 1-9

FEMA Core Competencies	FEMA Behavioral Anchor 1: Comprehend				FEMA Behavioral Anchor 2: Progressive				FEMA Behavioral Anchor 3: Risk-Driven			
FEMA Core sub-competencies	Hazards	Phases	Stakeholders	Disaster Impact	NRF	Disaster Resistence	Strategic Planning	Community Adaptation	Identify Hazards	Risk	Vulnerability Analysis	Social Factors
CAEMHSE SLOs	3.1.1	3.1.1	3.2.4; 3.4.2	3.1.5		3.1.4	3.4.3	3.2.4; 3.4.2	3.1.3	3.1.1	3.1.2	3.2.1
CAEMHSE 3.2.3 (ALL)												
CAEMHSE 3.3 (ALL)												
EMAP	4.1 all; 4.2 all; 4.3.1(1-6)	4.1 all; 4.2 all; 4.3.1(1-6)	3.2.1; 3.3.1; 3.3.2; 4.4.1; 4.4.2; 4.4.4 (1-7); 4.4.4(1-7); 4.4.5(1-3)	4.1 all; 4.2 all; 4.3.1(1-6)	4.3.2	4.3.2; 4.4 all	3.1.1(3); 4.3.2; 4.3.3; 4.4 all	3.3.1; 3.3.2; 4.3.2; 4.4 all	4.1 all; 4.2 all; 4.3.1(1-6); 4.4.6	4.1 all; 4.2 all; 4.3.1(1-6); 4.4.6	4.1 all; 4.2 all; 4.3.1(1-6); 4.4.6	4.1 all; 4.2 all; 4.3.1(1-6); 4.4 all;
EMAP	4.5 (EOP) all	4.5 (EOP) all	4.5 (EOP) all	4.5 (EOP) all	4.5 (EOP) all	4.5 (EOP) all	4.5 (EOP) all	4.5 (EOP) all	4.5.5	4.5.5	4.5.5	4.5.5
EMAP												
EMAP	4.7.1; 4.7.2	4.7.1; 4.7.2	4.7.1; 4.7.2	4.7.1; 4.7.2					4.7.1; 4.7.2	4.7.1; 4.7.2	4.7.1; 4.7.2	4.7.1; 4.7.2
EMAP	4.8.1								4.8.1	4.8.1	4.8.1	4.8.1
EMAP	4.12.1; 4.12.2; 4.12.3	4.12.1; 4.12.2; 4.12.3	4.12.1; 4.12.2; 4.12.3	4.12.1; 4.12.2; 4.12.3		4.12 all	4.12 all	4.12 all	4.12.1; 4.12.2; 4.12.3	4.12.1; 4.12.2	4.12.1; 4.12.2; 4.12.3	4.12 all

FEMA Core Competencies	FEMA Behavioral Anchor 4: Integrated				FEMA Behavioral Anchor 5: Collaborative			FEMA Behavioral Anchor 6: Coordinated		
FEMA Core sub-competencies	Unity of Effort	Levels of Govt	Community Stakeholders	Plan/Devt Integration	Partnerships	Info Sharing	Facilitate Communication	Facilitates Activities	Networks with Others	Shares Data
CAEMHSE SLOs	3.2.3	3.2.4	3.2.4; 3.4.2	3.4.3	3.2.4; 3.4.1	3.4.1	3.4.1		3.2.4; 3.4.2	3.4.1
CAEMHSE 3.2.3 (ALL)										
CAEMHSE 3.3 (ALL)										
EMAP	3.2.1; 3.2.1; 3.2.2; 4.4 all	3.2.1; 3.2.1; 3.2.2; 4.4 all	3.3.1; 3.3.2; 4.4 all	3.1.1(3); 4.4 all	3.3.1; 3.3.2; 4.4 all	3.3.1; 3.3.2; 4.4 all	3.3.1; 3.3.2; 4.3.3; 4.4 all	4.3.2; 4.3.3; 4.4 all	3.3.1; 3.3.2; 4.4 all	3.3.1; 3.3.2; 4.4 all
EMAP	4.5 (EOP) all	4.5 (EOP) all	4.5 (EOP) all	4.5 (EOP) all	4.5 (EOP) all	4.5 (EOP) all	4.5 (EOP) all	4.5 (EOP) all	4.5 (EOP) all	4.5 (EOP) all
EMAP	4.6 all	4.6 all	4.6 all	4.6 all	4.6 all	4.6 all	4.6 all	4.6 all	4.6 all	4.6 all
EMAP										
EMAP						4.8 all	4.8 all		4.8 all	4.8 all
EMAP	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all

FEMA Core Competencies	FEMA Behavioral Anchor 7: Flexible				FEMA Behavioral Anchor 8: Professional				FEMA Behavioral Anchor 9: Body of Knowledge	
FEMA Core sub-competencies	New approaches	Adjusts	Innovates	Case Studies	Ethics	public stewardship	training	continuous improvement	EM literature	foundational lit
CAEMHSE SLOs	3.4.3	3.4.3	3.4.3		3.1.6	3.2.4; 3.4.2		3.4.3	3.1.5	3.1.5
CAEMHSE 3.2.3 (ALL)										
CAEMHSE 3.3 (ALL)										
EMAP	4.3.2; 4.3.3	4.3.3	4.3.3		4.4 all	3.3.1; 3.3.2; 4.4 all	4.3.2; 4.3.3	4.3.2; 4.3.3		
EMAP	4.5 (EOP) all	4.5 (EOP) all	4.5 (EOP) all							
EMAP	4.6 all	4.6 all	4.6 all	4.6 all	4.6 all	4.6 all	4.6 all	4.6 all		
EMAP										
EMAP										
EMAP	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.10 all; 4.11 all	4.10 all; 4.11 all

Table 3.21 Next Generation Core Competencies: Critical Thinking 1-3

	FEMA Behavioral Anchor 1: Crit Think: Problem ident & problem solving			FEMA Behavioral Anchor 2: Crit Think: Strategic Thinking Process			FEMA Behavioral Anchor 3: Crit Think: Flexible, Innovative, Adaptive Thinking Process		
FEMA	Evaluates data	Use reliable methodology	Reports findings	Gathers info	summarizes to inform strategy	Develops plans	alert	adaptive	integrative
CAEMHSE	3.4.3	3.4.3	3.4.3	3.4.3	3.4.3	3.4.3	3.4.3	3.4.3	3.4.3
EMAP	4.6 all	4.6 all	4.6 all	4.6 all	4.6 all	4.6 all	4.6 all	4.6 all	4.6 all
EMAP	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4; 4.8 all	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4
EMAP	4.10 all; 4.11 all	4.10 all; 4.11 all	4.10 all; 4.11 all	4.10 all; 4.11 all	4.10 all; 4.11 all	4.10 all; 4.11 all	4.10 all; 4.11 all	4.10 all; 4.11 all	4.10 all; 4.11 all
EMAP	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all

Table 3.22 Next Generation Core Competencies: Ethics 1-7

	FEMA Behavioral Anchor 1: Ethics: Respect			FEMA Behavioral Anchor 2: Ethics: Veracity		FEMA Behavioral Anchor 3: Ethics: Justice		
FEMA	Promote dignity	Diversity	Rights of others	Truthful	Accurate	Equitable	Honor rights of others	Fair & objective
CAEMHSE SLOs 3.1.6				3.4.1	3.4.1			
EMAP	4.6 all	4.6 all	4.6 all	4.6 all	4.6 all	4.6 all	4.6 all	4.6 all
EMAP								
EMAP	4.8 all	4.8 all	4.8 all	4.8 all	4.8 all	4.8 all	4.8 all	4.8 all
EMAP	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all

	FEMA Behavioral Anchor 5: Ethics: Service				FEMA Behavioral Anchor 6: Ethics: Duty to protect			FEMA Behavioral Anchor 7: Ethics: Integrate ethical principles w/stakeholder discourse		
FEMA	Altruistic	Positive attitude	Volunteers	Helps others	Avert harm	facilitate community building	Effects on People	discover common base	inclusive	public value
CAEMHSE SLOs 3.1.6								3.4.3		
EMAP	4.6 all	4.6 all	4.6 all	4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.6 all	4.6 all	4.6 all
EMAP					4.7.1; 4.7.2	4.7.1; 4.7.2	4.7.1; 4.7.2			
EMAP	4.8 all	4.8 all	4.8 all	4.8 all	4.8 all	4.8 all	4.8 all	4.8 all	4.8 all	4.8 all
EMAP	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all

Table 3.23 Next Generation Core Competencies: Continual Learning 1-5

	FEMA Behavioral Anchor 1: Continual Learning: Reflects & questions			FEMA Behavioral Anchor 2: Continual Learning: Understands Confidence Levels		FEMA Behavioral Anchor 3: Continual Learning: Contributes to body of knowledge spans disciplines		FEMA Behavioral Anchor 4: Continual Learning: Engages others in inquiry		FEMA Behavioral Anchor 5: Continual Learning: Seeks practicel applications for public value		
FEMA	expand knowledge	Use evidence	Seeks to grow	Degree of Confidence	Research	Id's different disciplines	Understand problems	Reasoning together	Mutual Learning	Applied inquiry	Seek improvement	Research design
CAEMHSE	3.4.3	3.4.3		3.4.3	3.4.3		3.4.3	3.4.3		3.4.3	3.4.3	3.4.3
EMAP	4.6.5; 4.10 all	4.6.5; 4.10 all	4.6.5; 4.10 all	4.6.5; 4.10 all	4.6.5; 4.10 all	4.10 all	4.10 all	4.10 all	4.10 all	4.6.5; 4.10 all	4.6.5; 4.10 all	4.6.5; 4.10 all
EMAP	4.11 all	4.11 all	4.11 all	4.11 all	4.11 all	4.11 all; 4.12 all	4.11 all; 4.12 all	4.11 all	4.11 all	4.11 all; 4.12 all	4.11 all; 4.12 all	4.11 all; 4.12 all

Table 3.24 Next Generation Core Competencies: Scientific Literacy 1-3

	FEMA Behavioral Anchor 1: Scientific Literacy: Knowledge & Understanding			FEMA Behavioral Anchor 2: Scientific Literacy: Find & Evaluate credible lit sources				FEMA Behavioral Anchor 3: Continual Learning: Scientific Literacy: Inquiry & Problem Solving Processes			
FEMA	Uses technical terms	Reads scholarly articles	Converses within scientific terms	Peer review	Id biases	selects lit	inform inquiry	Applies process	evaluate argument	relate argument with evidence	draw conclusions
CAEMHSE	3.1.1	3.4.3	3.4.3	3.4.3	3.4.3	3.4.3	3.4.3	3.4.3	3.4.3	3.4.3	3.4.3
CAEMHSE 3.4.4											
EMAP	4.1 all; 4.2 all; 4.3.1(1-6)	4.1 all; 4.2 all; 4.3.1(1-6)	4.1 all; 4.2 all; 4.3.1(1-6)					4.1 all; 4.2 all; 4.3.1(1-			
EMAP	4.10 all; 4.11 all; 4.12 all	4.10 all; 4.11 all; 4.12 all	4.10 all; 4.11 all; 4.12 all	4.10 all; 4.11 all	4.10 all; 4.11 all	4.10 all; 4.11 all	4.10 all; 4.11 all	4.10 all; 4.11 all	4.10 all; 4.11 all	4.10 all; 4.11 all	4.10 all; 4.11 all

Table 3.25 Next Generation Core Competencies: Geographic Literacy 1-3

	FEMA Behavioral Anchor 1: Geographic Literacy: Interaction			FEMA Behavioral Anchor 2: Geographic Literacy:			FEMA Behavioral Anchor 3: Geographic Literacy: Implications				
FEMA	Differentiates physical/social geography	understands locations/maps	Uses maps	Connecting people & places	global relationships	evolving nature	systematic decision-making	promote common good	influence resource costs	increase resilience	reduce risk
CAEMHSE				3.4.3	3.1.7		3.4.3				
EMAP	4.4 all; 4.6.2	4.4 all; 4.6.2	4.4 all; 4.6.2	4.4 all; 4.6.2	4.4 all; 4.6.2	4.4 all; 4.6.2	4.4 all	4.4 all	4.4 all	4.4 all	4.4 all
EMAP	4.9 all	4.9 all	4.9 all; 4.10 all	4.9 all; 4.12 all	4.9 all; 4.12 all	4.9 all; 4.12 all		4.8 all; 4.12 all		4.7.1; 4.7.2; 4.12	4.7.1; 4.7.2

Table 3.26 Next Generation Core Competencies: Sociocultural Literacy 1-3

	FEMA Behavioral Anchor 1: Sociocultural Lit: Social determinants of disaster risk			FEMA Behavioral Anchor 2: Sociocultural Lit: Politics, Political, and legal processes			FEMA Behavioral Anchor 3: Sociocultural Lit: Building adaptive capacity			
FEMA	origins of disaster	social - disaster risk influence recovery	external news/info	disasters risk legal frameworks	political & legal influence	advocacy to improve resilience	Id's community	Fairness & respect diversity	communicate in multiple modalities	Active Listening
CAEMHSE	3.1.5; 3.2.1	3.2.4	3.4.3			3.2.4	3.2.4			
EMAP	3.5.1; 3.5.2; 4.1 all; 4.2 all; 4.3.1(1-6);	4.1 all; 4.2 all; 4.3.1(1-6); 4.4.6	4.1 all; 4.2 all; 4.3.1(1-6); 4.4.6	3.5.1; 3.5.2	3.5.1; 3.5.2	3.5.1; 3.5.2				
EMAP		4.7.1; 4.7.2		4.7.1; 4.7.2						
EMAP				4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4
EMAP	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.8 all; 4.12 all	4.8 all;

Table 3.27 Next Generation Core Competencies: Technological Literacy 1-4

	FEMA Behavioral Anchor 1: Technological Lit: Utilizes technology			FEMA Behavioral Anchor 2:Technological Lit: Evaluation of technology		FEMA Behavioral Anchor 3: Technological Lit: Advances the use of technologies		FEMA Behavioral Anchor 4: Technological Lit: Assess the legal, ethical, and social implications of technology	
FEMA	Use established tech	Access data	Compare range of tech	Knowledge of tech	improve tech use	implement new systems	explain tech systems	Identifies legal, ethical, and social elements	Give examples of emerging tech
CAEMHSE	3.2.5	3.2.5	3.2.5	3.2.5	3.4.3	3.4.3		3.4.3	3.4.3
EMAP	4.1 all; 4.2 all; 4.3.1(1-6)	4.1 all; 4.2 all; 4.3.1(1-6)	4.1 all; 4.2 all; 4.3.1(1-6)	4.1 all; 4.2 all; 4.3.1(1-6)	4.1 all; 4.2 all; 4.3.1(1-6)	4.1 all; 4.2 all; 4.3.1(1-6)	4.1 all; 4.2 all; 4.3.1(1-6)	4.1 all; 4.2 all; 4.3.1(1-6)	4.1 all; 4.2 all; 4.3.1(1-6)
EMAP	4.9 all; 4.10 all	4.9 all; 4.10 all	4.9 all; 4.10 all	4.9 all; 4.10 all	4.9 all; 4.10 all	4.9 all; 4.10 all	4.9 all; 4.10 all	4.9 all; 4.10 all	4.9 all; 4.10 all

Table 3.28 Next Generation Core Competencies: Systems Literacy 1-4

	FEMA Behavioral Anchor 1: Systems Lit: Guides info flow				FEMA Behavioral Anchor 2: Systems Lit: Guides action between the parts & the whole				FEMA Behavioral Anchor 3: Systems Lit: Guides understanding of the wider environment			FEMA Behavioral Anchor 4: Systems Lit: Guides innovation processes			
FEMA	Defines complex systems	Id's key info flow	Evaluates	communicates	mission communication	IC establishment	Mgmt structure process	info on function/stability	Sensing systems in wider environment	Team, interpret incident info from remote sensing	rapid dissemination of info/incorporate feedback	innovative approaches	team working groups	Access resources	Partners in innovation
CAEMHSE		3.4.3		3.2.5					3.4.3	3.4.3	3.4.3	3.4.3	3.4.2		3.4.2
EMAP	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	3.1.1(2); 4.5 all; 4.6 all	4.5 all; 4.6 all	3.1.1(3); 4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	3.1.1(4); 4.5 all; 4.6 all
EMAP	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4		4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4
EMAP				4.8 all	4.8 all			4.8 all			4.8 all	4.8 all	4.8 all		
EMAP	4.9 all; 4.12 all	4.9 all; 4.12 all	4.9 all; 4.12 all	4.9 all; 4.12 all	4.9 all; 4.12 all	4.9 all; 4.12 all	4.9 all; 4.12 all	4.9 all; 4.12 all	4.9 all; 4.12 all	4.9 all; 4.12 all	4.9 all; 4.12 all	4.9 all; 4.12 all	4.9 all; 4.12 all	4.9 all; 4.12 all	4.9 all; 4.12 all

Table 3.29 Next Generation Core Competencies: Disaster Risk Management 1-3

	Disaster Risk Mgmt Behavioral Anchor 1: Communicates & interprets hazards & risks			Disaster Risk Mgmt Behavioral Anchor 2: Understand & apply disaster risk mgmt			Disaster Risk Mgmt Behavioral Anchor 3: Monitor, evaluate, & review risk mgmt processes & outcomes		
FEMA	Id's hazards & consequences	awarenes s of diverse environments	Hazard awareness to partners/community	develop risk profile	risk analysis/evaluation	establish priorities/treatment	Id's new lit re: hazards, risks, vulnerabilities	Monitors/updates new info re: emerging hazards/risks	Review/update risk profile
CAEMHSE	3.1.1	3.4.3	3.1.1	3.1.3	3.1.2	3.4.3			3.4.3
EMAP	4.1 all; 4.2 all; 4.3.1(1-6)	4.1 all; 4.2 all; 4.3.1(1-6)	4.1 all; 4.2 all; 4.3.1(1-6)	4.1 all; 4.2 all; 4.3.1(1-6)	4.1 all; 4.2 all; 4.3.1(1-6)	4.1 all; 4.2 all; 4.3.1(1-6)	4.1 all; 4.2 all; 4.3.1(1-6)	4.1 all; 4.2 all; 4.3.1(1-6)	4.1 all; 4.2 all; 4.3.1(1-6)
EMAP	4.5.1; 4.5.5	4.5.1; 4.5.5	4.5.1; 4.5.5	4.5.1; 4.5.5	4.5.1; 4.5.5	4.5.1; 4.5.5	4.5.1; 4.5.5	4.5.1; 4.5.5	4.5.1; 4.5.5
EMAP	4.7.1; 4.7.2	4.7.1; 4.7.2	4.7.1; 4.7.2	4.7.1; 4.7.2	4.7.1; 4.7.2	4.7.1; 4.7.2	4.7.1; 4.7.2	4.7.1; 4.7.2	4.7.1; 4.7.2
EMAP	4.8.1; 4.12 .1; 4.12.2; 4.12.3	4.8.1; 4.12 .1; 4.12.2; 4.12.3	4.8.1; 4.12 .1; 4.12.2; 4.12.3	4.8.1	4.8.1	4.8.1	4.8.1	4.8.1	4.8.1

Table 3.30 Next Generation Core Competencies: Community Engagement 1-4

	Community Engagement Anchor 1: Involves key stakeholders			Community Engagement Behavioral Anchor 2: Cultivates partnerships & mutual respect					Community Engagement Behavioral Anchor 3: Creates public value			Community Engagement Behavioral Anchor 4: Establishes a process for expanded &		
FEMA	Id's people & orgs	issues in reducing risk	encourages contribution	Inclusive	Active listening	Proactive	Current	clear written/oral communication	Shared values	civic/democratic principles	Id's new community reality	maintain community comms	stakeholder involvement	build collaboration
CAEMHSE	3.2.5; 3.4.2	3.4.3	3.4.2	3.2.5				3.2.5; 3.4.1		3.4.2	3.4.2	3.2.5	3.4.2	3.4.2
EMAP	3.3.1; 3.3.2	4.1 all; 4.2 all; 4.3.1(1-6)	3.3.1; 3.3.2	3.3.1; 3.3.2	3.3.1; 3.3.2	3.3.1; 3.3.2	3.3.1; 3.3.2	3.3.1; 3.3.2	3.3.1; 3.3.2	3.3.1; 3.3.2	3.3.1; 3.3.2	3.3.1; 3.3.2	3.3.1; 3.3.2	
EMAP	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all
EMAP	4.7.3; 4.7.4	4.7.1; 4.7.2; 4.8.1		4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.8 all	4.8 all	4.8 all
EMAP	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all

Table 3.31 Next Generation Core Competencies: Governance & Civics 1-6

	Governance & Civics Anchor 1: Considers policy options re: stakeholders			Governance & Civics Anchor 2: Political & Legal					Governance & Civics Anchor 3: Brings people together across sectors		
FEMA	Understand poor/effective policy	determinates of policy effectiveness	feasibility of collaborative action w/stakeholders	Relationships across all EM sectors	Uses electronic legal resources	laws/legal issues w/disaster risk	legal case study	Seeking legal counsel	Invites to meetings	Relate vision to public	Maintains comms
CAEMHSE	3.4.3	3.4.3	3.2.4; 3.4.3	3.1.7	3.4.3	3.2.2	3.2.2	3.4.3	3.4.2	3.4.2	3.4.1
EMAP	4.5 all	4.5 all	4.5 all	4.5 all; 4.6.1(3); 4.6.2	3.5.1; 3.5.2	3.5.1; 3.5.2; 4.7.1; 4.7.2	3.5.1; 3.5.2	3.5.1; 3.5.2	4.5 all	4.5 all	4.5 all; 4.6 all
EMAP			4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.8.1		4.7.3; 4.7.4	4.7.3; 4.7.4; 4.8	4.7.3; 4.7.4; 4.8	4.7.3; 4.7.4; 4.8
EMAP			4.12.3; 4.12.4	4.12.3; 4.12.4					4.12.3; 4.12.4	4.12.3; 4.12.4	4.12.3; 4.12.4

	Governance & Civics Anchor 4: Builds social capital through collective processes					Governance & Civics Anchor 5:Implementation						Governance & Civics Anchor 6: Evaluation & continual improvement	
FEMA	Tools for agreements /mutual learning	active listening	Build political acumen	Political comms	Importance of ethics	Role of govt/constituents	Shared policy/goal planning	Forward mapping policy/program planning	Id risks to successful policy goals	Pub Info to implement shared policy	Define change mgmt	monitor, evaluate	Info gathering for eval reports
CAEMHSE	3.4.3	3.4.1	3.4.2	3.4.1	3.4.3	3.4.2			3.4.3		3.4.3		3.4.3
EMAP	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6 all	4.5 all; 4.6.2	3.5.1; 3.5.2; 4.5 all; 4.6.2	4.5 all; 4.6.2	3.5.1; 3.5.2; 4.5 all; 4.6.2	3.5.1; 3.5.2; 4.5 all; 4.6.2	4.5 all; 4.6.2	3.5.1; 3.5.2; 4.5 all; 4.6.6	3.5.1; 3.5.2; 4.5 all; 4.6.6
EMAP	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.3; 4.7.4	4.7.8	4.7.8
EMAP	4.8 all; 4.12 all	4.8 all; 4.12 all	4.8 all; 4.12 all	4.8 all; 4.12 all	4.8 all; 4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.8 all; 4.12 all	4.12 all	4.8 all; 4.12 all	4.8 all; 4.12 all

Table 3.32 Next Generation Core Competencies: Leadership 1-4

	Leadership Anchor 1: Inspires a shared vision			Leadership Anchor 2: Creates an empowering environment		Leadership Anchor 3: Resolves conflict					Leadership Anchor 4: Strategic decision-making that influences others toward	
FEMA	Comprehends vision & creation	Illustrates vision/desired product	Supportive role in vision/direction for org	Drive/enthusiasm in activities	Diverse thoughts leveraged	frameworks for conflict mgmt	reasons for opposing views	Use evidence	Respect diversity of thought	Maintain objectivity	Strategize from vision	constructive contribution by challenging
CAEMHSE					3.4.3		3.4.3	3.4.3			3.4.3	3.4.3
CAEMHSE 3.4.2												
CAEMHSE 3.4.5												
EMAP	3.1.1(1)	3.1.1(1)	3.1.1(1)								3.1.1(1)	
EMAP	4.5 all; 4.7 all	4.5 all; 4.7 all	4.5 all; 4.7 all	4.5 all; 4.7 all	4.5 all; 4.7 all	4.5 all; 4.7 all	4.5 all; 4.7 all	4.5 all; 4.7 all	4.5 all; 4.7 all	4.5 all; 4.7	4.5 all; 4.7 all	4.5 all; 4.7 all
EMAP		4.8 all							4.8 all	4.8 all		
EMAP	4.9 all; 4.11 all	4.9 all; 4.11 all	4.9 all; 4.11 all	4.9 all; 4.11 all	4.9 all; 4.11 all	4.11 all	4.11 all	4.11 all	4.11 all	4.11 all	4.9 all; 4.11 all	4.9 all; 4.11 all
EMAP	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all	4.12 all

Appendix D.

An Examination of Emergency Management Workforce Job Postings & Undergraduate Degree Program Alignment Analysis Survey

Scope of study: This study hopes to capture any gaps within the current job market trends and emerging emergency managers. To provide an understanding of core competencies within bachelor's programs, FEMA strategic plans and job market trends.

Additionally, this project seeks to understand how current emergency management bachelor's degree programs are built and how the courses are aligned relative to established emergency management standards from FEMA, CAEMHSE, and EMAP.

The study will address the following fundamental questions:

1. Is the program aligned with any definitive emergency management practices and/or standards?
2. Are there any areas not aligned with FEMA, CAEMHSE, and/or EMAP standards?
3. What are the program's outcomes and skills development?
4. What are the gaps in the current job market and next generation Emergency Managers.

Assent Statement: No personal information will be sought for this study. The information sought will be about your bachelor's degree level programs in or related to emergency management. This includes programs of homeland security that include any components of emergency management.

This study will help the emergency management education and public service communities understand the academic and workforce trends that may benefit your college or university's programs leading to well-educated, professional emergency management graduates as well as what the workforce should consider in hiring them.

By proceeding to the survey questions, you are assenting to participate in this study freely and of your own accord.

Survey

- What is the name of your college or university?
- What is the name of your school, department, or division, etc.?
- What degrees do you offer that relate to emergency management? Please list all including any degrees that have emergency management as a concentration or specialization.
- Do you list your programs, learning outcomes, course titles, course descriptions, and course learning outcomes on your website? If Yes, please provide the link, if No, please list this information here (if course learning outcomes are not on the website, please provide those for each course).

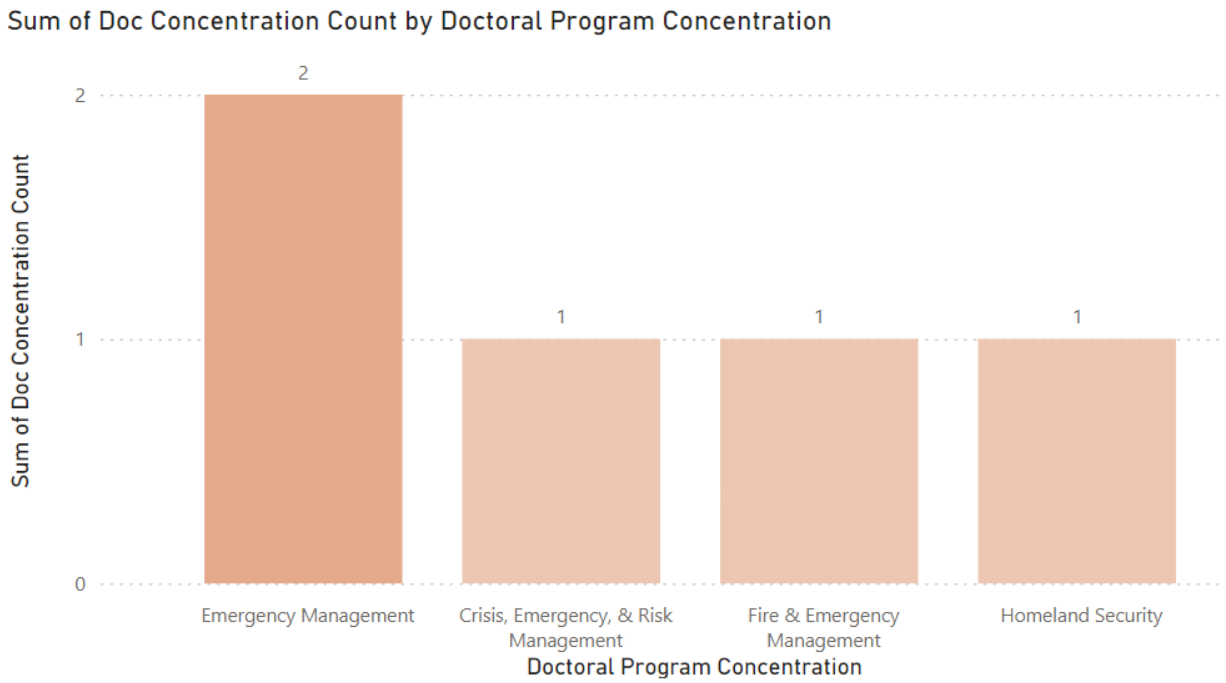
- Please identify the general education requirements, program core and the electives in the program(s).
- Do you provide any associate degrees or certificates that include emergency management courses? If so, please provide the link to your website or list the degree/certificate title(s), course titles, and course descriptions here. Please provide the general education requirements, program core and the electives in the program(s).
- Is your college or university accredited?
    - Regional accreditation
    - National accreditation
    - Program accreditation (emergency management)
        - CAEMHSE
        - Other. Please indicate.
    - Not accredited
    - Other? Please identify.
- Does your program and individual courses align with any emergency management industry standards? If No, go to next question. If Yes, please identify from where you derive these standards.
- Would you be willing to share course syllabi if requested?
- What are your program(s) graduation rates for the last three years?
- What are your program(s) retention rates for the last three years?
- What are your program(s) placement rates for the last three years?
- Do you obtain program specific employer satisfaction surveys? If Yes, what were the scale and scores for the last three years? If No, go to Question ___
- Do you obtain program specific student satisfaction surveys? If Yes, what were the scale and scores for the last three years? If No, go to Question ___
- When you design or revise your program(s), do you do this with emergency management in mind as a/an:
    - Independent profession
    - Part of another field (criminal justice, public health, etc.)
    - Other? Please describe.
- Do you consider emergency management its own academic discipline? Y/N, please explain your response.
- Do you actively participate in any emergency management related organizations? Select all that apply.
    - Center for Homeland Security and Defense (CHDS), University and Agency Partnership Program (UAPP)
    - FEMA Higher Education Program (EMI)
    - State emergency management association
    - NEMA
    - IAEM
    - Other? Please identify.
- Would you like to be added to our contact list?
    - Name
    - Position Title
    - Email address
    - Phone number

Thank you for participating in this survey and providing valuable information about the academic state of emergency management.

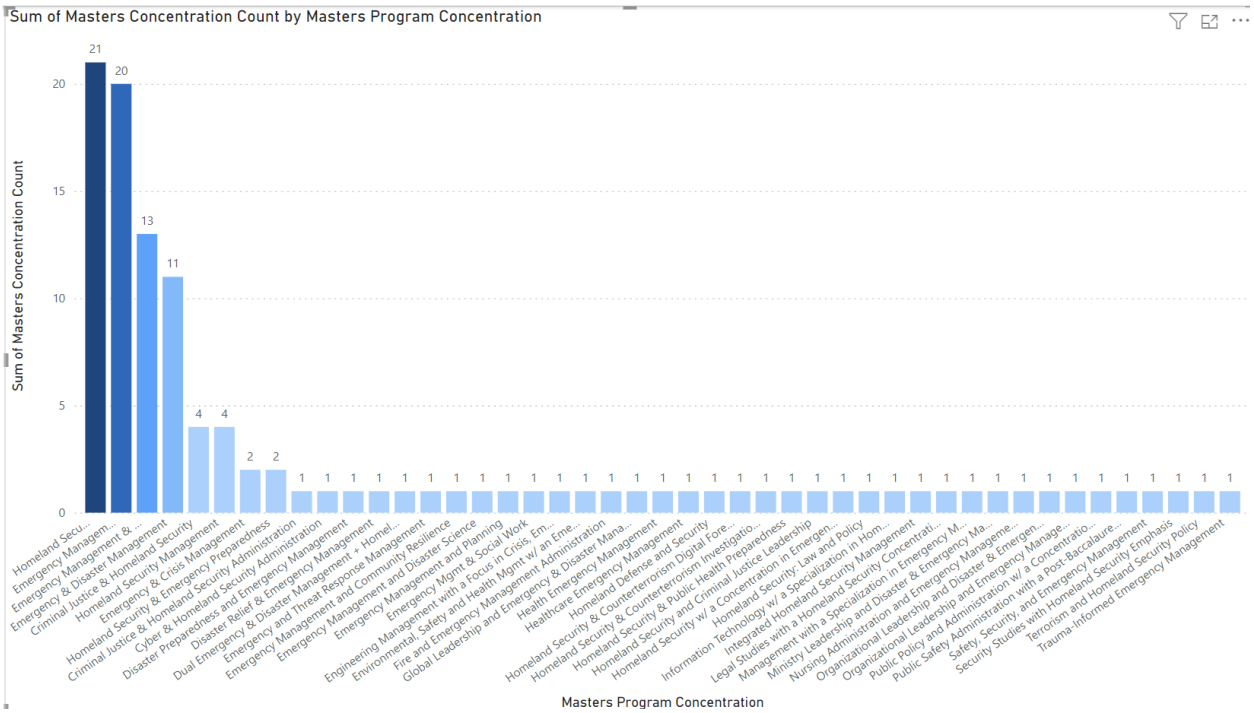
Appendix E.

Thematic analysis of all degree program core concentrations in emergency management for all degree program levels

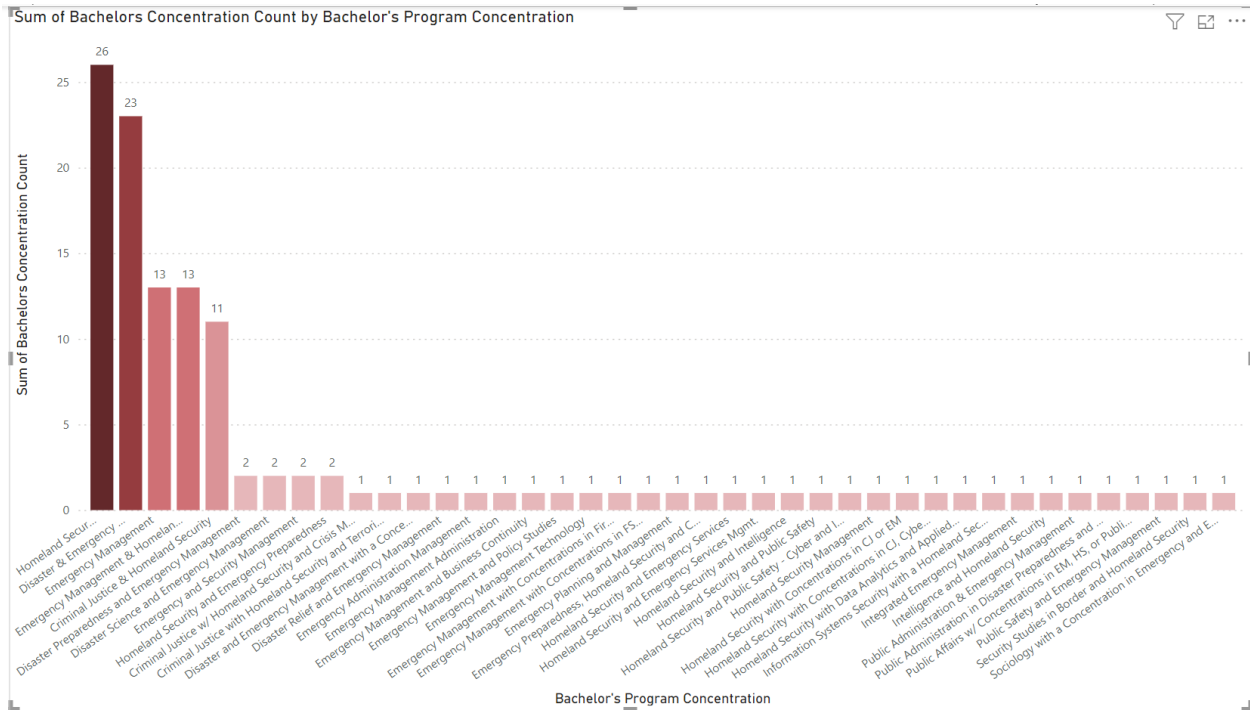
Doctoral Program Concentration	Sum of Doc Concentration Count
Crisis, Emergency, & Risk Management	1
Emergency Management	2
Fire & Emergency Management	1
Homeland Security	1
Total	**5**



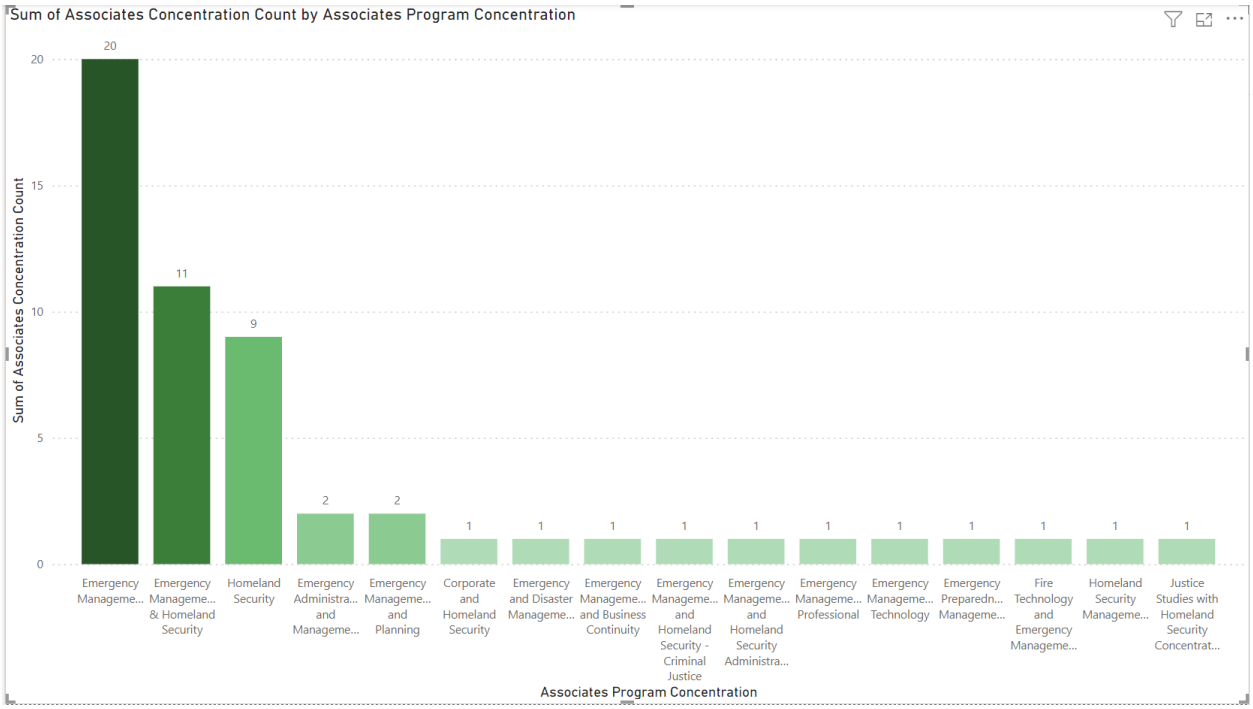
Doctoral Degree Program Concentrations



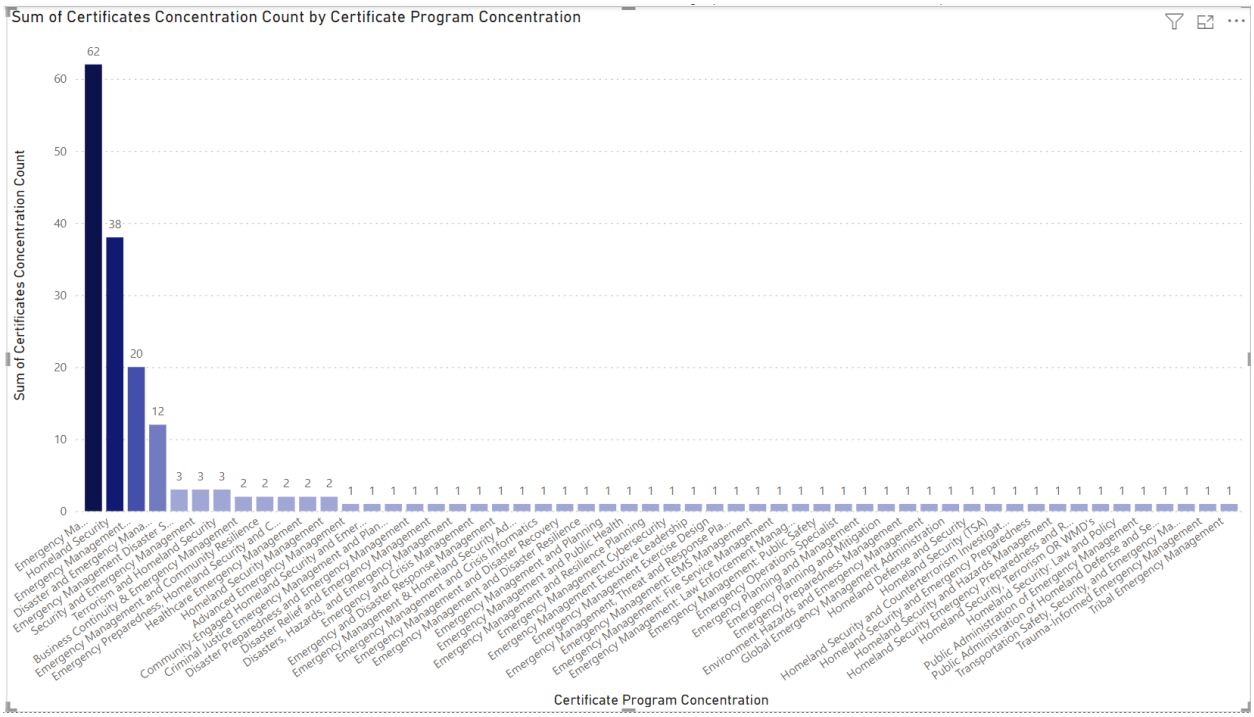
Master's Degree Program Concentrations



Bachelor's Degree Program Concentrations



Associate's Degree Program Concentrations



Certificate Concentrations

Appendix F.

Research Team Overview & Bios

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[1] *Simental Industries Ltd. is a Homeland Security & Emergency Management Consulting Firm and Disaster Research Collaborative.*

Bios

Arthur J. Simental, M.S., CEM. Mr. Simental is the Director of Emergency Management for the University of Colorado Colorado Springs and leads the Division of Emergency & Safety Services. Mr. Simental is concurrently an Adjunct Instructor for Colorado Technical University, Lecturer for the University of Colorado Colorado Springs, and the Founder of Simental Industries Ltd., a Homeland Security & Emergency Management Consulting Firm and Disaster Research Collaborative. Mr. Simental is a former Public Health Advisor for the Centers for Disease Control and Prevention where he served two years on the federal COVID-19 response. Mr. Simental has over fifteen years of service in Homeland Security & Emergency Management and Emergency Services. Serving across all levels of government, and in the private and non-profit sectors in HSEM, healthcare & public health emergency preparedness, space & defense, security, education, and critical infrastructure. Mr. Simental is also a homeland security researcher, published author, and Certified Emergency Manager with International Association of Emergency Managers and the Colorado Emergency Management Association. Mr. Simental earned a Master of Science in Homeland Security, Emergency Management and Public Health from CTU, and is presently a doctoral student -ABD.

Tina Bynum, D.M., MPA. Dr. Bynum is the Associate Dean of Law, Public Services, and Education with Pikes Peak State College, an Associate Editor with the Journal of Homeland Security & Emergency Management, and a member of the Center for Homeland Defense and Security University & Agency Partnership Program (UAPP). She also serves as an emergency management program assessor with the Emergency Management Accreditation Program (EMAP). Dr. Bynum has experience spanning over 30 years as a now retired firefighter/EMT and current higher education and emergency management exercise professional. She co-authored *Homeland Security: Safeguarding the U.S. from Domestic Catastrophic Destruction* (2016); *The United States Department of Homeland Security, An Overview* (2Ed, 2010); book chapters, *Voluntary Organizations Assisting in Disaster: The role and impact of nonprofit organizations in disaster management, and The Role of Public Health & Healthcare in Emergency Management: Preparedness, Pandemics, Present & Future Challenges post-COVID19,* both in *McEntire, D. (2023), The Distributed Functions of Emergency Management and Homeland Security: An Assessment of the Responsibilities of Vital Professions in Disasters and Terrorist Attacks*; and authored *Whistleblower or Traitor? in Logan, K. G., Homeland Security and Intelligence* (2017, 2 Ed). Dr. Bynum graduated from Colorado Technical University with a Doctor of Management – Homeland Security and from the University of Colorado with a Master of Public Administration and BA magna cum laude with High Distinction in Psychology.

Dara Marin Prais, Ph.D. is a dedicated professional with a profound passion for engaging in and delivering actionable research for entities and practitioners. As a woman of color, she is committed to engaging in meaningful research projects to support diverse communities. As a result, she has cultivated a strong educational background that forms the foundation of her expertise. Dara holds a Ph.D. from the University of Colorado, Denver, specializing in Research, Evaluation, and Assessment. Prior to this, she earned a Master's degree in Educational Psychology, focusing on Assessment, also from the University of Colorado, Denver. Her academic journey began with a Bachelor of Science degree in general and special education from Northern Arizona University. With a wealth of

knowledge and academic accomplishments, Dara adeptly designs and guides research endeavors. Her skills include utilizing qualitative and quantitative methods, mixed methodology, the analysis of large datasets and multilevel modeling, and conducting program evaluations.

Erin E. Zaideman, M.A. As an applied researcher, Erin is deeply committed to understanding and supporting the communities she serves. Her approach involves education, collaboration, respect, and the application of rigorous research and evaluation frameworks. Erin's passion lies in ensuring that individuals and communities have equal and equitable opportunities within organizational systems. Over the past five years, Erin has collaborated with various organizations across education, scientific, cultural, and human service sectors tackling organizational effectiveness. Her work spans survey methods, evaluation, system dynamics exploration, and quantitative analysis. Erin's hunger for knowledge extends to disaster research. She aims to amplify the voices of those who are often overlooked, ensuring their representation and value in risk management efforts.

Appendix G.

Research Team Demographics