

Assessing the Role of the Fire Science and Safety Program at Elgin Community College in
Campus Emergency Management Planning and Response

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Abstract

This applied research paper explored stakeholder expectations for the Fire Science and Safety Program in campus emergency management planning and emergency response. The problem was that the role of the Fire Science and Safety Program at Elgin Community College in campus emergency management planning and emergency response had not been identified. The purpose of this applied research paper was to identify the role of the Fire Science and Safety Program in campus emergency management planning and emergency response. Descriptive research methodology was selected to explore the following four research questions: (a) What role, if any, do Elgin Community College administrators expect the Fire Science and Safety Program to have in campus emergency management planning and emergency response; (b) What role, if any, do Fire Science and Safety faculty expect to have in campus emergency management planning and emergency response; (c) What role, if any, do local public safety leaders expect the Fire Science and Safety Program to have in campus emergency management planning and emergency response; (d) What role, if any, do fire science programs at other community colleges play in campus emergency management planning and emergency response? Research was conducted utilizing questionnaires and interviews to collect data for each research question. The results indicated there was a broad based support for engaging the Fire Science and Safety Program faculty in campus emergency management planning at Elgin Community College District 509. Additionally, many community college fire science programs had little or no involvement in campus emergency management planning and emergency response. Recommendations included that the Elgin Community College Fire Science and Safety Program faculty should establish a list of physical resources and, should engage in campus emergency management planning initiatives.

Certification Statement

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writing of another.

Signed: _____

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This applied research paper explored stakeholder expectations for the Fire Science and Safety Program in campus emergency management planning and emergency response. That is, the philosophical construct of this report assumes that the faculty providing instruction in the discipline of fire science, in the specific context, and the allied public safety disciplines in a broader context are content area experts. In 2014 during the planning of a community disaster exercise within Elgin Community College District 509 the question was asked, to what extent, if any, should the Fire Science and Safety Program faculty who are content area experts be involved in campus emergency management planning and emergency response. To date the question has not been answered and, thus, leading to the focus of this study.

The transition of the fire service to that of a profession built on a construct of scientific knowledge was first identified in the landmark publication *America Burning* (The National Commission on Fire Prevention and Control, 1973). Likewise, the National Fire Academy has developed a comprehensive curriculum which is designed to enhance the professional status of the fire service and address emerging fire service challenges. Modern emergency management planning is based on community self analysis leading to enhanced local preparedness and emergency response (Federal Emergency Management Agency, 2014, p. 2-3). Additionally, the role of the community college in the comprehensive fire service professional development model is becoming more important because it provides an environment conducive to scholarly enlightenment and exposure to modern emergency management practices. Consequently, contemporary fire service scholars and leaders are better prepared to guide the local community in emergency management planning and emergency response.

Elgin Community College District 509 is classified as a large two-year community college (The Carnegie Classification of Institution of Higher Learning website, 2015). Located in the Fox River Valley approximately 40 miles west of the City of Chicago, Elgin Community College District serves a diverse population of over 480,000 residents spread over a five county area (Elgin Community College, 2014, p. 4). Serving more than 17,000 students, the Elgin Community College campus includes 14 buildings and covers 209.5 acres within the City of Elgin (Elgin Community College website, 2015). Elgin Community College offers 41 academic programs and 100 certificate programs (Higher Learning Commission website, 2015).

The Elgin Community College campus provides a unique lens in which to explore the role of campus emergency management planning and emergency response. That is, the community college is in and of the community (Phillippe & Patton, 2000). Additionally, fire service scholars teaching emergency management planning and response methodologies are regularly present on the main campus of Elgin Community College District 509. Therefore, the community college should be considered an integral element of the Community Hazards and Emergency Response-Capability Assurance Process (Federal Emergency Management Agency, 2014, p. 2-3). The community college campus may be considered, from the perspective of a public asset, available for utilization by public safety professionals to respond to an emergency event or disaster occurring elsewhere within the community (Federal Emergency Management Agency, 2014, p. 2-4).

The inquiry and exploration conducted in relation to this study utilized the descriptive research methodology, was centered at Elgin Community College District 509, and focused on the Fire Science and Safety Program relative to campus emergency management planning and emergency response. Furthermore, this study continues previous work conducted by this author

that focuses on the interrelationship between community colleges and the fire service. Therefore, it is appropriate that this study utilized previously established populations to collect data.

Given that the community college is identified as being in and of the community (Phillippe & Patton, 2000); that all disasters are local, that the community college is identified as both an element of critical infrastructure and an element of emergency preparedness and response capability (Federal Emergency Management Agency, 2014, p. 2-4), that the community college is home to fire service scholars, the opportunity exists to provide a model all-hazards preparedness plan produced through a collaborative partnership of community stakeholders. Ideally, the emergency management planning and emergency response plan developed for the community college would serve as a model for other community organizations, both public and private.

The problem is that the role of the Fire Science and Safety Program at Elgin Community College in campus emergency management planning and emergency response has not been identified. The purpose of this applied research paper is to identify the role of the Fire Science and Safety Program in campus emergency management planning and emergency response. The research questions developed to explore the role of the Fire Science and Safety Program in campus emergency management planning and emergency response include:

- What role, if any, do Elgin Community College administrators expect the Fire Science and Safety Program at Elgin Community College to have in campus emergency management planning and emergency response?
- What role, if any, do Fire Science and Safety Program faculty at Elgin Community College expect to have in campus emergency management planning and emergency response?

- What role, if any, do local public safety leaders expect the Fire Science and Safety Program at Elgin Community College to play in campus emergency management planning and emergency response?
- What role, if any, do fire science programs at other community colleges play in campus emergency management planning and emergency response?

The mixed methods research methodology was utilized to collect and assess quantitative and qualitative data. Research techniques utilized to collect data for the stated research questions included interviews and two questionnaires. Additionally, a literature review of related published works was utilized to help guide the inquiry, exploration, and data collection.

Background and Significance

Background

Elgin Community College District 509 covers more than 200 acres within the corporate limits of the City of Elgin (Elgin Community College website, 2015). Serving a student population of over 17,000, the main campus is located roughly in the center of Community College District 509 (Appendix A) (Elgin Community College website, 2015). The campus is composed of 14 major buildings and includes Lake Spartan (Appendix B). In fact, most residences served by Elgin Community College District 509 are within a 15 mile drive of the main campus (Elgin Community College website, 2015). Elgin Community College District 509 spans five counties and includes 360 square miles (Elgin Community College website, 2015). There are more than 20 urban and rural communities within Elgin Community College District 509 (Elgin Community College, 2014, p. 6). The diverse student population is reflective of the communities served within Elgin Community College District 509.

In conducting a Community Hazards and Emergency Response-Capability Assurance Process, Elgin Community College District 509 main campus falls within the Critical Infrastructure Target Hazard guidelines (National Fire Academy, 2014, p. 2-9). That is, the community college campus is a target hazard, both in terms of occupancy and purpose (National Fire Academy, 2014, p. 2-6). Likewise, the community college may be of significant size and value and, therefore be considered a community within a community (Federal Emergency Management Agency, 2003, p. 1). The main campus is open between the hours of 6:30 am and 11:00 pm six days a week. During operational hours there are thousands of people on the campus at any given time. Additionally, there are three large auditoriums and a gymnasium which often host large scale events. Finally, the business center is often rented by outside organizations for events. With respect to purpose, Elgin Community College is an economic engine providing skilled workers, generating millions in tax revenues, and significant levels of employment (The Center for Governmental Studies Northern Illinois University, 2007, p. 7). Therefore, a disaster that affects Elgin Community College District 509 main campus may have a significant economic impact on the community in a much broader context.

With respect to the types of hazards, Elgin Community College District 509 main campus is at risk to face any of the three types; natural threats, human-caused or technological, and terrorism and other national security threats (National Fire Academy, 2014, p. 2-3). Regardless of the threat, there are common aspects to the response methodologies used by first responders in responding to an event (National Fire Academy, 2014, p. 2-3). The intent of an all hazards preparedness plan is to identify hazards and the required response capabilities. Furthermore, contemporary emergency management philosophy and community risk reduction methodologies identify disasters and the associated preparedness as local in context (National Fire Academy,

2014, p. 2-3). That is, engagement of stakeholders in local community analysis should identify risk, vulnerability, and response capabilities at the local level (Federal Emergency Management Agency, 2014).

Elgin Community College District 509 offers instruction in various higher education disciplines. The Fire Science and Safety Department includes training in the disciplines of firefighting and emergency medical services (Elgin Community College, 2014, p. 50). In order to engage in the training and education of those enrolled in the Fire Science and Safety Program, Elgin Community College District 509 maintains significant fire service related physical resources that include contemporary firefighting and emergency medical services equipment. These physical resources may be of considerable value to campus emergency management planners and emergency responders in times of disaster, especially on the Elgin Community College District 509 main campus. Likewise, the fire service content area experts employed by the college to provide training and education within the Fire Science and Safety Program may be of considerable value to campus emergency management planners and emergency responders in times of disaster. Many of the Fire Science and Safety faculty members serve with fire departments located within Elgin Community College District 509. Additionally, several faculty members have completed or are currently enrolled in the Executive Fire Officer Program at the National Fire Academy.

Community college student populations often include special needs and at risk populations. Research has identified a correlation between special needs and at risk populations and significant adverse effects of disasters and emergencies (Haddow, Bullock, & Coppola, 2011, p. 62). The five at risk populations identified by the National Fire Academy include: children under age 5, impoverished households, adults over 65, people affected by disabilities,

and populations that speak little or no English (United States Fire Administration, 2013, p. 59). Sizeable at risk populations are found in the communities which compose Elgin Community College District 509 (Appendix C) (DeCarlo, 2014, p. 92). Therefore, it is a realistic expectation that at risk and special needs populations will be found on the Elgin Community College District 509 main campus.

Elgin Community College District 509 is committed to providing a safe environment that is conducive to learning (Elgin Community College website, 2015). Emergency management planning at Elgin Community College falls within the Emergency Management Department, which is led by a career director of emergency management (Elgin Community College website, 2015). The Elgin Community College Police Department is a career law enforcement agency providing protection of the college population and properties (Elgin Community College website, 2015). Fire prevention, fire suppression, and emergency medical services are provided by the City of Elgin Fire Department, which is a career full service organization (City of Elgin website, 2013).

Significance

The importance of the community college to the communities they serve is well documented (The Center for Governmental Studies Northern Illinois University, 2007). Recognizing the economic importance of colleges to the communities they serve, and the need to enhance college preparedness, the Federal Emergency Management Agency developed the Disaster Resistant University Program (MacDowell & Martin, 2005, p. 18). Community colleges are challenged with many of the same risks that the communities they serve face. Contemporary disaster preparedness philosophies and methodologies are built on a construct of an all hazards and collaborative approach originating at the local level (Federal Emergency Management

Agency, 2013). Likewise, the contemporary emergency management planning philosophies and methodologies clearly identify the benefits of an all hazards community based emergency preparedness plan (National Fire Academy, 2014, p. 2-3). Finally, “it is widely accepted that risk reduction, prevention, and planning are much more cost effective and provide safer approaches to disaster mitigation than a purely responsive methodology” (DeCarlo, 2014, p. 10). Therefore, it is in the best interest of the community college and the communities it serves to engage all stakeholders in the campus emergency management planning and emergency response process.

College campuses are experiencing an increasing level of emergency events including fires (Federal Emergency Management Agency, 2003, p. iii). The National Fire Protection Association reports that there were an estimated 700 fires in classrooms at institutions of higher education between 2007 and 2011 (Campbell, 2013, p. 39). Likewise, college campuses are subject to natural disasters and criminal events as well (Kupietz, n.d., p. 8) (Garrett, 2006, p. 4). The results of each emergency event differ in terms of magnitude and type of impact. However, economic loss and an interruption of service to the community is a common result of disasters and major emergencies occurring on college campuses (Federal Emergency Management Agency, 2003, p. iii). The fire service is increasingly aware of the potential for significant economic loss to the community as a result of a disaster or major emergency occurring on the campus of an institution of higher education (Kassing, 2002, p. 2). Institutions of higher education have a responsibility to provide a reasonable expectation of safety for those utilizing their facilities (U.S. Department of Education, Office of Elementary and Secondary Education, Office of Safe and Healthy Students, 2013, p. 1). Finally, because the community college is a keystone in the community construct, it could be argued that the community college has an inherent preparedness responsibility grounded in the well being of the community.

The community college can serve to enhance regional disaster preparedness by engaging community partners in emergency management planning and emergency response collaboration (Garrett, 2006, p. 18). Likewise, the *Ready Campus Manual* argues that institutions of higher education can bring various elements of the campus and community together to enhance regional disaster preparedness and response (MacDowell & Martin, 2005, p. 4). Additionally, it is believed that initiating collaborative emergency management relationships with community partners will generate additional interest in disaster preparedness within the community and promote coordinated response and recovery plans (U.S. Department of Education, Office of Elementary and Secondary Education, Office of Safe and Healthy Students, 2013, p. 24). Waugh (2014) maintains that emergency management administrators are challenged with assembling diverse groups of community stakeholders in a cooperative context for the purpose of engaging in emergency management planning and disaster readiness (p. 18).

The Fire Science and Safety Program at Elgin Community College District 509 is composed of faculty, staff, and students that represent a cross section of the stakeholder population. That is, the Fire Science and Safety Program faculty are both internal stakeholders and, in their capacity as local emergency services providers, are also external stakeholders. Additionally, many of the students enrolled in the Fire Science and Safety Program at Elgin Community College District 509 serve with local emergency services providers and represent both the internal and external stakeholder populations. Of importance to this study is identifying the role of the Fire Science and Safety Program faculty and the value of physical resources in campus emergency management planning and emergency response.

Planning, both in terms of emergency management and emergency preplanning, is one of the most valuable and efficient ways for the fire service and community to establish a desired

level of readiness (Stern, 2012, p. 34). Planning allows for the development of response policy and procedure which defines the actions of first responders within the context of risk management and safety (Daniels, 2012, p. 203). Contemporary emergency management practices are based on a construct of local community risk assessment (Waugh, 2014, p. 17). Preplanning impacts both disaster and emergency response. That is, preplanning serves to reduce the operational risk to firefighters by identifying specific hazards and elements of the environment prior to a disaster or emergency event (Jennings, 2012, p. 83). Finally, the planning process provides an opportunity to navigate the political context and bring all stakeholder influence to bare on emergency management (Waugh, 2014, p. 13). That is, emergency management may be perceived by some within the community to be in direct conflict with economic and financial interests (McEntire & Dawson, 2007, p. 67).

The significance of determining the role of the Fire Science and Safety Program in the emergency management planning and emergency response on the main campus will be realized in the following ways:

- It is believed that engaging the Fire Science and Safety Program faculty in the campus emergency management planning and emergency response process will enhance regional disaster preparedness for a major emergency at the Elgin Community College District 509 main campus (Federal Emergency Management Agency, 2003, p. 11).
- It is believed that engaging the Fire Science and Safety Program faculty in campus emergency management planning and emergency response will help to identify the Fire Science and Safety Program resources, both in terms of professional expertise and physical assets, that would be of value to both the Emergency Management

Administrator and first responders in times of disaster and emergency response (Federal Emergency Management Agency, 2014, p. 2-4).

- It is believed that engaging the Fire Science and Safety Program faculty in campus emergency management planning and emergency response will reduce the risk of injury and death to firefighters responding to emergencies on the Elgin Community College District 509 main campus (National Fallen Firefighters Foundation, 2011).
- It is believed that engaging the Fire Science and Safety Program faculty in campus emergency management planning and emergency response for Elgin Community College District 509 main campus will assist the Emergency Management Administrator in overcoming barriers specific to the culture of an institution of higher education which may slow decision making, preparedness actions, and disaster/emergency response (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 2).
- It is believed that engaging the Fire Science and Safety Program faculty in campus emergency management planning will enhance the communication and incident management processes utilized by emergency response agencies and the college's Emergency Management Department during emergency responses to Elgin Community College District 509 main campus (U.S. Department of Education, Office of Elementary and Secondary Education, Office of Safe and Healthy Students, 2013, p. 13).
- It is believed that engaging the Fire Science and Safety Program faculty in campus emergency management planning and emergency response will help to minimize the economic impact to the community in the event of a major emergency or disaster occurring on Elgin Community College District 509 main campus (The Center for Governmental Studies Northern Illinois University, 2007).

- Finally, it is believed that by engaging in this research, the results will provide an opportunity for the Executive Fire Officer Candidate to support the Emergency Management Administrator at Elgin Community College in guiding adaptive change among Elgin Community College Administrators and, result in the inclusion of other educational departments which focus on public safety oriented disciplines, in campus emergency management planning and emergency response procedures for Elgin Community College District 509 main campus. Thus, enhancing the level of college and community preparedness (Federal Emergency Management Agency, 2012, p. 3-3).

The third year course of the Executive Fire Officer Program is Executive Analysis of Fire Service Operations in Emergency Management (Federal Emergency Management Agency, 2014). The Executive Analysis of Fire Service Operations in Emergency Management course exposes the student to emergency management planning and preparedness philosophies and methodologies including: (a) Community Hazards Emergency Response-Capability Assurance Process, (b) National Incident Management System/Incident Command System, and (c) Emergency Management Planning Process (Federal Emergency Management Agency, 2014, p. 1-9). Collectively the philosophies and methodologies discussed in the Executive Analysis of Fire Service Operations in Emergency Management course are intended to improve the ability of the fire service leader to plan for and respond to large-scale emergencies and disasters occurring within the local community and requiring a multiagency response (Federal Emergency Management Agency, 2014, p. 1-9). The process of identifying the role of the Fire Science and Safety Program in campus emergency management planning and emergency response for Elgin Community College District 509 main campus can be directly linked to the disaster preparedness and response plan content area of Fire Service Operations in Emergency Management, the third

year Executive Fire Officer Program course (Federal Emergency Management Agency, 2014, p. 2-31).

The purpose of this applied research paper is to identify the role of the Fire Science and Safety Program in campus emergency management planning and emergency response is directly linked to the United States Fire Administration's Goal One, "Reduce risk at the local level through prevention and mitigation" (United States Fire Administration, 2010, p. 13).

Additionally, the United States Fire Administration's Goal Three, "Improve the fire and emergency services' response to and recovery from all hazards" can be directly linked to this applied research paper (United States Fire Administration, 2010, p. 13).

Literature Review

The literature review for this applied research paper included accessing the Elgin Community College Library, searching literature available through an on-line search, the author's personal library, and the Learning Resource Center at the National Fire Academy utilizing the online search methodology and engaging the reference librarian. Ample literature was identified from various sources pertaining to emergency management planning and emergency response. Additionally, adequate literature was located which focused on campus emergency management planning and emergency response specific to institutions of higher education. However, limited literature and research was discovered that focused on the role of fire service academic programs in campus emergency management planning and emergency response at institutions of higher education. In fact, the literature reviewed revealed the need for additional research into disasters occurring on institutions of higher education campuses (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2008, p. 6). De Palma (2011) sites similar findings with respect to the lack of academic research focusing on disasters and

major emergencies occurring on institutions of higher education campuses (p. 21). Likewise, the author noted in previous work completed with community colleges, that limited literature was available regarding the interrelationship between community college fire science programs and the fire service (DeCarlo, 2014, p. 14). Finally, DeCarlo (2013) and Harper (1994) noted a similar lack of literature providing insight into the community college as a provider of fire service professional development.

Institutions of Higher Education

Institutions of higher education have long been an element of the United States society. In fact, there are more than 4,000 institutions of higher education in the United States (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 1). Moreover, there are over 21 million students enrolled in degree granting institutions within the United States higher education system (Institute of Education Sciences, National Center for Education Statistics, 2012, table 221). Institutions of higher education within the United States employ more than 3.8 million people, with 2.9 million employed in professional positions (Institute of Education Sciences, National Center for Education Statistics, 2012, table 286). The average salary for a full-time faculty member exceeded \$80,000 in 2012 (Institute of Education Sciences, National Center for Education Statistics, 2012, table 298). The number of college degrees conferred continues to rise in the United States (Institute of Education Sciences, National Center for Education Statistics, 2012, table 306).

The Higher Education Culture

Similar to the fire service, higher education within the United States has developed its own culture. However, the higher education culture is one that differs drastically from the hierarchical and centralized culture established by the fire service and other governmental

entities (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 2). The culture in higher education is largely decentralized and places significant value on academic freedom and autonomy (Altbach, 2011). Academic freedom in higher education emphasizes and values the unrestrained freedom of scholars to create knowledge and pursue truth in the absence of outside influence (Berdahl, Altbach, & Gumport, 2001, p. 6). Autonomy is grounded in institutional freedom to allocate resources in the exploration and development of academic programs free of external influence (Berdahl et al., 2001, p. 6) (Altbach, 2011, p. 6). That is, higher education is free to chart its own course. Finally, many in higher education believe the influence of government and other entities should be extremely limited with respect to academic freedom, autonomy and scholarly work (Altbach, 2011).

The higher education culture fosters a sense of independent inquiry and autonomy among individual academic departments, scholars, and students alike. Furthermore, faculty and students are deeply involved in the governance of the community college (U.S. Department of Education, Office of Elementary and Secondary Education, Office of Safe and Healthy Students, 2013, p. 2). In many cases, the physical construct of the institution of higher education can contribute to a silo effect. That is, many college campuses are integrated with the community, cover large geographic areas, and include multiple buildings (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 2). Larger institutions of higher education may be even more complex with multiple academic departments operating on more than one campus (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 2).

The Community College

The community college has been a vital component of the community since the early 1900s (Phillippe & Patton, 2000, p. 1). Joliet Junior College holds the distinction of being the

oldest continuously operated community college in the United States (Phillippe & Patton, 2000, p. 1). The community college is founded on a construct of focusing on the needs of the communities they serve (Mullin & Phillippe, 2013, p. 4). The American Association of Community Colleges (2015a) reports the community college system in the United States has expanded to more than 1,100 institutions (p. 4). Approximately 43% of degrees seeking college students are enrolled at community colleges (Mullin & Phillippe, 2013, p. 6). Additionally, community colleges enroll an estimated five million additional students in non-credit type programs (Mullin & Phillippe, 2013, p. 6). Many higher education scholars believe the increasing need for specialized employment skills will further heighten the importance and expand the role of the community college system (Altbach, 2011).

The community college is considered the “launching pad” for many students seeking a college education (Mullin & Phillippe, 2013, p. 7). Likewise, the community college is the only option for access to higher education for many low income and minority students (Mullin & Phillippe, 2013, p. 7). This may indicate that a sizable at risk population is present on community college campuses (Federal Emergency Management Agency, 2014). That is, there may be two and possibly three at risk populations including those living in poverty, those with disabilities, and those who speak a language other than English at home found within the community college student population (United States Fire Administration, 2013, p. 59) (Phillippe & Patton, 2000, figure 2.8).

The growing importance and expanded role of the community college system is reflected in the projection that 12% of all future employment opportunities will require at least an Associate degree (Mullin & Phillippe, 2013, p. 9). Moreover, it is anticipated, based upon employment trends in the United States, that by 2018 as many as two-thirds of all new

employment opportunities will require the successful candidate to have earned some level of higher education (American Association of Community Colleges, 2012, p. vii). In many cases, employers depend on the local community college as the primary source for providing trained workers with the skills necessary to sustain ongoing operations and to incorporate innovative business practices (Mullin & Phillippe, 2013, p. 13).

Economic Value of the Community College

The American Association of Community Colleges (2015a) estimates that in 2012 community colleges and their students contributed \$809 billion in income to the United States economy (p. 2). Likewise, studies completed in Illinois and Virginia revealed that completing an Associate degrees equated to earning significantly more in wages over a career than those without a degree (Phillippe & Patton, 2000, p. 64). The increased wages earned by community college graduates has a direct positive impact on the community. Furthermore, Illinois community college graduates have an indirect positive impact on the community by contributing an estimated \$168 million in state taxes (The Center for Governmental Studies Northern Illinois University, 2007, p. 7). There are 48 community colleges located throughout the State of Illinois (Illinois Community College Board, 2010). Collectively the community colleges in Illinois employ more than 55,000 people (The Center for Governmental Studies Northern Illinois University, 2007, p. 7). The average salary for a full-time faculty member at a two-year degree granting institution is in excess of \$60,000 annually (Institute of Education Sciences, National Center for Education Statistics, 2012, table 298). The average salary of a full-time faculty member working at a community college in the State of Illinois is considerably higher and in excess of \$67,000 annually (Illinois Board of Higher Education, 2012).

Employment trends at community colleges differ from those of four-year public degree granting institutions. The majority (56%) of public two-year community college faculty members work in a part-time or adjunct capacity (Institute of Education Sciences, National Center for Education Statistics, 2012, table 286). Many community colleges employ active practitioners to serve as faculty members who provide instruction within their professional discipline.

Emergency Management Planning

The literature located in relation to emergency management planning was robust and extensive. *America Burning* provided an early national reference to the fire services role in emergency planning and community master planning which would be linked with the budgeting process (The National Commission on Fire Prevention and Control, 1973, p. 24-25). Since that time, the fire service has become more deeply involved with prevention, preparedness, and the strategic planning process (Stern, 2012, p. 32). Likewise, other governmental agencies have embraced the importance of emergency management, community preparedness, and the need for a collaborative approach to secure success (Waugh, 2014, p. 18). Contemporary emergency management philosophies signal a drastic departure from the traditional single role reactionary methodology built on a construct of silos and centralized command and control (Waugh, 2014, p. 17). “This traditional reactionary construct is no longer viewed as a sustainable practice for the fire service” (DeCarlo, 2014).

The hallmark of contemporary emergency management planning and community preparedness is collaboration (Patton, 2012, p. 72). The process of “collaborative emergency management” embraces coordination, inclusion, and diversity in the pursuit of meeting the locally defined mission of emergency management and preparedness (Patton, 2012, p. 72). Collaboration in emergency management planning and emergency response extends beyond the

walls of an organization and reaches into the regional level and beyond (Kapucu & Ozerdem, 2013, p. 58). Likewise, the mission of the fire service is evolving to that of an all hazards response capability defined by local risk (Thiel, 2012, p. 26). Collaboration between departments within an organization as well as external local and regional partners to identify needed resources will enhance the ability to respond to a disaster or major emergency (Schneid & Collins, 2000, p. 40). In fact, research has revealed that developing collaborative partnerships while engaging in emergency management planning and disaster preparedness processes directly impact response phase performance and the effectiveness of recovery phase activities (Rubin, 2007, p. 36).

In an effort to support the evolving role of the fire service in emergency management, the National Fire Protection Association publishes a separate standard related to Disaster and Emergency Management (National Fire Protection Association, 2013). Found within the standard is the recommendation for establishing an “Incident Management System” (National Fire Protection Association, 2013, p. 9). The goal of this recommendation is to “direct, control, and coordinate response, continuity and recovery operations” (National Fire Protection Association, 2013, p. 9). Incident management systems are woven into the fabric of the contemporary fire service. The Incident Command System or locally adapted versions is used extensively in the fire service to manage all sizes and types of emergency incidents (Stern, 2012, p. 51). The National Incident Management System represents a collaborative and flexible national framework of incident management processes which include private and public entities and incorporates an all hazards context (Federal Emergency Management Agency, 2008, p. 5). The National Incident Management System was developed from concepts and practices originally pioneered by the Incident Command System (Stern, 2012, p. 51).

The Federal Emergency Management Agency publishes a host of reports related to emergency management planning and emergency response known as the National Preparedness System (Federal Emergency Management Agency, 2013, p. 1). The National Response Framework provides a national level all hazards construct in which a myriad of organizations can coordinate a unified response to disasters and major emergencies (Federal Emergency Management Agency, 2013). The National Response Framework and the National Incident Management System are national level in scope and all hazards processes designed to be used together as a flexible disaster management tool at the local level and beyond (Federal Emergency Management Agency, 2013, p. 4).

Likewise, the Executive Fire Officer Program curriculum places an emphasis on developing an all hazards emergency management plan at the local level (Federal Emergency Management Agency, 2014). Additionally, an emphasis is placed on guiding adaptive change in many aspects of the fire service including the journey to earning professional status for the fire service (Federal Emergency Management Agency, 2012). Finally, the Executive Fire Officer Program provides training in comprehensive community risk identification and reduction (United States Fire Administration, 2013). The Executive Fire Officer Program produces fire service leaders highly prepared to facilitate cultural change within the context of emergency management planning and emergency response and to navigate institutions of higher education with an academic pedigree.

Finally, the strategic planning process is linked to emergency management planning and emergency response activities in that the strategic planning process helps to “define the department’s purpose and mission...describe the environment in which the organization operates, and defines organizational goals” (Jennings, 2012, p. 89). The budgeting process

should be aligned with the strategic plan. That is, resources should be allocated to meet the goals identified in the strategic plan. In this manner, adequate resources and funding are allocated for emergency management planning and emergency response processes. The strategic planning process provides organizations with an opportunity to engage a myriad of community stakeholders while conducting a reflective risk assessment within the context of the organizational operational environment (Wallace, 2006, p. 18).

Emergency Management Planning and the Institution of Higher Education

Emergency management planning is a critically important task for institutions of higher education and should be assigned to a career level administrator (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 2). The need for a collaborative approach to emergency management planning is even more important on the campuses of institutions of higher education based on the unique construct of the college campus and the culture within higher education (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 2). However, there is some evidence that institutions of higher education fail to include key public safety stakeholders (Rierson, n.d.). Additionally, the literature revealed the expertise of faculty, as well as some public safety providers, may be overlooked (De Palma, 2011, p. 92 & 95).

The United States Department of Education (2010) acknowledges the special characteristics of emergency management planning for institutions of higher education (p. 1-2).

The United States Department of Education (2010) identifies nine key principles of emergency management planning for institutions of higher education:

- Effective emergency management begins with senior leadership on campus.
- An Institution of Higher Education emergency management initiative requires partnerships and collaboration.

- An IHE emergency management plan must adopt an “all hazards” approach to account for the full range of hazards that threaten or may threaten the campus.
- An IHE emergency management plan should use the four phases of emergency management to effectively prepare and respond to emergencies.
- The Institution of Higher Education emergency management plan must be based on a comprehensive design, while also providing for staff, student, faculty, and visitors with special needs.
- Campuses should engage in a comprehensive planning process that addresses the particular circumstances and environment of their institution.
- An IHE should conduct training based on the institution’s prevention and preparedness efforts, prioritized threats, and issues highlighted from assessment.
- Higher education institutions should conduct tabletop exercises prior to fully adopting and implementing the emergency management plan.
- After adoption, disseminate information about the plan to students, staff, faculty, community partners, and families (p. 3-5).

Understanding the culture of higher education and applying the nine key concepts within the framework of the four phases of emergency management is the formational basis from which campus emergency management planning and emergency response will be discussed in this study. Emergency management planning at institutions of higher education includes “four interconnected phases” (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 7). The four phases are identified as “Prevention-Mitigation, Preparedness, Response, and Recovery” (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 5-15). Likewise, the Community Hazards Emergency Response-Capability Assurance Process provides a framework to enhance the four phases of emergency management at institutions of higher education (Federal Emergency Management Agency, 2014, p. 2-3).

Prevention-Mitigation. The Prevention-Mitigation phase focuses on activities that reduce the possibility of an event occurring or minimizing the impact of those events which cannot be prevented (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 5). The goal of the Prevention-Mitigation phase is accomplished by completing an assessment of vulnerability (U.S. Department of Education, Office of Safe and Drug-Free

Schools, 2010, p. 7). The vulnerability assessment may include such activities as: the review of data to identify hazards, facilities inspections to identify potential concerns based on natural hazards and infrastructure such as enhanced surveillance capabilities, and enhancing cultural competence and awareness (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 8). The United States Fire Administration categorizes hazards into three main, but broad categories natural threats (weather), technological threats (human caused), and terrorism (Federal Emergency Management Agency, 2014, expression 2-3). The *Guide for Developing High-Quality Emergency Operations Plans for Institutions of Higher Education* provides a slightly different categorization of hazards “Natural; Technical; and Adversarial and Human-caused” (U.S. Department of Education, Office of Elementary and Secondary Education, Office of Safe and Healthy Students, 2013, p. 45). The International City County Management Association identifies mitigation as a process that reduces the hazard prior to an event taking place; which may include prevention activities (Stern, 2012, p. 30). That is, organizations may engage in prevention activities such as completing building and facilities inspections that are intended to reduce the magnitude of an event (Stern, 2012, p. 30). Likewise, specific mitigation activities are commonly utilized by contemporary emergency managers to reduce the impact of geographically specific events (Stern, 2012, p. 30).

Preparedness. The Preparedness phase is focused on those activities which enhance and evaluate organizational capabilities to respond to a disaster or major emergency (Stern, 2012, p. 30). Planning, training, and exercises are utilized in the preparedness phase to develop and assess organizational readiness (Stern, 2012, p. 30). The Deerfield Beach Fire Rescue Department sponsors an annual hurricane preparedness expo in which the community and first responders are brought together for the purpose of enhancing hurricane readiness (Patton, 2012, p. 81). The

expo is a collaborative endeavor among public and private stakeholders and includes vendors and competitions between public safety organizations which focus on community hurricane readiness (Patton, 2012, p. 82).

Preparedness activities related to institutions of higher education may include developing response strategies (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 8). That is, many of institutions of higher education rely on external organizations for response to disasters and emergency incidents. The U. S. Department of Education (2010) identifies developing policies and procedures that address all hazards, collaborating with community partners to define response protocols, establishing an incident management system and an implementation process, coordinating with community partners in resource allocation, and personnel training as activities to be undertaken during the preparedness phase (p. 9-10).

Training is one of the most important aspects of the preparedness phase (Bullock, Haddow, Coppola, & Yeletaysi, 2009, p. 304). Community colleges provide training for more than 80% of the nation's first responders (American Association of Community Colleges American Association of Community Colleges, 2006, p. 6). Community colleges have developed robust and collaborative relationships with public stakeholders including first responders (American Association of Community Colleges, 2006). Many community colleges with resident fire service scholars have emerged as leaders in community emergency management planning and the development of emergency response protocols (American Association of Community Colleges, 2006). The American Association of Community Colleges reports that almost 50% of community colleges it surveyed were engaged in a collaborative process of proactive comprehensive community emergency management planning (American Association of Community Colleges, 2006, p. 4). Likewise, community colleges have assumed a leadership role

in engaging the community in disaster preparedness training (American Association of Community Colleges, 2006, p. 11). Community colleges across the country have leveraged the economy of scale associated with their size and invested heavily in the physical resources required for use in training public safety professionals (American Association of Community Colleges, 2006, p. 12).

Response. The response phase encompasses the operational actions taken in response to an event that poses an imminent threat to life, property, or the environment (Stern, 2012, p. 31). Disaster response differs from emergency response in that emergencies impact the individuals involved and generally do not inhibit the community from conducting normal social activities and services (Perry & Lindell, 2014, p. 160). Disasters impact the collective citizenry on a broader scale causing significant damage and disrupting community activities and services (Edwards & Goodrich, 2007, p. 50). Because disaster cause wide spread damage, response needs typically exceeds available community resources, thus, requiring external assistance (Perry & Lindell, 2014, p. 160). Actions initiated by institutions of higher education during the response phase may include selecting and implementing response strategies based on the type and severity of the incident, interacting with first responders as they enter and operate on the campus, activating the campus Incident Command System or the campus Emergency Operations Center in response to larger incidents, accounting for campus populations, and engaging in the after action reporting process (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 12-13).

The American Association of Community Colleges has formed a collaborative relationship with the Federal Emergency Management Agency and the Citizens Corps Program for the purpose of enhancing emergency management preparedness and training on college

campuses (American Association of Community Colleges, 2015b). The goal of the collaborative endeavor is to enhance campus disaster and emergency preparedness, support first responder operations, and to provide first aid and initial life saving activities until the arrival of first responders (American Association of Community Colleges, 2015b). The Campus Citizens Emergency Response Team concept is becoming more common on college campuses. According to Kartims (2013), the Campus Citizens Emergency Response Team is trained in basic disaster preparedness and response skills, the use of fire extinguishers, and in evacuation procedures. The Campus Citizens Emergency Response Team is composed of campus populations. The advantage of training campus population is that they are already present and may act quickly within the scope of their training in the event of a disaster or emergency on campus (Katims, 2013). An estimated 500 colleges are engaged in the Campus Citizens Emergency Response Team concept (Katims, 2013).

Recovery. Recovery is the process of returning social functions to a normal state of operation following a disaster (Stern, 2012, p. 31). The repair of infrastructure is a hallmark of the recovery phase. Initial activities following a disaster include damage assessment which in the first phase may simply be a windshield assessment (Stern, 2012, p. 59). The later in-depth phase of damage assessment provides a more detailed account of the damage (Stern, 2012, p. 59). Damage assessment is a critical aspect of recovery for institutions of higher education. Damage assessment provides a sense of clarity with regard to the level of impact to the campus and in identifying new vulnerabilities (U.S. Department of Education, Office of Elementary and Secondary Education, Office of Safe and Healthy Students, 2013, p . 14).

Campus Emergency Response

Community colleges are not typically directly involved in emergency response activities. That is, although many community colleges maintain extensive infrastructure to train first responders, they are not directly engaged in response activities. Community colleges generally rely on local government entities to provide emergency response. By their nature community colleges are commuter institutions. That is, students are not housed on or near the campus and may or may not be full-time traditional students. However, many community colleges have active Campus Citizens Emergency Response Teams which are designed to assist first responders, within the scope of their training, in the event of a disaster or emergency on campus (Katims, 2013). Additionally, some institutions of higher education that include resident populations have established a campus based emergency response component (Lawrence, Jamesley, & Palmisano, 2013). The intent of these programs is to provide timely response to emergency events on the college campus (Lawrence, Jamesley, & Palmisano, 2013).

Similar to disaster response capabilities, many campus emergency response programs are in collaboration with local first responders. In some cases, faculty and students act in the capacity of first responders and are certified emergency medical technicians providing service through an affiliation with the local licensed emergency medical services provider (Lawrence et al., 2013). Given that most community college faculty members are part-time or adjunct, their ability to provide an emergency response capability is hindered. Likewise, institutional policy and collective bargaining agreements may restrict such activities.

Benefits

The benefits of collaborative and inclusive campus emergency management planning and emergency response are numerous. De Palma (2011) cites the benefits of campus emergency

management planning as “a reduction in the impact of disasters, enhanced mitigation outcomes, and a reduction in the duplication of efforts” (p. 144). Institutions of higher education foster environments of inclusion, learning, and collaboration, which should be reflected in the campus emergency management planning and emergency response process (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 57). Likewise, collaboration between local government bodies in general, and more specifically with local first responders, provides for enhanced emergency management planning and emergency response performance (Federal Emergency Management Agency, 2005).

Firefighter Safety. Emergency management planning is congruent with the reduction in risk to firefighters (Jennings, 2012, p. 83). That is, emergency management planning contributes to enhanced emergency and disaster response efficiencies and the reduction in risk to first responders (Jennings, 2012, p. 83). The National Fallen Firefighters Foundation is committed to the safety of firefighters (National Fallen Firefighters Foundation, 2015). The National Fallen Firefighters Foundation publishes 16 Life Safety Initiatives (National Fallen Firefighters Foundation, 2015). Life Safety Initiative number Three states: “Focus greater attention on the integration of risk management with incident management at all levels, including strategic, tactical, and planning responsibilities” (National Fallen Firefighters Foundation, 2015). Planning will help reduce risk through the identification of facility inherent risks. Likewise, planning helps to identify anticipated operational risks so that events can be managed and first responder safety maintained in direct relation with the situational baseline and anticipated reward (Routley, 2012, p. 306).

Regional Preparedness. Emergency management planning is focused on establishing a desired level of readiness (Stern, 2012, p. 30). Disasters are events of such magnitude that

resources from outside the community are required (Edwards & Goodrich, 2007, p. 50). The community college typically serves many communities and is ideally suited for regional emergency management planning. That is, in many cases the community college is the keystone of the community where all stakeholders share a common ground. Likewise, the community college has significant resources which may be of value to a community experiencing a disaster (American Association of Community Colleges, 2006). Furthermore, the community college may serve as the conduit for the flow of resources from communities not impacted by a disaster to the affected community (American Association of Community Colleges, 2006). The level of collaboration among diverse regional partners in emergency management mitigation and preparedness activities is an indicator of response and recovery performance (McEntire & Dawson, 2007, p. 60). Joint planning further enhances the community and regional ability to respond to and recover from incidents (McEntire & Dawson, 2007, p. 61). The Federal Emergency Management Agency (2003) indicates that “The level of disaster resistance of your institution is directly related to that of your community, region, and state” (p. 11). Similarly, MacDowell & Martin (2005) identify regional disaster preparedness as a benefit of campus emergency management planning (p. 4).

Elgin Community College

Elgin Community College District 509 is one of 48 community colleges in the State of Illinois (Illinois Community College Board, 2010). Serving a population of more than 480,000 residents, Elgin Community College District 509 covers 360 square miles (Elgin Community College, 2014, p. 6). Elgin Community College is an open door campus which includes 14 major buildings on more than 209 acres (Elgin Community College, 2014, p. 6). Elgin Community College will open a new public safety training facility in early 2016, which will eventually

support the comprehensive public safety professional development model currently offered by the college (Elgin Community College, 2014, p. 6). Elgin Community College District 509 serves a student population of just over 17,000 and offers a diverse range of academic and technical associate degree programs (Elgin Community College website, 2015).

Elgin Community College District 509 is a participant in the Achieving the Dream Initiative (Elgin Community College website, 2015). The Lumina Foundation led the formation of the Achieving the Dream Initiative in 2004 (Achieving the Dream website, 2014). The Achieving the Dream Initiative is focused on student success, particularly students of color and of lower socioeconomic status (Achieving the Dream website, 2014). The Achieving the Dream Initiative seeks to accomplish this goal through higher education reform and advocacy (Achieving the Dream website, 2014).

Campus security is provided by a career police department built on the traditional law enforcement hierarchy. The Elgin Community College Police Department is an active participant in community wide law enforcement activities. Emergency management planning is the responsibility of a full-time emergency management administrator. Elgin Community College engages in a myriad of outreach and training activities. The Emergency Management Department at Elgin Community College focuses on emergency and disaster preparedness and response by engaging key stakeholders. First, faculty, staff, and administrators are offered an opportunity to serve on an active Campus Citizens Emergency Response Team (Elgin Community College website, 2015). Next, a series of independent professional development courses which focus on key preparedness and response activities such as cardiopulmonary resuscitation, National Incident Managements System, and evacuation procedures is offered to faculty, staff and administrators (Elgin Community College website, 2015). Third, the

Emergency Management Department is responsible for campus emergency management planning and coordinating elements of emergency response procedures with first responders. Finally, the Emergency Management Department engages in campus and community outreach and is responsible for forming collaborative relationships with internal and external stakeholders for the purpose of enhancing emergency and disaster preparedness (Elgin Community College website, 2015).

The culture within Elgin Community College District 509 is similar to the higher education culture discussed by Berdahl et al. (2001) in that academic freedom and autonomy are highly valued (p. 6). Elgin Community College District 509 identifies “Freedom of Inquiry” as a shared value (Elgin Community College, 2012, p. 3). Likewise, the shared governance philosophy is highly valued and woven into the cultural fabric at Elgin Community College District 509. Respect for diversity and inclusion are stated shared values as well (Elgin Community College, 2012, p. 3). Finally, community engagement is recognized as a shared value (Elgin Community College, 2012, p. 3). These shared values are consistent with the positive aspects of higher education which pose unique challenges for campus emergency management planning and emergency response (U.S. Department of Education, Office of Elementary and Secondary Education, Office of Safe and Healthy Students, 2013, p. 2).

The Fire Science and Safety Program at Elgin Community College District 509 provides a comprehensive fire service professional development model (DeCarlo, 2013, p. 28). The majority of the Fire Science and Safety Program faculty members serve with fire departments located within Elgin Community College District 509. Additionally, a diverse representation of all fire service ranks exists with the Fire Science and Safety Program faculty. Many of the philosophies and methodologies covered within the curriculum of the Fire Science and Safety

Program are congruent with the concepts of emergency management planning and emergency response (DeCarlo, 2014). Likewise, the Fire Science and Safety Program maintains a significant stock of contemporary emergency response training equipment.

The Fire Science and Safety Program receives guidance, direction, and feedback from an Advisory Board composed of a diverse group of community leaders. Additionally, the Fire Science and Safety Program Advisory Board includes Elgin Community College Administrators that commonly work with the Fire Science and Safety Program or who possess valuable insight into higher education culture, practices, and methodologies. Bringing together a diverse stakeholder group helps to ensure the product being produced by the Fire Science and Safety Program is congruent with the expectations of the community and in compliance with accrediting institutions. Likewise, it is the goal of the Fire Science and Safety Advisory Board to engage in collaborative conversations for the purpose of identifying best practices for implementation into the Fire Science and Safety Program. Because of its diverse composition, level of activity, origins from within the community, and areas of expertise, the Fire Science and Safety Advisory Board maintains a significant level of influence within the college environment.

The Fire Science and Safety Program is structured in a traditional higher education departmental model. That is, there are currently 18 adjunct faculty members assigned to the Fire Science and Safety Program. Direct program leadership is provided by one Instructional Coordinator/Director. Managerial oversight of the Fire Science and Safety Program is the responsibility of an associate dean, with ultimate responsibility resting with a division level dean. Administrative support is provided to the Fire Science and Safety Department by a student worker.

Elgin Fire Department

The Elgin Fire Department is a career full service department providing fire suppression and emergency medical services to the Elgin Community College District 509 main campus. The Elgin Fire Department is staffed with 133 sworn firefighter and fire officer positions (City of Elgin website, 2013). Fire prevention activities are the responsibility of one full-time civilian fire code official and one part-time civilian fire inspector. The Elgin Fire Department maintains seven fire stations located throughout the city (City of Elgin website, 2013). Fire Station Four is located at 599 McLean Boulevard, one block from Elgin Community College District 509 main campus (City of Elgin website, 2013). The Elgin Fire Department has a long and robust relationship with Elgin Community College District 509, largely through the interrelationship with the Fire Science and Safety Program (DeCarlo, 2013).

In summary, the literature review served to inform and guide the research conducted for this study. The research tools for this study were developed based on the perspective gained from the literature review.

Procedures

Research procedures employed by the author to answer the stated research questions included two questionnaires and interviews of two key stakeholder groups who are considered content area experts. The intent of this research was to identify what, if any, role the Fire Science and Safety Program should have in campus emergency management planning and emergency response.

Interviews

A research tool consisting of ten questions was developed to guide the interview procedure (Appendix D). The interview research tool was utilized to collect qualitative data for

the purpose of answering two research questions. The rationale for utilizing the same interview research tool was to uniformly collect qualitative data from both stakeholder populations and each member within the population. The response data was then compared and contrasted to provide a greater sense of clarity on the expected role of the Fire Science and Safety Program in campus emergency management planning and emergency response among stakeholder groups and to guide the recommendations of this study.

The first question was developed to collect data regarding the perceived expectations of the Fire Science and Safety Program faculty in campus emergency management planning and emergency response. Next, a question was designed to collect data on the perceived value in utilizing the professional expertise and physical resources of the Fire Science and Safety Program in campus emergency management planning and emergency response. The third question was developed to collect data regarding the expected value of engaging the Fire Science and Safety Program faculty in campus emergency management planning and emergency response in reducing the risk of injury or death to firefighters responding to requests for emergency services on the college campus. Question four was developed to collect data regarding the perceived impact of the higher education culture on campus emergency management planning and emergency response.

The next four questions were developed to determine the perceived expectations of engaging the Fire Science and Safety Program faculty in each of the four phases of emergency management: prevention-mitigation, preparedness, response, and recovery as identified in the *Action Guide for Emergency Management at Institutions of Higher Education* (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 7-15). The ninth question was developed to determine the expected impact on regional emergency preparedness by engaging

the Fire Science and Safety Program faculty in campus emergency management planning and emergency response. Finally, the tenth question was designed to identify if engaging the Fire Science and Safety Program faculty in campus emergency management planning and emergency response would result in a reduction in the economic impact to the community from a major emergency or disaster occurring on the college campus.

The interview research tool was reviewed by a college staff member who was not included in the identified populations. The staff member is familiar with the Elgin Community College District 509 main campus operations, the role of public safety providers in emergency management planning and emergency response, and the Fire Science and Safety Program. The staff member reviewed the interview research tool for the purpose of ensuring applicability and scope of the research tool to the problem statement. The evaluator possesses a Bachelor's degree in Political Science and a MBA with a concentration in Project Management and Sustainability.

The purpose of the first interview was to collect data on the perceived expectations and value of engaging the Fire Science and Safety Program faculty at Elgin Community College in campus emergency management planning and emergency response. The first set of interviews was conducted with Elgin Community College District 509 administrators. Purposeful sampling was utilized to identify the population for the first questionnaire (Creswell, 2012, p. 206). That is, a population was intentionally selected based on their knowledge and ability to help understand the phenomenon (Creswell, 2012, p. 206). The population was identified as administrators representing each of the three on campus stakeholder groups discussed in this study. That is, one administrator with expertise in on-campus academic operational procedures, one college administrator with expertise in the college emergency management procedures, and one administrator with expertise in the campus law enforcement procedures. The rationale for

selecting college administrators is that this population is responsible for the safe and efficient operations of the college campus on a daily basis and, each participant is a content area expert in their area of responsibility. Additionally, it is believed that the selected population could provide experiences within the culture of higher education relevant to this study. The participants selected for the interview were contacted by e-mail or phone requesting an interview. If no response was received a follow-up phone call was made three days later. The interviews were conducted in person on the campus of Elgin Community College District 509 within the respective offices of each administrator.

The purpose of the second interview was to collect data from local public safety leaders on the expected role and perceived value of engaging the Fire Science and Safety Program faculty in campus emergency management planning and emergency response. Purposeful sampling was utilized to identify the population for the first questionnaire (Creswell, 2012, p. 206). That is, a population was intentionally selected based on their knowledge and ability to help understand the phenomenon at core of this study (Creswell, 2012, p. 206). The population identified for participation in the second set of interviews was identified as one representative of a local fire department, one representative from a local law enforcement agency, and one local representative from an emergency management agency. The rationale for selecting local public safety leaders is that they are considered content area experts in and responsible for public safety and, would be involved in the emergency management planning and emergency response to major emergencies and disasters on the Elgin Community College District 509 main campus. Additionally, it is believed that the selected population could provide experiences with the higher education culture from an external stakeholder perspective. The participants selected for the interview were contacted by e-mail or phone requesting an interview. If no response was

received a follow-up phone call was made three days later. The interviews were conducted by phone with each of the respective public safety leaders.

Questionnaires

The first questionnaire involved conducting research for the purpose of collecting data regarding the role Fire Science and Safety Program faculty members expect to have in supporting campus emergency management planning and emergency response. The unit of analysis was identified as the Fire Science and Safety Program faculty (Creswell, 2012, p. 141).

The identified population for completion of this questionnaire consisted of the 18 Fire Science and Safety Program faculty members. The *Executive Development: Applied Research Self Study Guide* was utilized to determine the sample size (Federal Emergency Management Agency, 2010, p. 37). Because the population identified for inclusion in the first questionnaire was relatively small, the sample was determined to be the entire population. The rationale for selecting this population centers on their role as Fire Science and Safety Program faculty members who are intimately familiar with the strategic operations of the program, the associated relevant curriculum, and the Elgin Community College District 509 main campus. Additionally, the population, with the exception of two faculty members, is composed of fire service practitioners serving on fire departments within Elgin Community College District 509. Four members of this population also fill the role of Fire Chief with their respective departments. The Fire Science and Safety Program faculty represent a significant internal stakeholder population that provides a direct link to external stakeholder populations. Therefore, this population provides a unique perspective of Elgin Community College District 509 main campus vulnerabilities and emergency response capabilities.

The questionnaire was distributed to the population via e-mail utilizing an existing e-mail address data base (Appendix E). The e-mail requesting participation in completing the questionnaire provided a description of the research topic, a statement of confidentiality, a link to the questionnaire, and an offer to share the complete report with the participant. Survey Monkey, a publically available on-line research service, was utilized to develop and provide access to the questionnaire (Appendix F). The questionnaire was available for seven days. A follow up e-mail was sent on day four of the questionnaire availability period once again requesting members of the identified population for their voluntary participation in completing the questionnaire.

The questionnaire development was guided by information gained from the literature review and the interview research tool developed for this study. The questionnaire consists of 10 questions. The first question was designed to collect data on the expectations and perceived value of engaging the Fire Science and Safety Program faculty members in campus emergency management planning and emergency response. The second question collected data on the Fire Science and Safety Program faculty member's expectations regarding the use of the program's professional expertise and physical resources to support campus emergency management planning and emergency response. The third question asked if the Fire Science and Safety Program faculty expected their involvement in campus emergency management planning and emergency response would result in reduced risk of injury and death to firefighters responding to request for emergency assistance on the Elgin Community College District 509 main campus. Next, a question was developed to help determine if the Fire Science and Safety Program faculty member's expected the higher education culture would be or is a barrier to campus emergency management planning and emergency response. The next four questions were developed based on the four phases of the emergency management: prevention-mitigation, preparedness,

response, and recovery as identified in the *Action Guide for Emergency Management at Institutions of Higher Education* (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 7-15). The fifth question was designed to determine which prevention-mitigation initiatives the Fire Science and Safety Program faculty members believed they could assist the Emergency Management Administrator with conducting. The sixth question asked which preparedness initiatives the Fire Science and Safety Program faculty believe they could assist the Emergency Management Administrator with implementing. Likewise, the next question was designed to collect data on which of the response phase initiatives the Fire Science and Safety Program faculty believe they could assist the Emergency Management Administrator with implementing. The eighth question asked if the Fire Science and Safety Program faculty members believed they could assist the Emergency Management Administrator with the damage assessment recovery initiative. The ninth question asked the Fire Science and Safety Program faculty members if they expected their involvement in campus emergency management planning and emergency response would enhance regional all hazards disaster preparedness. The final question asked if the Fire Science and Safety Program faculty members expected their involvement in campus emergency management planning and emergency response would help to minimize the economic impact to the community should a major emergency or disaster strike the Elgin Community College District 509 main campus.

The questionnaire research tool was reviewed by a college staff member who was not included in the identified populations. The staff member is familiar with the Elgin Community College District 509 main campus operations, the role of public safety providers in emergency management planning and emergency response, and the Fire Science and Safety Program. The staff member reviewed the questionnaire research tool for the purpose of ensuring applicability

and scope of the research tool to the defined problem. The evaluator possesses a Bachelor's degree in Political Science and a MBA with a concentration in Project Management and Sustainability.

The purpose of the second questionnaire was designed to collect data regarding the role of other community college fire science and safety programs in supporting campus emergency management planning and emergency response. The rationale for selecting the community college population was to collect data regarding best practices relative to the role of fire science and safety program campus emergency management planning and emergency response. The population identified for the second questionnaire included all community colleges within the United States that provide fire service based higher education programs. Due to the extensive number of community colleges within the United States, a stratified sampling methodology developed in previous work with this population for an Executive Fire Officer Program applied research paper were used to define manageable sample populations from three separate populations that would produce meaningful data (Creswell, 2012, p. 144). The first step identified 3 community college population categories; local, regional, and national. The rationale for creating categories based on geographic location is that all emergencies and disasters are initially considered to be local in nature and reflective of the risk associated with a local community (Federal Emergency Management Agency, 2014, p. 2-4). Likewise, the community college is in and of the community they serve (Phillippe & Patton, 2000). Therefore, there is value in collecting data on the role of fire science and safety programs based on geographical location. Next, the methodology for identifying the population for each community college category was developed.

The local community college population was determined to be those community colleges providing a fire science and safety program within the “Chicago Area” as defined by the Illinois Board of Higher Education (Illinois Board of Higher Education, 2012). The population of local community colleges was determined to be 12 (Appendix G). In continuing previous work conducted with this population, DeCarlo (2013) identified the rationale for selecting this population as:

The rationale for selecting this population was that these colleges provide fire service curriculum within the local area. Therefore, many or all of the standards affecting these programs are the same as those affecting Elgin Community College. Additionally, the environment in which the institutions operate is similar in terms of fire service structure (p. 33).

The identified population size for this community college category is relatively small in size. The *Executive Development: Applied Research Self Study Guide* was utilized to determine the sample size (Federal Emergency Management Agency, 2010, p. 37). The sample population was determined to be the entire population.

A similar methodology was utilized to define the regional community college population. That is, the regional community college population was defined as those community colleges in the State of Illinois not included in the “Chicago Community Colleges” or the “Chicago Area Community Colleges” as identified by the Illinois Board of Higher Education (2012). The population was determined to be 12 community colleges (Appendix H). Once again, the rationale for selecting the regional community college research population was grounded in collecting data on best practices related to fire science and safety program roles in campus emergency management planning and emergency response within a geographical area. However, it was noted that fire service structure and community risk may differ significantly from Elgin Community College District 509. The regional community college population was relatively

small in size. The *Executive Development: Applied Research Self Study Guide* was utilized to determine sample size (Federal Emergency Management Agency, 2010, p. 37). The sample size was determined to be the entire population.

Finally, a previously developed methodology was utilized to establish the population for the national community college category (DeCarlo, 2014, p. 54). The first step in defining a population was to further stratify the population and limit the search to those community colleges that were identified as Achieving the Dream Institutions and that offered fire service specific higher education programs (Achieving the Dream, 2015). The Achieving the Dream website was utilized to identify the population (Achieving the Dream, 2012). The population was determined to be 99 community colleges (Appendix I). The *Executive Development: Applied Research Self Study Guide* was utilized to determine an acceptable sample size of 80 (Federal Emergency Management Agency, 2010, p. 37). Continuing with the previously developed methodology for selecting a random sample DeCarlo (2014) writes “A simple random sample was selected utilizing the simple random-number table methodology (Brase & Brase, 2012, p. 14)” (p. 55).

Two methods were utilized to identify the individuals in a leadership role at each of the community college based fire science programs. Individuals in leadership roles for all three community college sample populations were identified. First, existing e-mail address data bases were utilized for known individuals. Second, when an individual in a leadership role at a community college fire science program was not known, the institution website was utilized to identify the appropriate individual. The rationale for selecting an individual in a leadership role within a fire science program is that the individual would have extensive knowledge of the program and the institutional operations. Therefore, an individual in a leadership role would be best suited to provide accurate and meaningful responses to the questionnaire.

The questionnaire was developed utilizing the publicly available survey service, Survey Monkey. A link to the questionnaire was distributed to the each category of community college population utilizing a separate e-mail (Appendix J) (Appendix K) (Appendix L). The e-mail included a collector link specific to each community college category, a description of the questionnaire topic, a request for voluntary participation, a confidentiality statement, the timeframe for completing the questionnaire, and an offer to share the results of the research. The questionnaire was available for seven days. A follow up e-mail was distributed on the fourth day of the questionnaire access period.

The second questionnaire research tool development was guided by information gained from the literature review, the interview research tool developed for this study, and the first questionnaire. Similar to the first questionnaire and the interview research tool, this questionnaire was composed of 10 questions focused on the same content areas (Appendix M). The use of an essentially identical questionnaire for both the Elgin Community College Fire Science and Safety Program faculty members and other community college fire science programs was grounded in the interest of collecting data on best practices that are relevant to Elgin Community College, ensuring the ability of this study to compare and contrast like data, and guiding recommendations for this study.

The first question asked if the fire science program faculty the participant represented were engaged in campus emergency management planning and emergency response. The second question collected data on the use of fire science program faculty professional expertise and the value of physical resources related to campus emergency management planning and emergency response. The third question asked if the individual expected fire science program faculty involvement in campus emergency management planning and emergency response would

resulted in reduced risk of injury and death to firefighters responding to request for emergency assistance on their campus. The fourth question was developed to help determine if the higher education culture had been or was expected to be a barrier to campus emergency management planning and emergency response. Next, the same series of four questions developed based on the four phases of the emergency management prevention-mitigation, preparedness, response, and recovery as identified in the *Action Guide for Emergency Management at Institutions of Higher Education* were asked (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 7-15). The fifth question asked which prevention-mitigation initiatives the fire science program faculty that participant represented engaged in. The sixth question focused on identifying preparedness initiatives that the fire science program faculty were engaged in. The seventh and eighth questions focused on the response phase and recovery phase initiatives, respectively. The ninth question asked if the participant expected their fire science program faculty involvement in campus emergency management planning and emergency response to enhance regional all hazards disaster preparedness. Finally, the tenth question was asked to determine if the participant expected their involvement in campus emergency management planning and emergency response would help to minimize the economic impact to the community should a major emergency or disaster strike their campus.

The questionnaire research tool was reviewed by a college staff member who was not included in the identified populations. The staff member is familiar with the Elgin Community College District 509 main campus operations, the role of public safety providers in emergency management planning and emergency response, and the Fire Science and Safety Program. The staff member reviewed the questionnaire research tool for the purpose of ensuring applicability and scope of the research tool to the defined problem. The evaluator possesses a Bachelor's

degree in Political Science and a MBA with a concentration in Project Management and Sustainability.

Limitations

The relatively small population size of the faculty assigned to the Fire Science and Safety Program at Elgin community College and the number of Elgin Community College administrators engaged in campus emergency management planning and emergency response pose limitations. Personal bias may be reflected in individual responses based on the geographical location of the respondent, the job assignment of the participant, and the participant's cultural perspective. Similarly, participation in the questionnaires and interviews was voluntary. The perceived political context of this study may have limited the number individuals agreeing to complete the interviews and, or the questionnaire. Therefore, the ability to influence participation and secure an adequate response to questionnaires and interviews poses a limitation for this study. Furthermore, this study assumes that each individual selected to participate in the interview and questionnaire understood the intent of the questions being asked and the associated terminology. That is, the reference to the fire science program reflected both faculty and physical resources. With respect to Fire Science and Safety Program faculty, it is assumed that the participant's response was based on the perspective of a faculty member whose primary role is to provide instruction. All aspects of the collective bargaining agreement and college policy were observed during the course of this study which may have posed limitations. Likewise, there would be added value in including other faculty groups and student stakeholder populations in this study. However, the six month timeframe established for completion of this study was not deemed adequate to navigate the institutional approval process. Research which includes student populations is regulated and controlled by the Institutional Research

Department. Furthermore, it is unlikely that the disclosure of data collected from the student stakeholder population would be approved for release and publication in this study.

Results

The research conducted for this study utilizing the developed research tools provided data for each of the stated research questions. Research procedures and tools developed and utilized to collect data for each of the stated research questions included questionnaires and interviews. The results of the research conducted for this study are reported in full in the corresponding appendix and detailed in summative form in this section.

The first research question explored the expectations of Elgin Community College Administrators with respect to the role of the Fire Science and Safety Program faculty in campus emergency management planning and emergency response (Appendix N). Interviews were requested with three Elgin Community College District 509 Administrators. Two interview requests were granted and completed. One interview request was declined. This represents a 67% participation rate of the identified population. The results of the interview are reported in three ways. First, the level of support for engaging the Fire Science and Safety Program in campus emergency management planning and emergency response is reported. Next, the administrators' responses regarding support for the Fire Science and Safety Program engaging in emergency management initiatives based on the four phases of emergency management are reported. Finally, the administrator's expected impact of engaging the Fire Science Program in campus emergency management planning and emergency response are reported.

Both Elgin Community College District 509 administrators expected the Fire Science and Safety Program to be engaged in campus emergency management planning and emergency response. Both participants believed the professional expertise and physical assets of the Fire

Science and Safety Program would add value to campus emergency management planning and emergency response. However, several barriers were noted including potential liability issues related to faculty engaging in duties outside their job description, a readily available list of physical resources, and the availability of a trained faculty member to operate the physical resources. Finally, the challenge of determining a method of compensation in accordance with the collective bargaining agreement was identified by both participants. With respect to reduced risk of injury or death to firefighters as a result of engaging the Fire Science and Safety Program in campus emergency management and emergency response, both administrators expected there would be a significant reduction in risk. With respect to the higher education culture being a barrier to implementing emergency management initiatives, both administrators acknowledged that the culture presented barriers. However, both respondents agreed that the barriers could be overcome by honoring and working within processes and creating a diverse team focused on collaboration. Regarding emergency management initiatives based on the four phases of emergency management, the administrators' response varied.

Regarding prevention-mitigation initiatives, both respondents believe the role of the Fire Science and Safety Program would add significant value in the Vulnerability Assessment and Community Hazards Emergency Response-Capability Assurance Process. However, barriers to engaging in this expectation were once again noted and included liability concerns and methods of compensation in accordance with the collective bargaining agreement. With respect to preparedness phase initiatives, both administrators identified faculty training as an initiative where the Fire Science and Safety Program could make a significant impact. Likewise, both respondents felt there was no additional liability associated with this activity and, that a process

already existed within the collective bargaining agreement which would facilitate appropriate compensation procedures.

Respondents were cautious regarding the response phase initiatives. The discussion covered the reality that emergencies happen on campus. Historically, faculty members have provided aid when notified of an emergency on campus. Additionally, these actions are assumed to be voluntary in nature. However, both respondents expressed the expected value in the Fire Science and Safety Program assisting with establishment of the Incident Command System and acting as liaison with local emergency responders. Finally, recovery phase initiatives were viewed as an unlikely and limited role for the Fire Science and Safety Program faculty. It was assumed that in a time of major emergency or disaster, the faculty would be engaged in their primary occupation as community first responders. One consistent theme expressed by both participants throughout the interview process was the value in collaboration and the assembling of a diverse group of stakeholders with varied skill sets to engage in campus emergency management planning and emergency response.

The second research question focused on the role that Fire Science and Safety Program faculty expected to have in support of the Emergency Management Administrator regarding campus emergency management planning and emergency response (Appendix O). A questionnaire research tool was utilized to collect data from a population of 18 faculty members assigned to the Fire Science and Safety Program. Fifteen faculty members responded to the e-mail and completed the questionnaire. This represents an 83% participation rate of the selected population. The results collected from this research tool are presented in three ways. First, all responses to question one are reported in Table 1. Next, the mode for each question which reflects the greatest level of faculty support is reported (United States Fire Administration, 2004,

p. 32). Finally, the response for each question that reflects the lowest level of faculty support is presented. Each of the responses to the questionnaire produced useable data.

Regarding the value of professional expertise and physical resources of the Fire Science and Safety Program in campus emergency management planning and emergency response, nearly 87% of the faculty respondents expected both the professional expertise and the physical resources would be of value to the Emergency Management Administrator. The remainder of the

Table 1:

Fire Science and Safety Program faculty responses to question 1

Q1: Do you feel that the Fire Science and Safety Program should have a role in campus emergency management planning and emergency response?

Answer Choices	Responses
Yes, should have a role in both campus emergency management planning and emergency response	80.00% 12
Yes, should only have a role in campus emergency management planning	20.00% 3
Yes, should only have a role in campus emergency response	0.00% 0
No, should not have a role in either.	0.00% 0
Total	15

Note: Source: Fire Science and Safety Faculty Questionnaire (Appendix O).

faculty identified professional expertise as the sole element of value in campus emergency management planning and emergency response. Roughly 53% of the faculty responded that engaging the Fire Science and Safety Program in campus emergency management planning and emergency response would significantly reduce the risk of injury and death to firefighters responding the Elgin Community College District 509 main campus to provide emergency services. A single faculty respondent indicated there would be no reduction in risk to firefighters as a result of engaging the Fire Science and Safety Program in campus emergency management

planning and emergency response. Concerning the impact of higher education culture on the implementation of emergency management initiatives, seven faculty respondents indicated that there were no perceived barriers. This response rate was followed closely by six faculty respondents that indicated that the higher education culture is a barrier to timely emergency management decision making.

Regarding the role of the Fire Science and Safety Program in prevention-mitigation phase initiatives, roughly 71% of faculty respondents indicated that there is value in assisting with the Community Hazards Emergency Response-Capability Assurance Process or Vulnerability Assessment. While a single faculty respondent maintained that the Fire Science and Safety Program should not be engaged in prevention-mitigation phase initiatives. Concerning preparedness phase initiatives, supporting staff training, functional exercises, composing all hazards policies and procedures, developing an Incident Command System, and determining evacuation thresholds all garnered 11 faculty responses. None of the faculty respondents objected to engaging the Fire Science and Safety Program in preparedness-mitigation phase initiatives. With respect to engaging the Fire Science and Safety Program in response phase initiatives, 13 faculty respondents indicated there is value in engaging the Fire Science and Safety Program as a liaison with local emergency responders. None of the faculty respondents objected to engaging the Fire Science and Safety program in response phase initiatives.

Roughly 73% of faculty respondents indicated engaging the Fire Science and Safety Program in damage assessment activities would be of value. However, the remainder of the faculty respondents, just over 26%, indicated that the Fire Science and Safety Program should not be engaged in recovery phase initiatives. With respect to the impact on regional disaster preparedness, eight faculty respondents indicated engaging the Fire Science and Safety Program

in campus emergency management planning and emergency response would have a significant impact. However, a single response was recorded in both no impact and very little impact categories. Concerning the reduction in economic impact to the community in the event of a major emergency or disaster affecting the Elgin Community College District 509 main campus, seven faculty respondents indicating there would be a significant reduction as a result of engaging the Fire Science and Safety Program in campus emergency management planning and emergency response. Roughly 13% of faculty respondents indicated there would be very little reduction in the economic impact to the community.

The third research question explored the role of the Fire Science and Safety Program faculty in campus emergency management planning and emergency response from the perspective of the local public safety leader. The full results of the interviews are reported in (Appendix P). Each of the interviews conducted produced meaningful and useable data. The results of the interviews are presented in summary form in this section.

A common theme raised by all three participants throughout the interviews was ensuring that the Fire Science and Safety Program operated within the scope of its defined role on campus and the need for a collaborative approach to emergency management. All three participants agreed that the Fire Science and Safety Program should have a role in campus emergency management planning and emergency response. One participant indicated the faculty members may have a role as a first responder for their primary employer. However, response to 911 calls was believed to be outside the scope of the Fire Science and Safety Program by all participants. The respondents noted that the faculty may be placed in a position where they are forced to act. With respect to professional expertise and physical resources, all three participants indicated there was an expectation that the professional expertise of the Fire Science and Safety Program

would be used in campus emergency management planning and emergency response. Once again, all three participants indicated that an advisory and collaborative capacity was the most appropriate role for the Fire Science and Safety Program in campus emergency management planning and response. Likewise, participants noted barriers to the emergency response role and identified the need for policy and procedure to guide these activities.

The respondents expressed an expectation that engaging the Fire Science and Safety Program faculty in campus emergency management planning and emergency response would reduce the risk to firefighters responding to the campus. Likewise, the participants indicated that a more robust emergency operations plan would result in increased operational efficiencies, hazard identification, and subsequently, reduced risk. With respect to the culture of higher education, the participants agreed the culture could be a barrier to implementation of emergency management initiatives. One participant indicated the college is a government body and could develop policy to guide operations in a time of disaster or major emergency while respecting current culture and practices. Likewise, participants expected the Fire Science and Safety Program faculty could support the Emergency Management Administrator in developing robust prevention-mitigation initiatives. Two notable responses are the considerations of “all hazards” and the identification of practitioner identified “best practices.” With respect to preparedness phase initiatives, training of faculty, staff, and administrators in emergency preparedness and response was identified by the participants as an ideal role for the Fire Science and Safety Program faculty. Two participants identified training as an essential element of preparedness. While the other participant stressed the need for an “all hazards approach.”

Responses to the role of the Fire Science and Safety Program faculty in response initiatives revealed limited expectations. All three participants expected an advisory and

collaborative role in regards to response phase initiatives. However, several barriers and concerns were noted by the participants. First, the Fire Science and Safety Program faculty should operate within their defined scope at the college. The availability of Fire Science and Safety Program faculty was noted as well as the commuter status of the college. Finally, all three participants indicated policy and procedure should be developed to guide these initiatives. The interviews revealed an expectation that the Fire Science and Safety Program faculty would support the Emergency Management Administrator with recovery initiatives by assisting with damage assessment. Two participants indicated a diverse damage assessment team composition was important. One participant noted that the accurate and timely completion of Federal Emergency Management Agency paperwork and documentation was an essential element in seeking Federal assistance.

The responses to the expected enhancement of regional all hazards disaster preparedness revealed that a significant impact was anticipated. Two participants noted that the college is perceived as an influential member of the community. Likewise, the respondents indicated that regional all hazards preparedness was viewed as a cost effective method of engaging the community. Finally, the interviews revealed that participants expected engaging the Fire Science and Safety Program faculty in campus emergency management planning and emergency response would limit the economic impact to community as a result of a major emergency or disaster occurring on the campus. Two participants acknowledged the significant direct and indirect economic contributions of college. Likewise, the participants indicated that a collaborative planning process with all stakeholders would minimize the economic impact to the community.

The fourth research question focused on collecting data from three community college fire science program population categories; local, regional, and national, regarding their role in campus emergency management planning and emergency response. A questionnaire research tool was utilized to collect data from local, regional, and national community colleges. The questionnaire was distributed via e-mail to the identified sample populations. The questionnaire was distributed to a sample population of 12 local community colleges. Nine responses to the local community college questionnaire were received and provided usable data. This represents a 75% participation rate. The full results of the local community college questionnaire are reported in Appendix Q. Likewise, the questionnaire research tool was distributed to a sample population of 12 regional community colleges. Five regional community colleges completed the questionnaire and provided useable data. This represents a 42% participation rate. The full results of the regional community college questionnaires are reported in Appendix R. Finally, 80 national community colleges were e-mailed the questionnaire. Twenty-nine responses were received. Two e-mail responses indicated that their institution was in the process of eliminating the fire science focused program. One e-mail response was received which declined participation in the research. Twenty-six responses to the national community college questionnaire produced useable data. This represents a 33% participation rate. A full report of the national community college questionnaire is contained in Appendix S.

The results of the community college questionnaire are presented in summary form in this section. The results are reported in three ways. First, all responses to question one from local, regional, and national community colleges are reported in Table 2, Table 3, and Table 4, respectively. Next, the mode for each question and population category is reported (United States Fire Administration, 2004, p. 32). Finally, with respect to the four phases of emergency

management, questions five through eight, the most widely practiced initiative is reported for each phase and population category.

In response to the level of utilization of professional expertise and physical resources, 77% of local community colleges, 80% of regional community colleges, and 50% of all national community colleges reported that the professional expertise of the faculty and the physical resources of the fire science program were not utilized. Responses to the expected reduction in risk to firefighters differed between the three populations. Approximately 56% of local

Table 2:

Local Community College responses to question 1

Q1: Does the fire science program at your institution have a role in campus emergency management planning and emergency response?

Answer Choices	Responses
Yes, has a role in both campus emergency management planning and emergency response	22.22% 2
Yes, has a role in campus emergency management planning	0.00% 0
Yes, has a role in campus emergency response	0.00% 0
No, dose not have a role in either.	77.78% 7
Total	9

Note: Source: Local Community College Questionnaire (Appendix Q).

community colleges expected significant reduction in risk to firefighters. Half of the regional community college respondents indicated they expected there would be no reduction in risk to firefighters. Approximately 54% of national community colleges respondents indicated that they expected a moderate reduction in risk to firefighters.

Responses to higher education culture as a barrier to emergency management initiatives differed between the populations. Almost 78% of local community college respondents indicated that the higher education culture is a barrier to the implementation of prevention-mitigation and

preparedness initiatives. Regional community colleges respondents were evenly split in their responses. Half of the responses indicated that the higher education culture is not a barrier; while the remaining respondents indicated that emergency management planning was impacted by the higher education culture. National community college respondents, 46%, indicated that the higher education culture was not a barrier to emergency management initiatives.

Table 3:

Regional Community College responses to question 1

Q1: Does the fire science program at your institution have a role in campus emergency management planning and emergency response?

Answer Choices	Responses
Yes, has a role in both campus emergency management planning and emergency response	0.00% 0
Yes, only has a role in campus emergency management planning	20.00% 1
Yes, only has a role in campus emergency response	0.00% 0
No, dose not have a role in either .	80.00% 4
Total	5

Note: Source: Regional Community College Questionnaire (Appendix R).

Responses to questions five thru eight revealed that fire science program faculty are not widely involved with the four phases of emergency management on their respective campuses. Responses to the level of involvement in prevention-mitigation initiatives revealed that approximately 88% of local community colleges, 80% of regional community colleges, and 62% of national community college fire science program faculty have no role in prevention-mitigation initiatives on their college campuses. The research revealed that 12.5% of local community colleges and 35% of national community colleges fire science faculty engaged in promoting a healthy campus culture of engagement, inclusion, respect, and collaboration. A single regional

community college respondent indicated a role in completing the Community Hazards Emergency Response-Capability Assurance Process.

Similarly, an overwhelming number of local community colleges, 75%, and regional community colleges, 80%, reported that the fire science program faculty had no role in preparedness phase initiatives. While, to a lesser degree 50% of national community colleges indicated that the fire science program faculty had no role in preparedness initiatives. The research revealed that 25% of local community colleges and 31% of national community college fire science programs supported faculty and staff training and professional development.

Table 4:

National Community College responses to question 1

Q1: Does the fire science program at your institution have a role in campus emergency management planning and emergency response?

Answer Choices	Responses
Yes, has a role in both campus emergency management planning and emergency response	26.92% 7
Yes, only has a role in campus emergency management planning	3.85% 1
Yes, only has a role in campus emergency response	7.69% 2
No, dose not have a role in either.	61.54% 16
Total	26

Note: Source: Local Community College Questionnaire (Appendix S).

One regional community college respondent indicated a role in developing defined mutual aid agreements and supporting the development of response protocols.

The trend in negative responses continued with the data collected from question seven. Approximately 80% of both local community colleges and regional community colleges reported that the fire science program faculty had no role in response phase initiatives. Approximately 65% of national community college respondents indicated that the fire science program faculty

had no role in response phase initiatives. Two local community colleges, approximately 22% of the respondents, indicated the fire science faculty acted as a liaison with emergency responders and in assisting in determining the appropriate response protocols. Likewise, approximately 20% of regional community college respondents indicated that they act as a liaison with emergency responders. Approximately 19% of national community colleges reported assisting in the activation of the Incident Command System.

With respect to recovery phase initiatives, all of the local community college and regional community college respondents indicated that the fire science program faculty had no role in recovery initiatives. With respect to national community colleges, 88% responded that the fire science program faculty had no role in recovery phase initiatives, while the remaining 12% reported assisting with the damage assessment process.

Response to the expected impact of engaging the fire science program faculty in campus emergency management and emergency response on regional all hazards disaster preparedness indicated that approximately 44% of local community college and 38% of national community college respondents expected a significant enhancement. However, 60% of regional community colleges expected very little enhancement of regional all hazards disaster preparedness. Similar results were recorded regarding the expected reduction in economic impact to the community in the event of a disaster of major emergency occurring on the college campus. Approximately 44% of local community college respondents indicated an expected significant reduction in economic impact to the community. Likewise, 46% of national community colleges indicated an expected moderate reduction in impact to the community. In contrast, 60% of regional community colleges expected very little reduction in economic impact to the community in the event of a major emergency or disaster occurring on the college campus.

Discussion

The purpose of this applied research paper was to identify the role of the Fire Science and Safety Program in campus emergency management planning and emergency response. The importance of determining the role of the Fire Science and Safety Program in campus emergency management planning and emergency response is revealed in several elements of this study including the literature review and the research results. A discussion and recommendations matrix was developed to compare and contrast data collected from each population and to identify the mode response from each population (Appendix T). The purpose of the matrix is to guide the discussion and assist in identifying recommendations for this study.

The process of identifying the role of the Fire Science and Safety Program in campus emergency management planning and emergency response requires a systematic and comprehensive approach (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 1) (Federal Emergency Management Agency, 2014, p. SM 2-4) (Federal Emergency Management Agency, 2005) (U.S. Department of Education, Office of Elementary and Secondary Education, Office of Safe and Healthy Students, 2013, p. 5). The literature review revealed that the hazards faced by a community may differ (Jennings, 2012). Likewise, each institution of higher education differs in regard to operational environment and hazards (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 5) (U.S. Department of Education, Office of Elementary and Secondary Education, Office of Safe and Healthy Students, 2013, p. 5). The emergency management planning and emergency response process should be reflective of a specific institution of higher education (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 5) (U.S. Department of Education, Office of Elementary and Secondary Education, Office of Safe and Healthy Students, 2013, p. 5).

Moreover the literature review revealed that all emergencies are initially considered to be local in nature. The physical construct and operational philosophies of institutions of higher education present a unique challenge for emergency management planning and emergency response (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 1) (U.S. Department of Education, Office of Elementary and Secondary Education, Office of Safe and Healthy Students, 2013, p. 5) (Appendix N) (Appendix O) (Appendix P).

The research revealed broad based support among Fire Science and Safety Program faculty members, Elgin Community College administrators, and local public safety leaders for engaging Fire Science and Safety Program faculty in campus emergency management planning and emergency response (Appendix N) (Appendix O) (Appendix P). All 15 Fire Science and Safety Program faculty members that responded to the questionnaire indicated support for a role in campus emergency management planning (Appendix O). Furthermore, the interviews conducted with Elgin Community College administrators and local public safety leaders revealed robust support for the engaging the Fire Science and Safety Program faculty in an advisory role to support campus emergency management planning and the Emergency Management Administrator (Appendix N) (Appendix P).

The literature review and research revealed an expectation that fire science and safety faculty should have or do have a role in campus emergency management planning (MacDowell & Martin, 2005, p. 2) (Appendix T). Additionally, the literature identified the value in involving a diverse group of local stakeholders in the emergency management planning process (Patton, 2012, p. 79) (Kapucu & Ozerdem, 2013, p. 58). In fact, the theme of collaboration was apparent in multiple elements and sections of this study. The literature review identified a strong example of community stakeholder collaboration in Deerfield Beach, Florida (Patton, 2012, p. 81). The

Deerfield Beach Fire Department collaborates with community partners each year to offer the Deerfield Beach Blowout which focuses on hurricane preparedness (Patton, 2012, p. 82). The value of collaboration in this community preparedness activity may be realized in an enhanced level of regional preparedness. Likewise, the results of the interviews revealed a strong emphasis on the value of and need for community stakeholder collaboration in campus emergency management planning (Appendix N) (Appendix O) (Appendix P).

However, in spite of the literature review revealing the value of engaging local first responders and fire science program faculty members in a collaborative approach to campus emergency management planning and emergency response, the research provides conflicting data (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010) (U.S. Department of Education, Office of Elementary and Secondary Education, Office of Safe and Healthy Students, 2013) (Appendix Q) (Appendix R) (Appendix S). In fact, the data collected reveals that the fire science program faculty at approximately 78% of local community colleges, 80% of regional community colleges, and approximately 62% of national community colleges are not involved in a comprehensive campus emergency management planning and emergency response process (Appendix Q) (Appendix R) (Appendix S). Additionally, several published studies reviewed supported the data and revealed that in some cases first responders are not engaged in the campus emergency management planning and emergency response process (De Palma, 2011) (Kassing, 2002) (Rierson, n.d.).

The evolution of the fire service to that of a profession in which best practices are guided by science was first discussed in *American Burning* (The National Commission on Fire Prevention and Control, 1973). The research conducted for this study revealed an expectation that the professional expertise of the Fire Science and Safety Program faculty members would be

used in the campus emergency management planning process (Appendix N) (Appendix O) (Appendix P). The literature review revealed that many fire science faculty members are content area experts and fire service scholars. Three Fire Science and Safety Program faculty members have earned the Executive Fire Officer designation from the National Fire Academy. While another faculty member is currently enrolled in the program. Additionally, the literature review revealed the value of faculty as a resource in campus emergency management planning (Federal Emergency Management Agency, 2003, p. 9). The data collected from the community college population categories revealed that the professional expertise of fire science program faculty members was more often utilized than the program physical resources for the purpose of campus emergency management planning (Appendix Q) (Appendix R) (Appendix S).

Conflicting data was also noted with respect to the utilization of fire science program faculty expertise and program physical resources for the purpose of campus emergency management planning and emergency response. Approximately 78% of local community college respondents, 80% of regional community college respondents, and 50% of national community college respondents indicated that neither the professional expertise of the fire science program faculty nor the program physical resources were utilized in the campus emergency management planning or emergency response process (Appendix Q) (Appendix R) (Appendix S).

Local Public Safety Leaders and Elgin Community College Administrators expressed concerns regarding the use of fire science program physical resources in campus emergency management planning and emergency response (Appendix O) (Appendix P). A notable concern centered on the lack of a comprehensive physical resources list and the availability of trained fire science program faculty to operate the equipment (Appendix N) (Appendix P). The literature review revealed that many community colleges have made significant investments in physical

resources necessary to provide training of public safety professionals (American Association of Community Colleges, 2006).

Reducing risk of injury and death is the primary focus of the National Fallen Firefighters Foundation (National Fallen Firefighters Foundation, 2015). The literature review revealed the value of planning in managing and reducing the risk of injury and death to firefighters (Jennings, 2012, p. 83). The National Fallen Fire Fighters Foundation identifies the value of planning in firefighter risk reduction in Life Safety Initiative 3 (National Fallen Firefighters Foundation, 2015). Likewise, the ability to identify the response capabilities during the planning process will help to reduce risk (Jennings, 2012, p. 76). The research conducted for this study revealed an expectation among populations that engaging the fire science program faculty in the campus emergency management planning process would contribute to a reduction in risk to firefighters responding to requests for emergency assistance on the college campus (Appendix O) (Appendix R) (Appendix S). Collectively, 80% of fire science faculty respondents expected a reduction in risk to firefighters as a result of engaging in campus emergency management planning and emergency response. Regional community college respondents were the lone exception, with 50% of respondents indicating an expectation of very little reduction in risk to firefighters (Appendix R).

The culture within higher education may at times be a barrier to campus emergency management planning processes (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 2). The literature review revealed a culture that values autonomy, academic freedom, and shared governance (Altbach, 2011, p. 6) (Berdahl et al., 2001, p. 6) (USFA, 2010, p. 2). The research conducted for this study revealed conflicting views of the culture with higher education as a barrier to campus emergency management planning (Appendix T). Analysis of the

data collected from the interviews revealed a common theme in that where the culture of higher education presents challenges to implementing emergency management initiatives a collaborative and diverse planning team will be able to minimize or remove the barriers (Appendix N) (Appendix P).

The literature review supported the value of the Community Hazards Emergency Response-Capability Assurance Process (National Fire Academy, 2014, p. SM 2-3). The research conducted for this study produced data which appears to support the value of engaging fire science program faculty in the Community Hazards Emergency Response-Capability Assurance Process (Appendix T). Nearly 72% of Fire Science and Safety Program faculty members indicated that there was value in assisting the Emergency Management Administrator in completing the Community Hazards Emergency Response-Capability Assurance Process (Appendix O). Although Elgin Community College administrators and local public safety leaders did not name the Community Hazards Emergency Response-Capability Assurance Process specifically, both populations identified specific elements of the process (Appendix N) (Appendix P).

The value of fire science faculty members providing training for faculty, staff, and students was a common theme expressed in both the literature review and research results (American Association of Community Colleges, 2006) (MacDowell & Martin, 2005, p. 2) (Appendix N) (Appendix O) (Appendix P) (Appendix Q) (Appendix S). Training was identified as an essential aspect of campus emergency management planning (Bullock et al., 2009, p. 304) (Appendix P). Likewise, Elgin Community College administrators identified the role of Fire Science and Safety Program faculty members in training as a logical activity which already supported by college policy, procedures, and the collective bargaining agreement (Appendix N).

Likewise, utilizing fire science program faculty to provide internal training and professional development is congruent with the traditional role of the fire science program (American Association of Community Colleges, 2006).

Likewise, the role of the Fire Science and Safety Program faculty members as a liaison with local first responders is a logical activity and congruent with their primary role as professional firefighters with local fire departments. Nearly 86% of Fire Science and Safety Program faculty respondents indicated that there was value in acting as a liaison with local emergency responders (Appendix O). Additionally, the literature revealed that more than 80% of first responders receive their training at community colleges (American Association of Community Colleges, 2006). Furthermore, Elgin Community College administrators and local public safety leaders noted the connection between the Fire Science and Safety Program faculty members and the local fire service and allied emergency response community (Appendix N) (Appendix P).

The literature review and research results produced conflicting perspectives on the role of fire science program faculty in the recovery phase of campus emergency management planning (Appendix T) (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 14) (National Fire Academy, 2014, p. 4-5). Participation in the damage assessment process was the most likely activity that the Fire Science and Safety Program faculty believed they could assist with. However, approximately 27% of Fire Science and Safety Program faculty members and Elgin Community College administrators indicated concerns with engaging the Fire Science and Safety Program faculty members in the damage assessment process (Appendix N) (Appendix O). That is, Elgin Community College administrators questioned the availability of the Fire Science and Safety Program faculty members during the recovery phase of campus

emergency management planning. However, local public safety leaders appear to support the engagement of the Fire Science and Safety Program faculty in the damage assessment process (Appendix P).

The research conducted regarding the four phases of campus emergency management planning produced conflicting results. That is, in spite of the literature review indicating the value of engaging in the four phases of campus emergency management planning, the data suggests that the level of fire science program faculty participation is relatively low in comparison to the level of importance (Stern, 2012, p. 30) (U.S. Department of Education, Office of Elementary and Secondary Education, Office of Safe and Healthy Students, 2013, p. 7-15) (Appendix Q) (Appendix R) (Appendix S). Specifically, the data reveals that only 12% of local community college respondents, 20% of regional community college respondents, and approximately 38% of national community college respondents indicated that fire science program faculty engage in campus prevention-mitigation initiatives (Appendix Q) (Appendix R) (Appendix S). Similar results were recorded for campus preparedness initiatives, with 25% of local community college respondents, 20% of regional community college respondents, and 50% of national community college respondents indicating that fire science program faculty engaged in preparedness initiatives (Appendix Q) (Appendix R) (Appendix S). Data collected regarding response phase initiatives was more diverse but, indicated similarly low levels of fire science program faculty engagement. Approximately 21% of local community college respondents, 20% of regional community college respondents, and 45% of national community college respondents indicated that fire science program faculty had a role in response initiatives (Appendix Q) (Appendix R) (Appendix S). Finally, data collected regarding the role of the fire science program faculty in the recovery phase reveals the lowest levels of engagement of all four phases of

campus emergency management planning. This data conflicts with the results of the interviews with local public safety leaders. The national community college population was the only group to report engagement in the recovery phase (Appendix Q) (Appendix R) (Appendix S). Three respondents or 12% of national community college respondents reported that fire science program faculty engaged in the damage assessment process (Appendix S). The disparity in data among community college population categories and the data collected from local populations may reflect a differing emphasis on emergency management planning based on geographical area, local cultural context, or the local risk assessment and awareness.

The literature review revealed that regional disaster preparedness is enhanced when collaboration between regional partners is developed through the development of robust relationships (Edwards & Goodrich, 2007, p. 61). Likewise, joint planning among regional partners may enhance response performance, magnitude of impact, and recovery from disasters (Edwards & Goodrich, 2007, p. 61). The level of campus emergency management preparedness is directly linked to community partners on a greater scale including regional stakeholders (Federal Emergency Management Agency, 2003, p. 11). The research conducted for this study produced data that supported the finding of the literature review (Appendix T). That is, each of the populations, with the exception of the regional community college population, indicated an expectation that engaging fire science program faculty in campus emergency management planning and emergency response would enhance regional all hazards disaster preparedness (Appendix N) (Appendix O) (Appendix P) (Appendix Q) (Appendix R) (Appendix S).

The value of the community college to the communities it serves is multifaceted and significant. Direct value added to the community by community colleges includes higher wages for graduates, tax revenue, and employment (The Center for Governmental Studies Northern

Illinois University, 2007). The literature review revealed that campus emergency management planning may help limit the economic impact of a disaster or major emergency occurring on the college campus (Federal Emergency Management Agency, 2003, p. iii) (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2010, p. 1) (MacDowell & Martin, 2005, p. 18). The research conducted for this study produced some conflicting data regarding the expected reduction in economic impact to the community as a result of engaging fire science program faculty in campus emergency management planning and emergency response (Appendix T). That is, the expected level of reduction in economic impact varied by population. Roughly 47% of Elgin Community College Fire Science and Safety Program faculty members and approximately 45% of local community college respondents indicated that engaging fire science program faculty in campus emergency management planning and emergency response would significantly reduce the economic impact to the community (Appendix O) (Appendix Q). Local public safety leaders expressed similar expectations (Appendix P). However, the Elgin Community College administrators, regional community college and national community college respondents were mixed in their expectations of reducing economic impact on the community as a result of engaging fire science program faculty in campus emergency management planning and emergency response (Appendix N) (Appendix R) (Appendix S). The ability to provide a more definitive response to this research question is impacted by the lack of direct research and quantitative data relating to the impact of campus emergency management planning on the reduction of the economic impact to the community as a result of a disaster or major emergency occurring on the college campus.

Campus emergency response activities by their very nature are woven into the fabric of campus emergency management planning activities. The literature review identified several

instances in which an emergency response element was provided from within the college campus (Lawrence et al., 2013) (Katims, 2013). Likewise, the Fire Science and Safety Program faculty members are engaged in the provision of emergency services within their duties as career firefighters. However, the data reveals minimal support from stakeholders for providing an emergency response capability outside of the emergency management role (Appendix N) (Appendix O) (Appendix P). In fact, providing an emergency response component lacked widespread support from the Fire Science and Safety Program faculty members (Appendix O). Elgin Community College administrators and local public safety leaders expressed concern regarding the Fire Science and Safety Program faculty operating outside their defined role on the campus (Appendix N) (Appendix P). Likewise, it was noted that the policy and procedure required to support such an activity has not yet been developed (Appendix N) (Appendix O). The research conducted for this study produced data that relatively few fire science programs are engaged in emergency response activities outside of the emergency management role (Appendix Q) (Appendix R) (Appendix S). The data collected from local community colleges respondents indicated that faculty from only one fire science program in initial emergency response activities. None of the regional community college respondents indicated they engaged in a campus emergency response role; while, only three of the national community college respondents engaged in a campus initial emergency response role (Appendix R) (Appendix S).

Recommendations

The research and literature review conducted for this applied research paper were utilized to form the recommendations. The problem is that the role of the Fire Science and Safety Program in campus emergency management planning and emergency response has not been identified. The purpose of this applied research paper was to identify the role of the Fire Science

and Safety Program in campus emergency management planning and emergency response. The following recommendations are provided to assist in identifying the role of the Fire Science and Safety Program in campus emergency management planning and emergency response.

Furthermore, the recommendations are intended to guide engagement of the Fire Science and Safety Program in campus emergency management planning and emergency response where unanimous and congruent support exists from stakeholder groups.

It is recommended:

- The Fire Science and Safety Program develop a physical resources list to be provided to the Emergency Management Administrator for reference during times of major emergency and disaster.
- The Fire Science and Safety Program develop a list of faculty trained and qualified to operate Fire Science and Safety Program equipment for reference during times of major emergency and disaster. The list would provide the Emergency Management Administrator with a reference list to be utilized during times of major emergency and disaster.
- Development of a collaborative relationship with the Emergency Management Administrator which engages the Fire Science and Safety Program in a supportive role in campus emergency management planning.
- Develop a process by which the expertise of the Fire Science and Safety Program faculty members can be utilized in support of the Emergency Management Administrator in campus emergency management planning.

- Explore the possibility of the Fire Science and Safety Program faculty supporting Emergency Management Administrator in the completion of the Community Hazards Emergency Response-Capability Response Process.
- The Fire Science and Safety Program continue to act as a liaison with local emergency responders by conducting research on the feasibility and interest in collaborating with the Emergency Management Administrators and Local Public Safety Leaders to develop and host a regional emergency management planning and disaster preparedness expo at the Elgin Community College District 509 main campus.
- The Fire Science and Safety Program continue to support the Emergency Management Administrator in the training of faculty and staff in disaster preparedness.
- The Fire Science and Safety Program collaborate with the Emergency Management Administrator in exploring the feasibility of expanding the role of the Fire Science and Safety Program in training faculty in disaster preparedness.
- The Fire Science and Safety Program continue as a liaison with emergency responders by supporting the Emergency Management Administrator in developing an Incident Command System that is compatible with local first responder organizations.
- Continued research should be completed on quantifying the reduction in community economic impact following an emergency or disaster on a community college campus as a result of engaging the Fire Science and Safety

Program faculty members in campus emergency management planning and emergency response.

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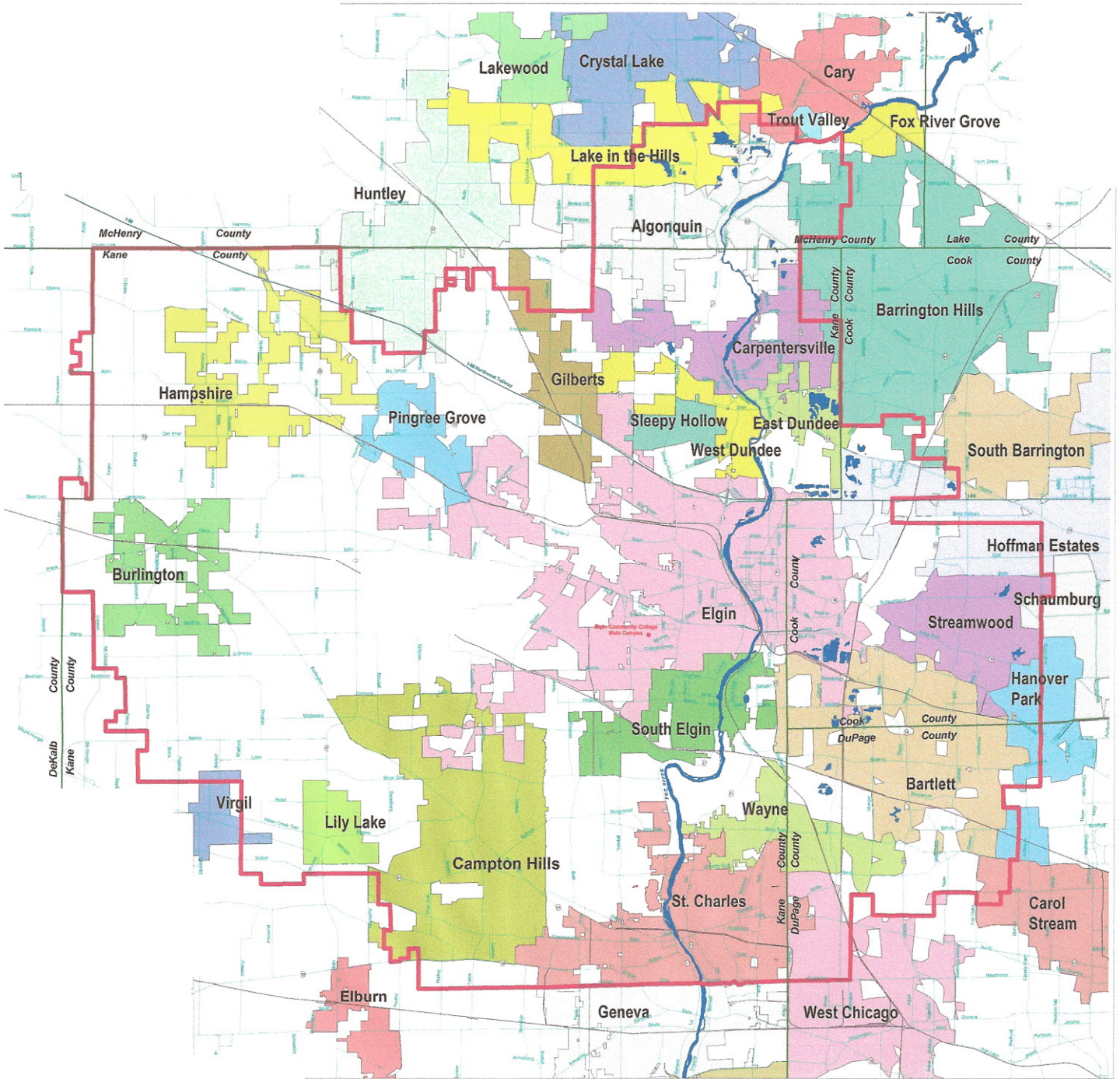
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Appendix A

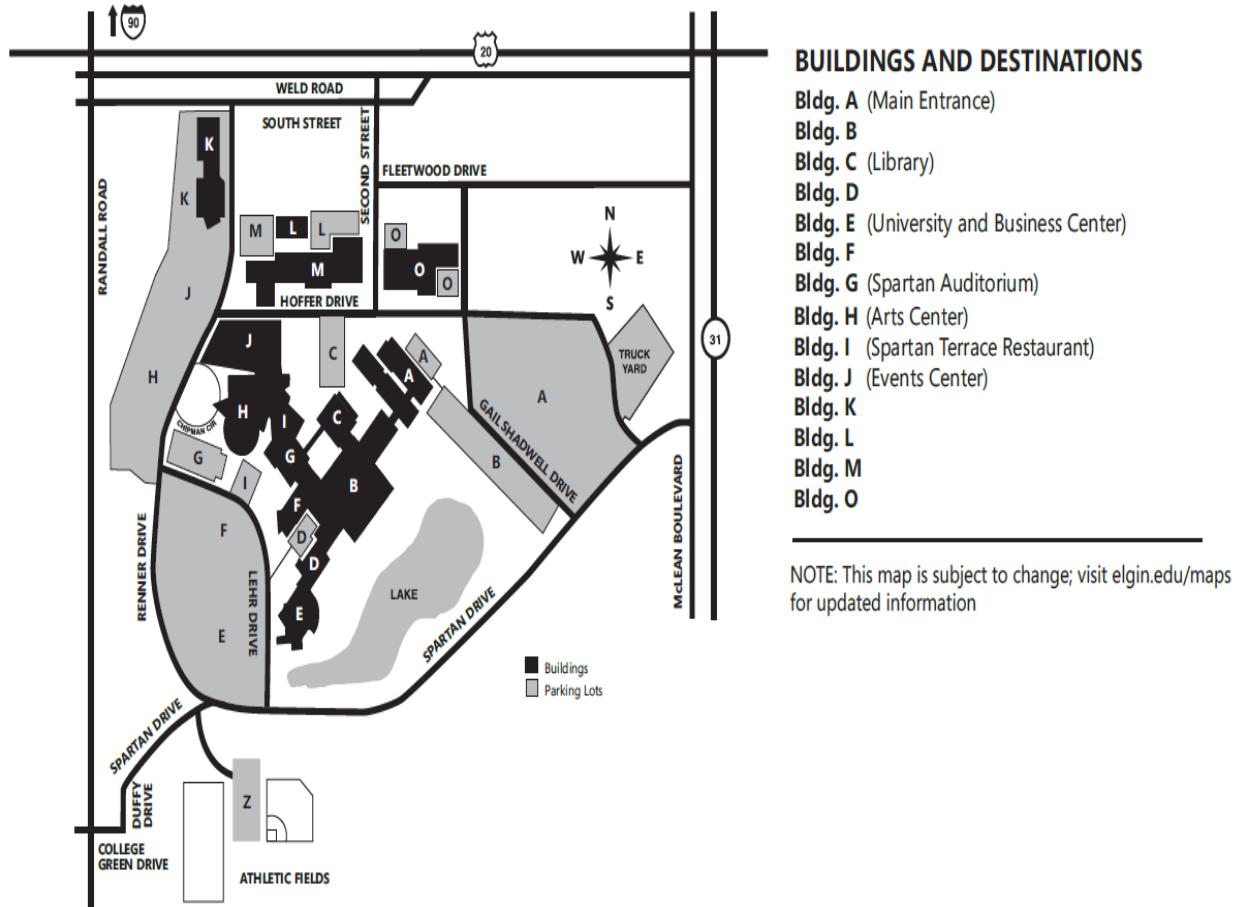
Elgin Community College District 509



Note. Source: Elgin Community College (2015).

Appendix B

Elgin Community College District 509 Main Campus



Note. Source: Elgin Community College 2014

Appendix C

Municipalities and Demographic Data

<i>Community</i>	<i>Total Population</i>	<i>Living in Poverty</i>	<i>Under 5 Years of Age</i>	<i>65 Years of Age or More</i>	<i>Those Who Speak a language other than English at Home</i>	<i>Those with Disabilities</i>
<i>Algonquin</i>	30,046	886	1,970	2,428	1,625	1,670
<i>Bartlett</i>	40,903	2,161	2,796	3,463	1,577	3,551
<i>Burlington</i>	547	38	27	67	22	43
<i>Campton Hills</i>	10,985	410	390	805	816	641
<i>Carpentersville</i>	37,758	6,197	3,536	1,828	17,670	2,228
<i>East Dundee</i>	2,863	185	127	533	313	307
<i>Elgin</i>	109,513	13,959	10,424	9,571	30,030	8,663
<i>Gilberts</i>	6,786	51	730	330	228	170
<i>Hampshire</i>	6,174	89	606	673	866	480
<i>Hanover Park</i>	37,990	4,909	2,967	2,228	10,658	2,489
<i>Hoffman Estates</i>	52,066	2,925	3,054	4,823	10,364	3,313
<i>Lake in the Hills</i>	28,894	1,609	1,793	1,605	4,551	2,087

<i>Lily Lake</i>	1,024	30	58	139	35	126
<i>Pingree Grove</i>	4,425	1,135	607	317	1,639	72
<i>Sleepy Hollow</i>	3,348	179	220	432	322	198
<i>South Elgin</i>	21,873	789	1,693	1,292	3,367	1,451
<i>St. Charles</i>	33,046	1,327	2,017	4,052	4,063	862
<i>Streamwood</i>	40,201	2,196	2,776	3,044	17,156	2,807
<i>Wayne</i>	2,760	33	70	325	142	211
<i>West Dundee</i>	7,307	540	438	658	1,164	407

Note: Source: American Fact Finder the US Census Bureau website (2013) and DeCarlo (2013).

Appendix D

Interview Research Tool

Title:	Years Service:
Location of Interview:	Date of Interview:
Start Time:	End Time:
Educational Status:	EFO:

Question 1

Do you expect/believe the Fire Science and Safety Program should have a role in campus emergency management planning and emergency response? If so, how and in what manner?

Question 2

Do you expect/believe the professional expertise and physical resources maintained by the Fire Science and Safety Program would be of value to the Emergency Management Administrator at Elgin Community College for the purpose of campus emergency management planning and emergency response? Is so, how and in what manner?

Question 3

Do you expect/believe that engaging the Fire Science and Safety Program in campus emergency management planning and emergency response would reduce the risk of injury or death to local firefighters responding to a request for emergency assistance at Elgin Community College District 509 main campus? If so, how and in what manner?

Question 4

Do you expect/believe the culture of higher education could be a barrier to the implementation of emergency management initiatives? If so, how and in what manner?

Question 5

Which, if any, campus prevention-mitigation initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

Question 6

Which, if any, campus preparedness initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

Question 7

Which, if any, campus response initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

Question 8

Which, if any, campus recovery initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

Question 9

Do you expect/believe engaging the Fire Science and Safety Program in campus emergency management planning and emergency response will enhance regional all hazards disaster preparedness? If so, how and in what manner?

Question 10

Do you expect/believe engaging the Fire Science and Safety Program in campus emergency management planning and emergency response will limit the economic impact to the community from a disaster or major emergency occurring on the Elgin Community College District 509 main campus? If so, how and in what manner?

Appendix E**E-mail to Fire Science and Safety Program Faculty**

To: [Email]

From: cdecarlo@elgin.edu

Subject: Executive Fire Officer Interview Request

Body: Fire Science and Safety Program Faculty

Dear Fire Service Colleague,

The intent of this e-mail is to request your participation in completing the linked questionnaire regarding the role of the Fire Science and Safety Program in campus emergency management planning and emergency response. The data collected from this questionnaire will be used to complete an Applied Research Paper for the Executive Fire Officer program at the National Fire Academy. You are receiving this e-mail and questionnaire because you are a faculty member teaching in a Fire Science and Safety Program.

All responses to the attached questionnaire will be kept confidential. If you would like a copy of the completed Applied Research Paper or the results of this questionnaire, please contact me at cdecarlo@elgin.edu.

I hope you will choose to complete the questionnaire, by selecting the attached link, and help us to better serve the fire service.

The deadline for completing the linked questionnaire is Friday March 20th at 11:59 pm.

Please select the link below to complete the questionnaire:

<https://www.surveymonkey.com/s/QP26RZT>

Thank you for your time and consideration.

Sincerely,

Carl M. DeCarlo, MPA
Instructional Coordinator
Fire Science and Safety Programs
Elgin Community College
1700 Spartan Drive
Office: M 117
Elgin, IL 60123
847-214-7654

Appendix F

Fire Science and Safety Program Faculty Questionnaire

1. Do you feel that the Fire Science and Safety Program should have a role in campus emergency management planning and emergency response?
 - Yes, should have a role in both campus emergency management planning and emergency response.
 - Yes, should only have a role in campus emergency management planning.
 - Yes, should only have a role in emergency response.
 - No, should not have a role in either.

2. Do you believe that the professional expertise and physical resources maintained by the Fire Science and Safety Program would be of value to the Emergency Management Administrator at Elgin Community College?
 - Yes, both the professional expertise and physical resources would be of value to the Emergency Management Administrator at Elgin Community College.
 - Yes, only the professional expertise would be of value to the Emergency Management Administrator.
 - Yes, only the physical resources would be of value to the Emergency Management Administrator.
 - No, neither the professional expertise nor the physical resources would be of value to the Emergency Management Administrator.

3. Do you believe that engaging the Fire Science and Safety Program in campus emergency management planning and emergency response would reduce the risk of injury or death to local firefighters responding to a request for emergency assistance at Elgin Community College District 509 main campus?
 - No reduction in risk to firefighters.
 - Very Little reduction in risk to firefighters.
 - Moderate reduction in risk to firefighters.
 - Significant reduction in risk to firefighters.

4. Do you believe the culture of higher education is a barrier to any of the following emergency management initiatives?
 - Timely emergency management decision making.
 - The emergency management planning process.

- Implementation of emergency prevention-mitigation and preparedness initiatives.
 - Timely and efficient emergency response.
 - No, the culture of higher education is not a barrier to emergency management initiatives.
5. Which of the following prevention-mitigation initiatives do you believe the Fire Science and Safety Program could assist the Emergency Management Administrator with?
- None, the Fire Science and Safety Department should not have a role in prevention-mitigation initiatives.
 - Completion of the Community Hazards Emergency Response-Capability Assurance Process (Vulnerability Assessment).
 - Promoting a healthy campus culture of engagement, inclusion, respect, and collaboration.
 - Collecting data, information, and research from other sources which supports emergency management initiatives.
6. Which of the following Preparedness initiatives do you believe the Fire Science and Safety Program could assist the Emergency Management Administrator with?
- None, the Fire Science and Safety Program should not have a role in preparedness initiatives.
 - Support the establishment of an Incident Command System consistent with local emergency response agencies and/or the National Incident Management System.
 - Support development of all hazards policies and procedures.
 - Support enhanced community collaboration through the development of defined mutual aid agreements.
 - Promote and assist with Campus Citizens Emergency Response Team.
 - Support functional exercises
 - Support faculty and staff training and professional development.
 - Support the development of response protocols.
 - Support the identification of thresholds for emergency response, evacuation, shelter in place, and lock down.
7. Which of the following Response initiatives do you believe the Fire Science and Safety Program could assist the Emergency Management Administrator with?
- None, the Fire Science and Safety Program should not have a role in emergency response initiatives.
 - Assist in activating the campus Incident Command System.
 - Act as a liaison to emergency responders.
 - Assist in establishing/opening an Emergency Operations Center.
 - Assist in determining the appropriate response strategy.

- Assist with accounting for students, faculty, and staff.
 - Act in an initial response capacity to requests for fire and emergency medical services on the main campus.
 - Assist with the after action report.
8. Which of the following recovery initiatives do you believe the Fire Science and Safety Program could assist the Emergency Management Administrator with?
- None, the Fire Science and Safety Program should not have a role in recovery phase initiatives.
 - Assist with damage assessment (Damage Assessment Team).
9. Do you believe engaging the Fire Science and Safety Program in campus emergency management planning and emergency response will enhance regional all hazards disaster preparedness?
- No, there will be no enhancement of regional all hazards disaster preparedness.
 - Very little enhancement of regional all hazards disaster preparedness
 - Moderate enhancement of regional all hazards disaster preparedness.
 - Significant enhancement of regional all hazards disaster preparedness.
10. Do you believe engaging the Fire Science and Safety Program in campus emergency management planning and emergency response will limit the economic impact to the community from a disaster or major emergency occurring on the Elgin Community College District 509 main campus?
- No reduction in the economic impact to the community.
 - Very little reduction in the economic impact to the community.
 - Moderate reduction in the economic impact to the community.
 - Significant reduction in the economic impact to the community.

Appendix G

Local Community College Population

1. College of DuPage
2. College of Lake County
3. Joliet Junior College
4. McHenry County College
5. Moraine Valley Community College
6. Oakton Community College
7. Prairie State College
8. South Suburban College
9. Triton College
10. Waubensee Community College
11. Harper College
12. Rock Valley College

Appendix H

Regional Community College Population

1. Blackhawk Community College
2. Danville Community College
3. Illinois Central College
4. Lake Land Community College
5. Lewis and Clark Community College
6. Lincoln Land Community College
7. John A. Logan Community College
8. Parkland Community College
9. Richland Community College
10. Southeastern Illinois Community College
11. Southwestern Illinois Community College
12. John Wood Community College

Appendix I**National Community College Population**

1. Bakersfield Community College, CA
2. College of the Sequoias, CA
3. Los Angeles Harbor College, CA
4. Los Angeles Valley College, CA
5. Porterville College, CA
6. East Los Angeles College, CA
7. Capital Community College CT
8. University of District of Columbia, DC
9. Broward College, FL
10. Indian River State College, FL
11. St. Petersburg College, FL
12. Valencia College, FL
13. Hillsborough Community College, FL
14. Miami Dade College, FL
15. Albany Technical College, GA
16. Atlanta Technical College, GA
17. Central Georgia Technical College, GA
18. Gwinnett Technical College, GA
19. Savannah Technical College, GA
20. Augusta Technical College, GA
21. Georgia Piedmont College, GA
22. North Georgia Technical College, GA
23. South Georgia Technical College, GA
24. West Georgia Technical College, GA
25. University of Hawaii Community College, HI
26. Ivy Technical Community College, IN
27. Johnson County Community College, KY
28. Jefferson Comm. & Tech. College KY
29. West Kentucky Com. & Tec. Col, KY
30. Bunker Hill Community College, MA
31. Springfield Tech. Community College, MA
32. Anne Arundel Community College, MD
33. Prince George's Community College, MD
34. Eastern Maine Community College, ME
35. Henry Ford Community College, MI
36. Macomb Community College, MI
37. Mott Community College, MI
38. St. Clair Community College, MI
39. Wayne County Community College, MI
40. Delta College, MI
41. Lansing Community College, MI
42. Oakland Community College, MI
43. Century College, MN
44. St. Louis Community College, MO

45. Asheville-Buncombe Tech. C.C., NC
46. Davidson Community College, NC
47. Martin Community College, NC
48. Central Piedmont Comm. Coll., NC
49. Durham Technical Comm. Coll., NC
50. Guilford Technical College, NC
51. Passaic County Community College, NJ
52. Raritan Valley Community College, NJ
53. Central New Mexico Comm. Coll., NM
54. Dona Ana Community College, NM
55. College of Southern Nevada, NV
56. Mohawk Valley Community Coll., NY
57. Columbus State Community Coll., OH
58. Zane State College, OH
59. Cuyahoga Community College, OH
60. Lorain Community College, OH
61. Sinclair Community College, OH
62. Tulsa Community College, OK
63. Southwest Oregon Comm. Coll., OR
64. Treasure Valley Comm. College, OR
65. Umpqua Community College, OR
66. Com. Coll. Allegheny County, PA
67. Com. Coll. of Philadelphia, PA
68. Montgomery County Com. Coll., PA
69. Westmoreland Com. College, PA
70. North Hampton Com. College, PA
71. Trident Tech. Com. College, SC
72. Greenville Technical College, SC
73. Amarillo College, TX
74. Blinn College, TX
75. College of the Mainland, TX
76. El Centro College, TX
77. Houston Community College, TX
78. McLennan Community College, TX
79. Odessa College, TX
80. San Jacinto College, TX
81. Tyler Junior College, TX
82. Wharton Junior College, TX
83. Austin Community College, TX
84. Delmar College, TX
85. El Paso Community College, TX
86. Kilgore College, TX
87. Lone Star College, TX
88. South Texas College, TX
89. Tarrant County College, TX
90. Paul D. Camp Community College, VA

- 91. Tidewater Community College, VA
- 92. Pierce College, WA
- 93. Spokane Falls Community College, WA
- 94. Walla Walla Community College, WA
- 95. Big Bend Community College, WA
- 96. Edmonds Community College, WA
- 97. Skagit Valley Community College, WA
- 98. Northeast Wisconsin Technical College, WI
- 99. Western Technical College, WI

Appendix J**E-mail to Local Community Colleges**

To: [E-mail]

From: cdecarlo@elgin.edu

Subject: Executive Fire Officer Program Questionnaire

Body: Dear Fire Service Colleague,

The intent of this e-mail is to request your participation in completing the linked questionnaire regarding the role of the Fire Science program in campus emergency management planning and emergency response.

I serve as the Instructional Coordinator for the Fire Science and Safety program at Elgin Community College in Elgin, IL. I am currently completing the third year of the Executive Fire Officer program at the National Fire Academy. The data retrieved from this questionnaire will be used to complete an Applied Research Paper for the Executive Fire Officer program exploring the role of the Fire Science Program in campus emergency management planning and emergency response.

Community colleges at the local, regional, and national levels, which offer Fire Science Programs, were selected to participate in the attached questionnaire. You are receiving this e-mail because you are in a leadership role for a Fire Science Program which met all of the selection criteria.

All responses to the attached questionnaire will be kept confidential. If you would like a copy of the completed Applied Research Paper or the results of this questionnaire, please contact me at cdecarlo@elgin.edu.

I hope you will choose to complete the questionnaire, by selecting the attached link, and help us to better serve the fire service.

The deadline for completing the linked questionnaire is Friday March 20th at 11:59 pm.

Please select the link below to complete the questionnaire:

<https://www.surveymonkey.com/s/W8W923Z>

Thank you for your time and consideration.

Sincerely,

Carl M. DeCarlo, MPA
Instructional Coordinator

Fire Science and Safety Programs
Elgin Community College
1700 Spartan Drive
Office: M117
Elgin, IL 60123
847-214-7654

Appendix K

E-mail to Regional Community Colleges

To: [e-mail]
From: cdecarlo@elgin.edu

Subject: Executive Fire Officer Program Questionnaire

Body: Dear Fire Service Colleague,

The intent of this e-mail is to request your participation in completing the linked questionnaire regarding comprehensive multi-hazard community risk reduction strategies as they relate to the fire science degree programs.

I serve as the Instructional Coordinator for the Fire Science and Safety program at Elgin Community College in Elgin, IL. I am currently completing the second year of the Executive Fire Officer program at the National Fire Academy. The data retrieved from this questionnaire will be used to complete an Applied Research Paper for the Executive Fire Officer program, exploring community colleges as a provider of a comprehensive multi-hazard community risk reduction training and education for the fire service.

Community colleges at the local, regional, and national level which offer fire science degree programs, and participate in the Achieving the Dream Initiative where selected to participate in the attached questionnaire. You are receiving this e-mail because you are the leader of a program which met all of the selection criteria.

All responses to the attached questionnaire will be kept confidential. If you would like a copy of the completed Applied Research Paper or the results of this questionnaire, please contact me at: cdecarlo@elgin.edu.

I hope you will choose to complete the questionnaire, by selecting the attached link, and help us to better serve the fire service. **The deadline for completing the linked questionnaire is Friday July 25th.**

Please select the link below to complete the questionnaire:

<https://www.surveymonkey.com/s/WRRZKPJ>

Thank you for your time and consideration.

Sincerely,

Carl M. DeCarlo, MPA
Instructional Coordinator

Fire Science and Safety Programs
Elgin Community College
1700 Spartan Drive
Office: M117
Elgin, IL 60123
847-214-7654

Appendix L**E-mail to National Community College**

To: [e-mail]
From: cdecarlo@elgin.edu

Subject: Executive Fire Officer Program Questionnaire

Body: Dear Fire Service Colleague,

The intent of this e-mail is to request your participation in completing the linked questionnaire regarding the role of the Fire Science program in campus emergency management planning and emergency response.

I serve as the Instructional Coordinator for the Fire Science and Safety program at Elgin Community College in Elgin, IL. I am currently completing the third year of the Executive Fire Officer program at the National Fire Academy. The data retrieved from this questionnaire will be used to complete an Applied Research Paper for the Executive Fire Officer program exploring the role of the Fire Science Program in campus emergency management planning and emergency response.

Community colleges at the local, regional, and national levels, which offer fire science degree programs, were selected to participate in the attached questionnaire. You are receiving this e-mail because you are in a leadership role of a Fire Science Program which met all of the selection criteria.

All responses to the attached questionnaire will be kept confidential. If you would like a copy of the completed Applied Research Paper or the results of this questionnaire, please contact me at cdecarlo@elgin.edu.

I hope you will choose to complete the questionnaire, by selecting the attached link, and help us to better serve the fire service.

The deadline for completing the linked questionnaire is Friday March 20th at 11:59 pm.

Please select the link below to complete the questionnaire:

<https://www.surveymonkey.com/s/WJJNL3Z>

Thank you for your time and consideration.

Sincerely,

Carl M. DeCarlo, MPA
Instructional Coordinator

Fire Science and Safety Programs
Elgin Community College
1700 Spartan Drive
Office: M117
Elgin, IL 60123
847-214-7654

Appendix M

Community College Questionnaire Questions

1. Does the fire science program at your institution have a role in campus emergency management planning and emergency response?
 - Yes, has a role in campus emergency management planning and emergency response.
 - Yes, has a role in campus emergency management planning.
 - Yes, has a role in campus emergency response.
 - No does not have a role in either.

2. Does the emergency management administrator at your institution utilize the professional expertise and physical resources maintained by the fire science program you represent in campus emergency planning and emergency response?
 - Yes, both the professional expertise and physical resources are utilized by the institutions emergency management administrator.
 - Yes, only the professional expertise is utilized by the institutions emergency management administrator.
 - Yes, only the physical resources are used by the emergency management administrator.
 - No, neither the professional expertise nor the physical resources are utilized by the emergency management administrator.

3. Do you believe that engaging the fire science program you represent in campus emergency management planning and emergency response would reduce the risk of injury or death to local firefighters responding to a request for emergency assistance at your institution?
 - No reduction in risk to firefighters.
 - Very little reduction in risk to firefighters.
 - Moderate reduction in risk to firefighters.
 - Significant reduction in risk to firefighters.

4. Do you believe the culture of higher education is a barrier to any of the following emergency management initiatives?
 - Timely emergency management decision making.
 - The emergency management planning process.
 - Implementation of emergency prevention-mitigation and preparedness initiatives.
 - Timely and effective emergency response.
 - No, the culture of higher education is not a barrier to emergency management initiatives.

5. Which of the following campus prevention-mitigation initiatives does the fire science program you represent assist the institution's emergency management administrator with?

- None, the fire science program does not have a role in campus prevention-mitigation initiatives.
- Completion of the Community Hazards Emergency Response-Capability Assurance Process (Vulnerability Assessment).
- Promoting a healthy campus culture of engagement, inclusion, respect, and collaboration.
- Collecting data, information, and research from other sources which supports emergency management initiatives.

6. Which of the following campus preparedness initiatives does the fire science program you represent assist the emergency management administrator with?

- None, the fire science program does not have a role in campus preparedness initiatives.
- Support the establishment of an Incident Command System consistent with local emergency response agencies and/or the National Incident Management System.
- Support the development of all hazards policies and procedures.
- Support enhanced community collaboration through the development of defined mutual aid agreements.
- Support functional exercises.
- Support faculty and staff training and professional development.
- Support development of response protocols.
- Support the identification of thresholds for emergency response, evacuation, shelter in place and lock down.

7. Which of the following campus response initiatives does the fire science program you represent assist the emergency management administrator with?

- None, the fire science department does not have a role in response initiatives.
- Assist in activating the campus Incident Command System.
- Act as a liaison to emergency responders.
- Assist in establishing an Emergency Operations Center.
- Assist in determining the appropriate response strategy.
- Assist with accounting for students, faculty, and staff.
- Act in an initial response capacity to requests for fire and emergency medical services on the main campus.
- Assist with completion of the After Action Report

8. Which of the following campus recovery initiatives does the fire science program you represent assist the emergency management administrator with?
- None, the fire science program does not have a role in campus recovery initiatives.
 - Assist with damage assessment (Damage Assessment Team).
9. Do you believe engaging the fire science program you represent in campus emergency management planning and emergency response will enhance regional all hazards disaster preparedness?
- No, there will be no enhancement of regional all hazards disaster preparedness.
 - Very little enhancement of regional all hazards disaster preparedness.
 - Moderate enhancement to regional all hazards preparedness.
 - Significant enhancement to regional all hazards disaster preparedness.
10. Do you believe engaging the fire science program you represent in campus emergency management planning and emergency response will limit the economic impact to the community from a disaster or major emergency occurring on the campus of your institution?
- No reduction in economic impact to the community.
 - Very little reduction in the economic impact to the community.
 - Moderate reduction in the economic impact to the community.
 - Significant reduction in the economic impact to the community.

Appendix N

Elgin Community College Administrator Interview Results

Title: Administrator	Years Service: 25
Location of Interview: Participant's Office	Date of Interview: 03-17-2015
Start Time: 11:00 am	End Time: 12:30 pm
Educational Status: Masters Degree	EFO: Familiar with Program

Title: Administrator	Years Service: 5
Location of Interview: Participant's Office	Date of Interview: 03-17-2015
Start Time: 2:30 pm	End Time: 4:00 pm
Educational Status: Masters Degree	EFO: Familiar with Program

Question 1

Do you expect/believe the Fire Science and Safety Program to have a role in campus emergency management planning and emergency response? If so, how and in what manner?

Yes and No:

Advantages:

- Professionals with expertise in the area.
- Can provide insight from a local first responder perspective.
- Should have an advisory role only.
- Collaborative role is of value to college.

Disadvantages:

- This population carries a faculty status as defined in their job descriptions.
- Concerns regarding compensation in accordance with the collective bargaining agreement.
- Concerns regarding liability for faculty and college if acting outside the role of the job description.
- Availability during times of emergency/disaster (at the fire department).

Question 2

Do you expect/believe the professional expertise and physical resources maintained by the Fire Science and Safety Program would be of value to the Emergency Management Administrator at Elgin Community College for the purpose of campus emergency management planning and emergency response? If so, how and in what manner?

Yes and No:

Professional Expertise: YES

- Absolutely, very knowledgeable and well versed in local response capability.
- Look at college operations from a different perspective (fire prevention/safety).
- Value in collaboration and diverse groups.

Physical Resources: NO

- Need to develop a relative list of equipment.
- Need to have a list of qualified operators available or will be of little use.
- Liability to college and faculty working outside job description.

Question 3

Do you expect/believe that engaging the Fire Science and Safety Program in campus emergency management planning and emergency response would reduce the risk of injury or death to local firefighters responding to a request for emergency service? If so, how and in what manner?

Yes, absolutely.

The more knowledge first responders' gain of the campus the safer they will be.

Collaboration is key aspect of emergency preparedness.

Question 4

Do you expect/believe the culture of higher education could be a barrier to the implementation of emergency management initiatives? If so, how and in what manner?

Yes, Higher Education processes can be cumbersome, slow, and bureaucratic. Shared governance is at play. Requires diverse advocacy group to support actions. Hierarchy within the college must be observed and can take time to navigate.

Question 5

Which, if any, campus prevention-mitigation initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

Not with collection of data or reports. Concerns with protecting the program and faculty.

Concerns regarding liability when working outside the job description.

Yes with the CERCAP (Vulnerability Assessment). Ideally qualified to assist with this process.

Should fall within the scope of the job description. Make sure compensation in accordance with

Collective Bargaining Agreement.

Question 6

Which, if any, campus preparedness initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

Faculty and staff training is paramount.

FSS Faculty the best for this role. Within the scope of their employment.

Should help with:

- Joint training exercises with first responders and other community organizations.
- Train faculty and staff in all hazards awareness and preparedness.
- CPR/AED training is important for all college employees and students.
- Train faculty and staff in contemporary all hazards practical applications (ICS/NIMS).

Should not be involved with student and faculty accountability.

Should have an advisory role only in developing documents and procedures.
Concerns regarding working outside of the job description.

Question 7

Which, if any, campus response initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

No.
However, they may not have a choice.
Maybe on the campus when an event occurs.
May communicate with first responders.
Concerns regarding duty to act and liability coverage regarding actions and protocols followed.
Does Good Samaritan Act provide liability coverage for a licensed paramedic teaching EMT-B classes or is it hospital protocols?
Significant concerns for Police Officers on campus teaching in plain clothes in the case of an active shooter scenario.

Question 8

Which, if any, campus recovery initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

No.
Liability and availability are primary reasons. College does not provide adequate personal protective equipment for this role.
This role is outside the job description of a faculty member.

Question 9

Do you expect/believe engaging the Fire Science and Safety Program in campus emergency management planning and emergency response will enhance regional all hazards disaster preparedness? If so, how and in what manner?

Hopefully.
That would be the plan.
The college is a significant community stakeholder.
The FSS program is the recognized regional training facility for emergency management practices.

Question 10

Do you expect/believe engaging the Fire Science and Safety Department in campus emergency management planning and emergency response will limit the economic impact to the community from a disaster or major emergency occurring on the Elgin Community College District 509 main campus? If so, how and in what manner?

No, not a significant impact.
The college is self contained.

Question 1

Do you expect/believe the Fire Science and Safety Program to have a role in campus emergency management planning and emergency response? If so, how and in what manner?

Yes, partnerships and collaboration is very important aspect of Emergency Management.
 Emergency management starts internally.
 People solve problems (crisis response).
 Must be on the same page to respond effectively to emergency events.
 CCERT is an example of a potential collaborative effort.

Question 2

Do you expect/believe the professional expertise and physical resources maintained by the Fire Science and Safety Program would be of value to the Emergency Management Administrator at Elgin Community College for the purpose of campus emergency management planning and emergency response? If so, how and in what manner?

Yes, both!
 Collaborative relationships are the key to success.
 Diverse teams are stronger and better equipped.
 Physical assets require faculty to operate them. Can't have one without the other.

Question 3

Do you expect/believe that engaging the Fire Science and Safety Program in campus emergency management planning and emergency response would reduce the risk of injury or death to local firefighters responding to a request for emergency assistance at Elgin Community College District 509 main campus? If so, how and in what manner?

Yes, it's very important.
 Networking enhances performance and reduces risk.

Question 4

Do you expect/believe the culture of higher education could be a barrier to the implementation of emergency management initiatives? If so, how and in what manner?

Yes, it can be.
 Support for Emergency Management starts at the top.
 Need adequate funding.
 Need adequate staffing.
 Training is essential.
 Needs to be a priority.
 Relationships overcome barriers and enhance performance.

Question 5

Which, if any, campus prevention-mitigation initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

Assisting with the Vulnerability Assessment would help to create a stronger emergency response plan.
Identifying hazards.

Question 6

Which, if any, campus preparedness initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

Yes.
Training is essential.
Collaboration on faculty and staff training:

- CPR/AED
- First Aid
- Fire Extinguisher
- Campus Citizens Emergency Response Team
- Incident Command Systems/ Incident Management System

Question 7

Which, if any, campus response initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

Further research is needed.
Initiating the ICS would be of value when the situation warranted.
Needs more structure in identifying a qualified response team and scope.
Collaboration is of value.
Concerns with scope of employment.
May act regardless.
Accurate documentation is essential.
Interact with enhance communications with local fire departments.

Question 8

Which, if any, campus recovery initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

Not a likely role for FSS Program.
Other partners of more value for this role (City Building Department/City Fire Department/College Facilities Engineers).
Liability and availability are concerns.
Important to identify the right partners for the task.

Question 9

Do you expect/believe engaging the Fire Science and Safety Program in campus emergency management planning and emergency response will enhance regional all hazards disaster preparedness? If so, how and in what manner?

Yes, definitely.

Regional preparedness would be enhanced through working with Fire Science and Safety Program partners.

Could identify how college could assist community:

- Shelter
- Food
- Generators
- Fire Science and Safety Physical Assets
- Heavy Equipment
- Trucks (Truck Driving)
- Communications (911 Dispatch Laboratory)
- Health Professions Wing

Enhance collaborative decision making skills.

Build partnerships (engage the community).

Identify diverse skills sets needed in time of disaster.

Question 10

Do you expect/believe engaging the Fire Science and Safety Department in campus emergency management planning and emergency response will limit the economic impact to the community from a disaster or major emergency occurring on the Elgin Community College District 509 main campus? If so, how and in what manner?

I think so.

Need to establish and follow procedures.

Engaging in discussions upfront equals better preparedness.

Talk about all hazards (fire/weather/violence).

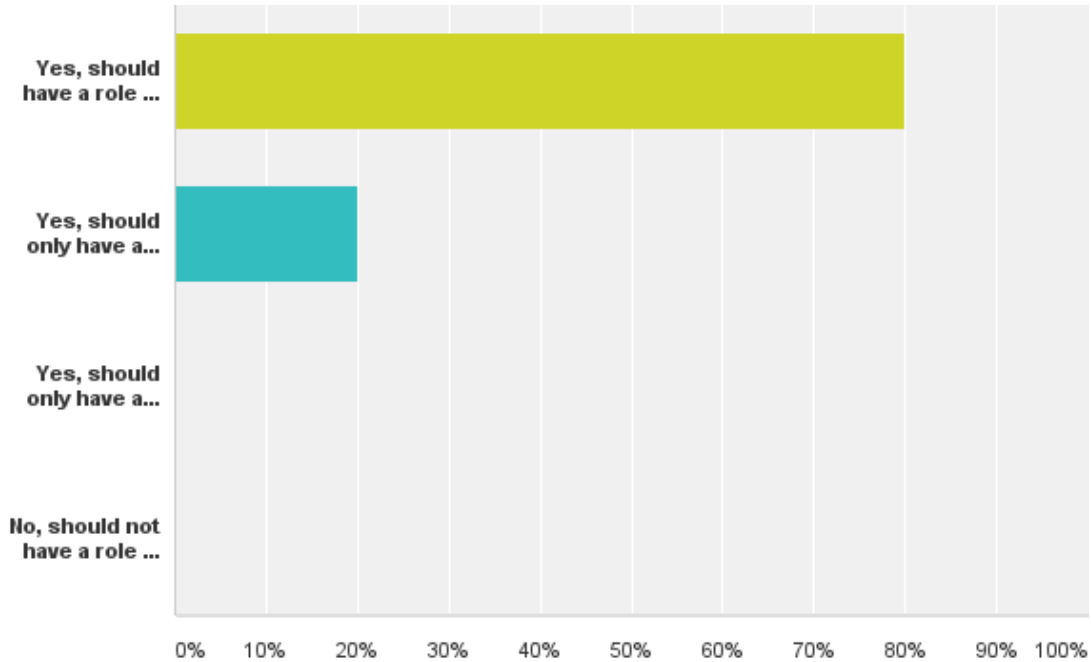
Best to include practitioners in discussions.

Enhance business continuity plan.

Appedix O

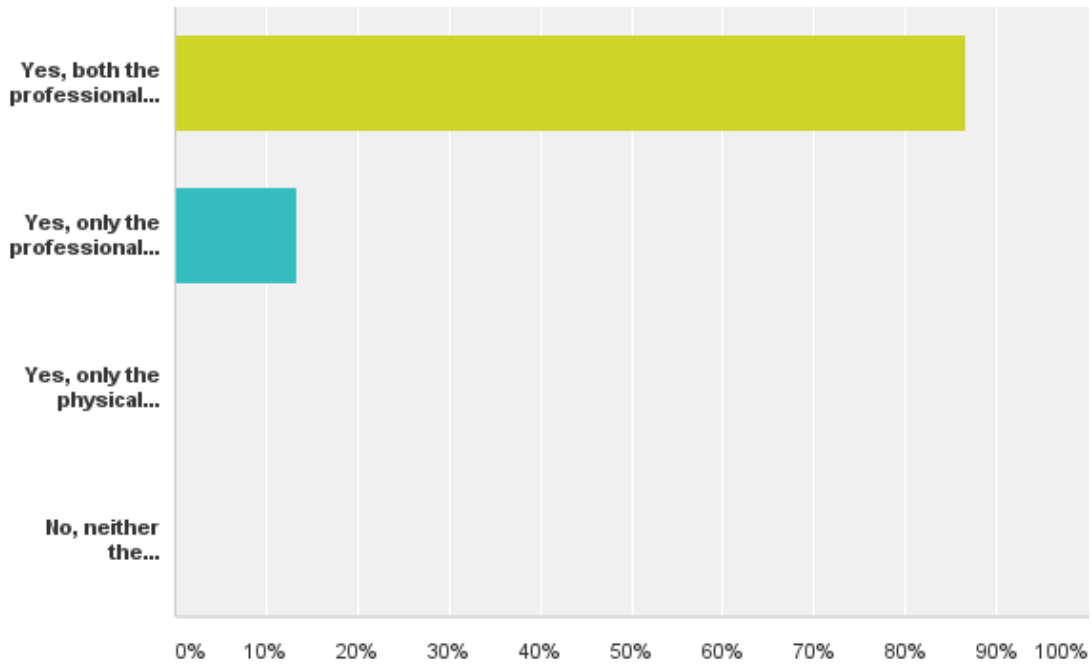
Fire Science and Safety Program Faculty Questionnaire Results

Q1. Do you feel that the Fire Science and Safety Program should have a role in campus emergency management planning and emergency response?



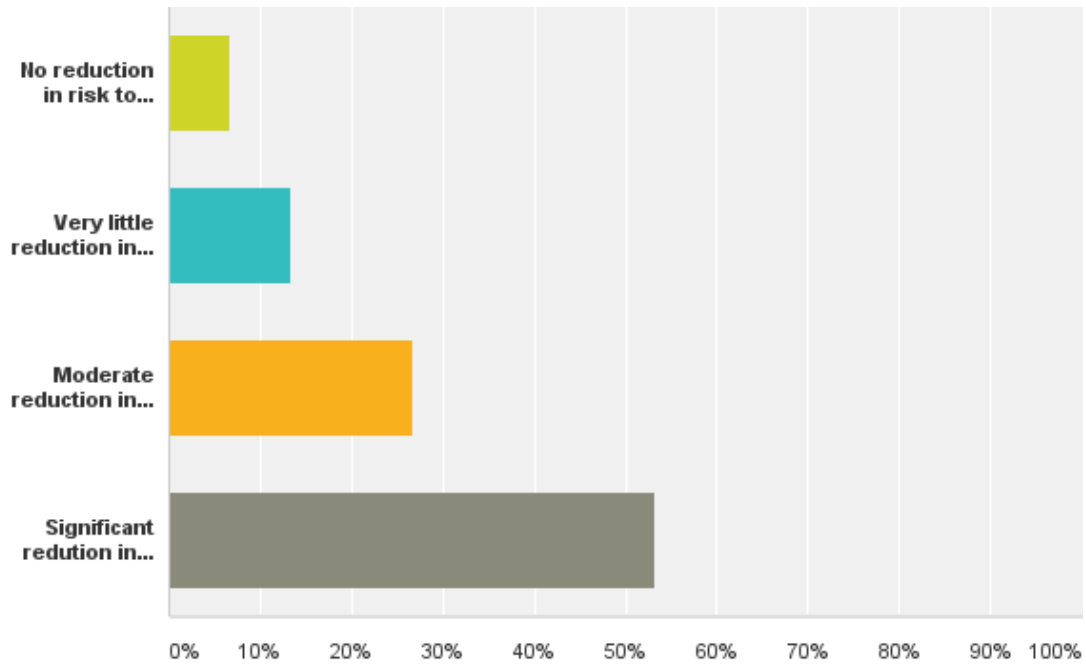
Answer Choices	Responses
Yes, should have a role in both campus emergency management planning and emergency response	80.00% 12
Yes, should only have a role in campus emergency management planning	20.00% 3
Yes, should only have a role in campus emergency response	0.00% 0
No, should not have a role in either.	0.00% 0
Total	15

Q2. Do you believe that the professional expertise and physical resources maintained by the Fire Science and Safety Program would be of value to the Emergency Management Administrator at Elgin Community College?



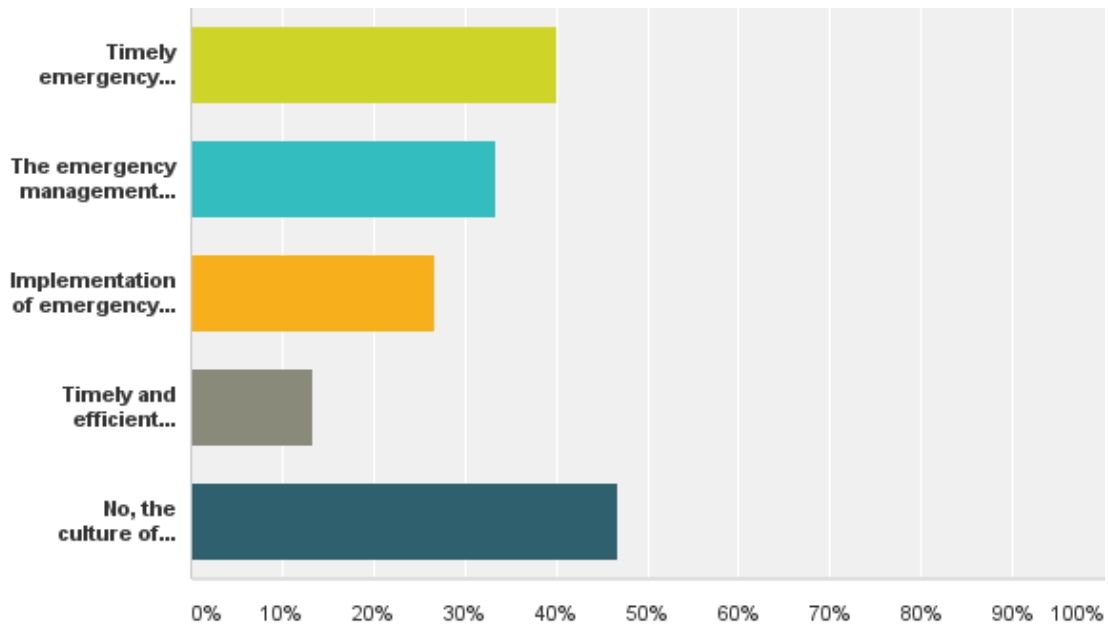
Answer Choices	Responses
Yes, both the professional expertise and physical resources would be of value to the Emergency Management Administrator at Elgin Community College.	86.67% 13
Yes, only the professional expertise would be of value to the Emergency Management Administrator at Elgin Community College.	13.33% 2
Yes, only the physical resources would be of value to the Emergency Management Administrator at Elgin Community College.	0.00% 0
No, neither the professional expertise nor the physical resources would be of value to the Emergency Management Administrator at Elgin Community College.	0.00% 0
Total	15

Q3. Do you believe that engaging the Fire Science and Safety Program in campus emergency management planning and emergency response would reduce the risk of injury or death to local firefighters responding to a request for emergency assistance at Elgin Community College District 509 main campus?



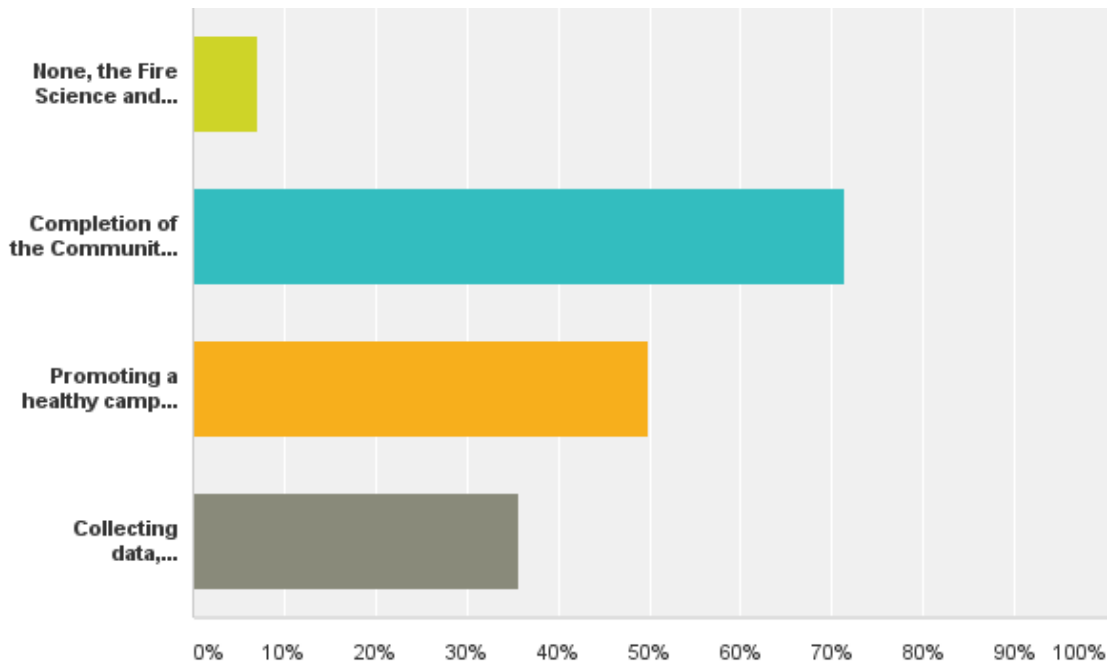
Answer Choices	Responses
No reduction in risk to firefighters.	6.67% 1
Very little reduction in risk to firefighters.	13.33% 2
Moderate reduction in risk to firefighters.	26.67% 4
Significant reduction in risk to firefighters.	53.33% 8
Total	15

Q4. Do you believe the culture of higher education is a barrier to any of the following emergency management initiatives?



Answer Choices	Responses
Timely emergency management decision making.	40.00% 6
The emergency management planning process.	33.33% 5
Implementation of emergency prevention/mitigation and preparedness initiatives.	26.67% 4
Timely and efficient emergency response.	13.33% 2
No, the culture of Higher Education is not a barrier to emergency management initiatives.	46.67% 7
Total Respondents: 15	

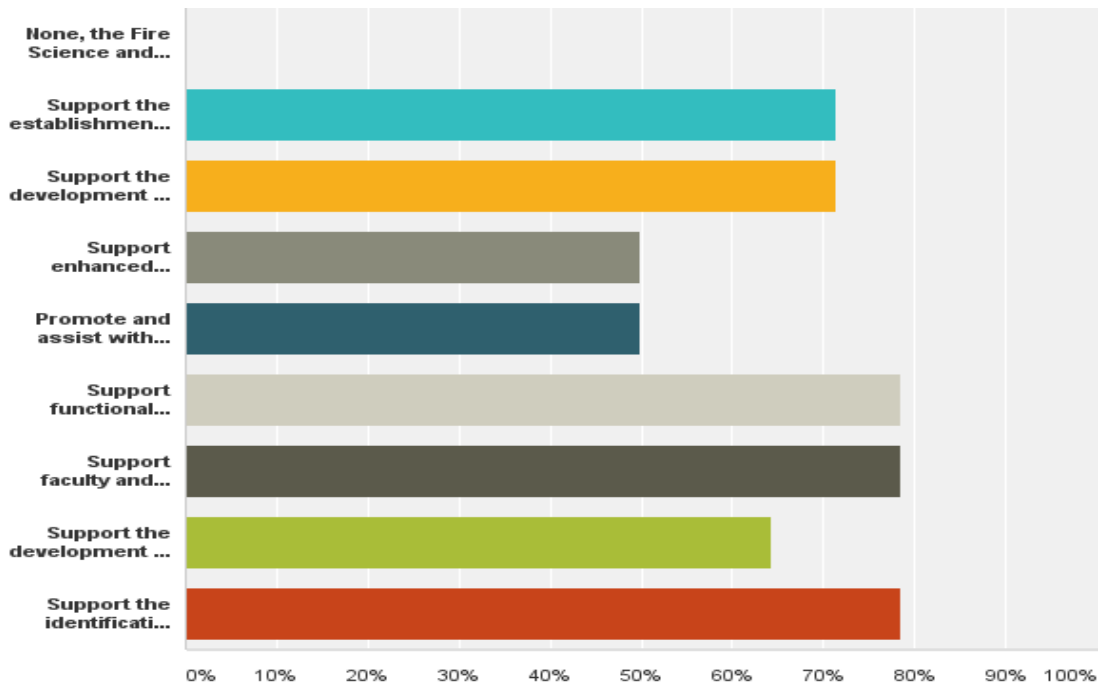
Q5. Which of the following prevention-mitigation initiatives do you believe the Fire Science and Safety Program could assist the Emergency Management Administrator with?



Answer Choices	Responses
None, the Fire Science and Safety Department should not have a role in Prevention/Mitigation initiatives.	7.14% 1
Completion of the Community Hazards Emergency Response-Capability Assurance Process (Vulnerability Assessment).	71.43% 10
Promoting a healthy campus culture of engagement, inclusion, respect, and collaboration.	50.00% 7
Collecting data, information, and research from other sources which supports emergency management initiatives.	35.71% 5
Total Respondents: 14	

Comments: I believe answers 2 through 4 could be of assistance to the Emergency Management Administrator.

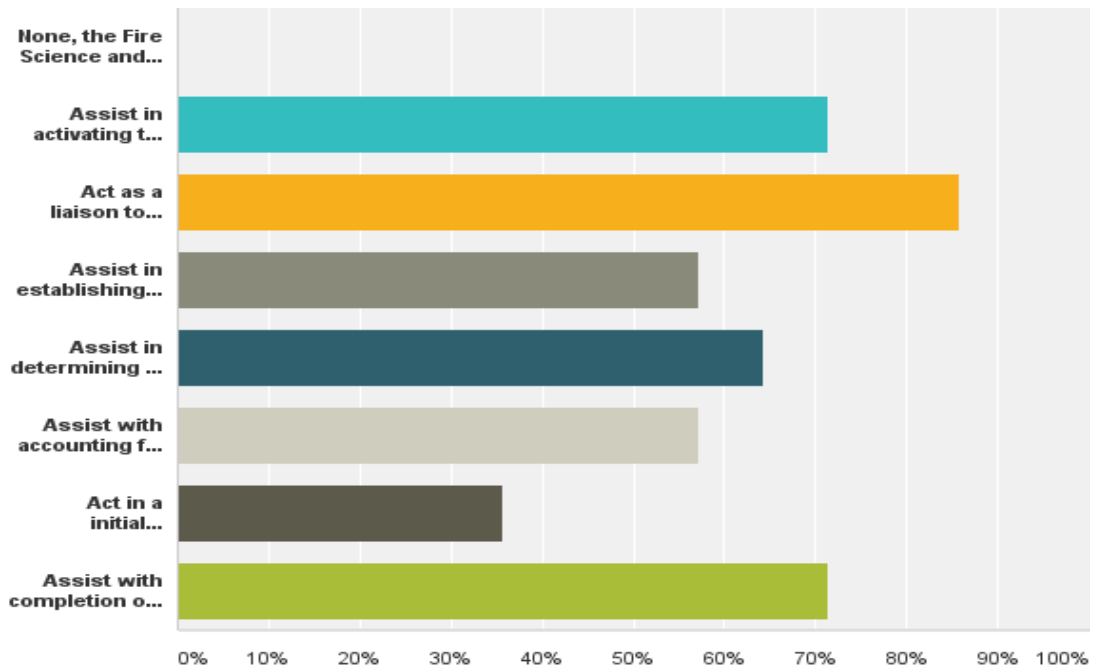
Q6. Which of the following preparedness initiatives do you believe the Fire Science and Safety Program could assist the Emergency Management Administrator with?



Answer Choices	Responses
None, the Fire Science and Safety Department should not have a role in Preparedness initiatives.	0.00% 0
Support the establishment of an Incident Command System consistant with local emergency response and/or the National Incident Management System.	71.43% 10
Support the development of all hazards policies and procedures.	71.43% 10
Support enhanced community collaboration through the development of defined mutual aid agreements.	50.00% 7
Promote and assist with Campus Citizens Emergency Response Team.	50.00% 7
Support functional exercises.	78.57% 11
Support faculty and staff training and professional development.	78.57% 11
Support the development of response protocols.	64.29% 9
Support the identification of thresholds for emergency response, evacuation, shelter in place, and lock down.	78.57% 11
Total Respondents: 14	

Comments: I believe the Fire Science and Safety Program could assist with answers 2 through 4.

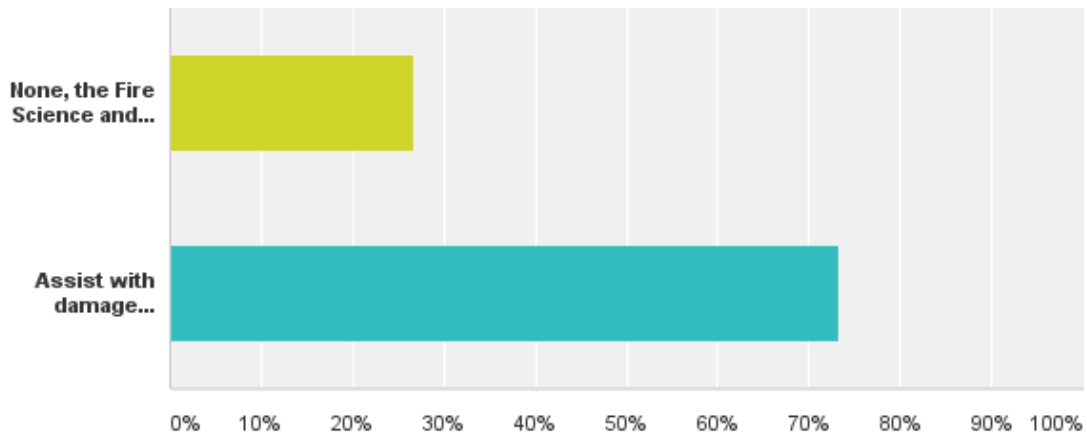
Q7. Which of the following response initiatives do you believe the Fire Science and Safety Program could assist the Emergency Management Administrator with?



Answer Choices	Responses
None, the Fire Science and Safety Department should not have a role in Emergency Response initiatives.	0.00% 0
Assist in activating the campus Incident Command System.	71.43% 10
Act as a liaison to emergency responders.	85.71% 12
Assist in establishing/opening an Emergency Operations Center.	57.14% 8
Assist in determining the appropriate response strategy.	64.29% 9
Assist with accounting for students, faculty, and staff.	57.14% 8
Act in a initial response capacity to requests for fire and emergency medical services on the main campus.	35.71% 5
Assist with completion of the After Action Report.	71.43% 10
Total Respondents: 14	

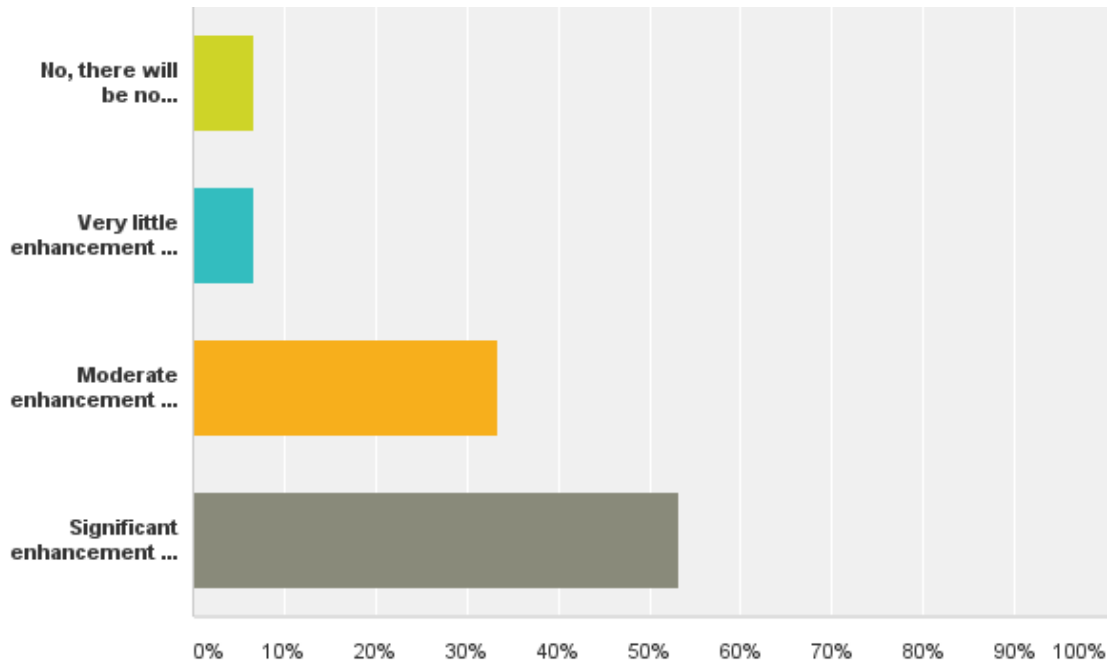
Comments: Answers 2 through 4.

Q8. Which of the following recovery initiatives do you believe the Fire Science and Safety Program could assist the Emergency Management Administrator with?



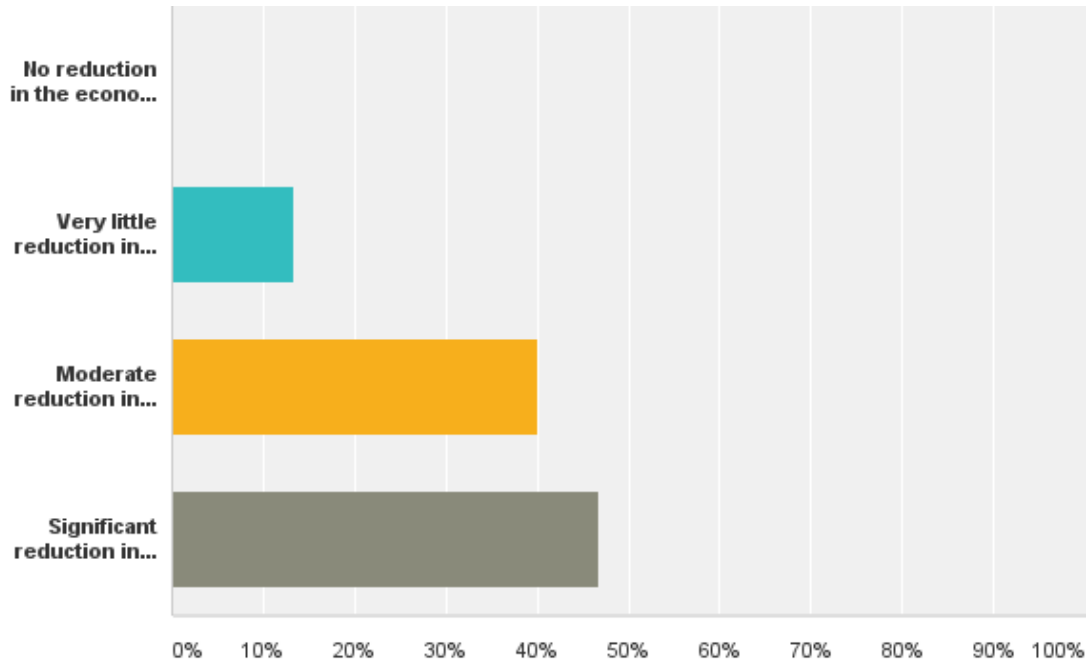
Answer Choices	Responses
None, the Fire Science and Safety Department should not have a role in Recovery initiatives.	26.67% 4
Assist with damage assessment (Damage Assessment Team).	73.33% 11
Total Respondents: 15	

Q9. Do you believe engaging the Fire Science and Safety Program in campus emergency management planning and emergency response will enhance regional all hazards disaster preparedness?



Answer Choices	Responses
No, there will be no enhancement of regional all hazards disaster preparedness.	6.67% 1
Very little enhancement of regional all hazards disaster preparedness.	6.67% 1
Moderate enhancement of regional all hazards disaster preparedness.	33.33% 5
Significant enhancement of regional all hazards disaster preparedness.	53.33% 8
Total	15

Q10. Do you believe engaging the Fire Science and Safety Program in campus emergency management planning and emergency response will limit the economic impact to the community from a disaster or major emergency occurring on the Elgin Community College District 509 main campus?



Answer Choices	Responses
No reduction in the economic impact to the community.	0.00% 0
Very little reduction in the economic impact to the community.	13.33% 2
Moderate reduction in the economic impact to the community.	40.00% 6
Significant reduction in the economic impact to the community.	46.67% 7
Total	15

Appendix P

Local Public Safety Leader Interview Results

Title: Fire Chief	Years Service: 31
Location of Interview: Phone	Date of Interview: 03-24-2015
Start Time: 3:30 pm	End Time: 4:00 pm
Educational Status: Masters Degree	EFO: Yes

Title: Emergency Manager	Years Service: 30 years
Location of Interview: Phone	Date of Interview: 03-25-2015
Start Time: 4:15 pm	End Time: 4:55 pm
Educational Status: Masters Degree	EFO: Familiar with program

Title: Police Commander	Years Service: 19 years
Location of Interview: Phone	Date of Interview: 03-30-2015
Start Time: 6:10 pm	End Time: 6:55pm
Educational Status: Masters Degree	EFO: Not familiar with program

Question 1

Do you expect/believe the Fire Science and Safety Program should have a role in campus emergency management planning and emergency response? If so, how and in what manner?

Yes.

Take advantage of expertise of faculty in this area.

There several faculty members that have earned the Executive Fire Officer designation.

Collaborative Emergency Management is most effective (not done in a silo).

May be involved in role as first responder secondary to faculty role.

Question 2

Do you expect/believe the professional expertise and physical resources maintained by the Fire Science and Safety Program would be of value to the Emergency Management Administrator at Elgin Community College for the purpose of campus emergency management planning and emergency response? If so, how and in what manner?

Yes, both should be used.

The principle benefit is access to many content area experts.

Once again, several Executive Fire Officers.

Significant level of experience and expertise within the faculty group.

To a lesser degree physical resources.

Need a complete inventory.

Would require trained faculty to operate physical assets (other college personnel would not be suited to operate this specialized equipment).

Question 3

Do you expect/believe that engaging the Fire Science and Safety Program in campus emergency management planning and emergency response would reduce the risk of injury or death to local firefighters responding to a request for emergency assistance at Elgin Community College District 509 main campus? If so, how and in what manner?

Yes.

Result in more complete emergency planning.

Plan based on practitioner insight.

Provide more practitioner insight into college facilities and operations.

Local first responders apply insight for increased operations efficiency, reduced risk.

Question 4

Do you expect/believe the culture of higher education could be a barrier to the implementation of emergency management initiatives? If so, how and in what manner?

Yes, Higher Education inherently provides barriers to what is considered “timely response” in emergency services.

Tends to make simple tasks more complex.

Many steps in long processes.

Many roles within the decision making process.

Difficult to transverse roles.

Structure supports/creates obstructions.

Question 5

Which, if any, campus prevention-mitigation initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

Provide feedback to Emergency Manager about facilities from a different perspective (the what if something happened in this building perspective)

The “what if” perspective is second nature for the fire service. (May not be normal mode of operation for emergency manager).

Risk assessment and required resources.

Provide more feedback for the prevention process.

Suggest best practices.

Identify fire hazards easily (one example).

Question 6

Which, if any, campus preparedness initiatives do expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

Training is one of the most important aspects of preparedness.

Train faculty/staff in emergency management procedures that are relative and within scope of Fire Science and Safety Program.

Help to develop an Incident Command System that is compatible with local emergency response agencies.

Question 7

Which, if any, campus response initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

Fire Science and Safety Program is ideally suited to implement the Incident Command System. However, what if not available (commuter campus)?

Direct connection with fire departments.

Difficult for Fire Science and Safety Program to act as formalized first responders (commuter campus).

Unknown availability of faculty is a significant challenge.

No established structure to function within.

Issues of scope of practice and oversight no easily resolved (duty to act).

Question 8

Which, if any, campus recovery initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

Yes.

This is the most realistic phase of emergency management for the Fire Science and Safety Program to be involved in.

Recovery is often overlooked.

Very important aspect of returning everything to normal.

Requires a broad based of knowledge to successfully complete. The Fire Science and Safety Program maintains this broad base of knowledge.

Question 9

Do you expect/believe engaging the Fire Science and Safety Program in campus emergency management planning and emergency response will enhance regional all hazards disaster preparedness? If so, how and in what manner?

Has a potential to significantly impact regional emergency preparedness.

The college is a significant community partner and very influential.

If the college Emergency Operations Plan is solid this may help others to plan better.

Could enhance communications and collaboration between organizations.

Could help to identify usable resources from various organizations within the community.

Question 10

Do you expect/believe engaging the Fire Science and Safety Department in campus emergency management planning and emergency response will limit the economic impact to the community from a disaster or major emergency occurring on the Elgin Community College District 509 main campus? If so, how and in what manner?

Yes!
 Absolutely!
 This is critically important to the villages.
 College is very large economic driver in the community.
 Planning helps to minimized impact and expedites the recovery process.
 Collaboration will lead to robust plan.
 All community stakeholders could be impacted.

Question 1

Do you expect/believe the Fire Science and Safety Program should have a role in campus emergency management planning and emergency response? If so, how and in what manner? If so, how and in what manner?

Yes, in emergency management planning.
 Yes, with respect to emergency response in an emergency management role.
 No, in regards to responding to 911 calls.
 Fire Science and Safety Program Faculty are of value in managing incidents.

Question 2

Do you expect/believe the professional expertise and physical resources maintained by the Fire Science and Safety Program would be of value to the Emergency Management Administrator at Elgin Community College for the purpose of campus emergency management planning and emergency response? If so, how and in what manner?

Yes, both would be of value.
 However, need internal policy and procedures to define and guide operations.
 Using faculty outside their defined role may be an issue.

Question 3

Do you expect/believe that engaging the Fire Science and Safety Program in campus emergency management planning and emergency response would reduce the risk of injury or death to local firefighters responding to a request for emergency assistance at Elgin Community College District 509 main campus? If so, how and in what manner?

Yes.
 Preplanning is the simplest and easiest example of reducing risk to firefighters.
 Planning:

- Increases knowledge of the building and processes
- Identifies hazards
- Enhances performance
- Reduces risk to firefighters

Planning for high risk low frequency events is another example.
 Paramedics/police officers are more efficient and safer if they known the layout of the college (active shooter is another example).

Question 4

Do you expect/believe the culture of Higher Education could be a barrier to the implementation of emergency management initiatives? If so, how and in what manner?

Yes.

Traditional/defined role of faculty is a barrier.

Contracts (Collective Bargaining Agreements) may limit the ability to engage and take action. Consider policy and procedures for suspending Collective Bargaining Agreement job description when a disaster is declared. Would provide a validated process for the Fire Science and Safety Program to assist in times of disaster.

College is a government body. President of the Board (college president) may have authority to declare a disaster on the campus.

Follow appropriate disaster declaration process may lead to FEMA reimbursement.

Question 5

Which, if any, campus prevention-mitigation initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

Yes, definitely!

Significant value in a robust emergency response plan (required to be on file with county Office of Emergency Management).

Planning should be from an all hazards perspective (not as difficult as it seems).

Addressing risk is the key.

Know what resources are needed and available (outside of community?).

Question 6

Which, if any, campus preparedness initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

Yes.

May be funding available from FEMA to assist with these activities (CCERT?).

Developing an Incident Command System is second nature to firefighters.

An all hazards approach is very important (emphasized by FEMA).

Functional exercises bring it all together.

Training/educating others is within the role of the Higher Education faculty role (ideal candidate).

Question 7

Which, if any, campus response initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

Yes, from the perspective of an advisory role in managing emergency incidents (disasters).

No, from the perspective of 911/emergency response (outside the defined job of a faculty member (liability/faculty safety/operational compliance issues).

Emergency 911 responses may best be suited for municipal fire department.
 Need comprehensive plan, including response procedures and policy (extremely important to FEMA).
 Without a comprehensive emergency operations plan and accurate paperwork completion may not be able to receive FEMA reimbursement assistance.
 Completing documentation correctly is required by FEMA for reimbursement.
 Example: pay scale and overtime rates must be identified in policy in order to receive FEMA reimbursement.
 Administrators should be fully informed on a role in emergency incident management so that they can determine the level of involvement of the Fire Science and Safety Program.
 Fire Science and Safety Program may be better suited for an advisory role.

Question 8

Which, if any, campus recovery initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

Yes.
 May be easily accomplished.
 From FEMA perspective focus of 4 levels (occupy/non-occupy/moderate damage/heavy damage).
 Some basic training is required.
 FEMA is looking for documentation of damage.
 Diverse team works best/most efficient.

Question 9

Do you expect/believe engaging the Fire Science and Safety Program in campus emergency management planning and emergency response will enhance regional all hazards disaster preparedness? If so, how and in what manner?

Absolutely.
 Will easily plant the seed of preparedness in members of the community, faculty, administrators, staff, and students to take back in the community (impacting community culture of preparedness).
 Easy and cost effective way to engage the community in preparedness education (FEMA "Are You Prepared Campaign").
 Collaborate with community partners.
 College could model the way.
 College has access/reaches cross-section of the community.

Question 10

Do you expect/believe engaging the Fire Science and Safety Department in campus emergency management planning and emergency response will limit the economic impact to the community from a disaster or major emergency occurring on the Elgin Community College District 509 main campus? If so, how and in what manner?

Yes/Absolutely

Proper fiduciary actions/responsibility for college administrators.
 College is a significant contributor to local economy and business viability.
 This collaborative endeavor will help the college to return to normal operations in an expeditious manner (relative to the level of disaster).
 If the process is followed correctly FEMA may be able to provide assistance.
 Professionals (community members/faculty) willing to assist.
 Will help to decrease burden on taxpayers.
 Requires commitment from college administration.

Question 1

Do you expect/believe the Fire Science and Safety Program should have a role in campus emergency management planning and emergency response? If so, how and in what manner?

Yes.
 Not in an emergency response role.
 Need extensive collaboration in emergency preparedness.
 Fire Science can help everyone speak the same language.
 Define communications methods.
 Help with training.
 Help to develop common plan.

Question 2

Do you expect/believe the professional expertise and physical resources maintained by the Fire Science and Safety Program would be of value to the Emergency Management Administrator at Elgin Community College for the purpose of campus emergency management planning and emergency response? If so, how and in what manner?

Yes.
 Both represent on campus resources.
 Represents a qualified pool of people to help with the processes and response.
 Fire Science has significant practical application in this area (CPR/Fire Codes).
 Greater chance of applying the practical skills being taught.
 Fire Science faculty (and possibly students who are trained firefighters) are able to take immediate action.

Question 3

Do you expect/believe that engaging the Fire Science and Safety Program in campus emergency management planning and emergency response would reduce the risk of injury or death to local firefighters responding to a request for emergency assistance at Elgin Community College District 509 main campus? If so, how and in what manner?

Yes.
 Preplanning is key to efficient operations.
 Active practitioners are of significant value.

Increased knowledge, information, and familiarity reduce risk to first responders.
--

Question 4

Do you expect/believe the culture of higher education could be a barrier to the implementation of emergency management initiatives? If so, how and in what manner?

<p>No, not in an organizational procedure sense.</p> <p>Yes from the perspective of lack of preparedness and awareness.</p> <p>The “what if” is not a normal mind set for academics.</p> <p>Academia may not be informed of the risk/hazards.</p> <p>More training and awareness is needed.</p> <p>Emergency preparedness may not be their mind set.</p>
--

Question 5

Which, if any, campus prevention-mitigation initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

<p>Yes.</p> <p>Preplanning/assessment would be a great role.</p> <p>Preplanning is an essential element for emergency responders.</p> <p>Assessment of risk and response capability.</p>
--

Question 6

Which, if any, campus preparedness initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?
--

<p>Definitely.</p> <p>Training would be a perfect role for Fire Science.</p> <p>Helping with the Incident Command System is another (ability to speak the same language is critical).</p> <p>Help with functional exercises (It is what the fire service does, train/evaluate.).</p>
--

Question 7

Which, if any, campus response initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?
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<p>Liaison is probably the best role.</p> <p>Fire Science is composed of active firefighters.</p> <p>Helping to plan for large events on campus (emergency preparedness).</p> <p>Need to identify what role faculty play (as a firefighter or faculty).</p> <p>Will need a written document on procedures.</p>
--

Question 8

Which, if any, campus recovery initiatives do you expect/believe the Fire Science and Safety Program could assist the Emergency Management Administrator with? How?

No.

Not sure if available at this point in incident.

Better for college administration to complete.

Risk management department from college will probably guide this process.

College building maintenance department involved.

Question 9

Do you expect/believe engaging the Fire Science and Safety Program in campus emergency management planning and emergency response will enhance regional all hazards disaster preparedness? If so, how and in what manner?

Yes.

Help identify resources available.

Should get other organizations engaged in preparedness.

Need to work together.

Larger incidents will bring more responders.

Need to speak same language.

Question 10

Do you expect/believe engaging the Fire Science and Safety Program in campus emergency management planning and emergency response will limit the economic impact to the community from a disaster or major emergency occurring on the Elgin Community College District 509 main campus? If so, how and in what manner?

Maybe.

Concerns regarding what role the faculty would play (firefighter or college employee?).

Who pays their salary?

What if someone gets hurt?

Who is responsible?

What about liability?

What job description would apply (need to work within the guidelines).

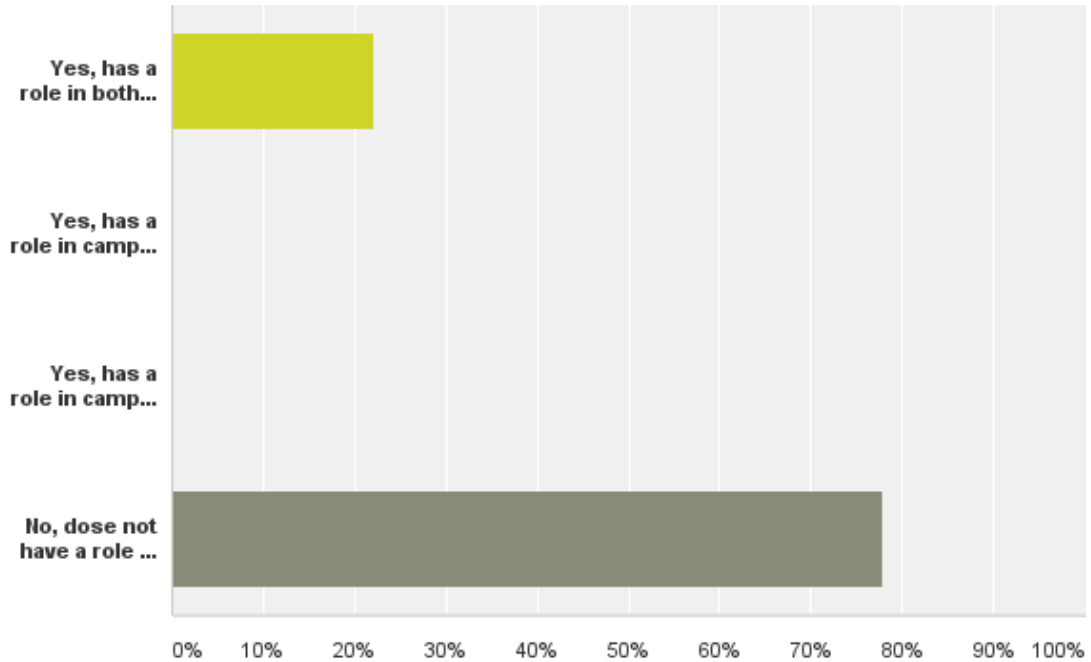
Believe comprehensive procedures would need to be developed to define/answer concerns.

Should work on this.

Appendix Q

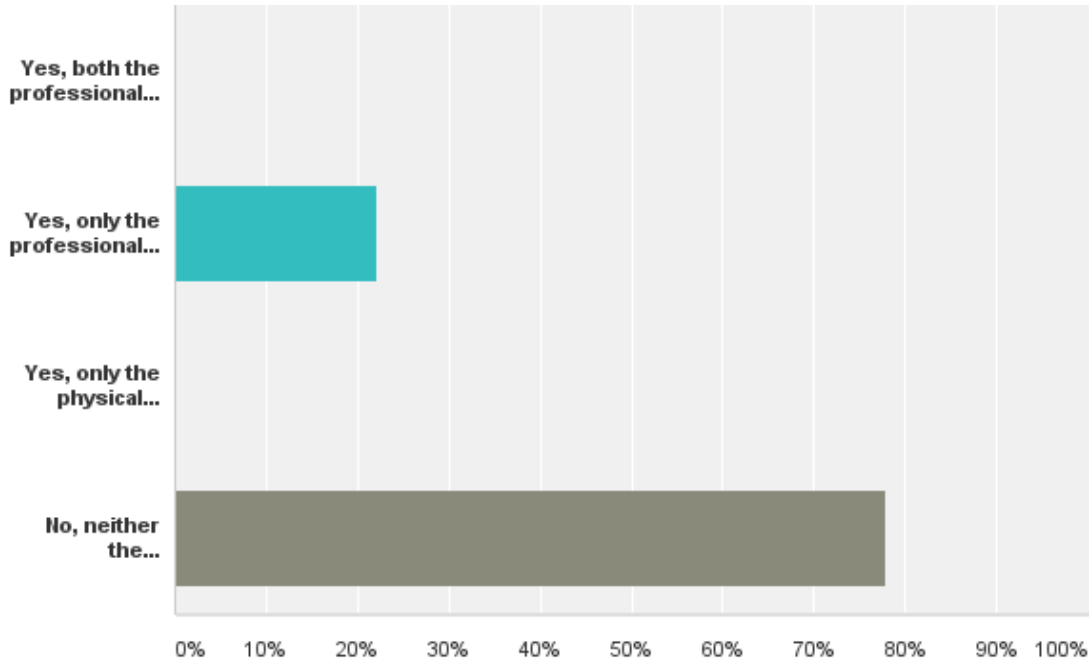
Local Community College Questionnaire Results

Q1: Does the fire science program at your institution have a role in campus emergency management planning and emergency response?



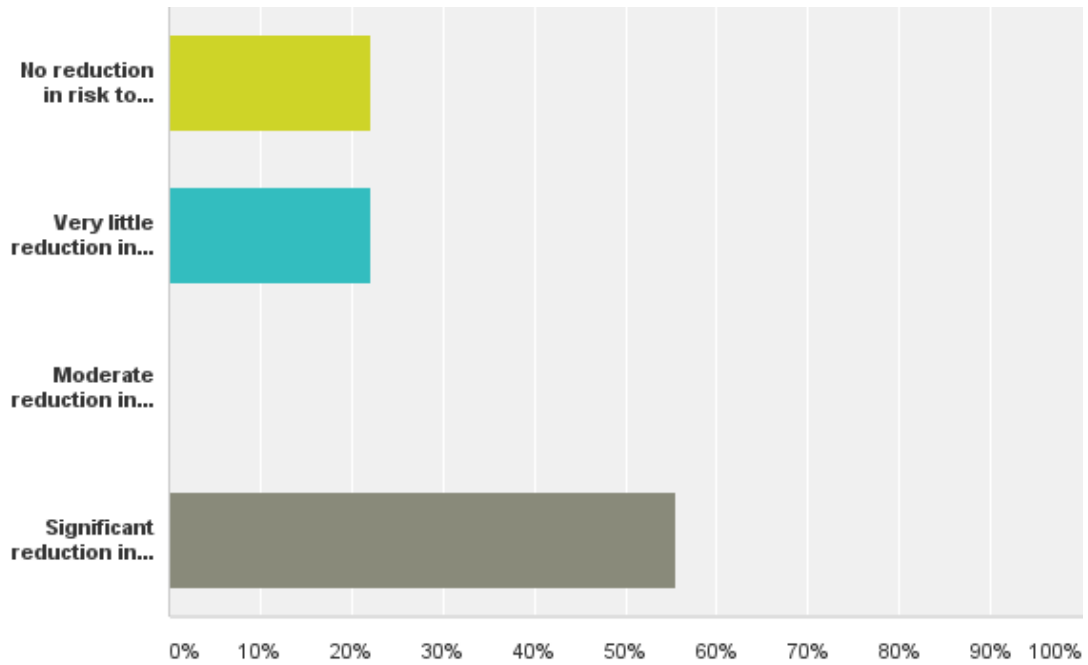
Answer Choices	Responses
Yes, has a role in both campus emergency management planning and emergency response	22.22% 2
Yes, has a role in campus emergency management planning	0.00% 0
Yes, has a role in campus emergency response	0.00% 0
No, dose not have a role in either.	77.78% 7
Total	9

Q2: Does the emergency management administrator at your institution utilize the professional expertise and physical resources maintained by the fire science program you represent in campus emergency planning and emergency response?



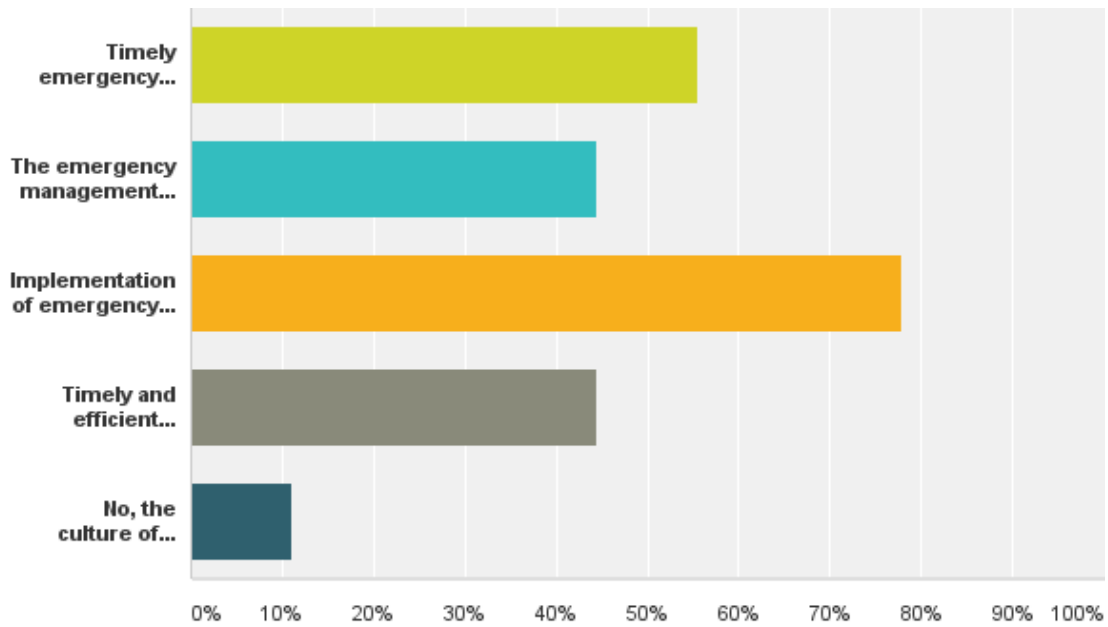
Answer Choices	Responses
Yes, both the professional expertise and physical resources are utilized by the institutions emergency management administrator.	0.00% 0
Yes, only the professional expertise is utilized by the institutions emergency management administrator.	22.22% 2
Yes, only the physical resources are used by the emergency management administrator.	0.00% 0
No, neither the professional expertise nor the physical resources are utilized by the emergency management administrator.	77.78% 7
Total	9

Q3: Do you believe that engaging the fire science program you represent in campus emergency management planning and emergency response would reduce the risk of injury or death to local firefighters responding to a request for emergency assistance at your institution?



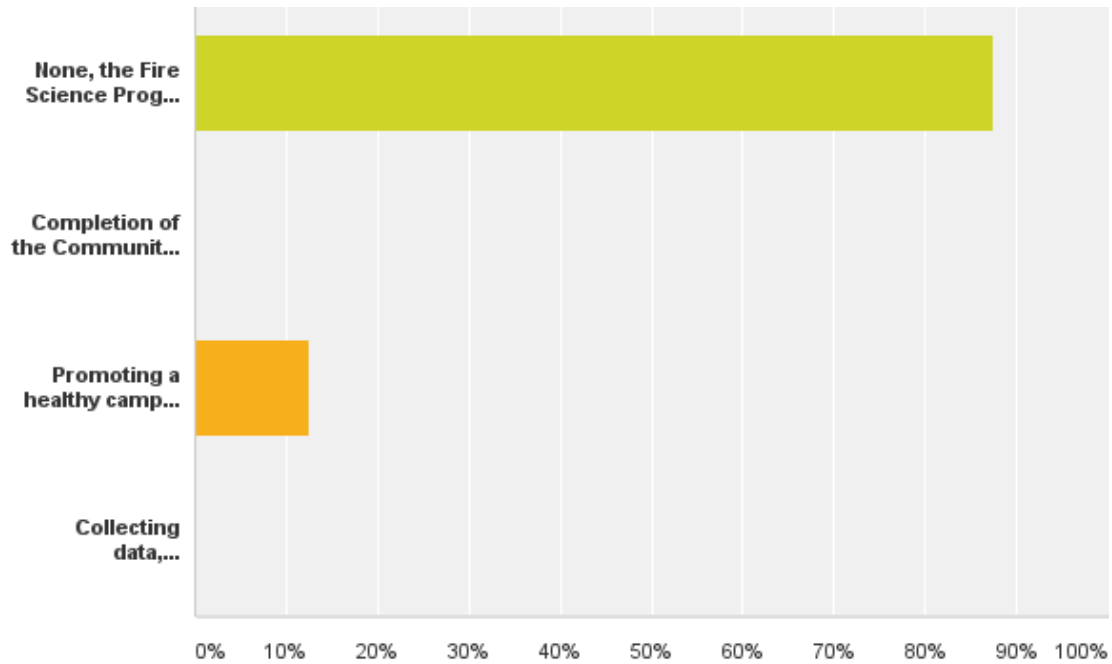
Answer Choices	Responses
No reduction in risk to firefighters.	22.22% 2
Very little reduction in risk to firefighters.	22.22% 2
Moderate reduction in risk to firefighters.	0.00% 0
Significant reduction in risk to firefighters.	55.56% 5
Total	9

Q4: Do you believe the culture of higher education is a barrier to any of the following emergency management initiatives?



Answer Choices	Responses
Timely emergency management decision making.	55.56% 5
The emergency management planning process.	44.44% 4
Implementation of emergency prevention/mitigation and preparedness initiatives.	77.78% 7
Timely and efficient emergency response.	44.44% 4
No, the culture of Higher Education is not a barrier to emergency management initiatives.	11.11% 1
Total Respondents: 9	

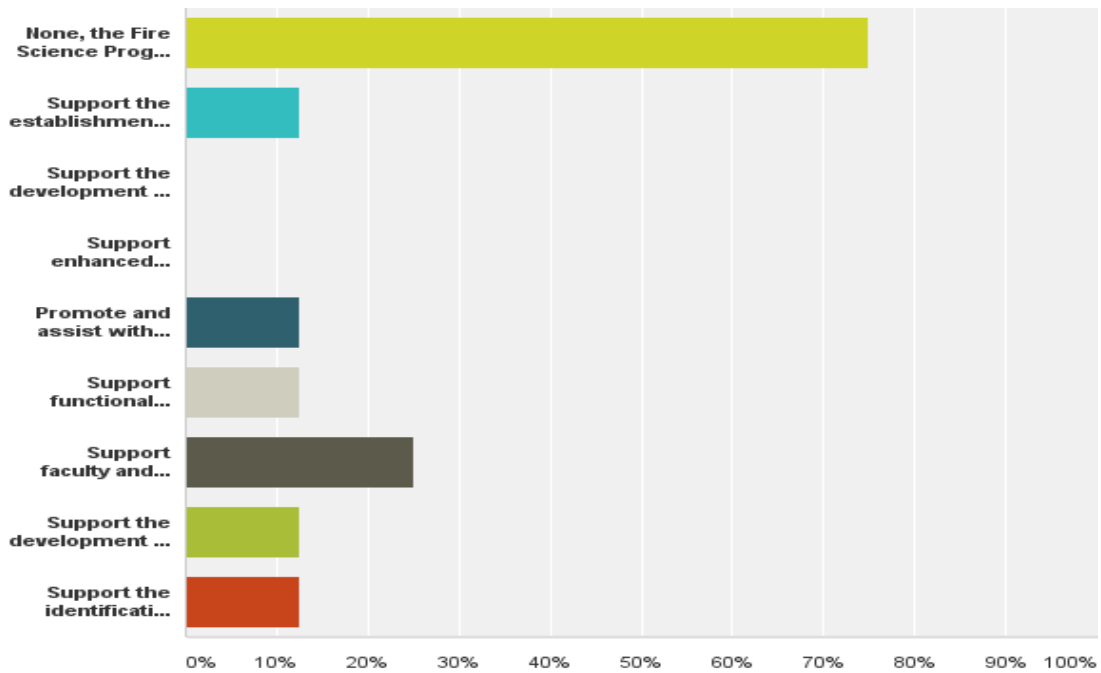
Q5: Which of the following campus prevention-mitigation initiatives does the fire science program you represent assist the institutions emergency management administrator with?



Answer Choices	Responses
None, the Fire Science Program dose not have a role in campus Prevention/Mitigation initiatives.	87.50% 7
Completion of the Community Hazards Emergency Response-Capability Assurance Process (Vulnerability Assessment).	0.00% 0
Promoting a healthy campus culture of engagement, inclusion, respect, and collaboration.	12.50% 1
Collecting data, information, and research from other sources which supports emergency management initiatives.	0.00% 0
Total Respondents: 8	

Comment: Some initiatives

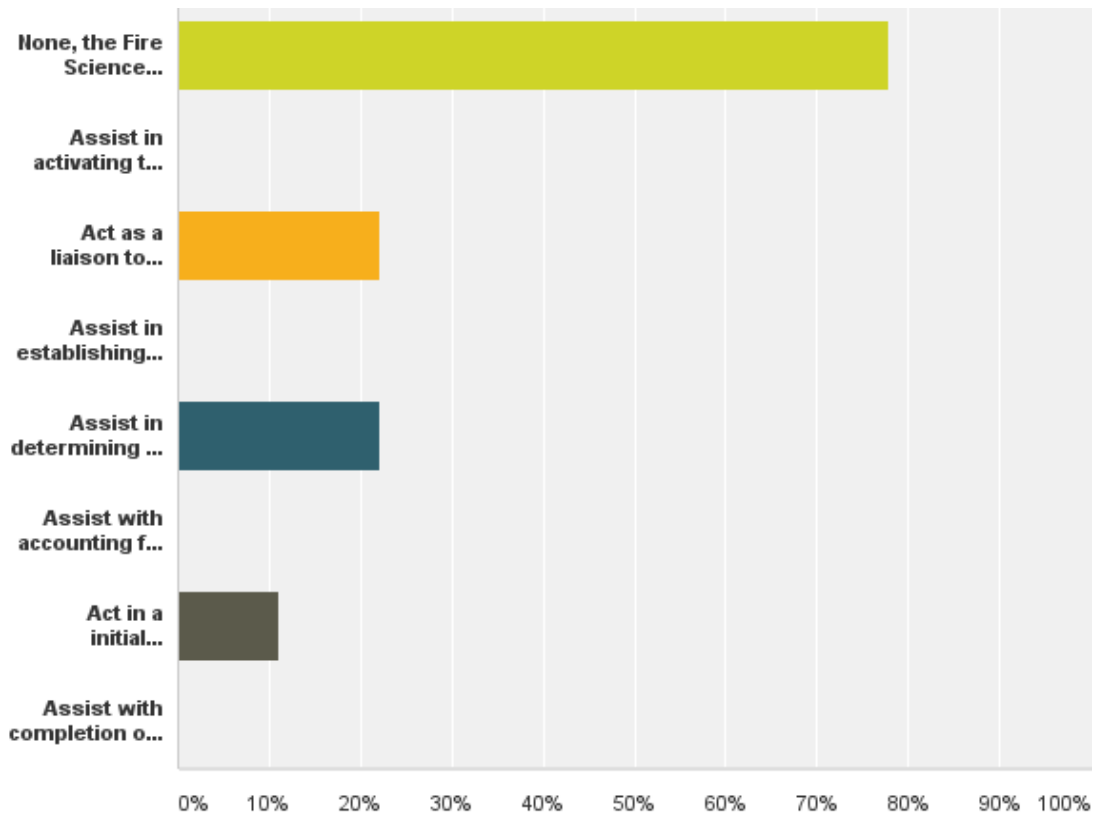
Q6: Which of the following campus preparedness initiatives does the fire science program you represent assist the emergency management administrator with?



Answer Choices	Responses
None, the Fire Science Program dose not have a role in campus Preparedness initiatives.	75.00% 6
Support the establishment of an Incident Command System consistent with local emergency response agencies and/or the National Incident Management System.	12.50% 1
Support the development of all hazards policies and procedures.	0.00% 0
Support enhanced community collaboration through the development of defined mutual aid agreements.	0.00% 0
Promote and assist with Campus Citizens Emergency Response Team.	12.50% 1
Support functional exercises.	12.50% 1
Support faculty and staff training and professional development.	25.00% 2
Support the development of response protocols.	12.50% 1
Support the identification of thresholds for emergency response, evacuation, shelter in place, and lock down.	12.50% 1
Total Respondents: 8	

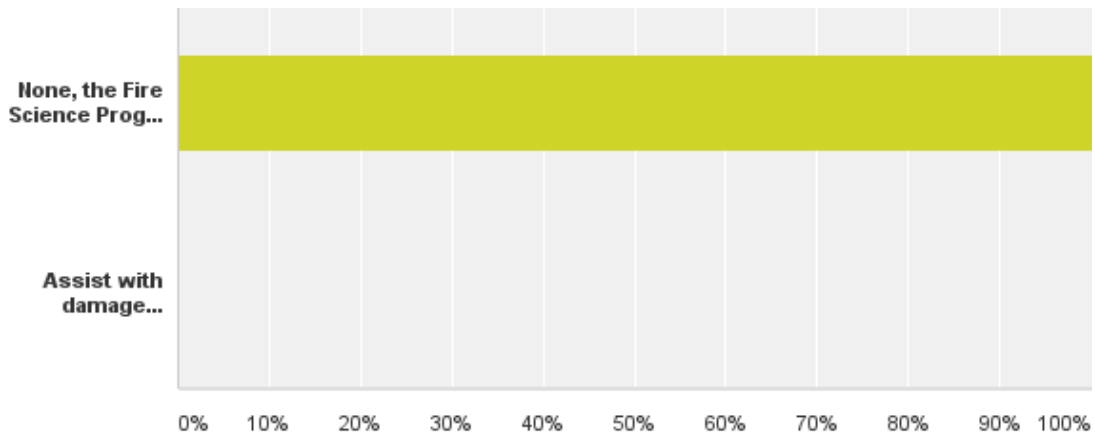
Comment: Some initiatives

Q7: Which of the following campus response initiatives does the fire science program you represent assist the emergency management administrator with?



Answer Choices	Responses
None, the Fire Science Department dose not have a role in Emergency Response initiatives.	77.78% 7
Assist in activating the campus Incident Command System.	0.00% 0
Act as a liaison to emergency responders.	22.22% 2
Assist in establishing/opening an Emergency Operations Center.	0.00% 0
Assist in determining the appropriate response strategy.	22.22% 2
Assist with accounting for students, faculty, and staff.	0.00% 0
Act in a initial response capacity to requests for fire and emergency medical services on the main campus.	11.11% 1
Assist with completion of the After Action Report.	0.00% 0
Total Respondents: 9	

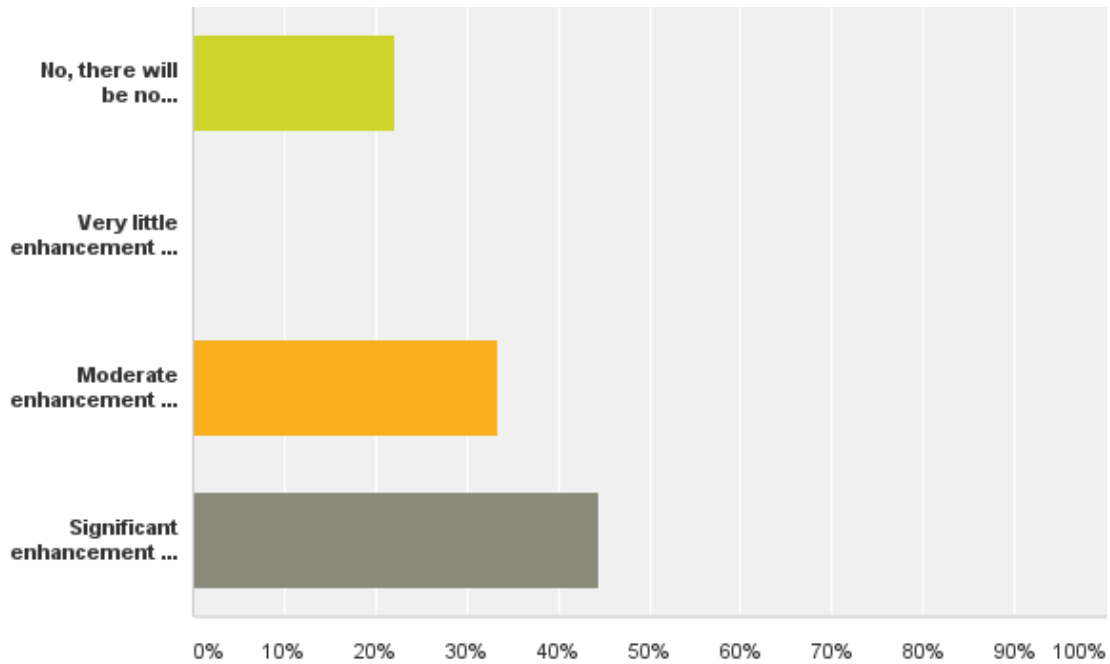
Q8: Which of the following campus recovery initiatives does the fire science program you represent assist the emergency management administrator with?



Answer Choices	Responses
None, the Fire Science Program dose not have a role in campus Recovery initiatives.	100.00% 8
Assist with damage assessment (Damage Assessment Team).	0.00% 0
Total Respondents: 8	

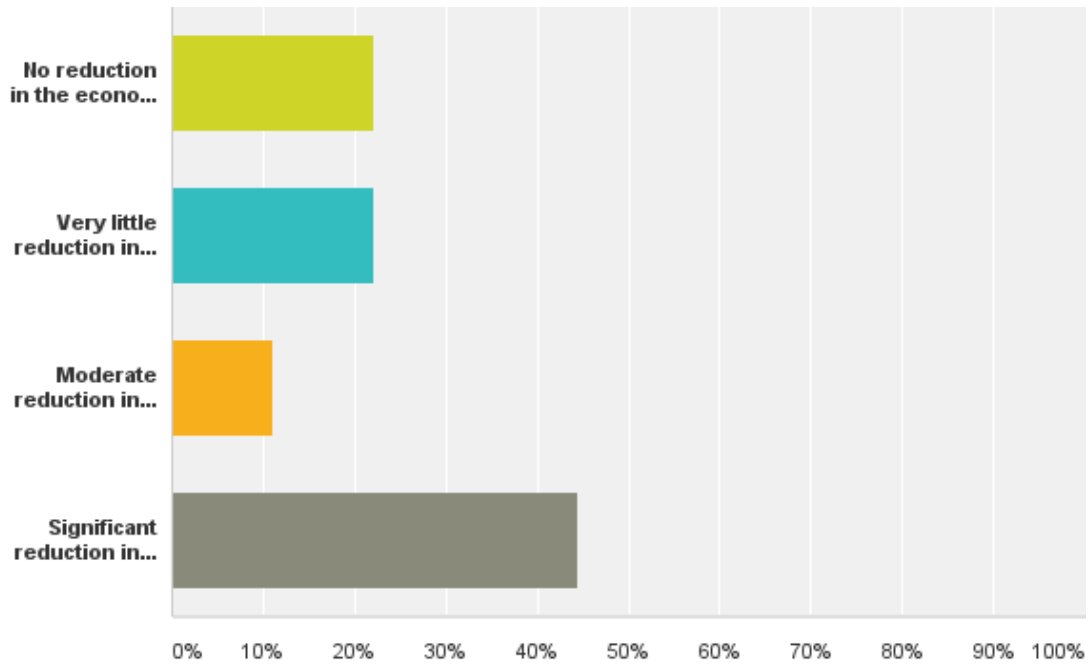
Comment: Some initiatives

Q9: Do you believe engaging the fire science program you represent in campus emergency management planning and emergency response will enhance regional all hazards disaster preparedness?



Answer Choices	Responses
No, there will be no enhancement of regional all hazards disaster preparedness.	22.22% 2
Very little enhancement of regional all hazards disaster preparedness.	0.00% 0
Moderate enhancement of regional all hazards disaster preparedness.	33.33% 3
Significant enhancement of regional all hazards disaster preparedness.	44.44% 4
Total	9

Q10: Do you believe engaging the fire science program you represent in campus emergency management planning and emergency response will limit the economic impact to the community from a disaster or major emergency occurring on the campus of your institution?

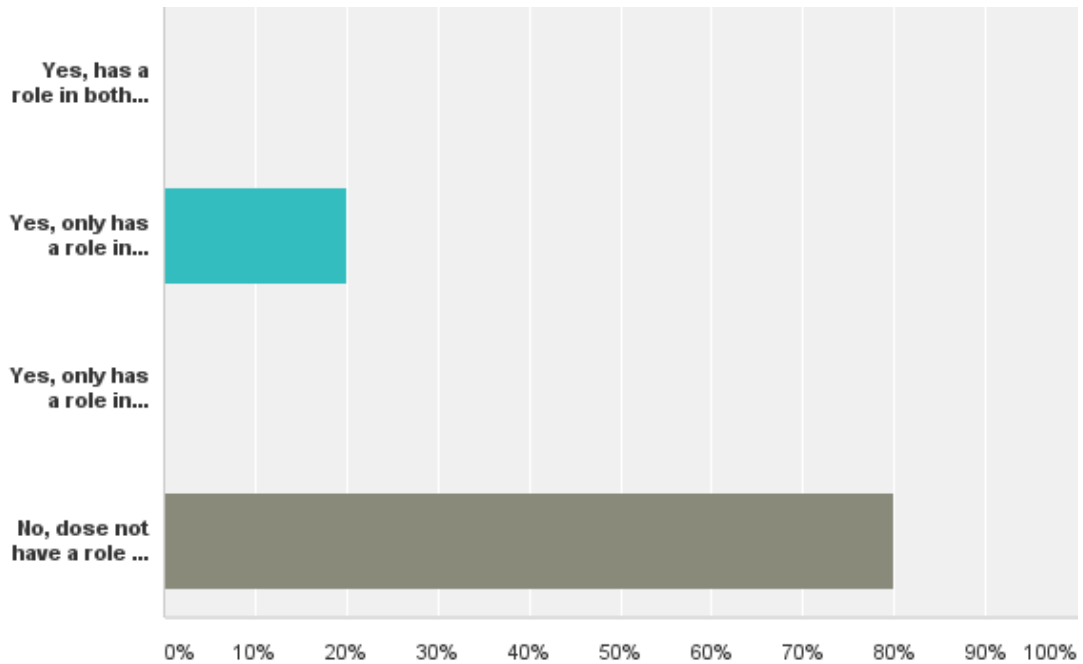


Answer Choices	Responses
No reduction in the economic impact to the community.	22.22% 2
Very little reduction in the economic impact to the community.	22.22% 2
Moderate reduction in the economic impact to the community.	11.11% 1
Significant reduction in the economic impact to the community.	44.44% 4
Total	9

Appendix R

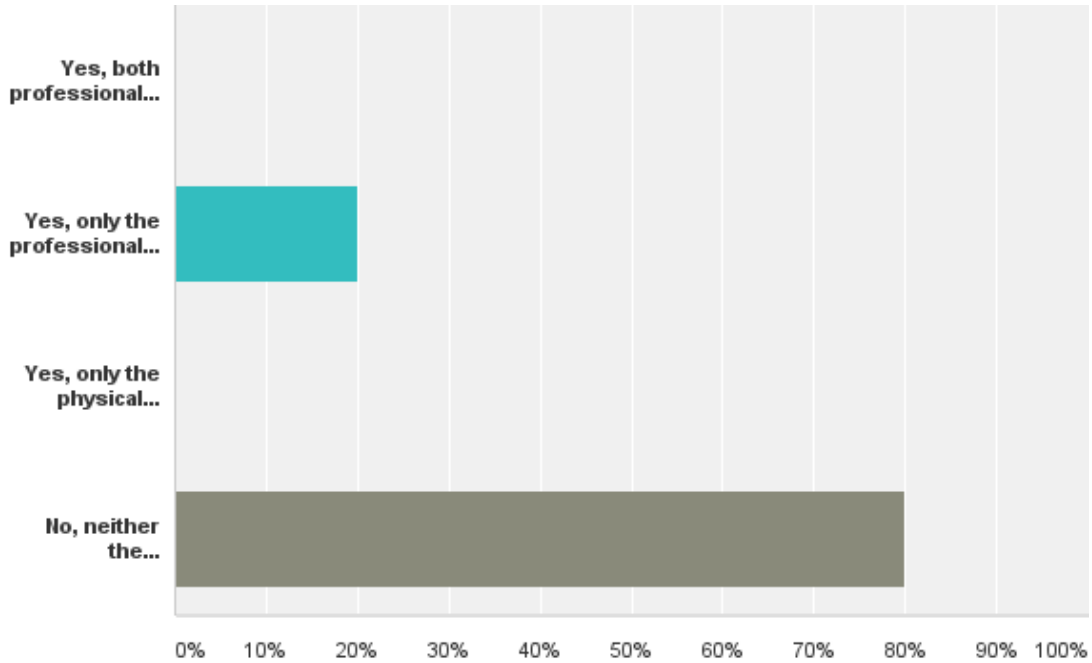
Regional Community College Questionnaire Results

Q1: Does the fire science program you represent have a role in campus emergency management planning and emergency response?



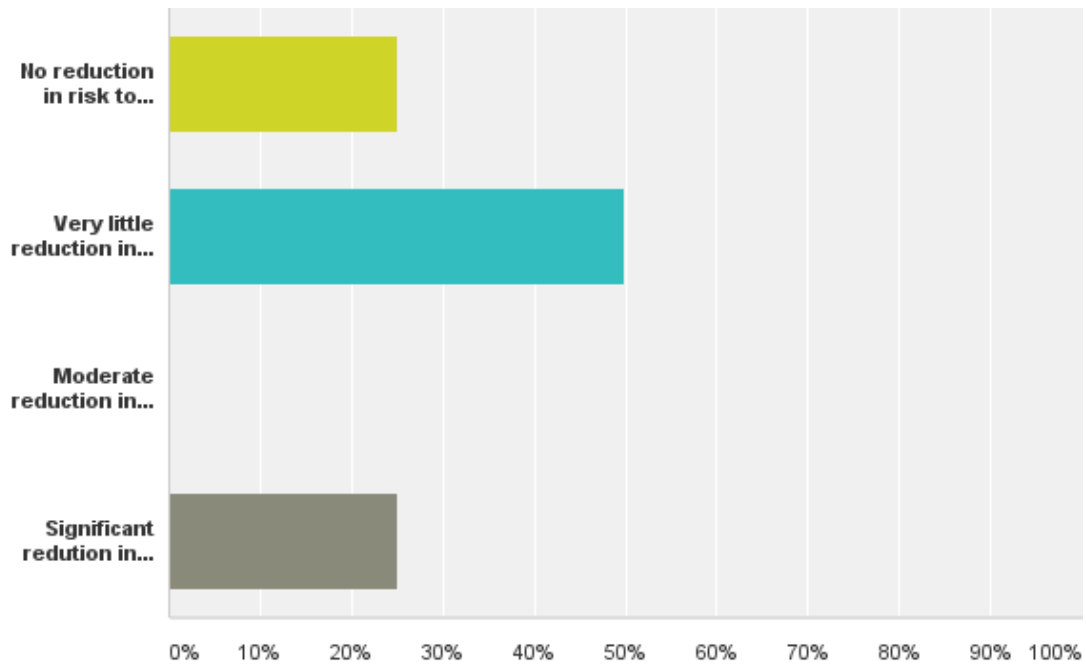
Answer Choices	Responses
Yes, has a role in both campus emergency management planning and emergency response	0.00% 0
Yes, only has a role in campus emergency management planning	20.00% 1
Yes, only has a role in campus emergency response	0.00% 0
No, dose not have a role in either.	80.00% 4
Total	5

Q2: Does the emergency management administrator at your institution utilize the professional expertise and physical resources maintained by the fire science program you represent in campus emergency planning and emergency response?



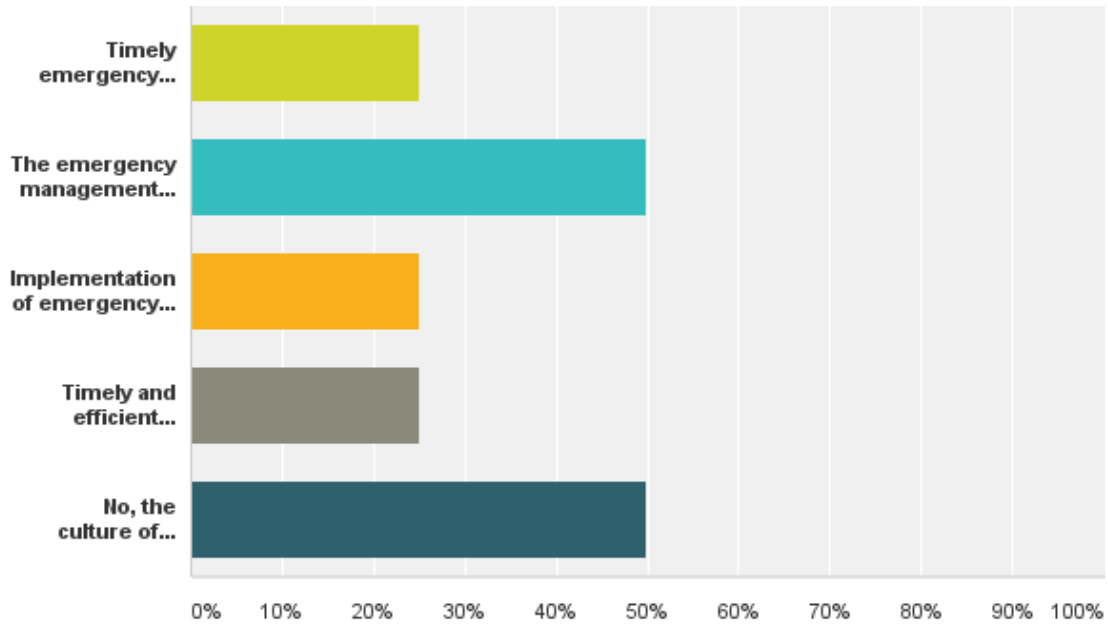
Answer Choices	Responses
Yes, both professional expertise and physical resources are utilized.	0.00% 0
Yes, only the professional expertise are utilized.	20.00% 1
Yes, only the physical resources are utilized.	0.00% 0
No, neither the professional expertise nor the physical resources are utilized.	80.00% 4
Total	5

Q3: Do you believe that engaging the fire science program you represent in campus emergency management planning and emergency response would reduce the risk of injury or death to local firefighters responding to a request for emergency assistance at your institution?



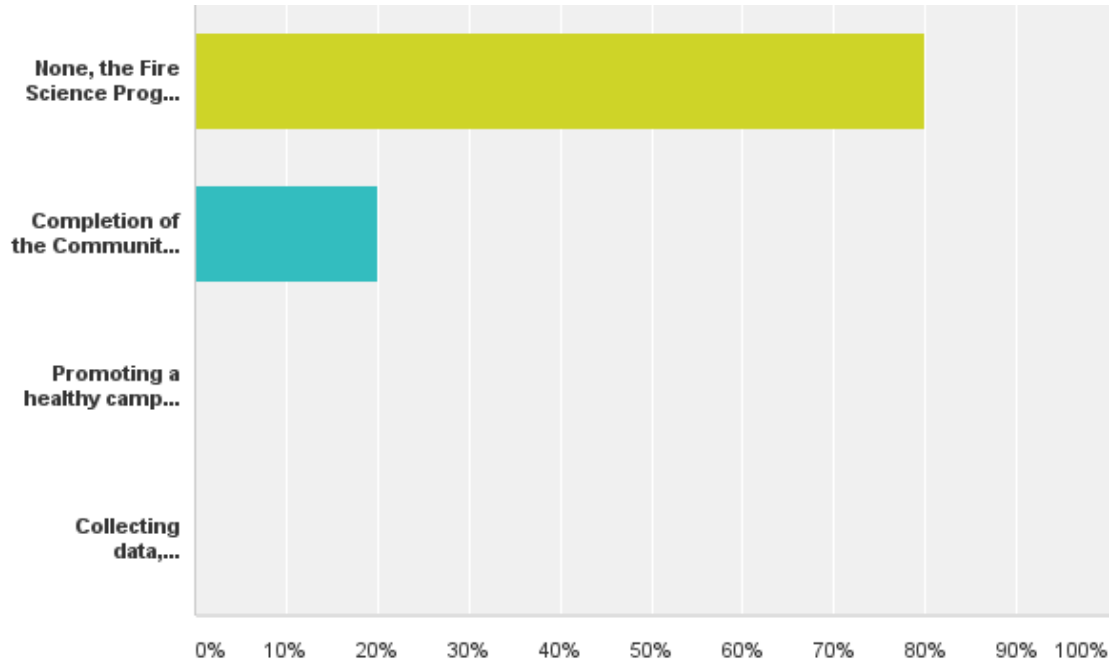
Answer Choices	Responses
No reduction in risk to firefighters.	25.00% 1
Very little reduction in risk to firefighters.	50.00% 2
Moderate reduction in risk to firefighters.	0.00% 0
Significant reduction in risk to firefighters.	25.00% 1
Total	4

Q4: Do you believe the culture of higher education is a barrier to any of the following emergency management initiatives?



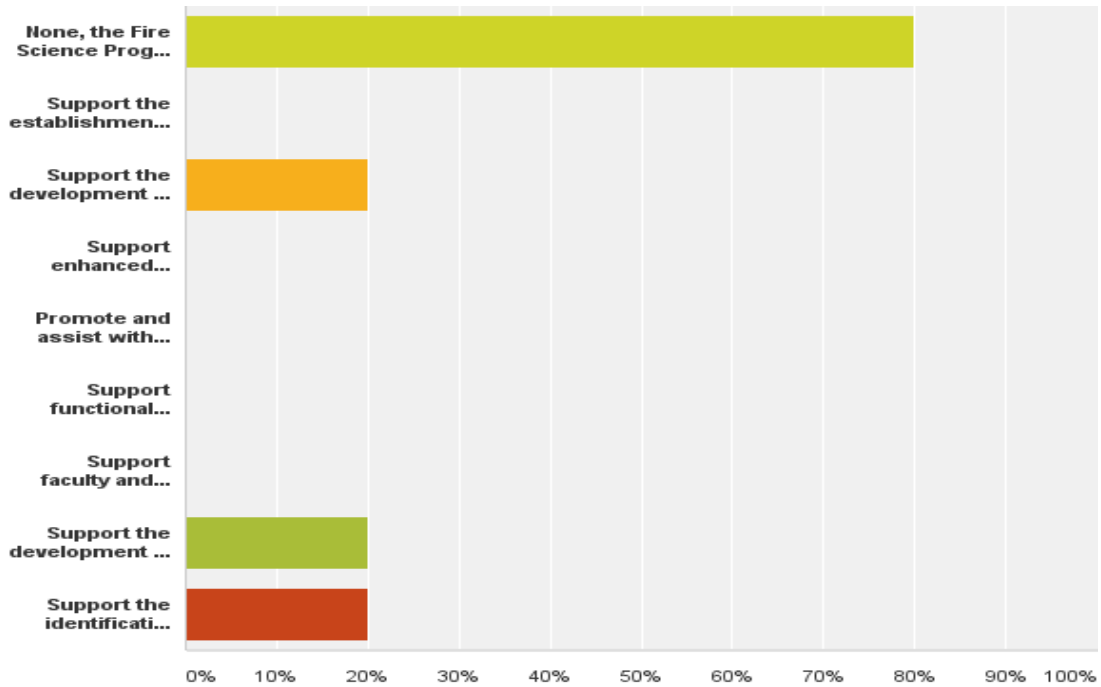
Answer Choices	Responses
Timely emergency management decision making.	25.00% 1
The emergency management planning process.	50.00% 2
Implementation of emergency prevention/mitigation and preparedness initiatives.	25.00% 1
Timely and efficient emergency response.	25.00% 1
No, the culture of Higher Education is not a barrier to emergency management initiatives.	50.00% 2
Total Respondents: 4	

Q5. Which of the following campus prevention-mitigation initiatives does the fire science program you represent assist the institutions emergency management administrator with?



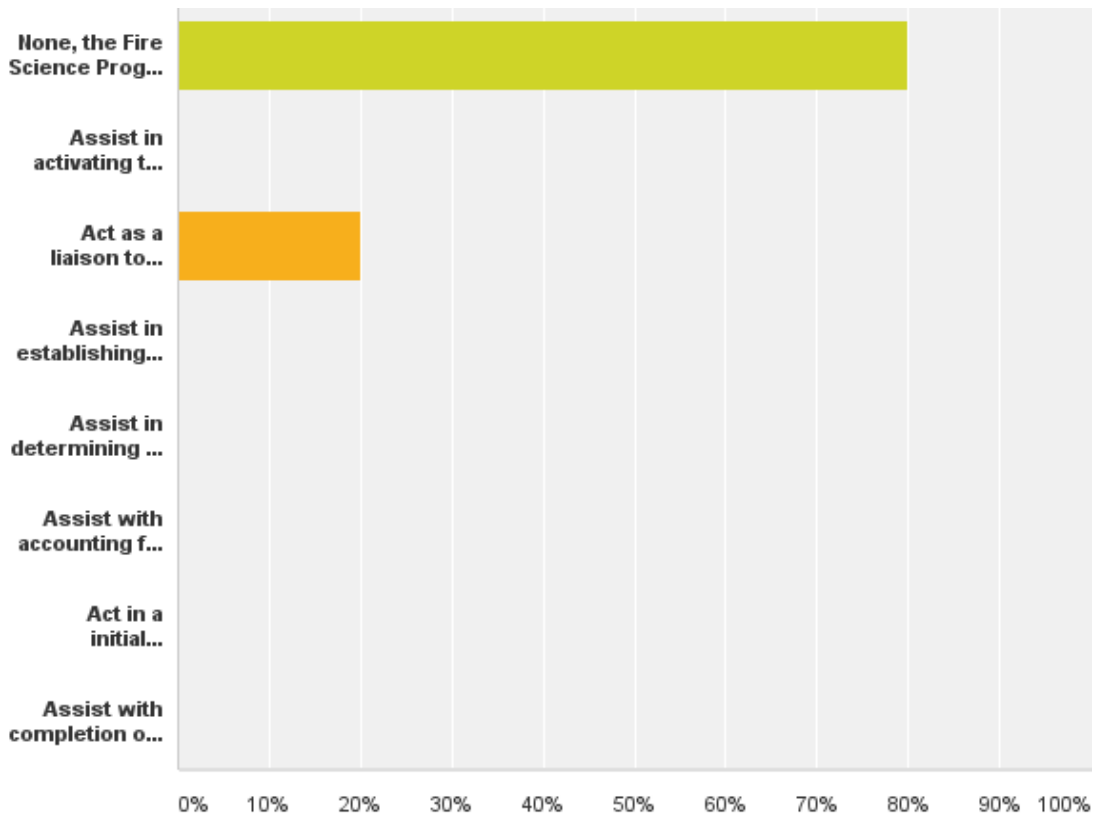
Answer Choices	Responses
None, the Fire Science Program dose not have a role in Prevention/Mitigation initiatives.	80.00% 4
Completion of the Community Hazards Emergency Response-Capability Assurance Process (Vulnerability Assessment).	20.00% 1
Promoting a healthy campus culture of engagement, inclusion, respect, and collaboration.	0.00% 0
Collecting data, information, and research from other sources which supports emergency management initiatives.	0.00% 0
Total Respondents: 5	

Q6: Which of the following campus preparedness initiatives does the fire science program you represent assist the emergency management administrator with?



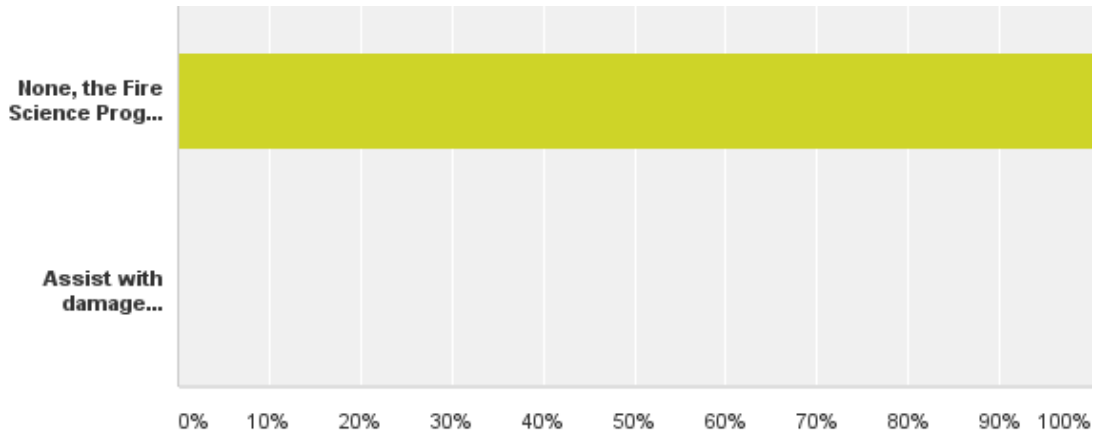
Answer Choices	Responses
None, the Fire Science Program dose not have a role in campus Preparedness initiatives.	80.00% 4
Support the establishment of an Incident Command System consistent with local emergency response agencies and/or the National Incident Management System.	0.00% 0
Support the development of all hazards policies and procedures.	20.00% 1
Support enhanced community collaboration through the development of defined mutual aid agreements.	0.00% 0
Promote and assist with Campus Citizens Emergency Response Team.	0.00% 0
Support functional exercises.	0.00% 0
Support faculty and staff training and professional development.	0.00% 0
Support the development of response protocols.	20.00% 1
Support the identification of thresholds for emergency response, evacuation, shelter in place, and lock down.	20.00% 1
Total Respondents: 5	

Q7: Which of the following campus response initiatives does the fire science program you represent assist the emergency management administrator with?



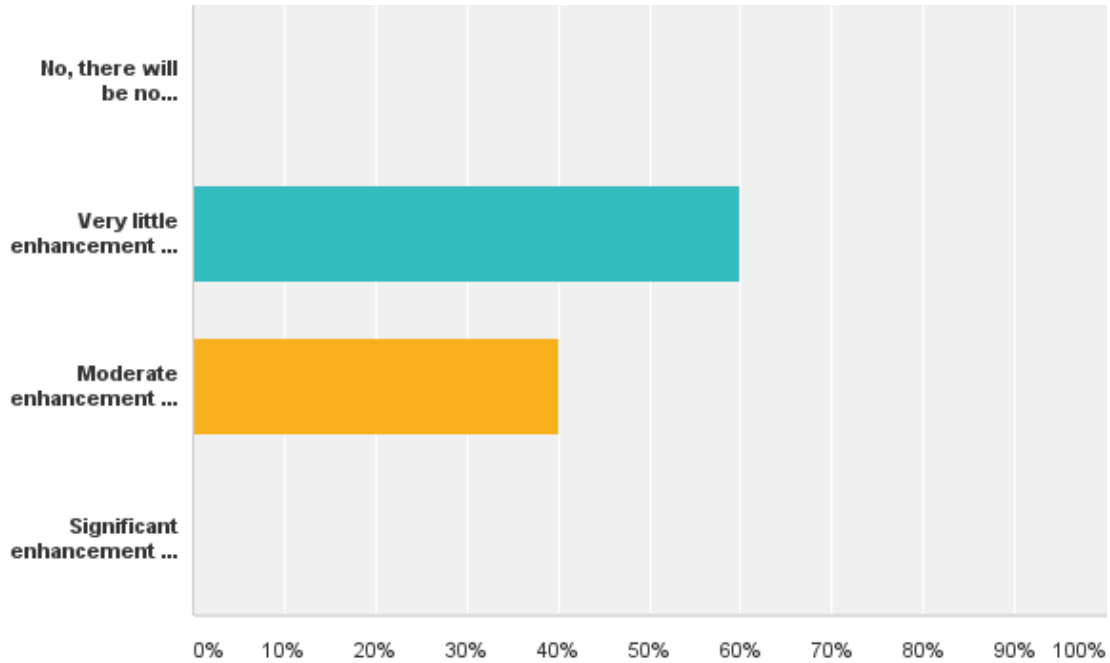
Answer Choices	Responses
None, the Fire Science Program dose not have a role in Emergency Response initiatives.	80.00% 4
Assist in activating the campus Incident Command System.	0.00% 0
Act as a liaison to emergency responders.	20.00% 1
Assist in establishing/opening an Emergency Operations Center.	0.00% 0
Assist in determining the appropriate response strategy.	0.00% 0
Assist with accounting for students, faculty, and staff.	0.00% 0
Act in a initial response capacity to requests for fire and emergency medical services on the main campus.	0.00% 0
Assist with completion of the After Action Report.	0.00% 0
Total Respondents: 5	

Q8: Which of the following campus recovery initiatives does the fire science program you represent assist the emergency management administrator with?



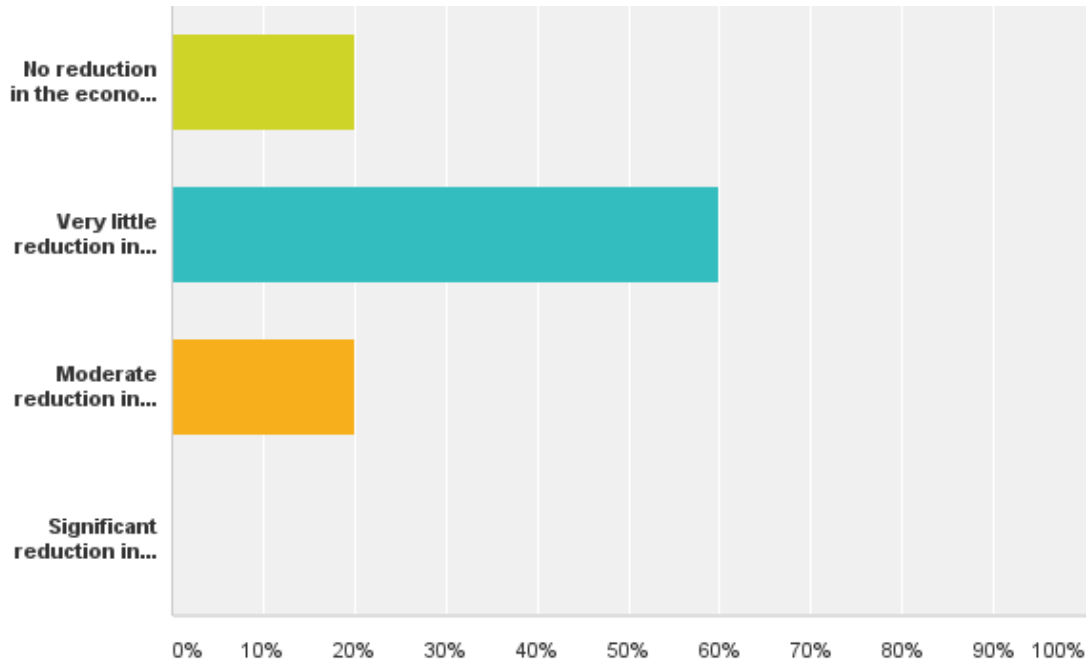
Answer Choices	Responses
None, the Fire Science Program dose not have a role in campus Recovery initiatives.	100.00% 5
Assist with damage assessment (Damage Assessment Team).	0.00% 0
Total Respondents: 5	

Q9. Do you believe engaging the fire science program you represent in campus emergency management planning and emergency response will enhance regional all hazards disaster preparedness?



Answer Choices	Responses
No, there will be no enhancement of regional all hazards disaster preparedness.	0.00% 0
Very little enhancement of regional all hazards disaster preparedness.	60.00% 3
Moderate enhancement of regional all hazards disaster preparedness.	40.00% 2
Significant enhancement of regional all hazards disaster preparedness.	0.00% 0
Total	5

Q10: Do you believe engaging the fire science program you represent in campus emergency management planning and emergency response will limit the economic impact to the community from a disaster or major emergency occurring on the campus of your institution?

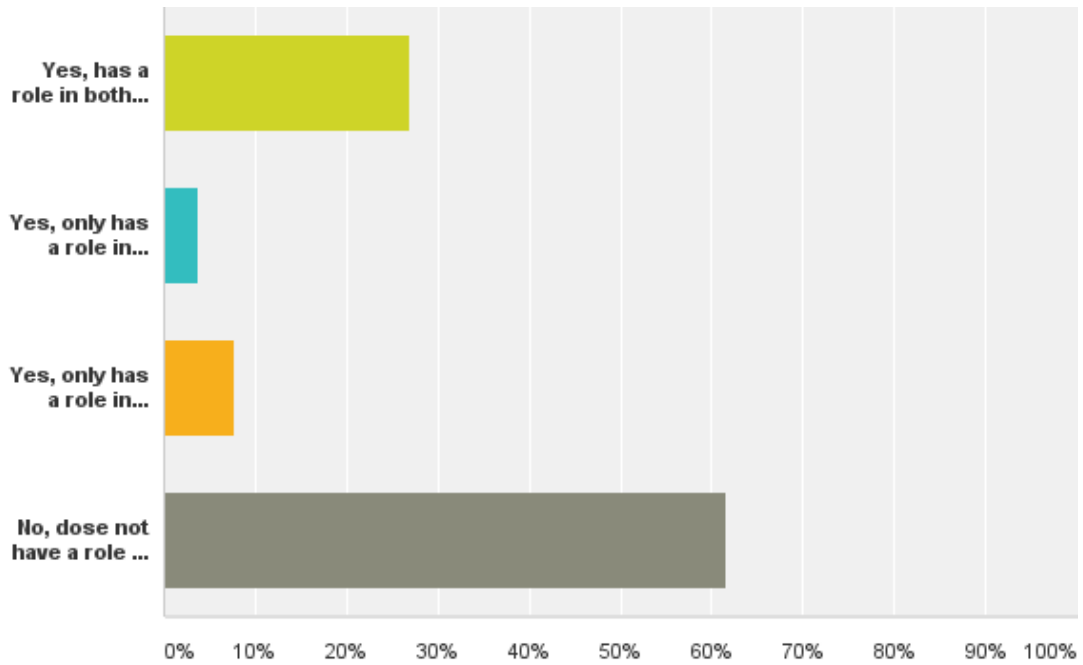


Answer Choices	Responses
No reduction in the economic impact to the community.	20.00% 1
Very little reduction in the economic impact to the community.	60.00% 3
Moderate reduction in the economic impact to the community.	20.00% 1
Significant reduction in the economic impact to the community.	0.00% 0
Total	5

Appendix S

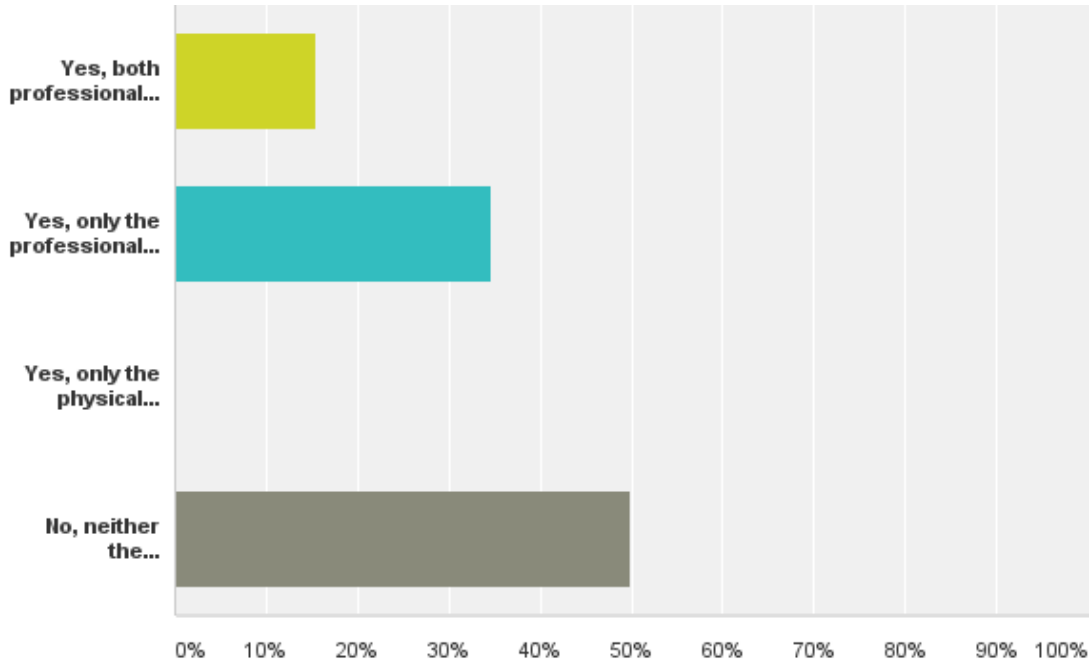
National Community College Questionnaire Results

Q1: Does the fire science program you represent have a role in campus emergency management planning and emergency response?



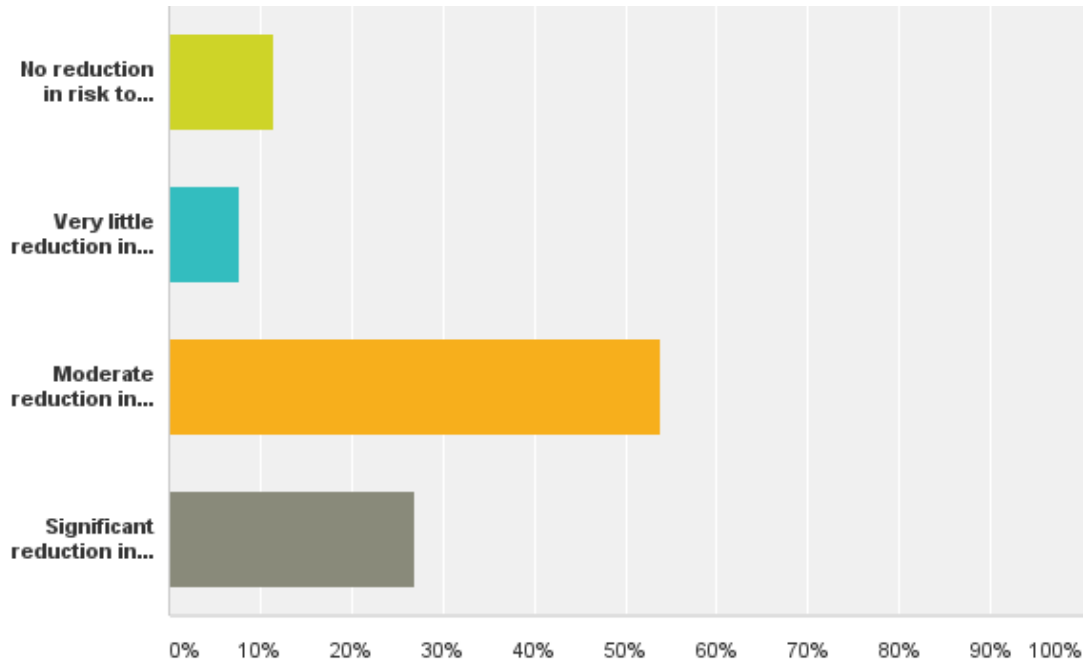
Answer Choices	Responses
Yes, has a role in both campus emergency management planning and emergency response	26.92% 7
Yes, only has a role in campus emergency management planning	3.85% 1
Yes, only has a role in campus emergency response	7.69% 2
No, dose not have a role in either.	61.54% 16
Total	26

Q2: Does the emergency management administrator at your institution utilize the professional expertise and physical resources maintained by the fire science program you represent in campus emergency planning and emergency response?



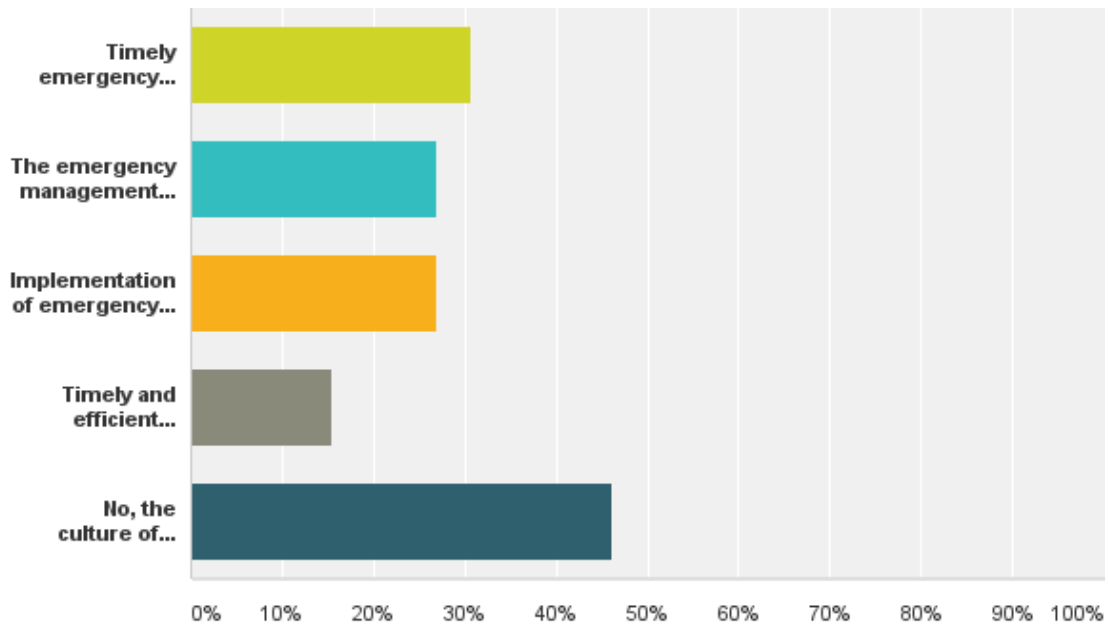
Answer Choices	Responses
Yes, both professional expertise and physical resources are utilized.	15.38% 4
Yes, only the professional expertise are utilized.	34.62% 9
Yes, only the physical resources are utilized.	0.00% 0
No, neither the professional expertise nor the physical resources are utilized.	50.00% 13
Total	26

Q3: Do you believe that engaging the fire science program you represent in campus emergency management planning and emergency response would reduce the risk of injury or death to local firefighters responding to a request for emergency assistance at your institution?



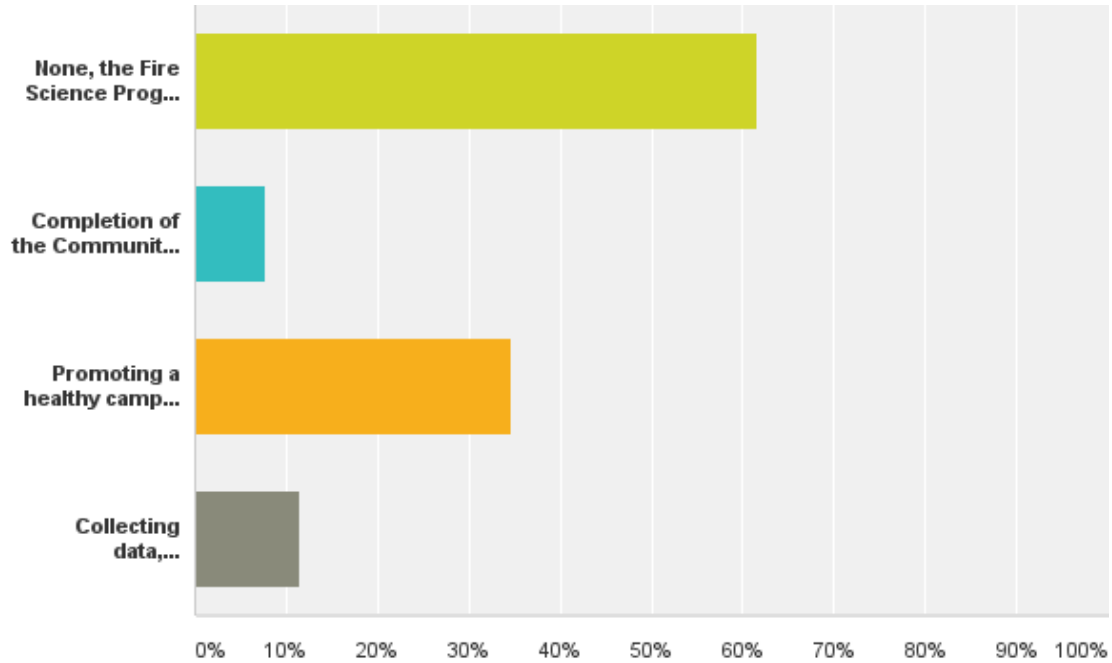
Answer Choices	Responses
No reduction in risk to firefighters.	11.54% 3
Very little reduction in risk to firefighters.	7.69% 2
Moderate reduction in risk to firefighters.	53.85% 14
Significant reduction in risk to firefighters.	26.92% 7
Total	26

Q4: Do you believe the culture of higher education is a barrier to any of the following emergency management initiatives?



Answer Choices	Responses
Timely emergency management decision making.	30.77% 8
The emergency management planning process.	26.92% 7
Implementation of emergency prevention/mitigation and preparedness initiatives.	26.92% 7
Timely and efficient emergency response.	15.38% 4
No, the culture of Higher Education is not a barrier to emergency management initiatives.	46.15% 12
Total Respondents: 26	

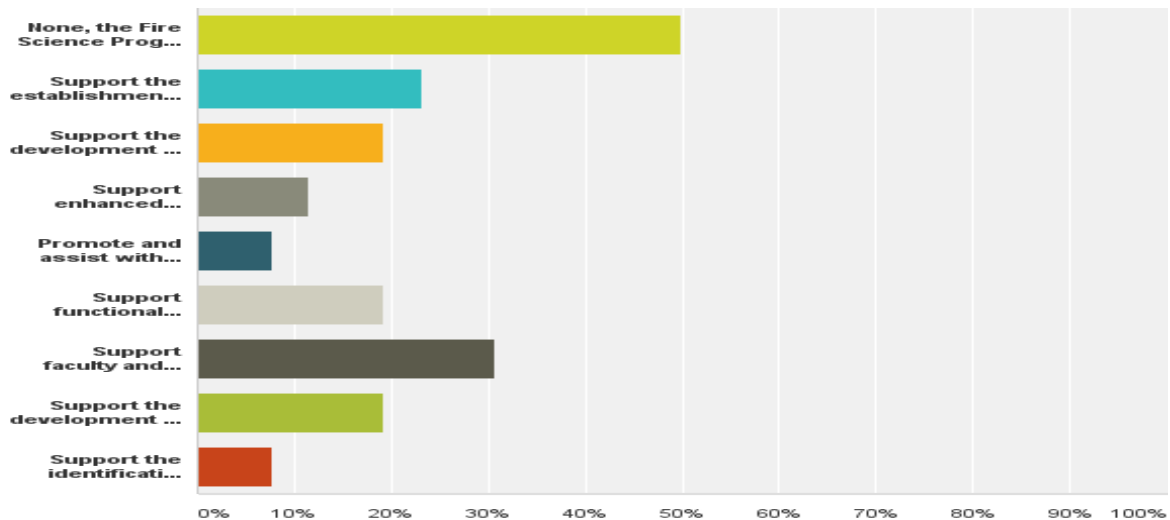
Q5: Which of the following campus prevention-mitigation initiatives dose the fire science program you represent assist the institutions emergency management administrator with?



Answer Choices	Responses
None, the Fire Science Program dose not have a role in Prevention/Mitigation initiatives.	61.54% 16
Completion of the Community Hazards Emergency Response-Capability Assurance Process (Vulnerability Assessment).	7.69% 2
Promoting a healthy campus culture of engagement, inclusion, respect, and collaboration.	34.62% 9
Collecting data, information, and research from other sources which supports emergency management initiatives.	11.54% 3
Total Respondents: 26	

Comments: I am both director of fire science and he school emergency manager.

Q6: Which of the following campus preparedness initiatives does the fire science program you represent assist the emergency management administrator with?



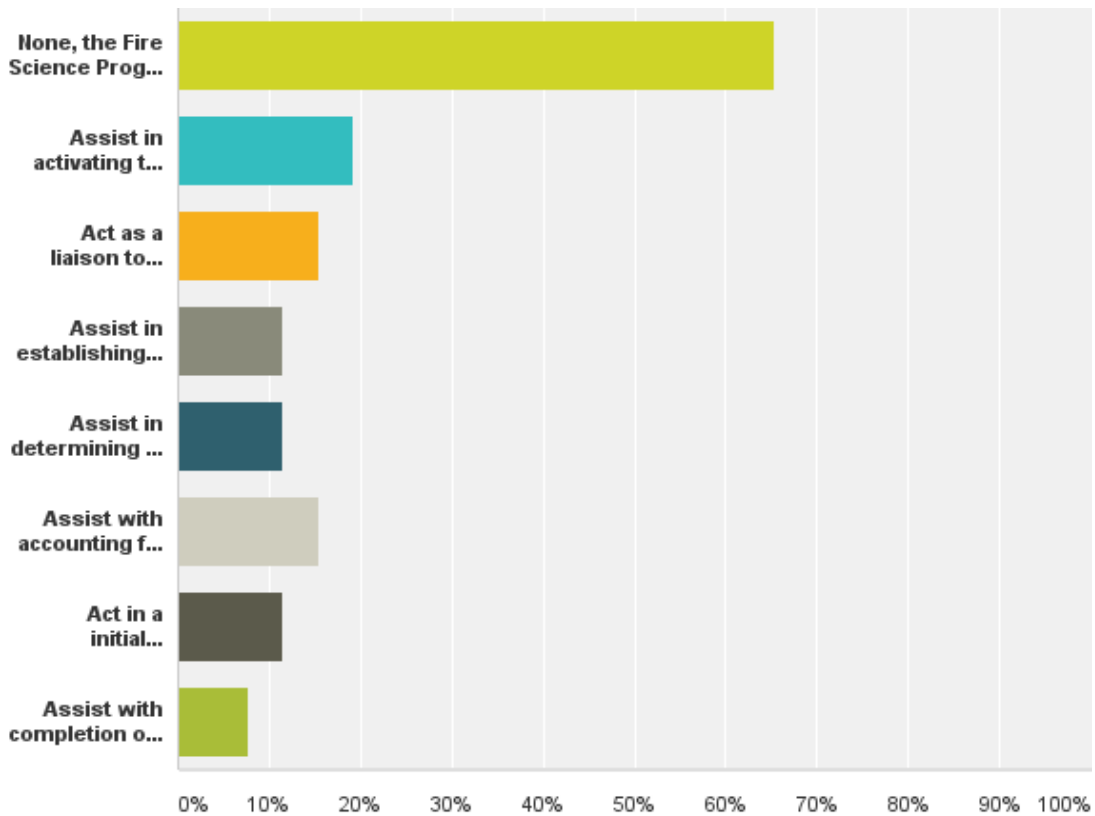
Answer Choices	Responses
None, the Fire Science Program dose not have a role in campus Preparedness initiatives.	50.00% 13
Support the establishment of an Incident Command System consistent with local emergency response agencies and/or the National Incident Management System.	23.08% 6
Support the development of all hazards policies and procedures.	19.23% 5
Support enhanced community collaboration through the development of defined mutual aid agreements.	11.54% 3
Promote and assist with Campus Citizens Emergency Response Team.	7.69% 2
Support functional exercises.	19.23% 5
Support faculty and staff training and professional development.	30.77% 8
Support the development of response protocols.	19.23% 5
Support the identification of thresholds for emergency response, evacuation, shelter in place, and lock down.	7.69% 2
Total Respondents: 26	

Comments:

Fire science department chair wrote original emergency response plan. No involvement since that time at any level. Plan has been revised since, but remains substantially intact.

Program administrator only – no students/faculty

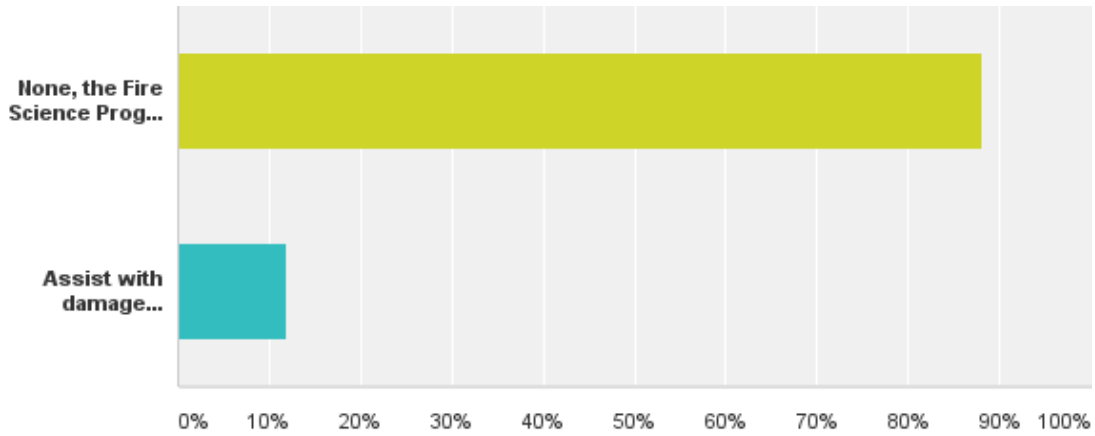
Q7: Which of the following campus response initiatives does the fire science program you represent assist the emergency management administrator with?



Answer Choices	Responses
None, the Fire Science Program dose not have a role in Emergency Response initiatives.	65.38% 17
Assist in activating the campus Incident Command System.	19.23% 5
Act as a liaison to emergency responders.	15.38% 4
Assist in establishing/opening an Emergency Operations Center.	11.54% 3
Assist in determining the appropriate response strategy.	11.54% 3
Assist with accounting for students, faculty, and staff.	15.38% 4
Act in a initial response capacity to requests for fire and emergency medical services on the main campus.	11.54% 3
Assist with completion of the After Action Report.	7.69% 2
Total Respondents: 26	

Comment: Program administrators only – no students/faculty.

Q8: Which of the following campus recovery initiatives does the fire science program you represent assist the emergency management administrator with?



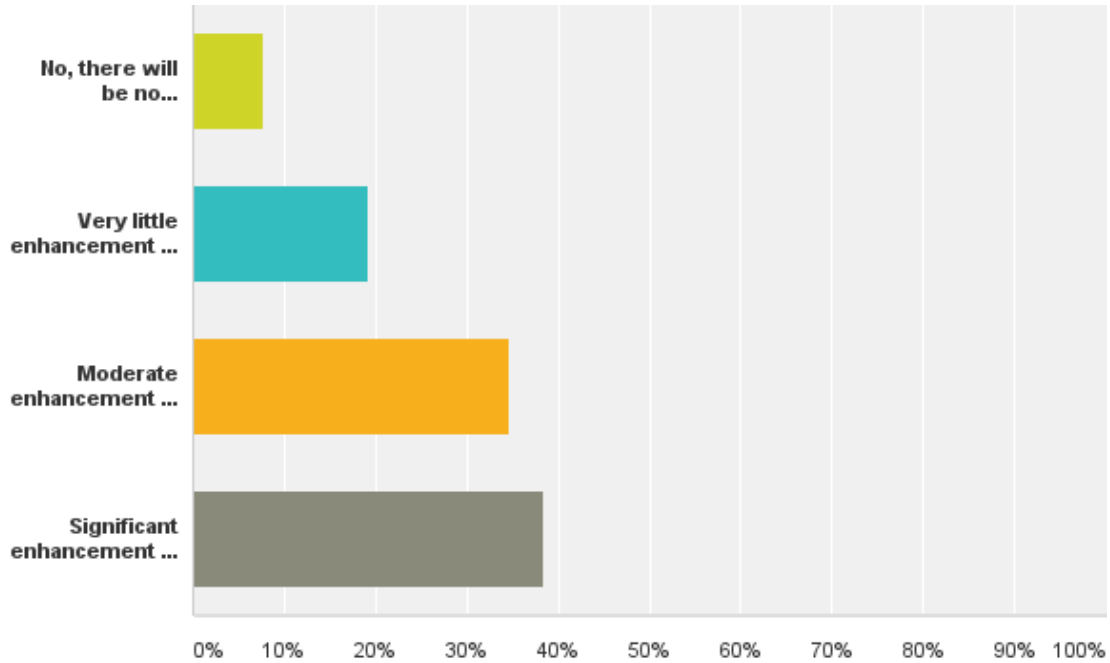
Answer Choices	Responses
None, the Fire Science Program dose not have a role in campus Recovery initiatives.	88.00% 22
Assist with damage assessment (Damage Assessment Team).	12.00% 3
Total Respondents: 25	

Comments:

Program administrators only – no students/faculty.

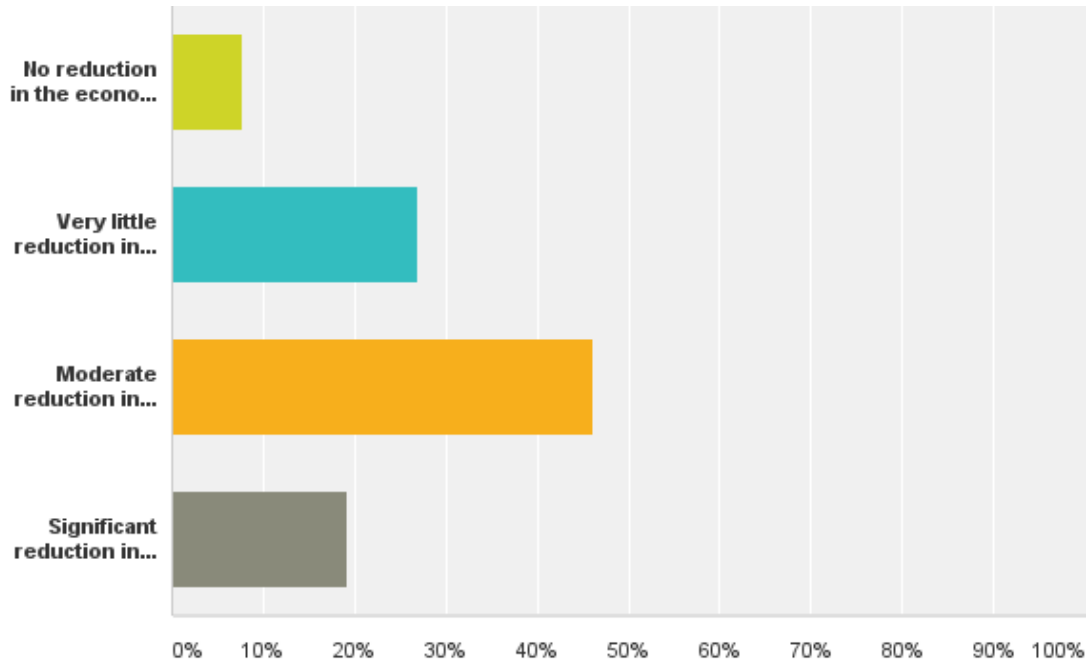
None.

Q9: Do you believe engaging the fire science program you represent in campus emergency management planning and emergency response will enhance regional all hazards disaster preparedness?



Answer Choices	Responses
No, there will be no enhancement of regional all hazards disaster preparedness.	7.69% 2
Very little enhancement of regional all hazards disaster preparedness.	19.23% 5
Moderate enhancement of regional all hazards disaster preparedness.	34.62% 9
Significant enhancement of regional all hazards disaster preparedness.	38.46% 10
Total	26

Q10: Do you believe engaging the fire science program you represent in campus emergency management planning and emergency response will limit the economic impact to the community from a disaster or major emergency occurring on the campus of your institution?



Answer Choices	Responses	
No reduction in the economic impact to the community.	7.69%	2
Very little reduction in the economic impact to the community.	26.92%	7
Moderate reduction in the economic impact to the community.	46.15%	12
Significant reduction in the economic impact to the community.	19.23%	5
Total		26

Appendix T

Discussion and Recommendations Matrix

Question	Fire Science Faculty Support	Local CC	Regional CC	National CC	ECC Adm.	Local Public Safety Leader
1. Does the Fire Science Program at your institution have a role in campus emergency management planning and emergency response?						
Both Emergency Management Planning and Emergency Response	12	2		7		1
Emergency Management Planning Only.	3 (15)	(2)	1	1 (8)	2	2 (3)
Emergency Response Only				2		
No, does not have a role.		7	4	16		
2. Does the emergency management administrator at your institution utilize the professional expertise and physical resources maintained by the Fire Science Program you represent in campus emergency planning and emergency response?						
Both Professional Expertise and Physical Resources.	13			4	1	3
Professional Expertise Only.	2 (15)	2	1	9 (13)	1 (2)	(3)
No, does not have a role.		7	4	13		
3. Do you believe that engaging the Fire Science Program you represent in campus emergency management planning and emergency response would reduce the risk of injury or death to local firefighters responding to a request for emergency assistance at your institution?						
No reduction in risk.	1	2	1	3		
Very little reduction in risk.	2	2	2	2	2	3
Moderate reduction in risk.	4			14		
Significant reduction in risk.	8	5	1	7		
4. Do you believe the culture of higher education is a barrier to any of the following emergency management initiatives?						
Timely emergency management decision making.	6	5	1	8	2	3
The emergency management planning process.	5	4	2	7		
Implementation of emergency prevention/mitigation and preparedness initiatives.	4	7	1	7		
Timely and efficient emergency response.	2	4	1	4		
No, the higher education culture is not a barrier to emergency management initiatives.	7	1	2	12		

5. Which of the following campus Prevention/Mitigation initiatives does the Fire Science Program you represent assist the institution's Emergency Management Administrator with?						
None.	1	7	4	16		
Completion of the Community Hazards Emergency Response-Capability Assurance Process (Vulnerability Assessment).	11		1	2	2	3
Promoting a healthy campus culture of engagement, inclusion, respect, and collaboration.	8	1		9	1	
Collecting data, information, and research from other sources which support emergency management initiatives.	6			3		
6. Which of the following campus Preparedness initiatives does the Fire Science Program you represent assist the Emergency Management Administrator with?						
None.		6	4	13		
Support the establishment of an Incident Command System consistent with local emergency response agencies and/or the National Incident Management System.	11	1		6	1	3
Support the development of all hazards policies and procedures.	11		1	5		
Support enhanced community collaboration through the development of defined mutual aid agreements.	8			3		
Support Campus Citizens Emergency Response Team.	8	1		2	1	1
Support functional excersises.	11	1		5		2
Support faculty and staff training and professional development.	12	2		8	2	3
Support development of response protocols.	9	1	1	5		
Support the identification of thresholds for emergency response, evacuation, shelter in place and lock down	11	1	1	2		

7. Which of the following campus Response initiatives does the Fire Science program you represent assist the Emergency Management Administrator with?						
None.		7	4	17		
Assist in activating the campus Incident Command System.	10			5	1	2
Act as a liaison to emergency responders.	13	2	1	4	1	3
Assist in establishing the EOC.	9			3		
Assist in determining the appropriate response strategy.	10	2		3		
Assist with accounting for students, faculty, and staff.	8			4		
Act in an initial response capacity to requests for fire and emergency medical services on the main campus.	5	1		3		
Assist with completion of the after action report.	10			2		
8. Which of the following campus Recovery initiatives dose the Fire Science Program you represent assist the Emergency Management Administrator with?						
None.	4	8	5	22	2	1
Assist with damage assessment (Damage Assessment Team).	11			3		2
9. Do you believe engaging the Fire Science Program you represent in campus emergency management planning and emergency response will enhance regional all hazards disaster preparedness?						
None.	1	2		2		
Very little enhancement.	1		3	5	2	
Moderate enhancement.	5	3	2	9		
Significant enhancement.	8	4		10		3
10. Do you believe engaging the Fire Science Program you represent in campus emergency management planning and emergency response will limit the economic impact to the community from a disaster or major emergency occurring on the campus of your institution?						
None.		2	1	2	1	
Very little reduction.	2	2	3	7	1	
Moderate redcution.	6	1	1	12		
Significant reduction.	7	4		5		2

Note. Source: Appendix N, Appendix O, Appendix P, Appendix Q, Appendix R, and Appendix S

Matrix denotes responses by each population to research questions. Highlighted area denotes the mode.