

Emergency Management Education: A Status Report

2008 FEMA Emergency Management Higher Education Program Report



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INTRODUCTION

The number of emergency management higher education programs continue to grow in both number and strength. The data collection herein was undertaken to provide a status report of where emergency management higher education currently stands. The goal of this report is to assist the FEMA Emergency Management Higher Education Program, policymakers, educators, students, practitioners and other interested parties in understanding where higher education is today and where it is heading in the future. This report will examine current program status, program and student demographics, growth expectations, trends and challenges.

METHODOLOGY

A nine page survey instrument was distributed via email to the Point-of-Contact (POC) for each institution listed on The College List on FEMA's Emergency Management Higher Education Program webpage. Only those institutions offering a certificate or degree program in emergency management (as of April 18, 2008) were solicited. This included institutions on the following lists: Associate, Bachelor Level Concentrations and Minors, Bachelor, Masters, Doctoral and Stand-Alone Certificate Programs. Many of the institutions offering programs were listed on more than one of the lists, but each institution was only surveyed once. The survey allowed for institutions to respond on one survey instrument regarding all of their programs.

This is the second consecutive year this survey has been done in this format. A similar survey was conducted in 2005 by Dr. Henry Fischer. In addition to questions asked in previous years (some of which were modified to increase clarity), this year's survey was expanded and included a number of new questions. The challenge was, as is often true in such surveys, to collect the data sought without overwhelming the respondents. The value of an annual data collection to the FEMA Higher Education Program must be tempered with recognition that there are limitations on the willingness of respondents to fill out long survey instruments. This year's instrument was arguably as long as any future survey instrument should be.

An initial solicitation was sent to all institutions offering programs (120). The initial solicitation was followed by two reminder emails to the POCs of non-responding institutions. There were 12 solicitations returned as undeliverable; 15 POCs replied that they could not participate this year, 11 replied that another faculty/member would complete the survey (but the completed survey was never received); and 29 did not reply at all. Of note, a number of faculty members from institutions that did not respond did indicate at the FEMA Emergency Management Higher Education Conference that they would participate next year.

In total, 53 responses were received. This represents an overall institutional response rate of 44%. This year's response rate represents a drop from last year's response rate which was 60% (66 responses). The difference in the response rate may be attributable to a number of things- the distribution date (mid-April), the extended length of the survey, grant deadlines, etc. The prior year solicitation was problematic in that it was sent during mid-semester which some institutions found not to be a good time due to mid-term exams, vacations, etc. A few institutions noted this

year’s later solicitation as being problematic as well. In future years, it is suggested that the survey solicitation occur a month or so after the spring semester has begun (and enrollment numbers are in), but before mid-terms to garner a larger response rate. This will require programs to estimate graduation numbers and may limit the ability to collect data on faculty hires completed in the spring, but these can be addressed with minor adjustments to the survey instrument.

The response rate is represented in Table 1. Response representation by program level (as listed on the corresponding college lists) is detailed in Table 2. Many institutions offer multiple certificate and degree options. A list of responding institutions and the programs reported as offered are attached as Appendix A to this report.

Table 1 - Response Rate

Institutions solicited	120
Bad address/POC contact	<-12>
Emailed re: cannot participate this year (illness, other obligations, etc.)	<-15>
Emailed that another faculty/staff member would complete (not received)	<-11>
No reply (three contacts)	<-29>
Responses received (44% response rate)	53

Table 2 - Representation Across Program Level

Program Level	Institutions Listed	Responses Received	Institutions Represented
Doctoral	8	7	88%
Master’s	45	20	44%
Bachelor	19	9	47%
Bachelor Conc./Minor	23	10	43%
Associate	34	15	44%
Certificate	54	23	43%

The survey instrument sought data on general program information, student demographics, enrollment and graduation trends, program faculty, program support indicators, utilization of emergency management materials and coursework, challenges facing emergency management programs, anticipated changes in programs, top knowledge, skills and abilities, and additional products, activities or services that respondents would like the FEMA Higher Education Program to provide. Some institutions did not respond to select survey questions either because they did not collect the type of data requested or felt they were not applicable to their institution; inasmuch, note should be taken of the “n” for each item reported on.

Specific survey limitations will be noted as they arise in the discussion of the data. Lack of clarity in a couple of the survey questions resulted in their responses being discarded. Hindsight is seemingly 20-20 after the data is collected, unfortunately that is too late to repair survey inadequacies. Recommendations for future survey efforts on this front are provided later in the

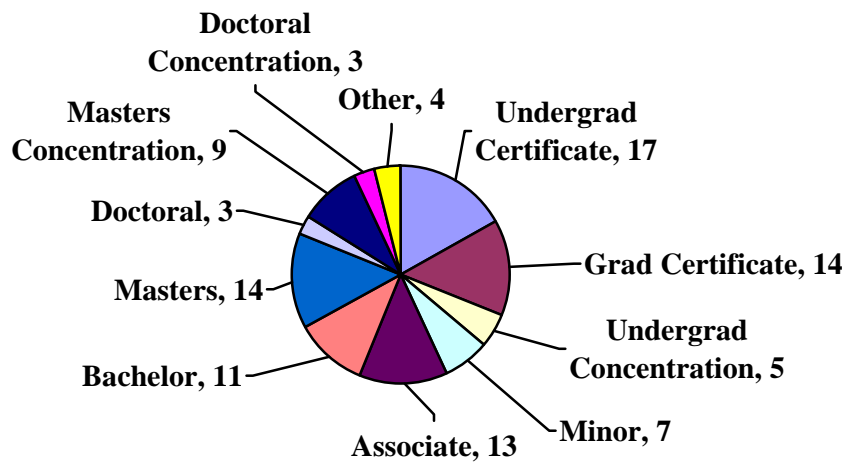
report. The responses to the open-ended questions in the survey have been summarized and consolidated for inclusion in this report.

DISCUSSION

Program Demographics

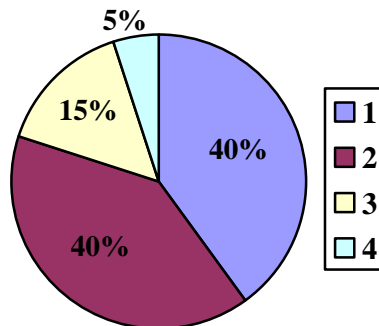
Respondents reported on all of their institution’s emergency management certificate and degree programs on one survey instrument. The responding institutions ($n= 53$) reported 100 programs with the majority of institutions listing more than one program (see Figure B below). Figure A shows the breakdown of programs reported.

Figure A - Types of Programs Reported



Of the 53 respondents, 3 respondents (5%) reported four programs, 8 respondents (15%) reported three programs, 21 respondents (40%) reported two programs, and the remaining 21 respondents (40%) reported having one program.

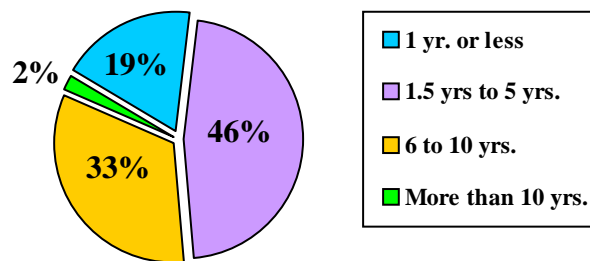
Figure B - Number of Programs Reported



Respondents were also asked if they were planning on developing any new programs over the next year. 39% of respondents (20) indicated that they were developing one or more new programs or would be starting a new program in the upcoming year ($n=51$). Respondents listed the following types of new programs as under development or beginning in the upcoming year: Ph.D., Master's, B.A., B.S. A.A.S., A.S.; additional courses and tracks in focus areas such as public health, information systems, management, infrastructure, emergency management, and fire administration; certificates and concentrations in topical areas such as mitigation, public assistance, disaster vulnerability, human performance, nuclear criticality, and homeland security; and, the creation of concentrations within other degree programs on campus.

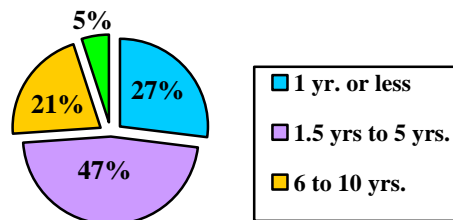
Respondents reported the number of years their programs have been in existence as 0-24, with 65% of all programs reporting program years in existence as five or less ($n=48$). Of this percentile, 19% reported being in existence for one year or less. In comparison to last year's data, there is an indication that new program growth may be slowing slightly, while existing programs mature (33% indicate 6-10 years in existence compared with 21% in 2007).

Figure C- Program Years in Existence



2007

Program Years in Existence

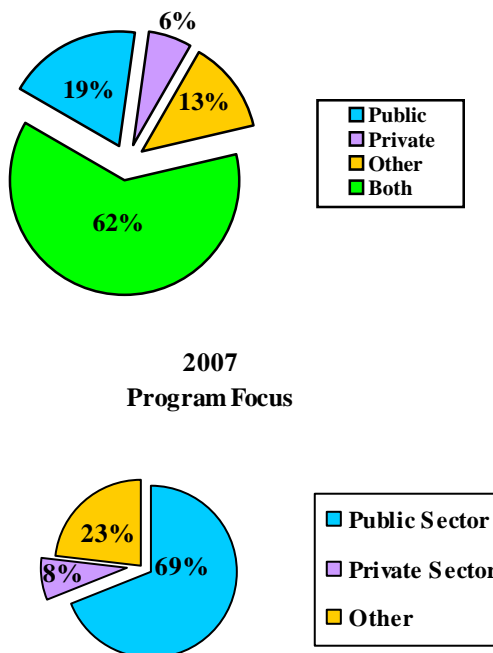


Primary Program Focus & Purpose

The majority of respondents, 62% (33), reported that they consider their primary program focus to be *both private and public sector* ($n=53$). The remaining respondents reported a *public sector* focus - 19% (10), a *private sector* focus - 6% (3), or *other* focus - 13% (7). Those selecting *other* referenced as focus areas non-profits, health, military, leadership and research. This year's data collection is difficult to compare to last year's as there was not an option in the 2007 survey to select a combined public/private focus (see Figure D). Those who reported a

combined focus in 2007 reported as *other*. Future surveys should include an additional option of a non-profit focus which was the most repeated selection given under *other*.

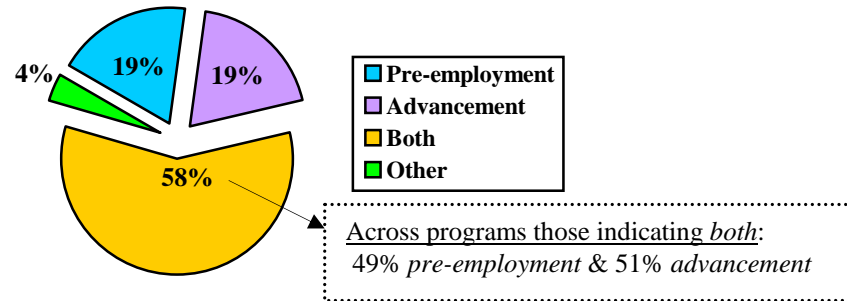
Figure D - Program Focus



In identifying the primary purpose of their program, 19% (10) of respondents identified *pre-employment* (i.e., preparation for entry in the field), 19% (10) identified *advancement* (i.e., preparation of practitioners for advancement), and 4% (2) identified other. The remaining 58% (31) of respondents indicated that their focus was *both pre-employment and advancement* ($n=53$). As is seen in Figure E, not much changed in the general purpose selection from last year's survey results.

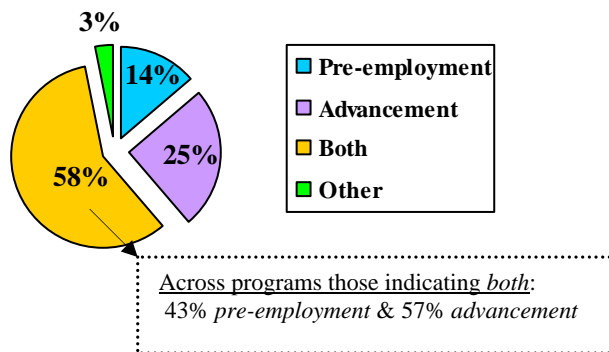
Of those that responded *both* to primary purpose ($n=31$), 28 respondents provided a percentile estimate of *pre-employment and advancement* breakdown within their programs. The breakdown average across programs was 49% *pre-employment* and 51% *advancement*. Comparing this to the breakdown reported in 2007 of 43% *pre-employment* and 57% *advancement* (and the slight growth in purely pre-employment focused programs), it appears that the pre-employment focus is gaining ground on the advancement focus adding credibility to the long asserted premise of Dr. B. Wayne Blanchard that as time goes on emergency management will become more and more a degreed career of first choice. This is one of the trends that will be of great interest to colleges and universities, as program marketing (not to mention delivery, expectations, etc.) to these two audiences is dramatically different.

Figure E – Primary Purpose



2007

Program Purpose



Program Faculty

A third of respondents, 33% (17), reported that they had no full-time faculty representation within their program ($n=52$). Another 50% of respondents (26) reported full-time faculty representation between one and three. The remaining respondents reported full-time faculty representation as four to five - 11% (6) and six or more - 6% (3).

Almost one-fourth of respondents, 23% (12), reported no part-time faculty members ($n= 52$). The remaining respondents reported between one and five part-time faculty members - 44% (23) and six or more - 33% (17). The part-time faculty representation does seem to indicate that there are a number of programs primarily utilizing a part-time model as opposed to the traditional model utilized in many college and university programs of full-time faculty. This may be attributable in part to a few things: 1) the large number of practitioners that have been pulled into programs to teach (many via distance education); 2) the interdisciplinary nature of the field which has allowed faculty to bridge from their original discipline into emergency management; and, 3) a function of meeting the teaching need in the face of a shortage of qualified full-time faculty that can meet institutional tenure requirements. As emergency management matures as a discipline it will be interesting to see what, if any, changes develop in this area. One of the most fascinating aspects of emergency management higher education is watching its growth and evolution; a curiosity lies in theorizing whether the eventual program model norm that will emerge at the different degree levels is one that is dictated by structured academia or the field.

The majority of respondents, 63% (33), reported no associated faculty (faculty housed in another department that teach a course in the program) ($n=52$). The remaining respondents reported one associated faculty member - 10% (5), two associated faculty members - 6% (3) and three or more associated faculty members - 21% (11). Based on the interdisciplinary nature of emergency management one would expect that programs might utilize associated faculty members to increase the breadth of offerings, but this is not readily apparent in the data. It begs the question of possible impediments within the institutional structure that may serve as a disincentive to the cross-use of faculty. This query harkens back to the discussion above wherein it was posited that it would be interesting to see whether program norms would be dictated by structured academia or the field. In the case of associated faculty, it is theorized that structured academia will dictate the norm.

One of the more important pieces of data collected in the survey is that of full-time faculty members principally devoted to emergency management programs. This figure arguably serves as an illustration of program strength. In 2007, a third of programs reported no full-time devoted faculty members. This year's survey indicates that not much has changed on this front with 35% (18) of respondents reporting no full-time faculty members principally devoted to their program ($n=52$). A few factors most be noted in the evaluation of this figure, 1) the types of programs responding (many are delivering minors, concentrations or certificates which may not require a full-time devoted faculty member); 2) a number of programs are primarily offered via distance education; and, 3) many are relatively new programs (19% reported being in existence for one year or less). The remaining respondents reported one devoted faculty member - 33% (17), two devoted faculty members - 15% (8), three devoted faculty members - 6% (3), and four or more - 11% (6).

Table 3 details this year's reported faculty representation side-by-side with 2007 percentages for comparison. An overview of the two years' data doesn't indicate any dramatic changes in program faculty representation which on some fronts is disheartening but not surprising given the critical shortage of available and qualified faculty being reported by programs (this is addressed in the *Challenges Facing Emergency Management Programs* section herein and in the 2007 FEMA Emergency Management Higher Education Report).

Table 3 - Faculty Representation

FT Faculty	2007	PT Faculty	2007	Assoc. Faculty	2007	Devoted Faculty	2007
0	33%	0	23%	0	63%	0	35%
1-3	50%	1-5	44%	1	10%	1	33%
4-5	11%	6+	33%	2	6%	2	15%
6 +	6%			3 +	21%	3	6%
						4+	11%
							6%

The majority of respondents - 68% (36) reported that they did not attempt to hire new faculty or program staff over the past year, while 11% (6) of respondents reported attempting to hire faculty or program staff, but not ultimately hiring, and 21% (11) of respondents reported hiring new faculty or program staff ($n=53$). Those respondents that hired new faculty ($n=11$) reported

the following number of new hires: one (6), two (2), five (1) twenty (1), and thirty (1). The respondents that reported hiring large numbers of new faculty indicated that they were primarily adjunct faculty with varying levels of degrees. The total number of new faculty members reported was 65.

Student Demographics

A failing of the 2007 survey report was the way in which student numbers were analyzed and represented. This year's survey instrument sought to collect a few new figures in relation to emergency management students - current graduation data, graduation data from program inception and the number of students who took emergency management coursework within the institution. This data in conjunction with program enrollment has provided some interesting insights. A survey instrument failing must be noted at the outset; the query on current graduation data was unclear to a number of respondents who provided institution-wide graduation figures as opposed to program graduation figures. This failing of the survey instrument resulted in the question and the accompanying data being discarded. Fortunately, the graduation data from program inception captured collective graduation data and will allow for yearly tracking of graduate numbers into the future.

At the request of the FEMA Emergency Management Higher Education Program, data collected from this year's survey was used to extrapolate figures for the entire emergency management higher education community. Given the balance in response across program type, size, and years in existence, the extrapolation provided is believed to be representative of the larger higher education community. In providing these numbers, data collected at the response rate of 44% was extended to the larger community (53 responding institutions out of 120 institutions listed on the surveyed college lists). The extrapolations are collectively represented in Table 4.

Respondents reported 6,685 students haven taken emergency management courses within their programs over the past year ($n=53$). This extrapolates to 15,136 students that have taken emergency courses this year from emergency management programs (extrapolated from response of 6,685/44%). Respondents reported 4,134 students enrolled in their institutions' emergency management programs. This extrapolates to 9,360 students enrolled in emergency management programs (extrapolated from response of 4,134/44%).

The most heartening number that arises from these two extrapolations is the number of students being reached by emergency management coursework that are not enrolled in programs, an amazing 5,776 students in 2007-2008. The reach of emergency management programs within their institution beyond their student base represents not only additional student recruiting opportunities, but also opportunities to educate those who might not otherwise gain insight into the concepts and issues involved in emergency management. While we can continue to measure this impact in numbers, the ripple effect this contribution will have across other disciplines, occupations, communities and households as students incorporate this knowledge is profound and will be visible over time as cultural change.

This potential of emergency management programs to quietly change culture must be noted and embraced; albeit, it is understood that institutions are more intently focused on producing program graduates and the allure of changing culture is usually lost in the meeting rooms of budget committees. There is a fascinating discussion to be had in relation to the impact this type of educational reach has. It must be acknowledged that the small monetary investment made in the FEMA Emergency Management Higher Education Program has a return ratio that far exceeds the number of emergency management higher education graduates. Indeed, the impact of providing emergency management knowledge to a diverse group of college educated individuals who will go on to influence decisions across a broad spectrum of public and private sector venues is nothing short of brilliant. One must wonder if those involved in the creation and ongoing support of the FEMA Emergency Management Higher Education Program were well-aware all along of the potential of this secondary market to change emergency management's status.

It is tempting to follow through with a discussion on the magnitude the impact this secondary market will have on emergency management in the future, but herein the importance is in capturing the number. The importance and value of emergency management higher education's reach to this secondary market is something that must be evaluated and factored into national long-term strategies seeking to create cultural change. There is a profound opportunity in this access to influence and change the way our country does business from the inside out; if that is not already being factored into the support of emergency management higher education programs nationally – it certainly should be.

A more concrete number extrapolated from the data is the number of students reported to have graduated since programs' inception. Respondents reported 3,414 graduates since their programs began. This extrapolates to 7,730 graduates of emergency management higher education programs (extrapolated from response of 3,414/44%). With the vast majority of programs being in existence for less than ten years, this contribution is notable. With the continuing growth of existing programs and the development of new programs it is predicted that future data collections will show exponential growth in graduate numbers.

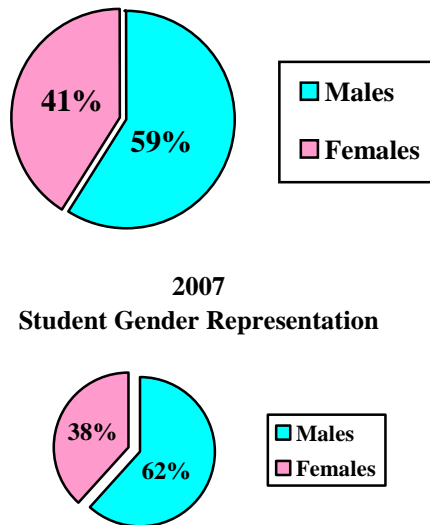
Table 4 - Extrapolated Student Data

1. Number of students who took an emergency management course in 2007-2008 (<i>extrapolated from response of 6,685/44%</i>)	15, 136
2. Number of students enrolled in programs in 2007-2008 (<i>extrapolated from response of 4,134/44%</i>)	9,360
3. Number of students reached that were not officially enrolled in the program (<i>*extrapolation 1 minus extrapolation 2</i>)	*5,776
4. Number of students graduated since the inception of emergency management higher education programs (<i>extrapolated from response of 3,414/44%</i>)	7,730

Program student population was reported by respondents as 4,134 collectively ($n=53$). Of this figure 2,938 (71%) were categorized as full-time students and 1,196 (29%) were categorized as part-time students. In regard to full-time or part-time student classification, no parameters were set within the survey instrument as to what qualified a student as a full-time or part-time student. Since different programs and degree levels might utilize very different classifications, the figures given above must be viewed with the proviso that student status was assessed by program parameters that vary from program to program. Given the reported student status percentages, on the average programs are working with roughly twice as many full-time students as part-time students. A couple of respondents offering primarily distance education reported higher ratios of part-time students.

Respondents reported an average gender breakdown across programs of 59% male to 41% female ($n=51$). In comparing the gender breakdown across programs this year to the 2007 breakdown - 62% males and 38% females - it appears that the gender differential may be narrowing. Future data collections will be telling as to whether the small differential evidenced this year is the beginning of a trend. A number of respondents reported much larger gender differentials than evidenced in the breakdown across programs. A few programs reported their student body as being overwhelmingly (75% or more) male or female.

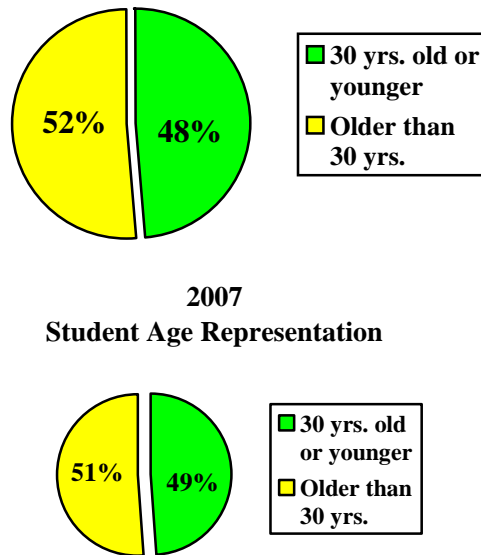
Figure F- Student Gender Representation



Respondents reported an average student age breakdown across programs of 48% at thirty years old or younger to 52% at older than thirty years ($n=47$). This question is a somewhat difficult question for very large programs wherein the POC may not personally know all of the program's students or for programs that are primarily distance education and have never met the student body personally. The value of this data is questionable when collected in this format (across all program types and levels). Arguably graduate students and many distance education students are more likely to be older than thirty years old, while undergraduate students are more likely to be thirty years old or younger. Of note, even though the age breakdown ended up as

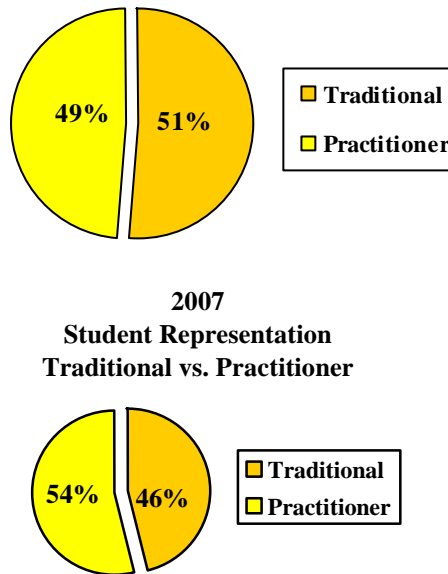
relatively even as averaged across programs, respondents more often than not provided substantially uneven ratios for programs that resulted in twenty point or greater differences in their specific programs. This again illustrates the questionable value of the data when not examined based on specific factors, and even if specific factors are utilized the question of how valuable the data is remains unclear. Figure G illustrates not much has changed in this area between 2007 and 2008.

Figure G – Student Age Representation



The breakdown across programs of traditional versus practitioner students bears similarities to the age and gender responses in that the average across programs which ended up as relatively even at 51% traditional and 49% practitioner ($n=51$), was not representative of many of the responses that often evidenced great disparity in the ratios toward one audience or the other. Again factors such as program type, delivery (distance education as opposed to in-residence), degree level, etc. would add depth to the analysis of this data, but the utility of the data in the long run beyond anecdotal value is unclear. Additionally, no criteria was set forth in the survey instrument setting parameters for the classification of traditional or practitioner which again leaves the classification to the program’s purview and depending on the size and type of program this information may not even be known. The survey question that addresses program purpose hits on a similar note, but from a more objective viewpoint - at the program provider level - and is arguably an easier question for programs’ to respond to. Figure H does show an increase in the traditional student percentage across programs from 2007, but given the failings in the question it is difficult to analyze the increase. If this query is utilized in the future clear parameters need to be set for a assessing the two classifications.

Figure H - Student Representation - Traditional vs. Practitioner

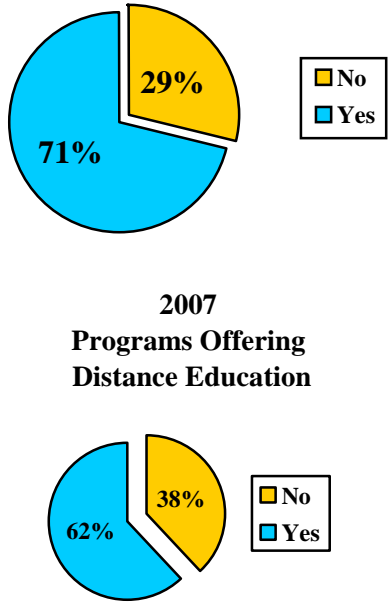


Distance Education

The bulk of respondents, 71% (37), reported offering distance education opportunities ($n=52$). Of those offering distance education opportunities ($n=37$), 34 responded with the percentage of course offerings their programs offered via distance education. Of that 34, 85% reported that 50% or more of their coursework was available via distance education.

Added to the survey this year in an effort to capture data on the extent to which emergency management programs were moving to an distance education model, respondents offering distance education were asked how much of their coursework was offered only via distance education. 13 respondents (25% of the overall survey response audience) reported that 95-100% of their course offerings were offered only via distance education. Those that reported 95% figures have on-site cohort visits at least once a semester. Distance education offerings continue to grow as evidenced by not only the increase from 2007 to 2008 (see Figure I), but also as indicated by programs' anticipated program changes (see *Anticipated Program Changes* herein).

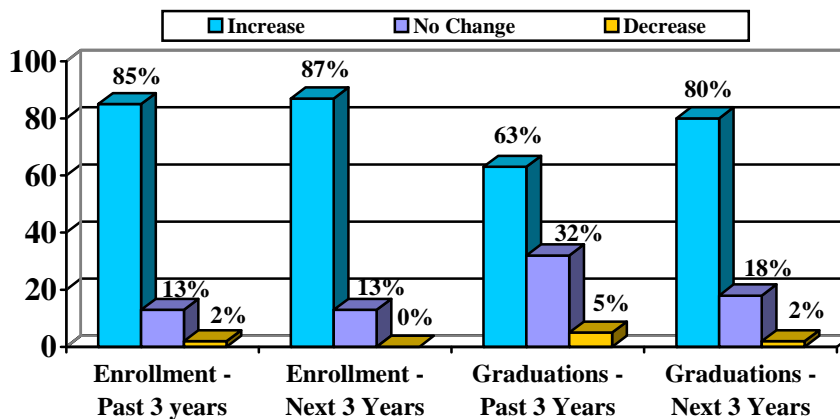
Figure I - Programs Offering Distance Education



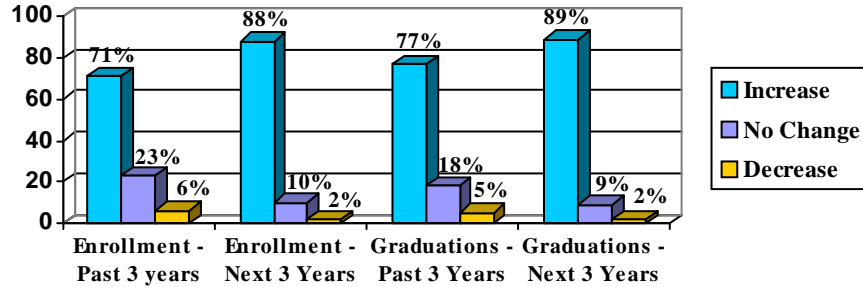
Enrollment and Graduation Trends

A number of respondents were either unable to, or not comfortable with, responding to some of the enrollment and graduation trend questions based on the relative newness of their program. Regarding enrollment over the past three years, 85% (38) of respondents reported an *increase*, 13% (6) reported *no change*, and 2% (1) reported a *decrease* ($n=45$). Regarding predicted enrollment over the next three years, 87% (40) of respondents predicted an *increase*, 13% (6) predicted *no change*, and none predicted a *decrease* ($n= 46$). Regarding graduation figures over the past three years, 63% (27) of respondents reported an *increase*, 32% (14) reported *no change* and 5% (2) reported a *decrease* ($n= 43$). Regarding predicted graduation figures over the next three years, 80% (36) of respondents predicted an *increase*, 18% (8) predicted *no change*, and 2% (1) predicted a *decrease* ($n= 45$).

Figure J - Enrollment and Graduation Trends



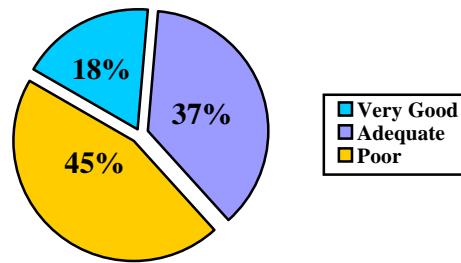
2007 Enrollment and Graduation Trends



Program Support Indicators

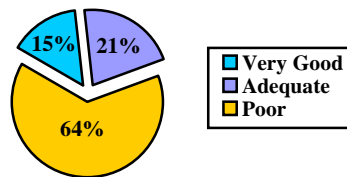
In regard to external funding opportunities for program support (e.g., grants, contracts, etc.), 18% (9) of respondents reported it to be *very good*, in comparison to 37% (19) that reported it to be *adequate*, and 45% (23) that reported it to be *poor* ($n= 51$). In comparison to 2007 data (see Figure K), it appears respondents are overall more satisfied with the level of external funding opportunities available for program support.

Figure K – External Funding Opportunities



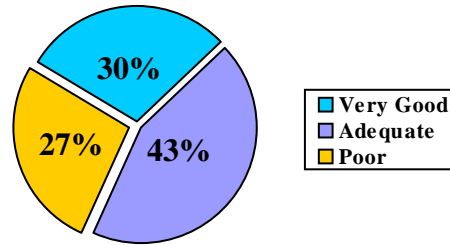
2007

External Funding Opportunities

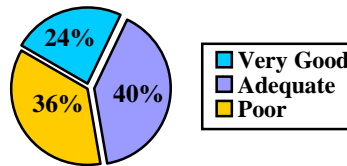


In regard to institutional support (e.g., stipends to develop courses/materials) the bulk of the respondents found it to be *very good*, 30% (16), or *adequate*, 43% (23). Only 27% (14) of respondents characterized it as *poor* ($n=53$). In comparison to 2007 data (see Figure L), it appears respondents are overall more satisfied with the level of institutional support they are receiving.

Figure L – Institutional Support

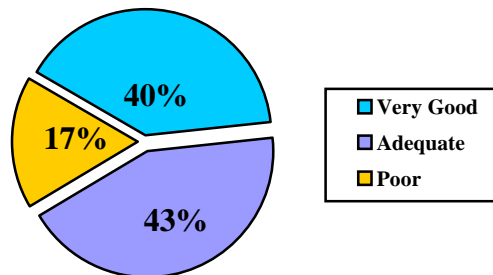


**2007
Institutional Support**

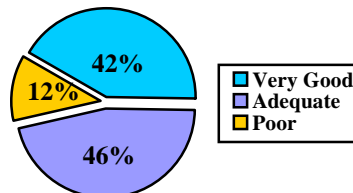


In regard to library support (e.g., ability to obtain new holdings) the bulk of the respondents found it to be *very good*, 40% (21), or *adequate*, 43% (23). Only 17% (9) of respondents characterized it as *poor* ($n=53$). In comparison to 2007 data (see Figure M), it appears the overall satisfaction level with the library support has remained about the same.

Figure M - Library Support



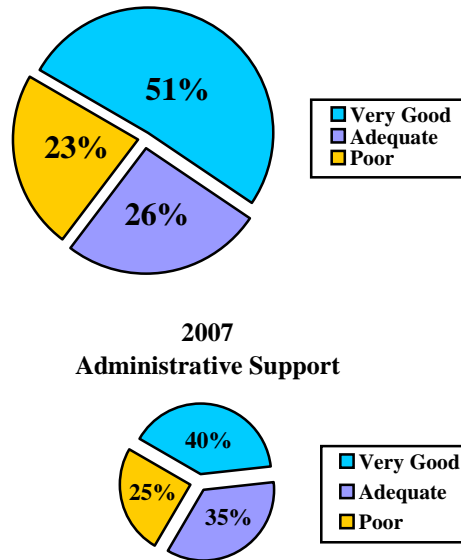
**2007
Library Support**



Administrative support (e.g., support attempts to develop and implement new program ideas) was reported be *very good* by the majority of respondents, 51% (27), *adequate* by 26% (14) of

respondents, and by the remaining respondents, 23% (12), to be *poor* ($n= 53$). In comparison to 2007 data (see Figure N), it appears there is an increase in those that believe support to be very good as opposed to merely adequate.

Figure N - Administrative Support

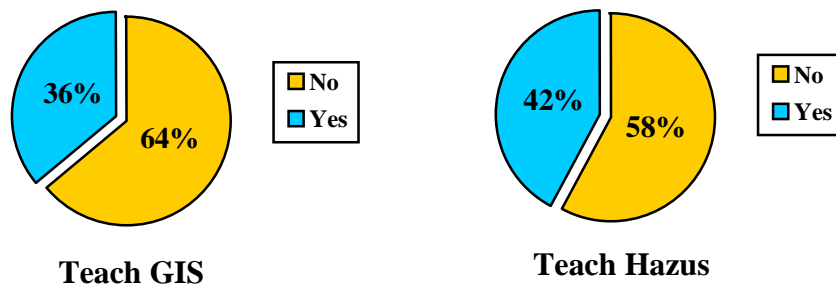


GIS/Hazus

Three questions were added to the survey this year regarding GIS and Hazus. The questions queried if programs taught GIS, Hazus, and whether a GIS course would be offered in the next two years. The final question should have been responded to only in the event that GIS was not presently being taught in the program, but the question was not clear. Lack of clarity in the question resulted in confusion in the responses and the data was discarded. In the future this question should be asked again more clearly.

The majority of respondents, 64% (34), reported that GIS was not taught in their programs ($n=53$). Of the 36% (19) of respondents that answered they did offer GIS, only 42% (8) reported that they taught Hazus as well ($n=19$). Given the increasing use of GIS in emergency management, it will be interesting to see the pace at which higher education programs establish coursework to meet the need.

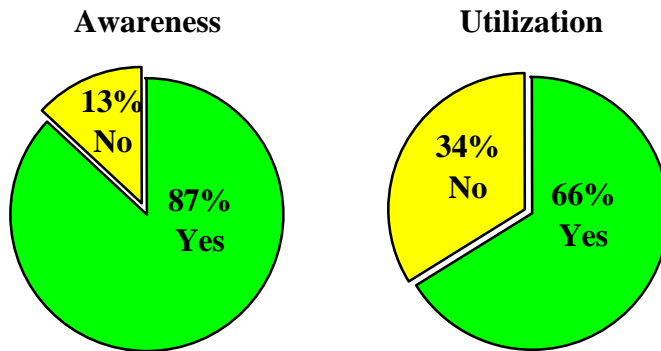
Figure O - Teach GIS/Hazus



Principles of Emergency Management

When asked if they were aware of the Principles of Emergency Management (and provided the link - <http://www.training.fema.gov/EMIWeb/edu/emprinciples.asp>), the majority of respondents, 87% (45), reported they were ($n= 52$). A follow-up question asked about utilization of the principles in emergency management classes. The majority of respondents, 66% (35), reported they utilized the principles in their classes. Based on a couple of the respondents' comments, there was a question in the researcher's mind as to whether all the respondents were referencing the Principles of Emergency Management that they were given the link to. Respondents elaborated that they utilized the principles across a wide variety of classes, with a number of respondents noting they were used with every class.

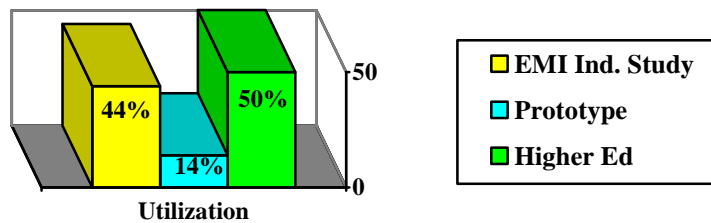
Figure P - Principles Awareness and Utilization



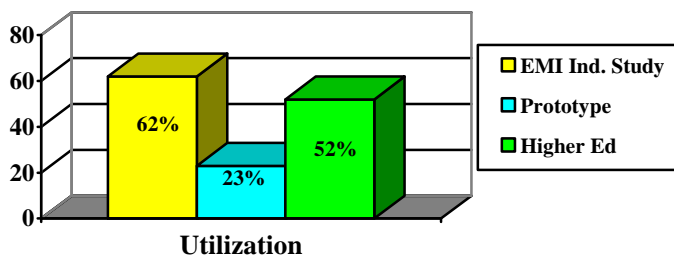
Utilization of Course Materials

When asked about the utilization of the Emergency Management Institute's (EMI) Independent Study coursework, 44% of respondents (23) reported that they utilized EMI Independent Study Courses as a part of their program ($n=52$). A small percentage, 14%, of overall respondents acknowledged utilizing the Prototype Curriculum for Associate Degrees in Emergency Management as part of their program ($n=52$), however given the number of respondents reporting associate level degrees was 15, the usage of the Prototype Curriculum when viewed solely from that degree level was a more robust 47%. 50% of respondents reported that they utilized FEMA Emergency Management Higher Education Courses as a part of their program ($n=52$). A number of respondents acknowledged that while they may not utilize the courses in teaching, they do utilize them in to review possible approaches to material and key literature. Figure Q illustrates utilization of course materials from the current data and 2007 data. Of note is the relationship between the EMI coursework and the Higher Education coursework; while the EMI coursework was reported as more heavily utilized than the Higher Education coursework in 2007, the opposite was reported in 2008.

Figure Q - Emergency Management Course Utilization



**2007
Emergency Management Course Utilization**



Respondents reported utilizing from one to thirteen (1-13) of the 23 available Higher Education courses with the average course utilization rate being eight courses (the 2007 average was 6 courses). The number of programs utilizing the courses is detailed in Table 5. Utilization as indicated by 2007 survey respondents is in parenthesis at the end of each course title. A review of the utilization figures from the current year and 2007 indicate a significant increase in the utilization of three courses: Building Disaster Resilient Communities; Homeland Security and Emergency Management; and, Political and Policy Basis of Emergency Management. It will be interesting to follow course utilization over the years and to theorize whether factors such as new textbooks, status of the course creators, or recent events enhance or detract from the utilization of FEMA Emergency Management Higher Education Courses.

Praise for the Higher Education courses focused on availability and ease of access; quality of writing; value of format to adult learners; quality of the material and literature; relevance of the material; utility as a reference resource; cost effectiveness; the amount and quality of selections; and, the excellent source of comparative material to maintain focus.

Respondents' suggestions for improvement of Higher Education courses focused on including active learning tools (hands-on and interactive tasks); including more information on non-profit agencies and their place in disaster management; increasing course focus on developing student ability to make planning and operational decisions; keeping materials updated; and, greater thoroughness in the coverage of material.

Table 5 - Higher Education Course Utilization

Programs Utilizing <i>n</i> = 26	FEMA Emergency Management Higher Education Course Title
19	Building Disaster Resilient Communities (2007:10)
17	Homeland Security and Emergency Management (2007:11)
16	Disaster Response Operations and Management (2007:18)
16	Terrorism and Emergency Management (2007:16)
15	Political and Policy Basis of Emergency Management (2007:9)
13	Social Dimensions of Disaster (2007:10)
11	Principles and Practice of Hazard Mitigation (2007:11)
11	Public Administration and Emergency Management (2007:7)
10	Technology and Emergency Management (2007:13)
9	Hazards Risk Management Course (2007:7)
8	Business and Industry Crisis Management (2007:14)
8	Hazards, Disasters and U.S. Emergency Management - An Introduction (<i>draft</i>) (2007:6)
8	Sociology of Disaster (2007:8)
7	Earthquake Hazard and Emergency Management (2007:3)
6	Holistic Disaster Recovery: Creating a More Sustainable Future (2007:6)
6	Individual and Community Disaster Education (2007:6)
6	Research and Analysis Methods in Emergency Management (2007:4)
6	Social Vulnerability Approach to Disasters (2007:7)
5	Breaking the Disaster Cycle: Future Directions in Natural Hazard Mitigation (2007:8)
5	Hazard Mapping and Modeling (2007:8)
4	Coastal Hazards Management (2007:6)
3	EM Principles & App. for Tourism, Hospitality & Travel Mgmt (2007:4)
3	Flood Plain Management (2007:2)

Additional Products, Activities and Services

Respondents were queried regarding other products, activities and services that they would like to see the FEMA Emergency Management Higher Education Program provide. As was true with last year’s survey, respondents took the opportunity to first praise the FEMA Emergency Management Higher Education Program, this year the focus was on the value of the FEMA Higher Education daily updates; the professionalism of Dr. Blanchard; the Higher Education Programs’ role as an access point to new thoughts and ideas; and, the exemplary level of assistance and resources supplied by Dr. Blanchard and Barbara Johnson.

Respondents’ had less suggestions this year than in 2007 for additional products, activities and services, yet the suggestions remained quite diverse. Respondents’ suggestions are summarized below:

- Podcasts on EM topics;
- More research documents;
- EM library;

- Support for comparative EM research;
- Interaction between academics & practitioners;
- Government organizational overview and interplay;
- Technology-focused materials;
- Video, DVD and training CDs;
- Tabletop exercises;
- Simulations;
- Additional courses on technology, NIMS, ICS, legal issues, comparative government;
- Scenarios for small communities;
- Materials that address critical thinking and decision-making abilities;
- Regionally sponsored symposia with greater interface to other “stovepipe” disciplines;
- More future-oriented materials that prepare students for what they are likely to face; and,
- Add another day to the Higher Education Conference and cover more on pedagogy, tabletop exercises, resources available, reports, etc.

Knowledge, Skills and Abilities

Respondents were asked this year to list what they felt were the top five knowledge, skills and abilities (KSA) emergency management higher education programs should focus on. This was the first time this question was asked on the program survey and the responses were extremely diverse. The KSAs that were cited the most made the list of the top fifteen. As is evident as the end of the list nears, consensus was difficult to come by despite the fact that over two hundred KSA entries were offered by respondents. Although one might expect that the diversity in the KSAs was a function of the multidisciplinary nature of emergency management, it was not evident in the responses; more likely the diversity of responses can be partially attributed to different program educational levels.

The top KSAs cited were:

- 1) Comprehensive EM, overall knowledge of field, 4 phases, all-hazards (19- 36%);
- 2) Communication - verbal & written (16- 30%);
- 3) Relationships, partnering, team-building (15- 28%);
- 4) Critical thinking, analytical skills, problem-solving (14- 26%);
- 5) Management skills (10- 19%);

- 6) Leadership (8- 15%);
- 7) Risk assessment, analysis, management (8- 15%);
- 8) Technology Skills (7- 13%);
- 9) Planning Skills (7- 13%);
- 10) Knowledge of the social science research and ability to apply it in practice (7- 13%);
- 11) Mitigation (6- 11%);
- 12) Coordination (4- 9%);
- 13) Professionalism, ethics, evolution as discipline and career (4- 9%);
- 14) Public policy (4- 9%); and,
- 15) Political context (4- 9%).

Challenges Facing Emergency Management Programs

Respondents were asked to list what they considered to be the top five challenges facing emergency management programs. While the responses varied significantly, six clear themes emerged. These challenges are not new to emergency management; indeed, most have been captured in past program surveys. What was new and different was the specificity with which the challenges were addressed. What once was a call generically for more faculty has become more detailed and discerning. The same is true for the issue of funding and student recruitment – as programs grow and evolve their focus on the challenges that face them seems to sharpen.

Challenges facing programs:

- 1) Faculty (24- 44%)
The call for faculty has gotten louder and decisively more demanding - 44% (24) of respondents reported finding qualified faculty was the biggest challenge they faced. Additionally the definition of qualified has gone beyond the search for simple degree qualifications (most are seeking Ph.D. holders) and now includes a call for experience, researching skills, and teaching ability as well.
- 2) Funding (15- 28%)
The call for more funding is hardly a plight limited to emergency management higher education, but the urgency and specificity of need seems to be heightened comparatively. 28% (15) of respondents reported that lack of funding for programs, faculty, research, students, and resources was a challenge they were dealing with.

3) Student recruitment (14- 26%)

As is true with faculty recruitment, the expectation for student quality is also changing. Aside from increasing competition for students, 26% (14) of respondents cited the recruitment of high quality students as a program challenge.

4) Constantly changing material (10- 19%)

The ever-changing nature of policy, the lack of agreement over topical coverage in emergency management and homeland security, and the barrage of reports from government offices stating a seemingly new take on the field weekly creates a challenge to programs just trying to keep up. 19% (10) of respondents cited the constant change in the field as a challenge.

5) Institutional support (10- 19%)

Issues of acceptance, credibility and respect within their home institution were cited by 19% (10) as a program challenge. The identity issue is one that was noted in last year's report and seems to continue to be a problem for a number of programs. The past year has been one wherein emergency management's identity has been strengthened, and it must be noted that this challenge was a concern for approximately half the respondents in the 2007 survey. The greatly reduced focus on this challenge in this year's data may signal improvement on this front.

6) Internships (6 – 11%)

Building the relationships and seeking out the opportunities necessary to get students experience was reported by 11% (6) of respondents as a challenge. Even as there is a recognition within the practitioner and academic communities about the value of internships, the mechanics (or perhaps *art*) of creating said internships is something that continues to be a challenge.

Anticipated Changes in Programs

Respondents were asked what changes they anticipated in the next three (3) years in their programs and responded with a myriad of changes that involved everything from program growth to possible program closure. For the most part the theme that ran through the bulk of the anticipated changes was continued program refinement and growth. A discerning eye will note that many of the anticipated changes are tied to the KSAs and program challenges that received mention above. A number of the anticipated changes listed were mentioned by multiple respondents, but are only listed herein once.

Changes anticipated:

- New faculty positions;
- Revising, refining and adding to course offerings – strengthening content;
- Program growth;

- Practicum opportunities;
- Greater incorporation of management curriculum;
- Increased business continuity and crisis management focus;
- EOC addition;
- Curriculum revision;
- Greater incorporation of management curriculum;
- Business continuity & crisis management focus;
- Transition to new faculty members;
- Adjusting coursework to be in-line with NIMS and current FEMA curriculum;
- Increasing linkage and collaboration with other programs (e.g., public health, geography, sociology, criminal justice, psychology, economics, political science);
- Increased involvement in exercise design and execution on campus and in community;
- Expand study abroad options;
- Increased emphasis on basic managerial skills;
- Greater focus on enrollment;
- Increased emphasis on EM skills such as GIS, logistics, project management;
- Development and fine tuning of distance education capabilities and offerings;
- Greater outreach;
- New courses and program updates as policy changes and as body of knowledge and core competencies continue to mature; and,
- Will probably drop program due to low enrollment and offer coursework to supplement other degrees.

RECOMMENDATIONS

The recommendations below deal with both the program survey and other suggested studies. These recommendations are addressed in the following order: methodological issues, topical

issues, and general suggestions for additional data collection. These are, as stated, merely “recommendations”.

As addressed in the methodology, it is recommended that the survey be slightly modified so that it can be distributed in mid-February as opposed to March or April. The March distribution hit too close to mid-terms and the April distribution hit too close to the end of the semester. The earlier distribution date may require some institutions to be a bit more predictive in their graduation estimates and will likely limit the amount of faculty new hire data (as many searches and hires for the following academic year are not completed by February). Fairly accurate student numbers can be typically culled about three weeks into the semester which is the rationale for a mid-February distribution date as opposed to an earlier date.

The survey audience although invested has a patience limit with survey length. This year’s survey at nine pages was admittedly about as long as the program survey should be. It is recommended that some questions be eliminated and others be tightened up to ensure that over the years new questions can make their way into the survey without it becoming a novelette of sorts.

It is recommended that the program support indicators (external funding, institutional support, library support, and administrative support) be either removed from the survey or be refined to offer greater insight. Presently they are limited to three choices of very good, adequate and poor. These categories are limiting, plus no parameters are given for what the categories mean and hence it is very subjective not only based on the individual and program, but also based on the institution and discipline. Different institutions and disciplines can have completely different concepts of what adequate support and resources are. Seeing as emergency management programs are housed in so many base disciplines, greater effort must be made to clarify the questions or they should be dropped from the survey.

It is recommended that the question regarding new faculty hires credentials be eliminated as the information is rarely fully provided by respondents and the value of the data (other than to show the diversity of new hire degrees) has limited utility. It is recommended instead that a greater focus be on whether new hires are adjunct or full-time and whether they are teaching in-residence or via distance education.

In regard to student data, it is recommended that the following questions be dropped from the program survey: age (30 or less, older than 30), traditional vs. practitioner, and full-time vs. part-time. All three of these questions are problematic for a variety of reasons: 1) age data may not be readily available (if at all – distance education programs often cannot provide this data) which calls for the a great deal of guessing on the part of respondents; 2) the parameters for the categories are not standardized within the instrument or across programs; and, 3) the value of the data unless specifically analyzed based on program or degree type and focus is limited. This type of data is better collected from the students themselves in the annual student survey (typically conducted by the IAEM Student Region President). The student survey can likewise access the POCs from the college list who can forward on the survey link to their students via

their internal list serv. Indeed, the student link could be forwarded on to programs as part of the program survey distribution which is all done via email.

It is not suggested that gender or general student numbers be removed from the program survey as this is easily collected data that has little room for misinterpretation. Additional student data could be collected in the survey, but it should be such that the selection categories are uniform and easy for the majority of programs to work with. It is understood that distance education programs, certificate programs and other programs that have either a different type or level of contact with students will struggle with some questions.

It is recommended that program graduation numbers be tracked by program level from here forward. It would be valuable to know the density of graduates at the different program levels both for institutions seeking to create new programs and for the FEMA Emergency Management Higher Education Program. We know from a brief glimpse of the landscape that the number of students being produced at the doctoral level is small and that the number of students being produced at the bachelor level is much larger, but we should be able to say more on this topic.

Along the same vein, it is recommended that a dedicated survey effort, independent of the program survey, be conducted annually with graduates and alumni by the FEMA Emergency Management Higher Education Program. Graduate and alumni survey data has been hit on by a few survey efforts that hit select pockets of this audience. It is suggested that a survey effort be conducted that involves the ultimate creation of a database (to allow for periodic surveying of this audience as they move through their careers) and that allows for better information from those who have higher education and are either moving into or are already in the field. This undertaking is viewed as a large project that will require participation from all the institutions in the emergency management higher education community, as well as the graduates and alumni individually. As cumbersome a project as it is, it is one whose value cannot be diminished; access to this specific community is quite literally worth its weight in gold.

To ensure the integrity of the data collection, database and the overall vision of the project it is strongly urged that FEMA undertake this project under the auspices of the FEMA Emergency Management Higher Education Program. This project alone requires a full-time position, but the return on the investment to FEMA, emergency management higher education and the emergency management community en masse will be hundred-fold. While this task is daunting, it is presently quite do-able. This will not be the case in five or ten years as the base continues to multiply. When one considers the amount of money invested in so many other FEMA initiatives, this project with its relatively low price tag (one FTE) seems like a no-brainer.

It is recommended that a series of surveys be done in the practitioner and academic community addressing the top knowledge, skills and abilities (KSA) deemed to be important in emergency management. This question was asked in the program survey and responses within the academic community were all over the map; it is theorized that a like result would be produced in the practitioner community. A survey that collected initial lists, utilized the Delphi method and redistributed those lists for review, and finally collected a second list of the top ten KSAs from respondents might help bring some clarity to what the top KSAs are. This survey

should be done under the auspices of FEMA's Emergency Management Higher Education Program and results should be provided to the higher education programs to assist them in course development, curriculum decisions, etc.

A final recommendation is focused on the secondary market being hit by emergency management higher education programs. This secondary market is comprised of students who are not enrolled in emergency management programs but who take a class or two. While many programs may be focused on finding ways to bring these occasional students into the program, a more fascinating aspect to focus on is the potential impact the information learned in these classes will have on the individual's personal and professional behavior into the future. If one operates under the assumptions that those who have higher education are more prone to advance in the workforce and community and therefore are more likely to shape policy and culture, then one can fully appreciate the intrinsic value of getting these occasional students into emergency management classes. We know that emergency management operates within a political, social and economic context and in this secondary market we have the opportunity to influence the future political, social and economic context in which we operate. As was stated earlier in the report, there are likely folks in FEMA who have long been aware of the value of this secondary market.

It is recommended that a longitudinal study effort targeted at this secondary market be undertaken with an initial data collection that extends over multiple semesters and is then followed up on every two years for a period of ten years. Understanding where these occasional students ultimately end up in the workforce and community will help give insight into the evolving context emergency management operates within. While requiring a long-term time and monetary commitment, this type of study would offer insight into the impact a secondary market can have on a promoting a primary market's agenda. Additionally it can be speculated that the secondary market may be decisive in changing trends in household preparedness behavior. Toward that end even a million dollar price tag for such a study would be money well-spent.

CONCLUSION

There is a book by Malcolm Gladwell titled *The Tipping Point* that discusses how seemingly little things can result in big changes. After years of quietly toiling away, emergency management higher education appears to be at its tipping point. The community has the right people, at the right time, doing the right things and the community is poised to create dynamic change that will push emergency management to a whole new level. It is now more important than ever that the magnitude of the reach emergency management higher education has is recognized.

By virtue of educating students, the emergency management higher education community sends seeds out across the nation (indeed, in some cases across the globe) to grow stronger and more resilient communities. Those seeds (the primary market) have begun to take root and are supported by others (the secondary market) who recognize their value and are in a position to foster favorable growing conditions. The old adage "you reap what you sow" is applicable here, but the benefits reaped will not be received as the linear change the adage suggests. Now, more

than ever, the entire emergency management community must recognize and embrace the change in status and power that is evolving out of the higher education community's steady efforts.

The challenge for all of us in emergency management higher education is to recognize the potency of our role as those that scatter the seeds. This role comes with tremendous responsibility. We must, as a community, be judicious stewards of the change we are creating. This requires us to work together with an understanding of the connectivity our work has beyond our initial efforts. Institutions and programs must collaborate in the same way that students must (and will in the field); there must be somber recognition of the critical mission we have in educating those who will make decisions that impact entire communities; and, there must be a bridge between academia and the field that is built on equal ground and recognizes the differences and intrinsic value in each. None of this is necessarily easy, but we must remember - we are the right people, at the right time, doing the right things that are creating the dynamic change that is needed.

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*Many thanks to those program representatives who took the time to fill out the survey instrument despite hectic schedules and many other obligations. As always, my deepest appreciation and admiration to Dr. Wayne Blanchard for all he does for emergency management higher education along with his ever-patient assistant Barbara Johnson. It is a pleasure and honor to work with all of you – together we are changing the world, one student at a time.*

## APPENDIX

### Participating Colleges and Universities - Emergency Management Programs Offered

*\* As reported by respondents*

Adelphi University (CG, A, B)  
 Andrews University (BC, MC)  
 Anna Maria College (CG, M)  
 American Military University (CG, B, M)  
 Arkansas Tech University (B, M)  
 Auburn University (O)  
 Baton Rouge Community College (CU)  
 Broward Community College (CU, A)  
 Caldwell Community College (A)  
 California University of Pennsylvania (BC, MI)  
 Capella University (B, M, D)  
 Capital Community College (CU, MI)  
 Casper Community College (A)  
 Central Georgia Technical College (CU, A, O)  
 Clackamas Community College (A)  
 Clover Park Technical College (CU, A)  
 College of Lake County (CU)  
 College of Southern Nevada (CU, A)  
 George Washington University (CG, MC, DC)  
 Georgia State University (CG, MC, DC)  
 Hesston College (CU)  
 John Jay College, CUNY (M, MC)  
 Lakeshore Technical College (A)  
 Louisiana State University (BC, MI, MC, DC)  
 Metropolitan College of New York (M)  
 Montgomery County Community College (CU, A)  
 North Dakota State University (MI, B, M, D)  
 Okaloosa-Walton College (C, A)  
 Oklahoma State University (MI, M)  
 Pikes Peak Community College (CU, A)  
 Purdue University Calumet (CU, MC)  
 Red Rocks Community College (CU, A)  
 Saint Louis University (CG, M, MC)  
 Saint Xavier University (CG)  
 Savannah State University (B)  
 Shaw University (B)  
 Texas A & M University (CG)  
 Thomas Edison State College (CG, A, B)  
 University of Akron (CU, MI, B)  
 University of Central Florida (CG, MI)  
 University of Chicago (M)

University of Hawaii- West Oahu (CU)  
 University of Idaho (CG)  
 University of Illinois at Chicago (CG)  
 University of Maryland, Baltimore County (CG, M)  
 University of Maryland University College (B)  
 University of Nevada Las Vegas (CG, M)  
 University of North Texas (B, M, D)  
 University of South Florida (CG)  
 University of WI-Green Bay (CU, CG, BC, MC)  
 West Texas A & M University (B)  
 Western Washington University (BC)  
 York University (CU, M)

| <u>Program Offered:</u> |                              |
|-------------------------|------------------------------|
| A                       | Associate Degree             |
| B                       | Bachelor Degree              |
| M                       | Master's Degree              |
| D                       | Doctoral Degree              |
| BC                      | Bachelor Level Concentration |
| MC                      | Master's Level Concentration |
| DC                      | Doctoral Level Concentration |
| CU                      | Certificate Undergraduate    |
| CG                      | Certificate Graduate         |
| MI                      | Minor                        |
| O                       | Other                        |