

Abstract

The field of disaster preparedness/management has grown exponentially in the past five years¹. This increased demand presents new challenges in the growing field of disaster management education and in particular, public health disaster management education. While the demand for public health disaster management professionals is increasing, the field is rapidly increasing in complexity, and practitioners are expected to have a wide range of skill sets, including analytic, communications, problem-solving and critical thinking¹. The demand for disaster managers is growing in parallel to the increasing number of natural disasters and crises happening globally. According to a 2020 FEMA survey¹; both undergrad and graduate programs have seen a 50% increase in enrollment and expect an increase in enrollment over the next three years². The effort to educate professionals in the field is hampered however by a lack of high-quality efficient programs, both undergrad and graduate, especially for those aspiring to careers in public health settings. There is demand for graduates with skills that are applicable in the disaster management field, but we don't know, for instance, what skills are specifically needed in today's environment in the field of public health disaster management. Information obtained from this study would prove valuable for the Public Health Disaster Preparedness academia community⁵.

Diversity

Student body diversity in the 202 FEMA survey consisted of non-traditional, first-generation, and military groups². Data from 2017 to 2019 indicate that the student body is becoming more diverse in emergency management programs¹. In the 2020 FEMA survey, 36% of programs observed an increase in diversity within the student body¹.

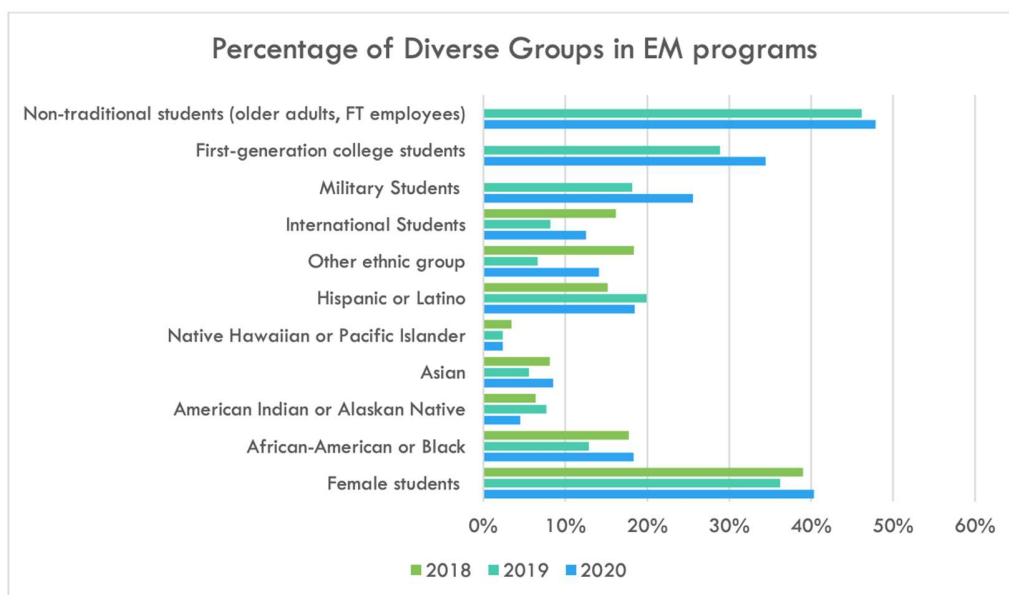


Figure 1 Average percentage of diverse student populations enrolled in EM programs
Source: 2020 FEMA Higher Education State of The Community: Annual Survey and Report

The chart from figure 1 taken from a 2020 FEMA report illustrates the average percentage of diverse student populations enrolled in EM programs from 2018 to 2020¹. The chart describes diversity in student groups such as the non-traditional, military, and first-generation groups². The most diverse group of students are nontraditional older adults returning to school, and individuals going to school while maintaining full-time jobs (48%)¹. Comparing results from the previous 2017- 2018 surveys shows that the percentage of female students is back to the 2018 estimates (approximately 40%), as is the percentage of African-Americans (18%)¹. International students are lower than the 2018 numbers, an approximate 3% decrease, though these numbers are higher than last year's: at a 5% increase².

Objective:

To address to see if there is a need for new or modified skill sets to meet today's evolving disaster preparedness field, this study proposes to do the following:

- 1) Conduct a quantitative survey comprised of 6 essay response formatted questions created in the Qualtrics platform. Reach out to professionals who are GPH alumni, working in a range of positions in the field of public health disaster management, (including health care settings, departments of health (local, national), offices of emergency management, and other settings where they may be emergency management professionals with MPH degrees and or certificate in disaster studies. With their responses I intend to:
 - 2) Collect data of any new or enhanced skills that was encountered on the job.
 - 3) Create an Excel spreadsheet, report, and a PowerPoint presentation of findings.

Design:

Invitations were sent out to 12 alumni graduates via email and through the social media platform LinkedIn, the demographics were comprised of 3 males and 9 female professionals in the field. Criteria for study participation; must be an alumnus from either the certificate program or the MPH program that has been in the field for a minimum of a month to 10 years. The purpose is to obtain a range of data from new hires that have been on the job for a year or less to senior leadership positions. Data from the surveys will be compared to the competencies from the three main sets of public health disaster competencies, namely: National Association of County & City Health Officials (NACCHO), The Association of Schools and Programs of Public Health (ASPPH), and the Public Health Foundation (PHF).

Setting:

Alumni who consented to participate in the study were given the option of a survey that was hosted on a Qualtrics survey platform or a Zoom interview. Participants who agreed to a Zoom interview provided consent via email to have the interview recorded to be used for reference. Alumni who consented to a questionnaire were sent an email with a link to the survey. Alumni completed the Zoom/survey within 2 months between October/November 2021, the

questionnaire consisted of 6 questions using the Qualtrics platform. Responses were answered via essay format. Basic descriptive statistical analyses were performed.

There were 6 responses, five females, and one male alumnus; one respondent was through LinkedIn while the remainder replied to the email invites. Responses from Dr. Eric Gebbie were taken from an interview conducted by Dr. Gershon for the Fall Management of Public Health Disasters course was also included in the report due to the respondent's answers that were relevant to the survey.

Results

A total of 6 interviews were conducted, 2 via Zoom and 5 via a survey.

The top 3 in-demand skills in the field were the following: 80% of responses cited project management; a scenario-based course where you could learn to manage an incident from beginning to completion. One alumnus cited that project management is a key skill to possess in the disaster management field.

Time management and financial management were 2nd and 3rd of in-demand skills. In financial management, understanding finances in the disaster science field, funds request, knowing money allocation and ability to track it, the reimbursement process and indirect cost issue show money moves in an agency, how to use finances as a leadership tool - as incentives to decide how to shift money around from vaccine funding to mass fatality planning. Other skills identified were people management – both within their department and in the public, one alumnus identified it as public interaction, which she felt was dramatically different from the skills students learn in public speaking. Conflict management resolution and de-escalation training when dealing with non-health educated public such as vaccinations and Covid-19 as an example of people management.

Resourcefulness: It's never too early in a person's career to start collecting names of people, organizations, or non-profits that may be of service before or after an event. An example: a community encountered a flooding event, and in its aftermath left debris everywhere – as a professional in the field you will have the names of people who own cleaning services companies with access to several trucks and dumpsters. The value of internships: seek out internships in areas that are of interest. Getting exposure to the field and having a hands-on experience together with the educational component makes an exponential difference.

Students seeking leadership roles should become familiar with CASPER- The Community Assessment for Public Health Emergency Response (CASPER) is designed to provide public health leaders and emergency managers information about a community so they can make informed decisions- <https://www.cdc.gov/nceh/casper/overview.htm>.

Refresher courses on Biostats and Epi concepts are also helpful in the field.

Students who wish to work for ICS should take the following FEMA courses 300 & 400:

ICS-300 Intermediate ICS for Expanding Incidents: ICS-300 provides training and resources for personnel who require advanced knowledge and application of the ICS. This course expands upon information covered in the ICS-100 and ICS-200 courses.

ICS-400 Advanced ICS: This course provides training and resources for personnel who require advanced application of ICS. This course expands upon information covered in ICS-100 through ICS-300.

Participate in ride alongs with fire, police, and public works agencies to get a sense of how infrastructure within the community operates. In areas where communities have experienced increased weather events in recent years: learn weather monitoring, learn how to read radars, and weather terminology as weather events are becoming increasingly severe and frequent. Train to better use Google Suite / Google Docs and Excel for data impute, as well as it's quantitative capacities.

Conclusion

As the increase and impact of disaster events continue to grow worldwide, so is the demand for qualified professionals in the field. This small cross-study provided the opportunity to interview alumni in a field that is growing in demand, their contributions had provided valuable information for both current and prospective students.

Continued studies are warranted as the NYU Public Health Disaster Preparedness advances in both the certificate and eventual graduate programs. As the increase and impact of disaster events continue to grow worldwide, the need to prepare students with the latest up to the minute skill sets to become future leaders in the disaster preparedness management field.

Competencies must be reevaluated on a regular basis and modified to incorporate the data provided in both this and future studies.

References

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