GENERATION Z: MANAGING EMERGENCIES IN A POST-MILLENNIAL WORLD

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DEDICATION

I dedicate this thesis to my husband Stephen Feinman and our five special Generation Z children: Hannah McKeon, Jack McKeon, Nicholas Feinman, Jordan Feinman, and Casey Alascio. My desire for them to have a safe and resilient future inspired this research.

ABSTRACT OF THE THESIS

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The purpose of this research is to determine the likely effect that Generation Z will have on emergency preparedness and community resilience. Using a meta-analytical method, the literature reviewed provides an outline of the societal, educational, and interpersonal characteristics that have been typically observed to date in Generation Z members and highlights the key principles that define emergency management to create effective emergency managers. This qualitative data was collected from a variety of sources and disciplines to reveal where overlaps and gaps exist between emergency management and Generation Z's knowledge, skills, and abilities. The findings conclude that, when cultivated by experienced professionals in the field, this emerging workforce would prove to be an asset that could overcome generational and interagency hurdles. In turn, this field of study would help these young personnel fulfill their goals to have meaningful jobs, influence change, reduce risk, and help their communities. This is only possible, though, if older generations take the time to learn about Generation Z, integrate them into the emergency management culture, and are willing to adapt to the new workforce

environment in order to better address the changing threat environment that emergency managers

must face.

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Introduction

Problem Statement

The Millennial generation, comprising people born in the 1980s and early 1990s, currently forms the largest living population in the United States (Fry, 2016). As such, Millennials today have a significant presence in the workplace and in social networks. However, with three million more U.S. births than its predecessor, the subsequent generation of post-Millennials (known as Generation Z) born in 1995 or later will move into the spotlight over the next decade. With Generation Z growing up post-9/11, its population has a very different view of the world, different manner of communicating, and different methods for tackling tough issues (Kick, Contacos-Sawyer, & Thomas, 2015). In emergency management, cultivating the next generation is necessary for ensuring resilient communities in the future. For example, a smooth transition of emergency management responsibilities from one generation to the next involves understanding the similarities and differences that can help or hinder the transition.

A quick library search of peer-reviewed publications reveals articles that discuss Generation Z traits, such as learning styles, work ethic, leadership abilities, environmental views, social skills, behavioral traits, and activity levels. Having unique perspectives on their communities, country, and world, this young generation exhibits different socialization and technological skills than previous generations (Mileski, Scott Kruse, Lee, & Baar Topinka, 2016). How this generation learns, behaves, and interacts with others can influence their ability to prepare for, respond to, and recover from disasters. By examining studies conducted on these youths as they grow from infancy, through childhood, and into adulthood, this research identifies traits and characteristics that could influence their ability to effectively manage emergencies. As

natural, human-caused, and technological disasters continue to occur, there is much to study about this new generation.

Expected Value of the Research

With much focus being placed on the largest living population (i.e., the Millennial generation), the benefits and challenges that the post-Millennial generation (i.e., Generation Z) present may go unnoticed at a time when the field of emergency and disaster management is expanding to meet the needs for future natural, human-caused, and technological disasters (Brown, 2015). Emergency and disaster management is based on the ability to prepare for whatever adverse events may occur in the future. However, through careful planning and preparation, many negative consequences can be mitigated or avoided entirely. The same is true for generational transitions. In order to minimize or eliminate potential problems that might arise when roles and responsibilities are transferred, older generations who currently hold emergency management positions should begin to understand and cultivate the next generation, which will eventually assume their positions.

In addition to potential challenges, the differences between generations also present opportunities to leverage new concepts and perspectives that would enhance current emergency management structures and processes. This research provides an in-depth look at the general psyche and behavior of Generation Z that can be applied to the principles of emergency management (Federal Emergency Management Agency [FEMA], 2007). Equipped with this collated information from a variety of resources, emergency management agencies can begin to adapt to and mitigate potential negative consequences of the changing work environment that the next generation brings. An understanding of generational differences is an important and ever-

changing contribution to the emergency and disaster management field's body of knowledge. No two disasters are exactly alike, neither are two generations of emergency and disaster managers.

Literature Review

In order to understand the impact Generation Z might have on emergency management, it is important to first examine characteristics attributed to this young population. To begin, this research focuses on common trends found in analyses rather than outliers, which certainly exist within any generation. Corey Seemiller (Generation X) and Meghan Grace (Millennial), who both teach leadership skills at the college level, conducted one of the most comprehensive studies of Generation Z in their book entitled, "Generation Z Goes to College" (Seemiller & Grace, 2015). This book is based on the authors' personal observations in the academic environment combined with survey responses gathered from 1,143 students (born 1995 or later) from various institutions. Together with findings about this unique generation from other disciplines, the emergency management field will have a better understanding of how to attract, retain, and benefit from this growing and valuable pool of knowledgeable resources. With a projection that Generation Z will comprise one third of the U.S. population by the year 2020, a closer examination of this growing population is needed now (Seemiller & Grace, 2015).

The two primary goals for this literature review are to find supporting information to demonstrate: (a) what emergency management agencies need to do to attract and retain the newest generation into the field; and (b) how characteristics of Generation Z could help improve the emergency management field over time. To accomplish these goals, the research has been broken into four parts, with the first three focused on Generation Z and the final part focused on the emergency management field:

- societal factors (environmental, social skills, and behavioral traits);
- educational factors (learning styles, work ethic, and activity levels);

- interpersonal factors (leadership abilities and communication styles); and

- emergency management (principles, standards, and opportunities).

By examining all these characteristics, emergency management agencies can better identify ways in which Generation Z trends could help transform the emergency management profession and the way in which disasters are managed. The societal, educational, and interpersonal factors each play a role in shaping emergency management in a post-Millennial world.

Societal Factors: Shaping Behaviors and Thoughts Regarding Threats, Risks, and Hazards

The ways in which people are raised and the environments that surround them have significant influence on how individuals learn, behave, and interact. Parents are the first influencers, beginning when children enter the world. As a child grows and is exposed to various societal and environmental factors, his or her social skills and behavioral traits develop and grow with the child. Although no two individuals are identical, generational groups tend to experience common external influencers (e.g., disasters) that formulate broad general characteristics for entire age groups. This section examines some of these influencers and the traits and views that they inspire.

Parental influencers. Parenting styles certainly contribute to the ways in which members of each generation view the world around them. The majority of those in Generation Z are being raised by Generation X parents (born 1965–1980), which differ from Millennials' Baby Boomer parents (born 1946–1964) in several key ways: (a) as a much smaller population than the Baby Boomers, Generation X does not have as well-defined generational characteristics; (b) many in Generation X grew up with two working parents, so balancing work and family is instilled early; and (c) the independence they had during their youth is reflected in Generation

X's parenting style (Seemiller & Grace, 2015). These parenting styles, coupled with the 2008

economic crisis and subsequent increase in unemployment (for annual unemployment statistics,

see U.S. Department of Labor, 2017), shaped many of the social and economic tendencies of

Generation Z—thus a dose of reality in a high-technology virtual world. By understanding that

jobs are not guaranteed and observing the cause and effect of crises and leadership decisions,

they have developed a realistic view of the world with a sense of loyalty that will likely transfer

into their jobs (Marron, 2015).

        Unlike some generational groups before them, members of Generation Z view their

parents as role models and mentors they can confide in and trust to guide them in the right

direction when faced with difficult tasks and decisions (Seemiller & Grace, 2015). Coaches and

teachers who use mentoring or guiding approaches, rather than enforcing and influencing

approaches, also play significant roles in their lives to help Generation Z members reach their

goals and objectives (Short, 2014). Unlike previous generations, political leaders, celebrities,

and professional athletes do not have the interpersonal connection that this generation craves and

thus fewer of them look to these public figures as role models (Seemiller & Grace, 2015). With

a strong mentoring foundation, Generation Z would be more grounded and independent, with a

stronger work ethic and desire to solve problems, than its Millennial predecessor (Wiedmer,

2015). Parenting styles play a critical role in developing children's social skills and behaviors.

In the case of Generation Z, they watched their parents battle the recent economic crisis, with

some parents losing jobs, and were encouraged to take on responsibilities (e.g.,

homework) without as much parental guidance and oversight as the previous generation of

Millennials.

Social skills and behavioral traits. The term "social skills" encompasses five unique parts that employers rank highly: coordination, instruction, persuasion, service orientation, and social perceptiveness (Kick et al., 2015). In the case of Generation Z, an overreliance on technological devices and social media can hinder the development of some social skills. However, not many things are inherently bad, so technology could actually introduce new and innovative ways to develop social and other skills (e.g., by exposing them to the world beyond their communities and opening their minds to new ideas, thus stimulating out-of-the-box thinking).

Generation Z members are growing up in a world where people of different races and genders hold various leadership positions. Millennials (sometimes referred to as the "Me Generation") learned to tolerate such diversity more so than previous generations, whereas Generation Z learned not only to tolerate but to celebrate it (Seemiller & Grace, 2015). This new generation views diversity more as a benefit than a detriment to society as social circles continue to become more diverse. With a more "we-centric" than "me-centric" attitude, a smaller sense of entitlement, and a greater desire for social equality than its predecessor, Generation Z tends to support issues and concerns that affect the broader community (Seemiller & Grace, 2015). This characteristic is particularly beneficial when considering the challenges emergency managers face related to socioeconomic differences, climate change concerns, and other community-related issues.

Community diversity and attitudes toward this diversity are changing as well. To those in Generation Z, physical appearances, cultures, and other demographic characteristics are not significant factors when establishing relationships. In fact, less than 20% of Generation Z

students place significant importance on culture or background for their friendship choices

(Seemiller & Grace, 2015, p. 88). They are more accepting of different races, genders,

ethnicities, and religions, especially as communities become more diverse. In addition, they are

more likely to have classes or be in clubs or on sports teams with people from different

backgrounds. These and other factors have contributed to a shift from the Millennial "Me

Generation" to the Generation Z "We Generation" (Seemiller & Grace, 2015). Although this

generation values traditional relationships with family members and friends, distance is a

diminishing factor for maintaining long-distance relationships due to technological advances that

bridge the traditional geographical gap. Technology such as cellphones and social media make it

easier to connect and reconnect at any time.

It is interesting to note, though, that broad use of social media to stay connected does not

equate to openness about themselves and their personal information. In fact, Generation Z

members value their privacy and use social media more to stay informed about others' lives

rather than to share about their own (e.g., on Facebook, 60% of this generation have private

profiles that only their friends and families can see; Seemiller & Grace, 2015, p. 77). Generation

Z has learned many lessons from the oversharing mistakes of Millennials and Generation X

when it comes to Facebook privacy and other platforms that introduce personal security

vulnerabilities (Belcik, 2016). When their privacy is compromised, they take steps to block

those who compromised their information (e.g., "unfriend" connections, block specific callers).

Privacy concerns hold true for this generation in all aspects of their lives, which may be at least

partially attributed to the Patriot Act of 2001. That 2001 law changed law enforcement's ability

to access personal information and has been a defining factor for discussions on the continual

balance between government regulation and personal freedom (Seemiller & Grace, 2015).

This concern for privacy extends to relationships with their parents as well. With about a

quarter of Generation Z teens in the United States staying online almost constantly (Lenhart,

2015), it is tempting for some parents to use technology to stay connected through calls, texts, or

tracking applications. Parents use technologies as risk reduction techniques as their perceptions

of threats and safety concerns in modern society rise. This new phenomenon of remote

monitoring and surveillance by parents gives Generation Z more independence than previous

generations because they are reachable even when not in close proximity. However, in some

cases, this also creates some resistance from youths in favor of their privacy (e.g., not answering

calls and claiming that there was no service; Barron, 2014). As technology rapidly evolves, its

use by and influence on Generation Z will also continue to change.

Attitude toward money is another interesting characteristic difference between

Millennials and Generation Z. As the environment shifted from one of financial abundance to

one of recession, attitudes toward spending and saving money also changed. Living through the

financial instability experienced at home makes Generation Z aware of money-related concerns

and has instilled a desire for financial security, with more than half preferring to save their

money for the future rather than spend it in the present (Seemiller & Grace, 2015). Technology

such as banking alerts and budget applications set the stage for Generation Z to be conscious of

financial situations at all times. This characteristic will likely transfer into their careers as well.

Independence coupled with entrepreneurial skills and financial goals generate a desire in this

young generation to start their own businesses. This desire coupled with techniques such as

crowdfunding (i.e., gathering small amounts of money from many investors, often via the Internet) offer opportunities to start businesses without a significant personal financial investment (Seemiller & Grace, 2015).

Generation Z members are not afraid of change and they prefer to work alone, but they can be motivated toward team efforts in a good workplace atmosphere that includes challenging work, mutual help, and respect (see Bencsik, Horváth-Csikós, & Juhász, 2016, Table 1; see also Yadin, 2014). To overcome the generational differences, the technological strengths of Generation Z are beneficial for online interactions and can be leveraged for "reverse mentoring," where younger generations help older ones to adapt to the rapidly changing cultural and technological environments (Marron, 2015). By improving the technological skills of older generations, agencies can help bridge the generational gap and improve communication in a multigenerational environment (Petrova-Vasileva, 2014).

Societal and environmental views. Interestingly, Generation Z students in the Seemiller and Grace (2015) study revealed a tendency for this generation to be moderate to conservative in terms of financial issues, yet moderate to liberal on social issues. These traits would be beneficial in the emergency management environment, where budgets are restricted, yet racial, cultural, and socioeconomic concerns are factors to consider in emergency and disaster preparedness, response, and recovery efforts. Instant access to information through digital mediums has exposed Generation Z to disasters and social injustices to which they may have had no direct connection. This generation's constant awareness of and connection with the world, coupled with its growing size, put Generation Z members in a unique position to have their views drive certain societal changes. In fact, one study conducted in 2014 found that 60% of

Figure 1. Children playing on the sidewalk after a rainstorm. From Skoogfors, L., 2005, FEMA news photo. Retrieved from https://www.fema.gov/media-library/assets/images/45013

Generation Z wants to make a social impact with their future jobs, compared to 31% of

Millennials (Marron, 2015, p. 124).

Growing up in a "dangerous" world of many natural, human-caused, and technological

disasters (e.g., terrorist attacks, school shootings, hurricanes, epidemics, cyberthreats) has taught

this generation caution and an increased aversion to risk, but not apathy (Seemiller & Grace,

2015; see Figure 1). They did not have to be at ground zero to watch live and recorded video of

Hurricane Katrina in Louisiana, Superstorm Sandy in New Jersey, tsunami in Japan, earthquake

in Haiti, Ebola in Liberia, Severe Acute Respiratory Syndrome (SARS) in China, bombing at the

Boston Marathon, movie theater shooting in Colorado, beheadings in Syria, and the list goes on.

The abundance of disasters and violence—either real or depicted—on television, Internet, video

games, etc. keeps these concerns as well as their social and financial impacts at the forefront.

This also is the likely reason that the perception of risk has increased over the past two decades

and optimism of the future has decreased (from 89% to 60%) since Millennials were in college

(Seemiller & Grace, 2015, p. 36).

Generation Z feels passionately about societal issues, which can either lead to or

significantly affect the consequences of disasters, including human rights, political dysfunction,

and violence in general (Seemiller & Grace, 2015). To this generation, social diversity is

something that should be embraced and may serve as the key to fortifying communities around

the world. As race, gender, religion, and ethnicity continue to be debated on the national and

international stages, those in Generation Z view themselves as gateways for systemic change

(Seemiller & Grace, 2015). For example, the rising wage gap, economic inequality, and poverty

are other concerns that are significantly more important to Generation Z than to Millennials.

About two thirds of college-aged Generation Z members are concerned about these issues,

whereas approximately two thirds of Millennials at that same age viewed these groups as having

the ability to remove themselves from their dire situations (Seemiller & Grace, 2015). This data

indicate a significant shift in thinking about socioeconomic issues from one generation to the

next.

Another way in which Generation Z could have a significant impact is with climate

change. According to one study, about 75% of this generation view climate change as a greater

threat than the violence and drugs regularly portrayed through media outlets (Seemiller & Grace,

2015, p. 119). Although statistics vary and some studies show that climate change is not a

significant concern to this generation, Generation Z is taking action to decrease its environmental

footprint. Perhaps this shift toward environmental awareness results from the nation's efforts as a whole—through political, economic, and social changes—to move toward environmentally conscious decisions, which has become embedded as a norm in their lives. Equipped with greater exposure at home and school to information about environmental issues and daily practices that are environmentally friendly (e.g., recycling, water conservation, organic food choices), Generation Z's lifestyle could certainly enhance environmental resilience efforts.

Educational Factors: Differentiating Educational Opportunities From Previous Generations

Education is considered the foundation of success for students in Generation Z (Seemiller & Grace, 2015). However, as the cost of higher education increases, this generation is becoming more concerned about the cost and is formulating alternative, less expensive options for achieving high levels of education. To this generation, education equates to jobs and jobs equate to survival, especially as jobs become harder to find (Seemiller & Grace, 2015; see also Ozkan & Solmaz, 2015). Options this generation is considering include online programs, community colleges, and technical and vocational colleges—all of which avoid on-campus amenities such as room and board and play a growing role as more Generation Z students graduate from high school.

Learning styles. Generation Z recognizes the value in education and has a strong desire to learn, but not necessarily in a traditional college or university environment. From Millennials to Generation Z, the value placed on higher education has decreased from 71% to 64%, respectively (Marron, 2015, p. 124). Five themes provide an insight into Generation Z's educational perspective: (a) education leads to success; (b) education is an investment in the

country's future; (c) society as a whole is better when it is educated; (d) the education system in

the United States is declining; and (e) access to quality education is limited (Seemiller & Grace,

2015). Despite the concern of increasing tuitions, the majority of Generation Z still views the

value of higher education outweighing the cost in order to secure a solid career. However, as

students strive to learn in an educational environment, the way in which they learn is changing

and offering them more robust learning experiences.

Technology, for example, combines various learning techniques, including audio and

video platforms, as well as self-paced individual and more structured interactive group formats.

With modern society's abundance of information and technology to disseminate information,

Generation Z members not only can rapidly find details they need, but they also find it difficult

to avoid hearing news about national and international events via social media and other

communication modes. As such, this young generation is very knowledgeable on a broad range

of issues and tends to be more compassionate toward people affected by tragedies, even incidents

occurring on the other side of the world (Seemiller & Grace, 2015). Schools too are

incorporating technology into the classrooms via smart boards, computers, tablets, and online

lessons—albeit some schools and college campuses are finding it difficult to upgrade their

legacy equipment at the same rate as the changing technology (Morshed, 2016). Outside of

school, 93% of Generation Z students have access to personal or shared computers (Seemiller &

Grace, 2015, p. 58). With technology being almost everywhere, institutions that do not keep

their technology current will have trouble competing for Generation Z students, who often

perceive legacy technology as a "digital downgrade" (Morshed, 2016). Going beyond simply

updating legacy technology, some colleges and businesses are competing for this new

generation's attention by redesigning campuses and workspaces, which in turn are proving to be effective ways to spur innovation and entrepreneurship (Vel & Higa, 2016; see also Keengwe, Schnellert, & Jonas, 2014).

It is important to note, though, that ease of access to information and technology is not without its pitfalls, including procrastination, assumptions that information will be available immediately when needed, and frustration when information is not instantly available (Shatto & Erwin, 2016). In turn, the amount of time devoted to critically analyzing and verifying the accuracy of information could diminish. Generation Z students tend to seek information and learn skills that help them reach their career goals, which could lead some to focus too much on simply checking a box (Seemiller & Grace, 2015). This method of data retrieval could result in compromised information ethics—the study of relationships between the various information process stages and the human conduct when in control of this information—even when the information is used with good intentions (Chauhan & Singh, 2013).

At The Urban Assembly School for Emergency Management, a high school located in Manhattan, New York, Salvatore Puglisi teaches emergency management to an average of 80 to 100 students each year—currently the school is at 380 students (see Figure 2; Puglisi, personal communication, April 1, 2017). Over the past few years, he has observed that, although this group of students has grown up in a technological world, they tend to lack some of the search and verification skills needed to conduct proper research. "They don't know how to determine what's real and what's fake. They were born into this technology, and don't question it," he said (Puglisi, personal communication, March 22, 2017). To address this concern, the school strives to integrate complex qualitative and quantitative reasoning skills into its curriculum of

Figure 2. FEMA Region II Administrator Jerome Hatfield meets with Salvatore Puglisi and his students from The Urban Assembly School for Emergency Management. From Wilsey, K., 2014, FEMA news photo. Retrieved from https://www.fema.gov/media-library/assets/images/94383

emergency management studies (The Urban Assembly School for Emergency Management,

n.d.). By incorporating leadership and critical thinking skills at an early age, students are better

prepared for college and careers in the future.

With the advent of the No Child Left Behind Act of 2001, budgets for many creativity-

related classes (e.g., music, theatre, art) decreased as tests and assessments became more of a

focus, leading some to surmise that this in turn reduced the opportunity for this generation to

develop creative thinking techniques (Seemiller & Grace, 2015). Imagination and out-of-the-box

thinking are needed in order to analyze problems from different perspectives and to develop

solutions and contingencies. However, since this skill develops during the formative years of a

child's life, it is uncertain how lack of exposure to imaginative learning in school will affect

them later in life. This will become more apparent as Generation Z ages.

Despite a lack of imaginative learning in school, Generation Z students have become goal

oriented and learn well independently (Seemiller & Grace, 2015; see also Ozkan & Solmaz,

2015). They tend to prefer working at their own pace and are self-reliant, which enables them to

better monitor and track their own efforts and progress toward their goals. One learning style

that would be effective with this generation would be independent foundational learning at home

through audio–visual lessons, followed by in-person group lessons for more in-depth knowledge

building (Seemiller & Grace, 2015). Unfortunately, their dependence on technology and desire

to multitask has decreased the attention span of this generation's members by half (Seemiller &

Grace, 2015). Learning for Generation Z is facilitated with more hands-on and interactive

lessons rather than lectures and impersonal teaching styles (Wiedmer, 2015).

Although all generations have access to the same tools and could fall victim to the same

multitasking, "need-for-speed" environment, Generation Z is the first generation to have never

known a time without high-speed Internet available all day, every day. As such, educators are

beginning to incorporate lessons on identifying credible sources to better prepare students who

take advantage of search engines to find answers quickly (Seemiller & Grace, 2015). Schools

can contribute to future successes of this generation in teaching them (using varied independent-

group teaching styles) leadership, entrepreneurial, and research skills to help these students better

understand how to apply and share the lessons they learn with friends, family, and coworkers.

Experiential learning (e.g., internships, community engagement, study abroad) is another

technique that would be well received by Generation Z students and help them to build

leadership and interpersonal communication skills.

A subset of collaborative learning (group learning) is cooperative learning, which is a

structured way to enhance group efforts and sustain high individual levels of involvement. This

type of learning can be implemented using the following three principles: (a) teach task

management and interpersonal skills; (b) establish a common goal structure for groups to

promote interdependence within the group; and (c) ensure individual accountability (Igel &

Urquhart, 2012). Although Generation Z members embrace online socialization, they tend to

prefer being independent in school and work. As such, using a collaborative learning approach

can help bridge the gap as the next generation enters the workforce and adapts to a dynamic

multigenerational environment.

There has been debate about the level of learning and teamwork that can be achieved

through virtual versus face-to-face interactions for group projects. Assuming all participants are

fluent in the technology being used, one article examined various studies and iterations that

incorporated classroom, online, and hybrid learning and found that online learning could indeed

be an effective method for individual learning and team building (Andert & Alexakis, 2015).

Technology offers a cost-effective solution to travel and accelerates learning while also

supporting education in the virtual workplace. Instructors too can benefit by allowing the

technology to teach some of the fundamentals individually, thus allowing the instructors to teach

higher levels of skills in a group setting. In academic and work environments, social media (e.g.,

Facebook) could serve a valuable purpose by providing support to peers and colleagues (e.g.,

acknowledging accomplishments and chatting in personal messages), but acceptance of this form of communication still varies for different organizations (Belcik, 2016).

Gaming techniques. Although imaginative learning is not as integrated in the core educational curriculum as in past generations, it is being integrated into modern gaming techniques. The term "gamification" in the information technology world refers to the concept of "adding 'amusement' to the tedium of day-to-day living" (Renen & Rudman, 2015, p. 42). By injecting fun and rewards into the learning process, educators, mentors, and employers can better motivate younger generations, especially those who cannot be motivated with money and power. With various uses, gamification offers an engaging way to conduct trainings and instill organizational concepts and practices (Renen & Rudman, 2015). One use for gaming techniques that would be particularly helpful in the context of emergency management is training (see Figure 3). However, challenges include the need to change the mindsets within the agency. To overcome this challenge, agencies must research the agency needs as well as the needs of employees in order to determine the best program, the best-suited rewards, and a plan to continually update the program as staff and situations change (Renen & Rudman, 2015). Other potential challenges include legal issues, cost, security, and privacy concerns for participant information.

"Serious games" can also be used for recruiting purposes, as described in one study of 43 leading companies in France (Allal‒Chérif & Makhlouf, 2016). As an entertaining way of learning, profession-building games can be used to simulate past events, stimulate creativity, encourage constructive competition, facilitate communication, and make training more engaging. Electronic learning tools do not incorporate play; virtual reality tools do not incorporate rules,

Figure 3. FEMA Corps members playing a game that explains mitigation to high school students. From Rieger, M., 2013, FEMA news photo. Retrieved from https://www.fema.gov/media-library/assets/images/85647

objectives, and knowledge building; and simulation tools do not provide enough opportunity for imaginative thinking beyond the recreated scenarios (Allal‑Chérif & Makhlouf, 2016). Instead, serious games encourage the development of best practices and promote knowledge-building applications.

According to Kenneth Bibbins, chief executive officer and founder of PrepWorld LLC, both the terminology and the objectives must be defined (Bibbins, personal communication, March 21, 2017). Although the terms "games," "gamification," and "game-based learning or serious games" are often used interchangeably, they have distinct differences, as he defines below:

- Games are games developed for entertainment (e.g., Candy Crush, Angry Birds);

- Gamification has game-type elements used in a nongame setting (e.g., advertising, workforce development); and

- Game-based learning and serious games are games with an identified outcome. They are developed with behavior modification, change behavior/persona, or provide acclimation to something new with a very specific outcome (e.g., military games, PrepBiz).

In what he terms "engagement knowledge," he further explained that:

Game-based learning and serious games address cognitive and noncognitive skills to implement change especially in emergency and life threatening situations. Having knowledge is not the sole tool you want in an emergency or life-threatening situation, but knowing how to use that knowledge for a better outcome is paramount for survival in those types of engagement situations. (Bibbins, personal communication, 22 March 2017)

Game-based learning or serious games are often custom built to fulfill a specific purpose (e.g., recruiting, training, communicating) for targeted participants (Allal‑Chérif & Makhlouf, 2016). For recruiting purposes, the games can be used for orientation to help participants identify skills appropriate with various roles, to help employers select talent from a group of candidates, and to help employees integrate into a new work environment (Sarkis et al., 2014). For training purposes, the games can be used for acquiring knowledge, refining skills and role responsibilities, developing expected behavior, and advancing professional development (Allal‑Chérif & Makhlouf, 2016). For communication purposes, games can be used as internal or external communication tools to strengthen the internal working culture or to build socially responsible messaging, respectively.

One learning method that has been embedded in the lives of Generation Z involves video games like "Minecraft." Some people from older generations would say video games are detrimental to mental cognition, whereas others would say they are a valuable component for building information literacy skills (Bebbington & Vellino, 2015). However, it is also important to note that assumptions should not be made that the "digital natives" of Generation Z are also digitally literate (Pérez-Escoda, 2016). In some game choices, players are tasked with recognizing the need for information, defining this need, sharing information, helping others define their needs, and assessing the information (i.e., critical thinking). Differentiating between opinions and facts can be a challenge in the cyber world, so it is critical that Generation Z learns to understand and recognize the biases, prejudices, and stereotypes that exist in order to think critically and make better informed decisions when interacting with broad groups of people (Ellis Fletcher, 2016). Five information literacy skills that can be honed through games like Minecraft are recognition of the information needed, identification of sources for this information, ability to locate these sources, evaluation of the information, and ability to use the information (Bebbington & Vellino, 2015). Accuracy of information and trust in information sources enable players to "stay alive" longer, thus promoting the motivation to effectively and accurately integrate new information with existing information.

Kenneth Bibbins' company, PrepWorld LLC, has collaborated with mental and behavioral health providers to develop a trauma-informed gaming strategy to create PrepBiz (Bibbins, 2016). PrepWorld's mission is to aid young children who have been affected by some level of trauma—ranging from local violence within their communities to large-scale natural disasters spanning multiple jurisdictions. The PrepBiz gamification application educates

children and adults by presenting a potential threat and having the players choose the best path

for avoiding hazards and remaining safe. In the process, players build confidence and

psychological strength for facing real-life disasters in the future. "PrepBiz offers a healthy,

balanced collaborative that is educational, fun, and engaging. Elements of preparedness are

couched in terms todays' youth understand, 'gamification,' with each level of mastery being

engaging and rewarding," said Bibbins (personal communication, March 27, 2017).

Games are useful as an experiential learning technique in the professional world as well,

even for teaching lessons that typically are not received enthusiastically. By utilizing the gaming

learning style, one study examined the effectiveness of using an interactive immersive game to

teach business ethics (Jagger, Siala, & Sloan, 2016). The study found that, by using a style

familiar to Generation Z, providing scenarios that simulate the real world around them, and using

a more student-led approach to facilitate engagement and team building, this approach can be

effective in developing knowledge, skills, and values among business ethics students. This

approach could be adapted to other professions as well. Informal learning spaces that are fun

and engaging can facilitate individual skill development as well as interpersonal collective

intelligence-gathering skills.

Generation Z is comfortable in the cyber and gaming worlds, so this form of training and

education is likely to increase interest even when the topics are considered mundane in nature.

By encouraging current personnel to play the game, employers can build healthy competition as

well as collaboration to make decisions, take risks that personnel may not be willing to do in real

life, and possibly find new solutions that otherwise would not be possible (Allal−Chérif &

Makhlouf, 2016). When implemented effectively and targeted to the appropriate audience,

gaming techniques can motivate personnel in ways that handouts, lectures, and other traditional forms of communication cannot.

Activities and interests. With the increased use of technology, video games, and general connectivity comes a decrease in physical activities, with adolescent obesity quadrupling in the past 30 years and organized sports teams decreasing (Seemiller & Grace, 2015). Cellphones have become an integral part of Generation Z life and, as such, members of this generation tend to have higher levels of anxiety when they do not have their phones in their possession (Kick et al., 2015). In a school or work environment, this could disrupt productivity in two ways: (a) cause distress when denied access to smartphones, or (b) reduce the quality and productivity of work when frequently distracted with their smartphones (Kick et al., 2015).

Although less physically active than previous generations, Generation Z members are motivated to help others, advocate for causes they believe strongly in, and advance toward their goals (Seemiller & Grace, 2015). Motivation for Generation Z often comes from relationships and the ability to achieve specific goals they feel would make a societal difference, rather than desires for personal monetary gains. Previous research has found financial wealth to not be a driving factor for many in this generation, but there is a strong desire for financial stability. This was evident in the common theme expressed by four students at The Urban Assembly School for Emergency Management when asked what they want to do after high school: have a "stable" income and be able to provide for their families, which may mean working while in school. Quotes from four students are provided below (Puglisi, personal communication, March 28, 2017):

- I plan on going to college and maybe entering the FDNY [Fire Department of the City of New York] while attending college. (12th grade male)

- Honestly, my plan is to get a job that will allow me to get a stable income. My goal is to get a job that allows me to make over $100,000/yearly. Such as becoming an emergency manager, or joining the prestige law enforcement such as the FBI, or homeland security. (11th grade male)

- My Goals after graduating college is to get a good job in the field of mechanical engineering, specifically my goal is to make a stable income of $100,000/per year. In which I could provide a very comfortable life for my current and future family. (10th grade male)

- After graduating I plan to go to college and major in science. I also plan to become a microbiologist and eventually get a Ph.D. in biology. However, in the process of becoming a microbiologist, I plan to get a job in between to help me get by and help provide for my family. (10th grade female)

Community service is one example of how Generation Z is using its skills to help make a difference within its communities. The current public education system requires service projects and volunteer hours, so this characteristic has become engrained in their lifestyles. Although not all Generation Z members will continue to serve in this capacity beyond the requirements, 90% have engaged in some form of community service, and one study reported that one third (another study reported more than half) of the respondents anticipated performing community service when they go to college (Seemiller & Grace, 2015, p. 141). However, the actual statistic of those who followed through with volunteering in college fell to 6% for the participants in Seemiller

and Grace's survey (p. 142). The authors suggest that this may be because Generation Z

members are more interested in addressing problems (e.g., advocating for equal rights) rather

than symptoms (e.g., serving in a soup kitchen). The same four students at The Urban Assembly

School for Emergency Management shared another common theme when asked whether they

volunteer in their communities: they want to help foster their younger counterparts and the

generation that follows them. Quotes from these students are provided below (Puglisi, personal

communication, March 28, 2017):

- Yes, anytime there's any opportunity at my school, if I have the time, I will volunteer.
  The best one I have participated in was Shoreline because I worked with other
  schools to develop ways to help youths. (12th grade male)

- Yes, indeed, such as helping children with reading and playing hockey. (11th grade
  male)

- I started to participate in many volunteer programs like giving back to the people
  from Far Rockaway and helping them build back their houses. Also, I participated in
  the program in which we had to read to little kids and help them with their readings.
  (10th grade male)

- In my community, I take part in reading to younger children and another program that
  allows us to tutor younger children. (10th grade female)

Despite the low sustained volunteer rate in research studies, Generation Z members still

have a desire to help their communities by participating in associations and organizations, taking

on community leadership roles, or coordinating fundraisers (see Figure 4). The key for

motivating a member of this generation is to find a civic role that best fits the cause that he or she

Figure 4. First United Methodist Church choir from Georgia volunteered to clean up debris in Oklahoma City after a tornado struck. From Armstrong, G., 2013, FEMA news photo. Retrieved from https://www.fema.gov/media-library/assets/images/71453

is passionate about. By combining a passion like community engagement with learning

opportunities and a paycheck, a person in this generation is likely to continue the effort for the

long term, making that job his or her mission in life (Seemiller & Grace, 2015).

Many in Generation Z have not yet entered the professional world, so this is the time for

employers to begin fostering interest to attract young people to their professions. They can do so

by conducting interactive programs, highlighting role models within the profession, hosting

simulated exercises, and sharing information about the technological aspects of the profession

that may spark an interest (Faithfull-Byrne, Thompson, Convey, Cross, & Moss, 2015). The four

students who shared their experience at The Urban Assembly School for Emergency

Management (UASEM) highlight the importance of engaging youths through grassroots efforts

such as community outreach and word of mouth. The students' quotes are provided below

(Puglisi, personal communication, March 28, 2017):

- I found out about UASEM program at the high school fair for second round. I

  decided to participate because I was interested in the emergency management aspect

  of the school. (12th grade male)

- I found out about UASEM through a friend. He had explained the theme of the

  school, which was very unique. A school that gives knowledge on emergencies, how

  to prepare, and recover from certain situations and disaster. Which sounds simple,

  but is very complex to implement. (11th grade male)

- I found out about UASEM through a friend. He mentioned many things that were of

  my interests. The school caught my attention because of the opportunities that were

  provided for the students. Opportunities like working with FDNY [Fire Department

  of the City of New York] and the mentoring programs with AOL. (10th grade male)

- I found out about the UASEM program through a family friend who encouraged me

  to look into the school. The fact that it was a small school and it offered numerous

  opportunities that I can take part in. (10th grade female)

Generation Z is a motivated group of young people, who have the ability to flourish with

guidance and opportunities provided through academic institutions and employers. When asked

what advice he would like to share about Generation Z, Anthony S. Mangeri, CEM®, director of

strategic relations for fire services and emergency management and faculty member at American

Public University System, stated:

I am reminded of the phrase, "They don't know what they don't know." The reality is

that individuals—as they experience crisis events—develop a sense of a disaster's

cadence, or what is called the "prodromal stage." Generation Z, while more educated and

technology savvy, do not have the experience. (Mangeri, personal communication,

March 27, 2017)

To effectively manage this emerging young workforce, he continued:

Seasoned professionals need to answer the Gen Z questions of, "Why not? What

if? etc." Generation Z professionals bring an understanding of systems and technology

that is needed. Answering the questions posed by this group is the beginning of a

program assessment, something we often put off. We get too comfortable, but all things,

including programs, need to be regularly refreshed and renewed. (Mangeri, personal

communication, March 27, 2017)

Interpersonal Factors: Communicating and Building Inter-/Intra-Generational Social

Interactions

For a generation that has never known a world without technology, there are differences

in how Generation Z communicates and interacts socially within and between generations.

These differences will become more apparent as this young generation enters the workforce and

works side by side with up to five different generations, each with their own work ethics. The

style of leadership used and the mentoring provided to Generation Z members play critical roles

in how well this emerging workforce integrates into the world of emergency management.

Work ethic. It is predicted that self-employment will grow 6% annually through 2020

(Seemiller & Grace, 2015, p. 103). Perhaps this statistic could be related to the desire of about

half of Generation Z members, who are just beginning to enter the workforce, to be their own bosses (Seemiller & Grace, 2015). To this generation, a job is more than a paycheck because they want what they do to be meaningful. Although there is a positive relationship between work engagement and meaningful work, it can vary between generational cohorts with Baby Boomers being more engaged than Generation X and Millennials (Hoole & Bonnema, 2015). As such, it is important to also study Generation Z to develop strategies that can boost engagement across the cohorts.

Throughout their lives, Generation Z has had broad exposure to a global environment (with a wide variety of cultures and people) that has introduced them to different perspectives and ways of performing tasks. Despite the lack of creative learning in school, Generation Z has been described as innovative, savvy, and career minded. The majority of Seemiller and Grace (2015, pp. 8–10) survey's respondents also self-reported that they are loyal (85%), thoughtful (80%), compassionate (77%), and open-minded (70%). All of these traits are qualities that are beneficial to the work environment.

Leadership, team-building, communication, and problem-solving skills are other traits that employers often look for in college graduates (Seemiller & Grace, 2015). Although research shows that Generation Z has these qualities, they differ from other generations. For example, to this generation, the traditional boss–employee relationship is not as effective as in the past. Generation Z employees tend to respect authority and hierarchies, but they have a desire to be heard, to share their ideas and perspectives, and to be involved in the decision-making process when appropriate (Seemiller & Grace, 2015). The "we-centric" rather than "me-centric" approach in the workplace could blur lines between employers and employees, but it also

promotes involvement in the decision-making process at all levels. The key to retention, though, is to maintain a solid supervisor–employee relationship (Kick et al., 2015).

The survey results from Seemiller and Grace (2015) of 1,143 college students, who were born in 1995 or later, described how they see themselves and others. Although the sample size and demographics are not as diverse as the population as a whole, it is still one of the most comprehensive surveys of participants in this generation to date. Results found that Generation Z is much more loyal, compassionate, and career minded than its predecessors, and making a difference outweighs money as a driving factor. These are all good traits to have in emergency management and other employment positions. However, current leadership styles may need to adapt to fully leverage the incoming workforce. In addition, one observation from Seemiller and Grace's (2015) research raises concern that many surveyed participants in Generation Z view themselves more favorably than they do their peers (e.g., more responsible, dependable, and caring of others). This view should be heeded when developing team-building plans for a multigenerational workforce.

Although having an online social-networking presence is common for Generation Z members, they do not fully grasp the value of networking for professional purposes or to build interpersonal skills (Mileski, Kruse, Lee, & Topinka, 2016). To build awareness of the need to improve these skills, Generation Z must be taught and then reinforced how to transfer the online networking skills that they currently hold into skills that could benefit them as they transition into the professional world.

One article describes the technological and other changes that accompany Generation Z with an analogy of farming (Humble, 2013). To be able to succeed in a multigenerational

environment, the new "seeds" need to be strategically planted and receive the proper nutrients in order to grow and produce. This means that existing resources may need to be used in a different way than in past generations in order to promote the "cluster of skills" (i.e., collaboration, critical thinking, communication, and creativity) that some believe are lacking in this young generation (Humble, 2013, p. 66). By replacing much of the physical world for a virtual reality, Generation Z requires workplace mentoring from older generations to cultivate skills and knowledge that are no longer taught in many schools (Short, 2014). In doing so, connections can be made between generations that require physical-world interaction.

Leadership abilities. As five generations (i.e., Veterans, Baby Boomers, Generation X, Millennials, and Generation Z) begin to work together in agencies and organizations across the country, it is important to examine the differences that could hinder collaborative and productive work environments. Although leadership styles and expectations play significant roles in any work environment, generational differences add an extra layer of complexity. For example, each generation has different leadership style preferences (Al-Asfour & Lettau, 2014):

- Veterans have a great amount of respect for authority, so they prefer a directive style with a well-defined hierarchy.
- Baby Boomers respect autonomy and share responsibility, so they prefer a collegial and consensual style of leadership.
- Generation X members are not as respectful to authority as previous generations, yet are fair, honest, and straightforward, so they prefer egalitarian relationships.
- Millennials believe in pulling people together for collective action, so they prefer polite relationships with authority.

With up to five generations working together, there are benefits to intergenerational workforces as well. "It strengthens the profession and will make us more relevant to these five generations of potential disaster victims and emergency responders," said Kay Goss, who is the former associate director of FEMA and founder of the FEMA Higher Education Program (with over 300 degree programs nationally; Goss, personal communication, March 21, 2017).

Technology facilitates the movement of information, and Generation Z is certainly a technologically savvy group. The ease of access leads to information gathering, even when not actively seeking it (e.g., news reports and social media encourage them to hear opinions that may vary from their own). With this global collection of information coupled with an expanded understanding and acceptance of different races, genders, ethnicities, religions, etc., these young people are better equipped to work well with an integrated workforce and to think outside the box (Seemiller & Grace, 2015). Generation Z has grown up with strength-based leadership as a dominating leadership approach (Seemiller & Grace, 2015). When at home, in school, or at work, this generation is constantly being tasked with identifying its own strengths, which naturally would push leaders from this generation to focus on strengths over deficits. Generation Z's idea of leadership involves the following (Seemiller & Grace, 2015):

- leveraging the capacities of others,

- engaging in complex thinking and innovative problem solving,

- utilizing a collaborative and interdependent approach,

- communicating effectively,

- being adaptable,

- guiding others to greatness,

- being optimistic,

- persevering through adversity, and

- employing honesty and altruism.

The ability of this generation to collaborate, coupled with its optimism, lays the groundwork for overcoming seemingly impossible tasks.

Although Generation Z shows concern for other people and critical issues, competition and the need for others' approval are less pronounced (Seemiller & Grace, 2015). These traits can be valuable in leadership roles, where tough decisions need to be made and someone is likely to push back against these decisions. This generation is able to shift its leadership styles from "Doing (executing a task) to Thinking (strategizing a plan) to Relating (building the team) to Leading (taking initiative)," with Doing as the most employed style and Leading as the least (Seemiller & Grace, 2015, p. 164). By being able to change styles depending on various situations, Generation Z members may become more versatile leaders than their predecessors. This generation wants to identify problems and find solutions, and they can adjust their leadership styles in order to complete tasks.

A study conducted in a high-injury area of South Africa describes the phenomena of geospatial technologies and volunteered geographic information through the collection of public health information, which is commonplace for Generation Z (Cinnamon & Schuurman, 2013). In such areas where resources and available data are limited, it is a challenge for leaders to obtain sufficient information to make decisions about diverse and complex issues. The field of geography is helping to fill this gap with technology and data collections that include global positioning systems (GPS), geographic information systems, geotagging, and geospatial

interfaces. In the South Africa study sample of marginalized communities, where existing public

health data is minimal, emergency medical systems personnel were asked to voluntarily report

injury "hotspots" by tagging the type of injury and suspected cause on a tablet computer

preloaded with geotagging capabilities (Cinnamon & Schuurman, 2013). The result was a robust

map detailing the areas with significant accounts of violence and motor-vehicle incidents, which

are the two leading causes of injuries in that area of South Africa.

  With traditional data collection lacking in some geographical areas, a hybrid approach to

data collection that combines existing data sources with voluntarily collected data would be

significantly more effective when making leadership decisions (Cinnamon & Schuurman, 2013).

Smartphones are equipped with geospatial technologies that can pinpoint locations, which have

proven to be helpful in disaster management. For example, during a disaster, citizens knowingly

or unknowingly use geospatial technology such as Google Maps, social media sites, and other

GPS-enabled activities that can facilitate disaster management and response efforts. The

widespread and growing use of handheld technologies increases public participation and

emergency preparedness and response capabilities. The next step, which the Cinnamon and

Schuurman (2013) study in South African did not explore, is to define how decision makers can

harness the information while ensuring proper storage and oversight of the data collection

process.

  Communication styles. Despite using casual language and emojis in texts and emails,

this new generation is intelligent, responsible, and driven to change the world (Seemiller &

Grace, 2015). With 6-year-olds now rivaling 45-year-olds in their technological aptitude,

Generation Z has had a thirst for knowledge beginning at a very young age (Avery, 2015). This

means ensuring that they receive adequate information from reliable sources (e.g., doctors, employers, leaders), rather than entrusting them to seek and verify critical information on their own (Erwin, 2016). One study of 7- to 11-year-olds referred for magnetic resonance imaging (MRI) found that Generation Z wants to be part of the research into the procedure, but most current information is not geared toward this age group (Avery, 2015). Unfortunately, most clinical information has not been updated to meet the information needs of this new generation, and much of the information smaller children seek may be unreliable on the Internet. Information literacy requires that professionals understand how to handle, create, and disseminate information accurately to the targeted audience (Pérez-Escoda, 2016). Those in Generation Z want to be active participants in decisions that directly affect them. Therefore, as this generation enters the workforce, they need to be treated as part of the team and informed at the same level as their older counterparts (Avery, 2015; Erwin, 2016).

Even though 90% of adults and 78% of precollege Generation Z members in the United States reportedly have cellphones, actually placing phone calls is considered "old school" to Generation Z (Seemiller & Grace, 2015, p. 29). In fact, some students reported that, each month, they send more than 3,000 text messages, which may seem like a foreign language to older generations (Seemiller & Grace, 2015, p. 58). With texting being preferred over voice calls and emails, this raises questions about how to effectively communicate with this young generation. This is especially true considering that what seems appropriate to this generation (i.e., quick informal messages) may not be for older generations. As such, it is critical that all generations familiarize themselves with standard practices of those born before and after them.

With the introduction of Generation Z, some organizations may comprise five

generations (i.e., Veterans, Baby Boomers, Generation X, Millennials, and now Generation Z),

each with very different beliefs, work ethics, and communication styles (Al-Asfour & Lettau,

2014; Wiedmer, 2015). When multiple generations are integrated into a single work

environment, tensions and misunderstandings can arise. Even if an emergency management

agency does not include all these generations, emergency managers certainly encounter these

disparate groups during their routine responsibilities and community outreach efforts. In order to

communicate across generational cohorts, it is critical to possess both oral and written

communication skills to address and solve complex problems (Wiedmer, 2015). An article that

examines the link between Generation Z's reliance on digital communications and future

relationships in the workplace offers seven recommendations for employers to help reduce

communication problems between the generational cohorts (Kick et al., 2015):

- Create policies regarding social media and smartphones to define employee
  expectations.

- Ensure job descriptions and training efforts that emphasize the importance of both
  oral and written communication skills.

- Integrate information from employer networking sites into in-person
  communications. Digital communications should not substitute the need for in-
  person discussions.

- Pair people together from different generations in order to share skills and knowledge
  (e.g., a Baby Boomer could help a Generation Z partner develop traditional

communication skills, and the Generation Z member could help the Baby Boomer

develop modern technological skills).

- Create intergenerational work teams to share various perspectives, develop a better

  understanding of other generations, transfer knowledge, and build stronger

  relationships.

- Include new employees in volunteer and other work-related events to develop

  relationships in a work-appropriate yet social setting.

- Provide training and workshop opportunities to improve necessary and appropriate

  communication skills.

Technology is a huge influencer in how Generation Z communicates and takes on

leadership roles. However, the ease of access to information is both a positive and a negative.

It makes members of this generation very knowledgeable, but they need guidance from their

older counterparts to ensure they are making decisions based on accurate information, which is

critical in any emergency.

With short attention spans and brief methods of communication (e.g., Twitter, Facebook,

Instagram, YouTube), Generation Z has its own way of communicating in modern society. It is

common for members of this generation to be connected online for hours each day and for them

to use different platforms for different purposes (Seemiller & Grace, 2015). For example, they

use Twitter and hashtags to inform or to receive updates about people, places, and things that

interest them (in 140 characters or less), which is also a primary source for information beyond

their network of friends. They use Facebook as a tool to inform, educate, entertain, and gather

information from a broad network of personal and professional contacts. They use Instagram to

share messages and pictures, while still maintaining a level of privacy as this information is not

stored. They use YouTube to share videos and as a key resource to learn (e.g., tutorials,

educational sources for homework, entertainment, fitness, fashion), with this generation

comprising 41% of the total videos viewed in the United States (Seemiller & Grace, 2015, p. 69).

These are currently the most broadly used social platforms because they are quick and easy to

access and use, but Generation Z does not shy away from trying new methods for sharing and

receiving information.

　　　Blogging and social gaming are other forms of communication that have become popular

among Generation Z members. Open discussion groups and closed online communities provide

places where people can find peers from anywhere in the world that share their similar interests.

In addition, a variety of mobile and online platforms for social gaming are evolving into an $87

billion market (Seemiller & Grace, 2015, p. 72). These forms of interaction offer two-way

communication, while also providing the opportunity to remain anonymous. With the broad use

of social media, videos, and gaming practices, these forms of communication are becoming

effective tools in school for teaching core lessons, concepts, and practices to Generation Z

students (Shatto & Erwin, 2016).

　　　Interestingly, although Generation Z enjoys rapid forms of communication, 83% of

students surveyed report significant value in face-to-face communication for better connecting

with and interpreting the body language of their friends, family, coworkers, and others (Seemiller

& Grace, 2015). In a global study of 1,000 Generation Z and Millennial members across 10

countries (including the United States and United Kingdom), the majority (51%) of Generation Z

respondents aged 16–20 reported that they prefer in-person communication to other forms of

communication such as emails (16%) and instant messaging (11%; Kick et al., 2015, p. 217). Of

course, the imbalance between the amount of time spent for online and in-person communication

poses challenges for this generation to develop effective interpersonal communication skills, but

there is value in using multiple modes of communication. Oral communication can build closer

relationships and ensure that information is understood, whereas digital communication can save

on travel expenses and can provide a documented record of conversations (Kick et al., 2015).

Disseminating information in an emergency has always been a challenge, but having

technologically savvy people with out-of-the-box thinking would help to reach a much larger

population. The caveat is, without phones and electricity, this generation may be

lost. Therefore, it is important for the current emergency management staff to teach this

generation some of their "old school" methods.

Emergency Management Basics

Now that the various factors that make Generation Z unique have been identified, it is

time to examine the emergency management profession as a whole to determine the impact this

generation may have on emergency preparedness and community resilience. Emergency

management is defined as, "The managerial function charged with creating the framework within

which communities reduce vulnerability to threats/hazards and cope with disasters" (FEMA,

2007, p. 4). Emergency management professionals strive to promote safer, more resilient

communities when faced with risks, hazards, and disasters. To do this, the mission of emergency

management is to "protect communities by coordinating and integrating all activities necessary

to build, sustain, and improve the capability to mitigate against, prepare for, respond to, and

recover from threatened or actual natural disasters, acts of terrorism, or other man-made

disasters" (FEMA, 2007, p. 4).

Principles of Emergency Management. In March 2007, FEMA's Emergency

Management Institute convened 12 highly respected practitioners and academics with the goal of

defining the core principles of emergency management (FEMA, 2007). That working group

agreed on eight principles that would form the foundation for developing emergency

management doctrine going forward: comprehensive, progressive, risk-driven, integrated,

collaborative, coordinated, flexible, and professional (FEMA, 2007).

Principle 1: Comprehensive. "Emergency managers consider and take into account all

hazards, all phases, all impacts, and all stakeholders relevant to disasters" (FEMA, 2007, p. 5).

All hazards are not created equal. Each community or jurisdiction needs to conduct a

comprehensive hazard and risk assessment to be able to identify existing hazards and prioritize

them based on potential impact and likelihood for them to occur. It is critical to examine not

only the primary impacts, but also the cascading impacts on critical infrastructure, economy, and

human services. Based on these assessments, detailed planning is needed during the mitigation,

preparedness, response, and recovery phases of disasters. To ensure a comprehensive plan is in

place, stakeholders at all levels and across multiple disciplines must work together for the

common goal of community resilience.

Principle 2: Progressive. "Emergency managers anticipate future disasters and take

preventive and preparatory measures to build disaster-resistant and disaster-resilient

communities" (FEMA, 2007, p. 5). As the frequency and severity of disasters rise, emergency

management must shift its focus from addressing identified disasters that have occurred, or are

about to occur, to predicting and preventing potential or emerging threats. Emergency managers

must be able to think strategically and manage community-wide preparedness and mitigation

programs. The comprehensive risk and hazard assessment described in Principle 1 provides

emergency managers with the tools needed to reduce vulnerabilities and increase capacity for

progressive predisaster actions.

  Principle 3: Risk-driven. "Emergency managers use sound risk management principles

(hazard identification, risk analysis, and impact analysis) in assigning priorities and resources"

(FEMA, 2007, p. 6). After identifying hazards, analyzing risks, and determining the impacts of

these hazards and risks, emergency managers can focus budgets, programs, resources, trainings,

and other efforts on the greatest risks for their specific communities. This process, coupled with

a comprehensive plan based on an all-hazard approach, serves as an umbrella plan that focuses

on the greatest risks, but helps protect communities against the smaller risks as well.

  Principle 4: Integrated. "Emergency managers ensure unity of effort among all levels of

government and all elements of a community" (FEMA, 2007, p. 6). Emergency management

programs must be integrated both horizontally and vertically across the public and private

sectors, thus creating a unity of effort. Such integration in emergency management, reinforced

on a daily basis, would ensure plans are executed and resources deployed without unnecessary

delay when needed. Interdependencies exist within any community, so integration of all

stakeholders into the emergency planning process is essential.

  Principle 5: Collaborative. "Emergency managers create and sustain broad and sincere

relationships among individuals and organizations to encourage trust, advocate a team

atmosphere, build consensus, and facilitate communication" (FEMA, 2007, p. 7). More than just

coordination, collaboration involves creating a robust environment where community

partnerships can flourish. Dr. Thomas Drabek, a John Evans Professor Emeritus of the

University of Denver, identified three elements of collaboration: (a) identify and engage all

stakeholders involved in a disaster event; (b) maintain contact with these stakeholders throughout

nondisaster times as well; and (c) embrace the team approach by listening to and incorporating

suggestions and concerns from other stakeholders (FEMA, 2007).

   Principle 6: Coordinated. "Emergency managers synchronize the activities of all

relevant stakeholders to achieve a common purpose" (FEMA, 2007, p. 8). Emergency managers

do not dictate what other agencies and organizations do during a disaster, but rather they

coordinate with the leadership in other agencies to ensure unity of effort and effective allocation

of resources. Under the guidance (not authority) of the emergency manager, the various

stakeholders identify common goals and divide the performance objectives among the

stakeholders. With an integrated, collaborative, and coordinated effort, emergency managers

have the necessary tools for achieving a common purpose among stakeholders and for furthering

the mitigation, preparedness, response, and recovery efforts.

   Principle 7: Flexible. "Emergency managers use creative and innovative approaches in

solving disaster challenges" (FEMA, 2007, p. 8). Emergency managers need to be able to think

outside the box to address problems and achieve goals with innovative solutions. Emergency

managers must be able to adapt quickly to uncertain and changing situations and make critical

decisions based on the short- and long-term needs of the community—even when external

pressures (e.g., social, economic, political) may contradict. As a disaster scenario evolves,

emergency managers need to have a full toolbox of tactics and procedures on hand rather than a

rigid plan that cannot adapt quickly enough for effectively managing the dynamic environment.

Principle 8: Professional. "Emergency managers value a science- and knowledge-based

approach based on education, training, experience, ethical practice, public stewardship, and

continuous improvement" (FEMA, 2007, p. 9). The emergency management profession is

committed to encouraging and maintaining high standards for emergency managers. Committed

emergency managers strive to continue their education and professional development through

professional associations, board certifications, and specialized body of knowledge—comprising

historical disaster data, disaster-related social sciences research, and emergency management

standards, guidelines, and best practices (FEMA, 2007). Emergency management standards

include the National Fire Protection Association (NFPA) 1600 and the Emergency Management

Accreditation Program (EMAP) Standard.

Since 2007, when the FEMA Working Group created these eight core principles of

emergency management, the document has not changed. "This document is intended to be a

timeless elevator speech on emergency management," said Kay Goss, who is one of the original

working group members (Goss, personal communication, March 21, 2017). During her lifelong

career in emergency management, she has watched the field grow and adjust as new generations

have entered the workforce.

Teaching the fundamentals of emergency management. As the field of emergency

management grows and expands, the educational opportunities also broaden. For example,

FEMA's Emergency Management Institute offers a series of online professional development

independent study (IS) courses. These online courses provide students with opportunities to

move through lessons at their own pace, with the incentive of receiving course certificates after

passing the online exams. One of these courses is IS-0230.d, "Fundamentals of Emergency

Management," which introduces new or potential emergency management professionals to an

overview of emergency management, its history, core capabilities, and partner networks, as well

as roles and responsibilities before, during, and after a disaster (FEMA, 2013).

> Kay Goss offered this advice about when to begin teaching emergency management:
>
> I seek to have emergency preparedness taught beginning in kindergarten through the
>
> Ph.D. level. There is now an emergency management high school and almost 600 higher
>
> education degree and certification programs in emergency management and homeland
>
> security around the country. Emergency management experience is a great background
>
> for any and all professions. (Goss, personal communication, March 21, 2017)

To encourage emergency preparedness from a young age, FEMA provides a classroom-based

curriculum for fourth and fifth graders, entitled Student Tools for Emergency Planning (STEP;

FEMA, 2016; see Figure 5).

Goss noted that Maryland has already implemented an initiative through the State Board

of Education, requiring all students to be educated on emergency preparedness. As mentioned

previously, The Urban Assembly School for Emergency Management (n.d.) is another example

of emergency preparedness efforts at the high school level, with emergency management training

targeted directly toward Generation Z. In 2017, the first freshman class to go through the

program is graduating, but taking with it the school's core values, which were instilled in the

classroom: resilience, empathy, achievement, purpose, and responsibility.

Figure 5. Class at Beethoven Elementary School in Boston, Massachusetts, prepares for emergencies with the Student Tools for Emergency Planning (STEP) Program. From Collins, M., 2008, FEMA news photo. Retrieved from https://www.fema.gov/media-library/assets/images/55061

Another emergency management opportunity offered to Generation Z is FEMA Corps, which was conceived by then-Deputy Administrator Richard Serino and implemented in 2012 (see Figure 6). Fully funded by FEMA (including room, board, travel, and living allowance for participants), FEMA Corps builds on the core principles of emergency management in a 10-month residential program employing team-based service projects (Corporation for National & Community Service, n.d.). With five campuses across the United States (i.e., in California, Colorado, Iowa, Maryland, and Missouri), participants aged 18–24 years gain experience and training through a variety of educational opportunities, including: assisting disaster survivors; educating community members on preparedness issues; developing preparedness outreach material; assessing community needs; and updating and managing data.

Figure 6. Induction ceremony of the 2013 FEMA Corps class. From FEMA News Photo, 2013. Retrieved from https://www.fema.gov/media-library/assets/images/69681

Five years later, the federal government has signed another five-year agreement with AmeriCorps National Civilian Community Corps (NCCC), so the FEMA Corps program is able to continue to evolve and grow. Richard Serino, who remains an active observer and member of the AmeriCorps Board, described the intent of the program to draw the newest generation of workers into public service:

> The program was intended to develop and change to bring more young people into emergency management. It provides participants opportunities to get experience where they haven't anywhere else. Now there are thousands of young folks who have gone through the program. (Serino, personal communication, March 25, 2017)

He acknowledges the new ideas and changes that Generation Z could offer to the field of

emergency management, "They want things done immediately, but I don't think that's a bad

thing. They are open to failing, which older folks are not as willing to do. Some of the most

creative ideas come from such platforms."

     With some resistance to the program when it was launched in 2012, agencies now tell

Serino they do not think they can operate without FEMA Corps. However, what is most

satisfying about FEMA Corps to Serino is, "Seeing how many people who have reached out to

me and said that FEMA Corps literally changed their lives. Whether emergency management,

police officers, paramedics, or firefighters, they continue to reach out to me" (Serino, personal

communication, March 25, 2017). Some youths enter FEMA Corps not knowing what they want

to do with their lives beyond the program, and some leave the program and continue their lives in

public service. "I see how they broaden their energy and compassion to help survivors," said

Serino (personal communication, March 25, 2017).

     A growing number of professional development opportunities are emerging in the

emergency management field. "The field gets better all of the time now that it is finally

recognized as a true profession, with degrees, certifications, standards, and accreditations," said

Kay Goss (personal communication, March 21, 2017). One broadly respected certifying

organization is the International Association of Emergency Managers (2017), which offers the

Associated Emergency Manager (AEM®) and Certified Emergency Manager (CEM®)

designations. Such certifications provide a competitive edge to professionals in the field and are

likely to entice an emerging workforce that values educational opportunities and career-related

goals and incentives.

Theoretical Approach

Gaps in Literature

Although more comprehensive than other resources written about Generation Z, the primary source used for the current research (i.e., Seemiller & Grace, 2015) reported that its survey included responses from only 15 public institutions, did not include all 50 states, and did not include institutions that were single-gender, historically Black, or religiously affiliated. These omissions were not deliberate and the researchers did strive to obtain a broad cross-section of the country, but responses were limited to those who voluntarily responded and fit the age requirement requested.

Research groups in some of the surveys were limited in diversity owing to the nature of activity (e.g., the male–female ratio of people who play Minecraft is significantly skewed toward male populations). In addition to samples not being demographically aligned to all populations across the United States, research specifically focused on Generation Z was limited within the emergency management field, so information was pulled from a variety of disciplines (e.g., nursing, business, education) and from research in other countries, then applied to emergency management. Of course, it must be noted that trends may vary from one region to another and from one year to the next. This paper attempts to fill the gap and explore the impact of Generation Z in the emergency management space.

Study Theory

This paper uses argumentative theory (Mercier & Sperber, 2011) to make linkages between Generation Z characteristics and the core requirements for effective emergency management. The very nature of a demographic that is still growing and changing makes it

difficult to quantitatively predict the future of this generation. As such, qualitative data was

gathered from a broad range of studies, articles, and personal communications to make

inferences about the future actions and influence that Generation Z will have on the field of

emergency management. By gathering a cross-section of perspectives from various disciplines

and jurisdictions, commonalities could be identified and deductive reasoning supported.

Hypothesis

Each generation grows up under different circumstances and in different societal

environments, which helps them to develop their own strengths and weaknesses. As such,

children offer new opportunities as well as new challenges that differ from those of their parents.

In a world with many natural and human-caused threats, environmental changes, technological

advances, and other evolving factors, Generation Z does not see the world through the same lens

as its predecessors. As the technologically savvy Generation Z enters the workforce, it is more

aware of the long-term dangers posed by climate change and international threats of terrorism.

However, its dependence on computers and handheld electronic devices detract this generation

from building situational awareness and interpersonal skills that are necessary for disaster

preparedness, response, or recovery efforts. By understanding these differences in thinking,

behavior, and communication, emergency management professionals could better leverage the

new strengths and opportunities these young people offer, while helping to overcome the

weaknesses and challenges that could hinder community resilience.

Research Question

What effect will Generation Z have on emergency preparedness and community resilience?

- *Societal factors:* How have world events shaped their behaviors and thoughts related to threats, risks, and hazards within their communities?

- *Educational factors:* How do educational opportunities at home and at school differ from previous generations?

- *Interpersonal factors:* How do they communicate with others and build intragenerational and intergenerational social interactions?

Methodology

Selection of Method

To examine general characteristics of the post-Millennial generation (Generation Z), this research uses a desk research strategy employing a meta-analysis method for collecting data from a cross-section of the population (Van Thiel, 2014). This method facilitates the process of collecting and analyzing data from various qualitative resources within the time provided for conducting this research. Many researchers and research groups have studied members of Generation Z at different stages of their lives (i.e., from birth, through childhood, to adulthood) to determine how their traits differ from previous generations. This research considers factors such as learning styles, work ethic, leadership abilities, environmental views, social skills, behavioral traits, and activity levels of Generation Z to deduce the effects that these factors may have on the emergency management discipline.

Secondary analysis of previously released research published in peer-reviewed journals, current events described in news stories, and information gathered from other government and private sources provide insights into the Generation Z population as it ages and transforms into the workforce of the future. Since this generation is just beginning to enter the workforce, research is limited on its current emergency management practices and skills. However, by comparing effective emergency management characteristics with Generation Z characteristics, this research infers how well this young population will integrate into emergency management roles and will manage current and emerging risks, threats, and disasters. These inferences can then be used by emergency management agencies to cultivate and leverage the knowledge, skills,

and abilities of the next generation, which will someday have the largest living population in the country.

Data Collection Process and Analysis

When qualitatively analyzing specific groups within the human population, it is necessary to begin with some generalities. In order to create general assumptions about the Generation Z population, information is gathered from a broad range of sources. Data for this research is collected from surveys, studies, and other research that have previously been published. This meta-analytical data collection approach provides perspectives from various researchers who focused on different characteristics of Generation Z groups to assess psychological and behavioral aspects that may be similar to or different from older generations. Secondary analysis of previously released studies combined with content analysis of current events and news reports provide robust generalities to analyze. After the initial data collection process, these traits are compared to the roles and responsibilities in the emergency management field to determine alignment and gaps. Where gaps exist, further research and analysis help to formulate possible solutions for bridging the gaps and inspiring youths to build resilience into their lives and communities.

Researcher's Perspective

Potential Bias Issues. Any research that examines specific groups of people introduces the possibility of some potential bias. When conducting secondary research, as in this paper, any bias in the primary research can be compounded when used in future research. For example, if a previous study was conducted to support a specific hypothesis or research goal, the research may overlook evidence for contradictory goals and hypotheses. In addition, the original researchers'

methods for collecting the data, the sources they used, and any external persons or organizations that may have had an influence on their research could play a role in swaying the original findings. Using reputable sources helps to reduce this type of bias because of the review and editing processes that such organizations have in place.

Another potential bias stems from research based on subsections of the target group. Although this paper focuses on Generation Z as a whole, factors such as race, gender, ethnicity, and religion could influence the results for any particular study. To minimize the possibility of this type of bias, if studies that focus on specific subsections of the population are used, this information is noted. However, there is still a possibility that a primary source may use a nondiverse group that is not listed as such (e.g., a Generation Z study that was conducted at an all-girls school, with a religious organization, or in a high-poverty area). This study strives to gather a broad cross-section of the target population rather than distinguishing the various subgroups.

Anticipated Ethical Issues. When studying people in general, and minors (i.e., people under 21 years of age) in particular, ethical issues are certainly a concern. This research does not include primary data collection from the target group of Generation Z, which minimizes potential concerns that could arise related to protecting the rights of survey and study group members. However, personal communication with people who have worked closely with this target group must also protect the privacy of any individuals or groups being discussed. When engaging in personal conversations, no identifying information of third persons has been requested before, during, or after the discussions. Permission to quote people who shared information for the purpose of this study has been obtained via email, with the opportunity to review the quoted text

in the context in which it is used. This process ensures that information is quoted accurately and

there are no legal or other repercussions from sharing the quoted information.

Limitations of the Study

This study poses several challenges for gathering data and drawing assumptions from that

data. First, this research assumes that Generation Z is comprised of people born in 1995 or later,

but research sources vary regarding the specific year when the Millennial generation ended and

Generation Z began. As such, some information gathered may include people born a few years

earlier. Second, this research is being conducted on a generation that is just beginning to enter

the workforce. This means that, rather than examining this generation's current work practices,

much of the analysis involves speculation based on character traits and other factors that the

research finds. Third, as a young generation, most in this group will undergo further growth and

change before they reach full maturity. If a significant disaster similar to 9/11 were to occur in

the near future, this generation would theoretically be more likely to adapt to the new

environment than previous generations that have fully matured in mind and body. Fourth, as

with any study of human populations, generalities do not apply to everyone within the target

group. Although this research attempts to make realistic predictions about Generation Z as a

whole, it does not assume that the results apply to every person within this generation. Despite

these challenges, the research uses currently available resources to determine relevant results.

Results

Veterans, Baby Boomers, Generation X, and Millennials compose the majority of the modern workforce, but the next generation (Generation Z, those born in 1995 or later) is now beginning to emerge from schools and colleges. Before this new generation transforms into a significant portion of the workforce, it is important to determine what makes these young people unique and what they can offer to further the field of emergency management. Societal, educational, and interpersonal factors all have effects on how Generation Z thinks, behaves, and leads. These factors, coupled with emergency management principles, provide a window into what emergency management might look like in a post-Millennial world.

Behaviors and thoughts continually develop through people's lives beginning at birth. Although parents have always had an influence over their children, the dynamics of the parent–child relationship differ from generation to generation. For Generation Z, an economic crisis spurred the need for both parents to work, these dual-income families created a greater need to carefully balance work and family, and that balancing act led to Generation Z becoming more independent and responsible for themselves at a young age. A combination of these factors also led this generation to view their parents as role models and mentors. The relationships they have with their parents begin the development process of social skills and behavioral tendencies.

Rather than adopting the Millennials' "me-centric" attitude, Generation Z is more comfortable in a "we-centric" world, where people of all races and genders are regarded as equals and any has the ability to ascend to a leadership position. The inclusive attitude makes Generation Z more open to diversity and change, perhaps because technology enables them to see the world outside their communities, a view that was often hidden before the digital

communication boom. Although this generation's members like being able to stay connected

through social media and other technological outlets, they also value their privacy and

independence. As an entrepreneurial group, this young generation understands the social and

financial benefits as well as the privacy pitfalls associated with modern technology. By

embracing change, they are adaptable to new and evolving environments.

Being adaptable is beneficial when faced with disasters that have plagued the world since

1995. Technology ensures that threats and disasters can be discussed and viewed regardless of

where they occur around the world. As such, Generation Z has an acute awareness of disasters

and the consequences they can cause. The almost daily dose of threats and disasters is a driving

force behind the way in which young people view society and the environment. For example,

they exhibit an increased aversion to risk, but also empathize with those affected by disasters and

embrace social diversity. With conservative ideals about financial issues and liberal views on

social issues, they view themselves as having the ability to drive systemic change. Climate

change may not be at the forefront of this generation's deliberate efforts, but actions to reduce

environmental footprints are embedded in their daily lives at home and at school.

The view toward education has shifted, not away from education but toward alternative

forms of education. Generation Z students perceive education as the key to success and an

investment in the future of the country. Although they value the cost–benefits of higher

education, ease of access to computers and information provide this generation with

opportunities that go beyond expensive brick-and-mortar schools. For example, Internet learning

is desirable to these self-reliant, independent learners and facilitates a combination of

independent and cooperative learning techniques that are not as easily facilitated in a physical

classroom. As technology strives to keep up with the needs of this entrepreneurial and experiential learning group, older generations can help to teach them how to manage some of the pitfalls associated with technology (e.g., procrastination, attention span, and information ethics). Leadership and critical thinking skills need to be taught in schools, but many of the creative thinking techniques of the past have shifted from schools to outlets such as video games.

Learning and games are a good combination for teaching and motivating Generation Z. By choosing the right program for a specific participant group to achieve predetermined outcomes, schools and employers can instill cognitive and noncognitive skills, promote creativity, change behaviors, refine skills, demonstrate role responsibilities, develop critical thinking, teach information literacy, and more with entertaining tools. Custom-built games can be used for recruiting new personnel, communicating within organizations, training personnel, and teaching best practices. With some healthy competition, participants can take risks, recognize consequences and outcomes, evaluate information, and find solutions in a no-risk environment before having to face similar situations in real life. Gaming can fill the imaginative-thinking gap and motivate participants in ways that traditional communication techniques cannot—by bringing innovative learning into Generation Z's comfort zone.

Cellphones and other forms of technology have become commonplace for younger generations and more prevalent in older generations as well. However, relationships are still a motivating factor for Generation Z when developing goals and objectives. For example, this generation has a strong desire for financial stability to support themselves and their families, and for community service that addresses problems they can help mitigate. Whereas community service projects and volunteer hours are required in school systems across the country, it is

uncertain whether this trend will continue beyond school. However, with or without

volunteering, Generation Z members do show a tendency toward community leadership roles—

civic roles that satisfy their passions, inspire a mission, and provide a paycheck.

This independent, career-minded group of young people expresses a growing interest for

self-employment. However, their loyal, compassionate, and open-minded attitude toward

meaningful work puts many into a multigenerational work environment where older generations

need to know how to engage and involve them in the decision-making process. To recruit and

retain Generation Z workers, leaders may need to adapt their leadership styles to account for this

changing environment and to effectively mentor the new and existing personnel. Skills that are

lacking need to be taught (e.g., networking, communication, and collaboration) and existing

resources may need to be used in new innovative ways. Effective mentoring can cultivate this

emerging generation and, in turn, these young people can perhaps bridge the intergenerational

gaps that currently exist by sharing their inclusive "we-centric" beliefs.

Although leadership preferences between generations differ, each has some similarity

with Generation Z's mixture of characteristics. Similarities include the following traits: desiring

a defined hierarchy (Veterans), respecting autonomy (Baby Boomers), being fair and honest

(Generation X), and creating collective action (Millennials). Generation Z has been trained to

identify its strengths and seems to be ready to use its out-of-the-box thinking within an integrated

workforce. With an adaptable leadership approach and broad knowledge of advancing

technologies such as geospatial handheld devices, this new generation is well positioned to

integrate modern tools into disasters and emergency response. Beyond data collection, though,

this young generation may require further guidance in how to identify reliable sources, analyze

the harnessed data, and create actionable information.

Communication styles differ among generations—phone calls (i.e., personal, oral,

lengthy communication) of older generations equate to texts (i.e., impersonal, written, brief

communication) of younger generations. Such intergenerational discrepancies can create

misunderstandings and challenge preconceived work ethics. As Generation Z enters the

workforce, it is necessary to define expectations and parameters for calls, texts, social media, and

other forms of communication. To instill agency-wide expectations, agencies could form

intergenerational workgroups to share skills, transfer knowledge, and provide different

perspectives. A team effort with well-informed members can help close any gaps that exist with

regard to oral and written communication skills. Technological tools help people learn new

skills, share information, and maintain relationships without geographical hindrances. However,

even the technologically savvy Generation Z recognizes the value in face-to-face interactions,

which can reduce some of the potential pitfalls, such as mining inaccurate information from an

unending source of electronic data. Despite the generational preferences, there is significant

value in employing multiple modes of communication (i.e., oral, digital, in person) in emergency

management and other environments.

Emergency management is a unique profession that necessarily spans multiple

disciplines, multiple jurisdictions, and multiple generations of people. A 12-person FEMA

Working Group developed the following eight core principles of emergency management to

ensure that current and future emergency managers are equipped with the right tools to protect

their communities from any type of natural or human-caused disaster: comprehensive,

progressive, risk-driven, integrated, collaborative, coordinated, flexible, and professional

(FEMA, 2007). These principles describe the need for emergency managers to do all of the

following:

- work toward a common goal;

- shift focus from response to predisaster mitigation;

- assign priorities to hazards and risks for developing plans;

- ensure a unity of effort;

- create and sustain relationships;

- synchronize rather than dictate activities of various stakeholders;

- use out-of-the-box thinking to adapt to changing and uncertain circumstances; and

- never stop learning and developing skills.

These principles have not changed since their inception, nor do they need to, despite the evolving

nature of the discipline and the threats and disasters that it faces.

Based on these principles, FEMA and other organizations have developed educational

opportunities and trainings. However, emergency management is a practice that should begin in

young children and never end. For example, some school systems have integrated emergency

management training into their curriculums. At a higher level, FEMA's Emergency

Management Institute offers many independent study courses for professional development,

which participants can take at their own pace (e.g., "Fundamentals of Emergency Management";

FEMA, 2013). Immersing Generation Z in emergency management, FEMA Corps offers a 10-

month residential program for young adults. With these programs and trainings—as well as

standards and accreditations such as NFPA 1600®, EMAP Standard, and CEM® certification—

the emergency management field has defined its scope and mission and is poised to train a new

generation of personnel and continue the ongoing development of current personnel.

Discussion

Summary

By examining information from various sources that discuss, for example, staffing issues related to nursing, gamification as a learning style, private sector leadership building, and non-U.S. perspectives, this paper provides a comprehensive picture of Generation Z's strengths and weaknesses, and how these traits relate to the emergency management field. Generation Z displays characteristics that, in general, would be conducive to effective emergency management and community resilience practices. Even those in this generation who do not enter the emergency management field could prove to be beneficial public, private, or nonprofit partners to help further the mission of whole community resilience to a greater degree than previous generations. The strengths of this generation seem to outweigh the weaknesses, as traits such as communication skills and "old school" techniques are far easier to teach than compassion, tolerance, and drive to make communities better and more resilient.

Looking at the eight Principles of Emergency Management (FEMA, 2007), a comparison can be drawn with the widely viewed characteristics of Generation Z. First, emergency managers should be comprehensive—including all hazards, all phases, and all consequences—to work toward a common goal with all stakeholders. Generation Z saw the cascading effects of an economic crisis, the devastation of 9/11, the ongoing cleanup of Hurricane Katrina, and the emotional trauma following terror attacks. This generation is not disillusioned to believe that hazards, threats, and risks do not exist. Their tendency toward risk aversion could inspire them to take mitigative efforts to prevent such disasters from harming their communities in the future.

Second, emergency managers should be progressive and focus more on predisaster planning, which in turn would mitigate the response and recovery phases of disaster. Generation Z is not afraid of change and has a tendency to want to solve problems rather than manage consequences. Predisaster planning is one way this generation can use its entrepreneurial skills to build community preparedness and resilience programs. Perhaps through interactive social media networking and innovative gaming techniques, this young population can develop better ways to build preparedness into the psyche and routine of future generations.

Third, emergency managers should be risk driven and assign the highest priorities to the greatest hazards and risks. Generation Z members want to make a difference in their communities yet at the same time avoid risks. Although they have a desire to save money for the future, they may see great value in spending now for preparedness efforts to minimize future risks. A financially conscious approach to emergency preparedness would also minimize wasteful spending and direct funds where they would do the greatest good for the greatest number of people.

Fourth, emergency managers should be integrated to ensure unity of effort throughout communities at all levels of management. Generation Z desires equality in decision-making practices and honesty in relationships. This generation opens more opportunities for two-way mentoring: top-down for teaching traditional skills and bottom-up for teaching technological skills. In the process of bilateral mentoring, the generational gap in a multigenerational work environment becomes smaller and the tolerance for others with different beliefs, practices, and styles becomes greater.

Fifth, emergency managers should be collaborative to create and sustain relationships based on trust. Starting from birth with their parental relationships, Generation Z has developed a collaborative "we-centric" mindset, with their parents and role models serving as mentors rather than authoritarian figures. These core relationships coupled with inclusive attitudes toward all races, genders, ethnicities, and religions, provide a solid base for community partnerships to form and thrive.

Sixth, emergency managers should be coordinated and synchronize preparedness efforts with all stakeholders, rather than dictate activities that the various stakeholders should do. Although Generation Z members prefer to work alone, they are not averse to team efforts. Emergency management offers a hybrid work environment where there are plenty of opportunities for independent learning as well as for group training, drills, and exercises. As a facilitator, this generation is equipped with the ability to accept and work with a variety of agencies with varying leadership styles.

Seventh, emergency managers should be flexible and use out-of-the-box thinking to address challenges and solve problems as circumstances change and communities adapt to new normals. Generation Z has grown up in an ever-changing socioeconomic environment and does not automatically follow common conventions for what to think and how to perform tasks. This emerging workforce addresses problems from a fresh perspective, which spurs innovative ideas and perhaps solutions that have not yet been discovered. Once again, mentoring to draw out the strengths of this generation would reveal its true potential.

Eighth, emergency managers should be professional and never stop learning and developing their skills. Generation Z students value higher education, especially when it brings

them closer to their career goals. In a career where they can follow their passions and feel like they are making a difference in their communities, it is likely this tendency will continue throughout their lives. Combining their natural skills and abilities with imaginative learning and gaming techniques would likely keep this generation engaged and motivated to contribute to long-term community preparedness and resilience.

Generation Z possesses many characteristics that align well with the principles developed for effective emergency management. However, before integrating this emerging workforce into emergency management, this generation's weaknesses cannot be overlooked. Broad use of technology and frequent texting and social media use do not equate to effective communication skills. These skills need to be taught and demonstrated by older generations of professionals. Another caveat is the level at which this generation depends on technological devices. During a disaster, there is likely to be at least some level of disruption in cellphone, Internet, and GPS services. How well Generation Z members can adapt and how much they know about "old school" preparedness techniques require further research and, most likely, additional training from seasoned professionals.

By examining societal, educational, and interpersonal factors that are considered the "norm" for Generation Z—and assuming this generation does not change its trajectory—inferences can be made with regard to their potential future contributions to emergency and disaster preparedness. First, societal factors within their families and communities have shaped their behaviors and thoughts with regard to their communities' threats, risks, and hazards. Second, educational factors have altered the ways in which they learn and play, which differ from previous generations. Finally, interpersonal factors such as work ethic, leadership, and

communication styles have changed how Generation Z builds intragenerational and intergenerational social interactions.

Recommendations

Emergency management agencies are tasked with creating safe environments for the communities they serve. This includes coordinating plans, resources, and personnel during the prevention, preparedness, response, recovery, and mitigation stages of a disaster. As the frequency and intensity of disasters increase, the need for personnel in the emergency management field also increases. As Veterans and Baby Boomers retire, their wealth of knowledge and skills for managing emergencies and disasters retire with them unless these traits are transferred to younger generations through recruitment and training efforts. Generation Z is a strong prospect for acquiring legacy knowledge and skills and for making new contributions to the emergency management's body of knowledge, but emergency management agencies must take a proactive approach to attract and retain this emerging workforce.

Everything changes and agencies must be able to adapt. Generational transitions are one such change that introduces opportunities for new perspectives, new communication techniques, and new ways of addressing problems. However, in order to leverage the incoming workforce, agencies must first understand and accept the generational differences that exist between current and future personnel. They must identify operational gaps within the agency as well as the skills and abilities of Generation Z that could help fill these gaps. Emergency management efforts encourage taking a whole community approach and engaging all stakeholders. The same is true for recruiting within the field. Generation Z is a new stakeholder that understands risks and threats, wants to solve problems, and feels strongly about helping communities.

To attract this generation to the field, emergency management agencies must emphasize the tasks that are most important to these young adults: continuing education opportunities; serving communities; risk-reduction responsibilities; solving problems; joining a growing field with many positions; individual and group learning; fast-paced environment; and need for multitasking. These types of tasks coupled with the knowledge that they can earn a paycheck doing them would be attractive to many members of Generation Z. However, grassroots efforts and outreach through schools and community programs are needed to build awareness among youths about the benefits of joining forces with the emergency management field. The following recommendations list some steps that those in the field need to take to ensure successful integration of Generation Z:

- Mentor and work with interns at the high school level to inform Generation Z about emergency preparedness.

- Develop gaming techniques to promote critical thinking and overcome risk aversion.

- Include hands-on opportunities for experiential learning.

- Integrate social media as an information sharing and communication tool.

- Encourage a social support structure to reduce stress and interpersonal conflicts.

- Create intergenerational workgroups to share knowledge and skills.

- Assign mentors with legacy knowledge and skills to new personnel.

- Provide opportunities for new personnel to share ideas.

- Define communication and interpersonal expectations.

- Integrate individual and group learning into the educational structure.

- Ensure individual accountability.

Although emergency management is competing for technologically savvy workers against industries that are more technologically advanced, this field still has many attractive activities for Generation Z. These include various emergency management activities that fall within the stages of a disaster: identifying vulnerabilities and hardening potential targets (prevention); anticipating needs and fostering partnerships (preparedness); supporting response agencies and staffing emergency operations centers (response); assessing damages and collaborating with other organizations (recovery); and reducing the impact of future threats (mitigation). This research makes connections between Generation Z characteristics and the principles of emergency management, and anticipates how these characteristics can benefit the field. However, more research is needed on practical experience as members of Generation Z begin to enter emergency management agencies.

Conclusion

In a rapidly growing field responsible for managing emergency and disaster preparedness efforts, recruiting and maintaining personnel are critical. Fortunately, an emerging workforce in Generation Z could fulfill the industry's need for more personnel and provide adaptive solutions for an ever-changing threat environment. The emergency management field could flourish as Generation Z grows into leadership roles, but only if the older generations take the time to understand their younger counterparts and use an effective mentoring style to draw out their talents and abilities. Addressing this generation's overreliance on technology is another mentoring need to draw out the underlying strengths that Generation Z possesses. As the emergency management field grows, it needs to adapt to intergenerational changes and transitions, many of which introduce new innovative thoughts and solutions. With effective

mentoring and the opportunity to demonstrate its strengths, Generation Z will likely prove to be

an agent for change to make communities more prepared and more resilient.

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APPENDIX A

Figures