



PROGRAM NEEDS ASSESSMENT
Homeland Security Emergency Management
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To successfully participate in the National Preparedness Goal, all entities in the whole community must understand its purpose and be able to engage in accomplishing its goal. The goal itself is succinct:

“A secure and resilient nation with the capabilities required across the whole community to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk.” (National Preparedness Goal). **The increasing demand in all sectors of the community for professionals, who understand the complex nature of emergency management and homeland security, combined with an aging workforce at or near retirement, has dramatically increased the need for a comprehensive program to prepare students to enter the field.”**

U.S. News and World Report published an article stating Emergency Management Specialists as one of the *Best Jobs of 2011*, with stronger than average growth in the coming decade (Webster). U.S. News and World Report includes Bureau of Labor Statistics for the field of emergency management specialists projecting better than average growth of 22% between 2008 and 2018 (Webster).

However, to fully embrace the whole community concept and ensure its viability, professionals with emergency management and homeland security knowledge, skills, and abilities will be found in most sectors of the workforce. For example: professionals in healthcare fields must understand the effects of a pandemic and/or the peculiarities and challenges of a mass casualty event; computer professionals from network specialists to software engineers must understand the threats to and importance of cyber security; construction workers, engineers, and architects must be able to ascertain the structural integrity of buildings and bridges. Nearly 85% of the Nation’s critical infrastructure is owned by the private sector, further emphasizing the fact that the public and private sectors must be working together (GAO). Emergency management and business continuity specialists share the responsibility for and contribute to the success of community resilience. (Gaston) An educated workforce with the knowledge of how best to protect the homeland, what it means to build a resilient community, and how we develop those capabilities to ensure we are prepared in both the public and private sectors will allow us as a society to be successful at managing the consequences of disasters and making our homeland secure.

Currently, the Pierce College and its collaborating colleges’ Homeland Security Emergency Management Program offers students the option of either an Associate’s degree or Certificate program. The Bachelor of Applied Science will provide students the opportunity to gain a solid foundation in emergency management and homeland security with the added benefit of allowing students to choose a specialized field, focusing on an area of interest. Specialized

credits would be awarded through the completion of electives such as; nursing, psychology, cyber security, technology, public administration, business, and transportation. Specialized topic areas added to the foundation courses in emergency management and homeland security enhance the portfolio and employability of those who complete the program.

The current HSEM AA Degree and future BAS in Homeland Security and Emergency management will prepare students to meet the demands of the Washington State's economic and workforce development needs, by providing a solid educational foundation in content areas applicable to careers in: energy, computers (technology) healthcare, engineering, public safety, construction, industrial engineering, healthcare, and business continuity. These fields appear in the latest top 25 occupations in Washington State, organized by County, April 2014. (Employment Security Department)

The profession of emergency management and homeland security is one in which both the public and private sectors must collaborate and share resources. Success is based on the whole community's ability to call on everyone's knowledge, skills, and abilities. The public sector is but 10 percent or less of the population and 85% of the nation's infrastructure belongs to the private sector. The National Preparedness Goal states; together, everyone can keep the nation safe from harm and resilient when struck by hazards, such as natural disasters, acts of terrorism, and pandemics.

The Whole Community includes:

- Individuals and families, including those with access and functional needs
- Businesses
- Faith-based and community organizations
- Nonprofit groups
- Schools and academia
- Media outlets
- All levels of government, including state, local, tribal, territorial, and federal partners" (National Preparedness Goal).

The need for the whole community's involvement has led to the growth of professional emergency management careers and a myriad of job titles. The diversity of employment opportunities includes business continuity, management analysts, environmental and civil engineers, information security analysts, construction managers, social and community service managers, utilities, transportation, water treatment, public safety, and emergency managers. BC Management is an international recruitment and research company which began with a focus on business continuity professionals. It has been expanded into fields related to business continuity such as disaster recovery, crisis management, and risk management and information security. It has been collecting data on the expanding field since 2001. In a recent report highlighting compensation, BC Management found the highest average total compensation in their eleven years of collecting data in 2012, which was \$118,707 for full-time employees.

Contractors made an average of \$124,298. The study attributed the growth in compensation to the expansion of the field. (BC Management Inc.)

Further illustrating the public-private link is the National Academies of Science recent report on Building Community Disaster Resilience through Private-Public Collaboration. This report defines resiliency as "... the continued ability of a community to function during and after stress. Implicit in discussion of building community disaster resilience is that all sectors of a community (government, private for-profit, private nonprofit, and citizens) can and should participate in building resilience through all phases of disaster: mitigation, preparedness, response, and recovery." (National Academies of Science)

In order to be successful in this resilience building, all sectors are in need of professionals who understand and can function using the principles of emergency management and homeland security. The term "community" is explained as: "Defining communities by geographic boundaries ignores the reality that disasters do not respect jurisdictions. Community-level collaboration intended to address disruptions must draw on the full array of diverse social networks in which residents and public and private entities are engaged. These are not defined exclusively by, or confined to, jurisdictional boundaries." (National Academies of Science)

Business and public sector leaders continue to expand their knowledge of how to engage in becoming an integral part of the whole community and in making that community resilient, which in turn strengthens the economy. Of the top 25 employers in the state of Washington, 19 of them would employ a professional with emergency management homeland security knowledge skills and abilities. Those employers are; Amazon, Microsoft, Sammons Trucking, Providence Health & Services, General Dynamics, Adventist HealthCare, C.R. England, Inc., University of Washington, the Boeing Company, Computer Sciences Corporation, Sears Holdings Corporation, Price Waterhouse Coopers, Marriott, Bank of America, Peace River Medical Center, Army National Guard, Deloitte, Inova Health System (Employment Security Department). Those professionals could be hired under any of a number of job titles including; Business Continuity Manager, Information Security Analysts, Computer & Information Research Scientists, Construction Managers, Civil Engineers, Environmental Engineers, Social & Community Service Managers, Management Analysts, and Emergency Management Specialists. The Bureau of Labor Statistics Occupation Outlook Handbook data for those job titles is summarized in the table below:

"Recognizing that preparedness is a shared responsibility, it calls for the involvement of everyone—not just the government—in preparedness efforts. By working River Medical Center, Army National Guard, Deloitte, Inova Health System (Employment Security Department). Those professionals could be hired under any of a number of job titles including; Business Continuity Manager, Information Security Analysts, Computer & Information Research Scientists, Construction Managers, Civil Engineers, Environmental Engineers, Social & Community Service Managers, Management Analysts, and Emergency Management Specialists.

The Bureau of Labor Statistics Occupation Outlook Handbook data for those job titles is summarized in the table below:

Job Title	Median Pay 2012	Projected Growth	Degree Needed
Information Security Analysts	\$86,170	37% Much faster than average	Bachelor's degree
Construction Managers	\$82,000	16% faster than average	Bachelor's degree
Computer & Information Research	\$102,190	15% faster than average	Advanced degree
Social & Community Service Managers	\$59,000	21% much faster than average	Bachelor's degree
Management Analysts*	\$78,600	19% faster than average	Bachelor's degree
Environmental Engineers**	\$80,000	15% faster than average	Bachelor's degree & Advanced degree
Civil Engineers**	\$79,340	20% much faster than average	Bachelor's degree
Emergency Management Specialists	\$35,000 to \$100,000 (public & private sectors)	22% much faster than average	Bachelor's degree

Management Analysts * general job title, often used to describe analysts who propose ways to improve an organization.

Civil and Environmental engineers** may work in both the public and private sectors and may be found in transportation, utilities, water treatment, energy, ports, airlines, and others.

(Bureau of Labor Statistics)

Occupational Outlook Quarterly, a publication of the U.S. Bureau of Labor Statistics, recently published an article on Careers in Homeland Security. The article described homeland security careers, both the range of employment opportunities and the general types of work. In addition to the obvious state and federal government employers, the article states; "Business, both for profit and not-for-profit – also do homeland security work. Security is one of the biggest areas of private sector employment." (Jones) The article goes on to say that the field is expansive and includes jobs which help keep workers safe. "Meteorologists, for example, save U.S. lives by predicting and warning of hazardous weather conditions. Architects and engineers ensure the preservation of buildings and other key infrastructure by designing structures that can withstand natural or human-caused disasters. And doctors keep Americans healthy, prevent the spread of disease, and diagnose and treat patients who are ill or injured. Even occupations that seem to have little to do with protecting the country can relate to homeland security." (Jones) All of which further illustrates the need for a workforce that understands the principles of homeland security. In addition to employment opportunities in business continuity and emergency management, the article highlights the need for

information security, infrastructure protection, intelligence analysis, physical security (to include transportation security), and scientific study, as all high demand jobs in the burgeoning field of homeland security. (Jones)

The State Board for Community and Technical Colleges (SBCTC) Study identified Cyber Security as being one of the key challenges in keeping pace with employers' 2030 needs for technical skilled workers and to help meet the need for bachelor prepared workers in key employment areas. The need for cyber security expertise cuts across many sectors of our economy and is just one of the focus areas for professionals in homeland security and emergency management careers. Washington State's Research Council reported that technology-related employment increased 119 percent over the past two decades, while the underlying state economy grew only 14 percent. The IT sector created two-thirds of Washington's job growth and more than half of employee-compensation growth over that time. It now represents 27 percent of all jobs in the state. (The Seattle Times, March 1, 2013).

Seattle was named as one of the 10 metropolitan areas expected to grow their IT employment by more than 8 percent in the next five years (Careerbuilder.com, 2012).

The prime areas that employ cyber security professionals are defense and national security agencies; food and water suppliers; hydroelectric, electrical power grids and public utility companies (SmartGrid); financial services; health care – with the need to protect patient records; pharmaceutical companies; companies with intellectual property and propriety information to protect (which includes all private sector entities).

According to the Bureau of Labor Statistics, Washington State has the fourth largest concentration of job clusters for security analysts, web developers, and computer network architects among the 50 states. Only in Virginia, District of Columbia, and Maryland, where security analysts are concentrated for federal government jobs and jobs supported by federal government contracts, do the security analysts, web developers, and computer network architects concentrations exceed Washington State.

Washington is in need of highly qualified cyber security professionals especially in several different state regions. Looking deeper into the data, according to the Bureau of Labor Statistics, Washington State has three regions with high location quotient concentrations of security analysts, web developers, and computer network architects. One of those areas is Seattle/Bellevue/Everett. The second most affected area is Kennewick/Pasco/Richland followed by the third effected area of Vancouver with its association with Portland/Hillsboro.

From a supply and demand perspective the competition for skilled cyber security individuals, especially with some experience, is significant. Not surprisingly, results from a recent Forrester consulting report noted the following theme emerged from employer responses when they stated "Almost two-thirds of businesses say their information security departments are understaffed, and 51% say they can't find people with the required security skills (Schwartz, 2012). (*information/data from information provided by Whatcom, Highline and Columbia Basin Community Colleges)

The Homeland Security Emergency Management online degree program prepares adults to manage emergency planning and training programs, coordinate disaster preparedness, response and recovery efforts, and navigate the administrative and technical demands of all types of emergency management efforts. The program is applicable to all emergency services fields in both the public and private sectors. It provides students with the knowledge to work in any all-hazards emergency environment. Careful consideration is given to help students understand socioeconomic and cultural diversity issues, equipping them with the skills needed to succeed in all situations and environments. Homeland Security Emergency Management courses are offered online to accommodate the challenging lives of working adults.

Providing students with the opportunity to pursue a BAS in homeland security and emergency management once established will allow the coalition of collaborating HSEM colleges of Washington State Community and Technical Colleges the ability to provide those students with the capabilities to address the State's myriad hazards. Washington's hazards are prevalent throughout the State, including but not limited to;

- Port Security and transportation (most Western Counties)
- Nuclear and toxic waste disposal and risk reduction (counties of Grant, Adams, Franklin, Walla Walla, and Yakima)
- Military installations (Pierce, Thurston, Kings, Snohomish)
- Volcanoes (Watkins, Snohomish, Pierce, Lewis, Yakima).

Washington State is one of the 16 states with the highest risk of experiencing a catastrophic earthquake according to the U.S. Geological Survey (USGS).

Conclusion

Our research clearly shows a burgeoning market for those with emergency management and homeland security knowledge, skills, and abilities. The career fields of emergency management and homeland security are dynamic and diverse. The specialization opportunities are endless as the fields continue to evolve. The Homeland Security and Emergency Management Degree Program and the establishment of a BAS degree provides unique opportunity to be in the forefront of a rapidly expanding career field which is in demand not just in Washington State, but across the Nation. Opportunities for students in homeland security emergency management are virtually endless and are apt to continue to be for the foreseeable future.