

Background

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Classrooms for Security: Harnessing Academia to Keep America Safe

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Abstract: *A homeland security enterprise that can meet the threats and challenges of the 21st century requires the assistance and commitment of America's educational system. Schools, colleges, and universities must focus on educating students and training professionals, while fostering innovation and planning for the future. More and more academic institutions are offering classes and degrees in issues related to homeland security. Partnerships between institutions of higher learning and the Department of Homeland Security are a crucial part of developing future homeland security leaders. Three homeland security experts explain how academic institutions have become core members of the national homeland security enterprise—and why this relationship must be deepened and enhanced.*

Building an effective national homeland security enterprise requires an educational system that focuses both on educating students and training current professionals, while harnessing the energy of America's academic institutions to solve problems, foster innovation, and plan for the future. America's education system can serve the nation better, expand the homeland security enterprise, extend the resources of local, state, and the federal government, and prepare leaders for the future by:

- Serving as a planning and exercise tool to state and local governments in order to provide a more seamless response and recovery role when disaster strikes;

Talking Points

- Building an effective national homeland security enterprise requires an educational system that focuses on educating students and training current professionals, while harnessing America's academic institutions to solve problems, foster innovation, and plan for the future.
- America's colleges and universities must look for opportunities to enhance their utility as national institutions. Serving as the cornerstone of the homeland security enterprise, a national effort to keep the nation safe, free, and prosperous in the face of natural disasters and terrorist attacks, is a vital mission that they should accept.
- The national homeland security enterprise currently lacks an effective planning system. The university system could assist in addressing this shortcoming.
- Universities across the country are beginning to offer degrees in homeland security programs. Encouraging collaboration in organizational and curriculum development will strengthen the ability of U.S. universities and colleges to produce qualified and knowledgeable future leaders in homeland security.

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- Providing in-depth, cutting-edge research for federal, state, and local governments in order to focus on homeland security's most pressing problems and enhancing problem-solving, including assisting in analysis of complex systems;
- Creating a system of professional development and sharing of best practices for homeland security leaders; and
- Meeting the needs of students looking to pursue careers in homeland security and informing the general public on homeland security issues, as well as furthering a public debate on homeland security.

The Department of Homeland Security (DHS) and the states should refocus their engagement efforts with the nation's academic institutions. As both public and private institutions struggle with rising costs and declining revenues from endowments and state subsidies, America's colleges and universities must look for opportunities to enhance their utility as national institutions. Serving as the cornerstone of the homeland security enterprise, a national effort to keep the nation safe, free, and prosperous in the face of natural disasters and terrorist attacks, is a vital mission that they should accept.

The Lifeline of a Guiding Idea

Planning and exercises are a valuable part of being able to adequately respond to disasters, allowing for the assessment of resources and capabilities before a disaster strikes. At the federal level, DHS has conducted the Tier I national-level exercises (formerly known as TOPOFF exercises), which bring together federal, state, and local actors to

engage in a "robust, full-scale simulated response to a multifaceted threat."¹ Many, including senior leaders at DHS, question the usefulness of these exercises. While the Tier I exercises may serve as an example of the value of planning and rehearsing for the federal homeland security enterprise, there have yet to be these kind of robust exercises at the state and local levels. The reason is a joint consequence of time, money, and resources. State and local governments are budget-strapped and spend all of their resources providing for the mere continuance of their programs.² As a result, long-range planning often fails to occur. Furthermore, state and local governments are often reluctant to engage in planning and exercises due to concern that they might expose flaws within their system—meaning more money would have to be spent to fill such gaps. But these gaps could make the difference between life and death in an emergency.

Additionally, the national homeland security enterprise currently lacks an effective planning system. The Homeland Security Presidential Directive-8 (HSPD-8), which provides overall guidance for federal homeland security planning, is currently being rewritten.³ The Integrated Planning System developed by the Department of Homeland Security under the initial HSPDs is also being restructured.⁴ Finally, a pilot effort by the Departments of Homeland Security and Defense to increase the planning capacity of state governments has been terminated and there are currently no follow-on programs.⁵

The university system could assist in addressing these shortfalls. Universities can use planning; live, constructive, and virtual training; as well as exer-

1. U.S. Department of Homeland Security, "Homeland Security: Frequently Asked Questions," at <http://jcares.net/articles/topoff4.pdf> (June 17, 2010), and U.S. Department of Homeland Security, "National Exercise Program," November 20, 2009, at http://www.dhs.gov/files/training/gc_1179350946764.shtm (June 17, 2010).
2. Matt A. Mayer, "An Analysis of Federal, State, and Local Homeland Security Budgets," Heritage Foundation *Center for Data Analysis Report* No. 09-01, March 9, 2009, at http://s3.amazonaws.com/thf_media/2009/pdf/cda0901.pdf (June 17, 2010).
3. U.S. Department of Homeland Security, "Homeland Security Directive 8: National Preparedness," December 17, 2003, at http://www.dhs.gov/xabout/laws/gc_1215444247124.shtm (June 17, 2010).
4. U.S. Department of Homeland Security, "The Integrated Planning System," January 2009, at <http://www.hlswatch.com/wp-content/uploads/2009/01/dhs-integrated-planning-system-january-2009.pdf> (June 17, 2010).
5. U.S. Department of Homeland Security and U.S. Department of Defense, "Task Force for Emergency Readiness Pilot Program," February 2009, at http://policy.defense.gov/sections/policy_offices/hd/assets/downloads/eplo/presentations/Breakout%20-%20TFER%20-%20Peake.pdf (June 17, 2010).

cises and experiments to develop meaningful data for state and local responders. This system would allow for increased preparedness and response capabilities, removing the cost burden from the states and localities and adding the knowledge and insight of university participants. Colleges and universities could become centers of excellence for assisting and supporting integrated multi-agency and public-private planning. At the same time, universities could use the knowledge gained from working on the everyday challenges of solving problems to further their own research agendas.

Virginia Commonwealth University (VCU) offers one example of such a program that conducts research to assess and improve the state government homeland security and emergency preparedness program. VCU's National Homeland Security Project seeks to enhance the preparedness level of the community, identify measures for improvement, offer educational seminars for the public, and train local and state emergency response teams, while also generating education products for students, citizens, and teachers related to homeland security.⁶

Thinking About Tomorrow

Solving the technical challenges facing security problems requires innovation. DHS's Science and Technology (S&T) Directorate has sought to provide much of the department's technological and research needs. But innovation, research, and development can be strengthened by proper grassroots facilities in place to provide cutting-edge research and problem-solving.

Currently, several types of DHS-supported teaching, training, and research programs aim to enhance the capabilities of the nation's diverse homeland security communities. The Science and Technology Directorate is the DHS component responsible for coordinating most of the department's academic and research programs. Within the directorate is the Homeland Security Centers of Excellence (COEs) program, meant to foster innovation and the devel-

opment of novel, game-changing homeland security technologies in partnership with academia. This program seeks to provide the agencies and actors within DHS with robust and innovative technology to help optimize their capabilities, while at the same time enhancing the educational experience of those students who take part in the programs.⁷

The Homeland Security Act of 2002 created the 12 Centers of Excellence based primarily at academic research institutions across the country. These COE partner universities, laboratories, and other institutions have special expertise in certain homeland security-related disciplines. The purpose of these COEs is to produce high-quality basic and applied multidisciplinary research designed to generate actionable solutions to fill current homeland security gaps. Each center, selected by Congress through a competitive process, focuses on a particular issue area of homeland security in line with the six divisions of the S&T Directorate: (1) Explosives Division; (2) Chemical and Biological Division; (3) Command, Control, and Interoperability Division; (4) Infrastructure and Geophysical Division; (5) Human Factors/Behavioral Sciences Division; and (6) Border and Maritime Security Division.⁸

Each COE is typically granted \$12 million to \$15 million over a three-year period to conduct research in its specific field.⁹ The 12 COEs involve 24 separate colleges and universities, with the centers varying in size from one university to seven separate universities and colleges located all over the United States working in concert. Several COEs also offer research opportunities for both the graduate and undergraduate students who attend. Each center pairs with at least one research division of the S&T Directorate and sometimes other U.S. government bodies, such as the Environmental Protection Agency (EPA) or the Department of Energy (DOE).

The university-based Centers of Excellence have great potential. However, in order to attract the best talent and build effective research programs, the three-year time-span is far too short. Successful

6. Virginia Commonwealth University, L. Douglas Wilder School of Government and Public Affairs, "Project Mission," March 12, 2010, at <http://www.pubapps.vcu.edu/gov/academics/default.asp?ID=187> (June 17, 2010).

7. U.S. Department of Homeland Security, "Homeland Security Centers of Excellence," November 12, 2009, at http://www.dhs.gov/files/programs/editorial_0498.shtm (June 17, 2010).

research programs for other federal agencies, including the Defense Department, suggest that a more appropriate model would look at a minimum of a five-year program with a government option for five-year renewal.¹⁰

Additionally, research efforts of DHS programs should not just be a service to the federal government. Ways to conduct this research for state and local governments must also be developed. In particular, Centers of Excellence offer enhanced opportunities for complex system analysis. Building resilience and preparedness within the nation requires addressing systems and their interconnectivity as a whole, rather than breaking them down to their individual, component parts for analysis. University research centers are well suited to provide DHS and state and local actors with this analysis of system-wide performance and components so that decision makers may better understand how each discrete action affects the system as a whole. Given the many systems that exist within the realm of homeland security—from the transportation sec-

tion to the nation's cyber and electrical networks—fostering analysis of complex systems is of the utmost importance.¹¹

Preparing Leaders to Lead

The federal government needs a cadre of leaders in homeland security that understand the needs and aims of homeland security in the 21st century as well as the interrelationship between DHS and its fellow government agencies. Academia has the ability to aid in the development of these leaders by offering enhanced avenues for professional development and a means of sharing best practices.

Foundations for Homeland Security. Today, however, few individuals in government have all of the skills needed to lead the homeland security enterprise.¹² The White House's after-action report on the national response to Hurricane Katrina, for example, highlighted the shortfalls in the government's ability to manage large-scale interagency homeland security operations.¹³

8. The Homeland Security Act of 2002 directs the Under Secretary for Science and Technology to “consider the following criteria” when choosing where to establish a Center of Excellence:
 - (i) Demonstrated expertise in the training of first responders;
 - (ii) Demonstrated expertise in responding to incidents involving weapons of mass destruction and biological warfare;
 - (iii) Demonstrated expertise in emergency medical services;
 - (iv) Demonstrated expertise in chemical, biological, radiological, and nuclear countermeasures;
 - (v) Strong affiliations with animal and plant diagnostic laboratories;
 - (vi) Demonstrated expertise in food safety;
 - (vii) Affiliation with Department of Agriculture laboratories or training centers;
 - (viii) Demonstrated expertise in water and wastewater operations;
 - (ix) Demonstrated expertise in port and waterway security;
 - (x) Demonstrated expertise in multi-modal transportation;
 - (xi) Nationally recognized programs in information security;
 - (xii) Nationally recognized programs in engineering;
 - (xiii) Demonstrated expertise in educational outreach and technical assistance;
 - (xiv) Demonstrated expertise in border transportation and security; and
 - (xv) Demonstrated expertise in interdisciplinary public policy research and communication outreach regarding science, technology, and public policy.

See also U.S. Department of Homeland Security, “Science and Technology Directorate,” May 25, 2010, at http://www.dhs.gov/xabout/structure/editorial_0530.shtm (June 17, 2010).
9. Stanley Supinski, “Homeland Security Education: The Current State,” presentation for the Center for Homeland Defense and Security, February 5, 2009, at <http://www.chds.us/?player&id=906> (June 17, 2010).
10. Press release, “DoD Awards \$260 Million in University Research Funding,” U.S. Department of Defense, May 8, 2009, at <http://www.defense.gov/releases/release.aspx?releaseid=12657> (June 17, 2010).
11. James Jay Carafano and Richard Weitz, “Complex Systems Analysis—A Necessary Tool for Homeland Security,” Heritage Foundation *Background* No. 2261, April 16, 2009, at <http://www.heritage.org/Research/Reports/2009/04/Complex-Systems-Analysis-A-Necessary-Tool-for-Homeland-Security>.

Education, assignment, and accreditation are tools that can be applied to developing professionals for homeland security and other critical interagency national security activities.

Education. A program of education, assignment, and accreditation that cuts across all levels of government and the private sector with national and homeland security responsibilities has to start with professional schools specifically designed to teach interagency skills. No suitable institutions exist in Washington, academia, or elsewhere.

Assignment. Qualification will also require interagency assignments in which individuals can practice and hone their skills. These assignments should be at the “operational” level where leaders learn how to make things happen, not just set policies. Identifying the right organizations and assignments and ensuring that they are filled by promising leaders should be a priority.

Accreditation. Accreditation and congressional involvement are crucial to ensuring that programs are successful and sustainable. Before leaders are selected for critical (non-politically appointed) positions in national and homeland security, they should be accredited by a board of professionals.

The national academy could have a significant role to play in all three of these activities. Colleges and universities can be key educational institutions. Their research, planning, and exercise centers could offer assignment opportunities for professionals to hone their skills. Finally, university faculties could provide a cadre of professionals to serve on accrediting boards.

Building Blocks

Programs that provide the educational components for professional development are already underway at many colleges and universities.

Certification and Online Education. From a practical perspective, one of the best options for building homeland security leaders and fostering professional development is certificate programs. The advantages of this method are affordability and accessibility. Web-based certificate programs provide the flexibility necessary for working professionals in allied fields—which range from law enforcement to information technology to homeland security—to learn new skills while remaining employed. These programs, thereby, allow professionals in the field to advance their training while maintaining their current employment, ensuring that professional development is more financially feasible for participants and that the performance of important homeland security missions is not interrupted by their absence.

The University of Massachusetts at Lowell, for example, offers a Certificate Program in Security Management and Homeland Security under the auspices of the Criminal Justice Department in concert with the Department of Continuing Studies, Corporate and Distance Education. This part-time certificate program is designed for personnel working in the areas of public safety, security management, and law enforcement; executives in corporations responsible for overseeing in-house security programs; and information technology professionals.¹⁴

Many universities also offer online graduate programs in addition to certificate programs in order to accommodate working professionals’ busy schedules and enable even further education in homeland security. Long Island University’s Homeland Security Management Institute offers a master’s degree in Homeland Security Management and a graduate-level Advanced Certificate in Homeland Security Management.¹⁵

12. James Jay Carafano, “Missing Pieces in Homeland Security: Interagency Education, Assignments, and Professional Accreditation,” Heritage Foundation *Executive Memorandum* No. 1013, October 16, 2006, at <http://www.heritage.org/Research/Reports/2006/10/Missing-Pieces-in-Homeland-Security-Interagency-Education-Assignments-and-Professional-Accreditation>.
13. The White House, “The Federal Response to Hurricane Katrina: Lessons Learned,” February 2006, at <http://georgewbush-whitehouse.archives.gov/reports/katrina-lessons-learned.pdf> (June 17, 2010).
14. University of Massachusetts Lowell, Continuing Studies, Corporate & Distance Education, “The Certificate Program in Security Management and Homeland Security,” 2009, at <http://continuinged.uml.edu/certificates/security.cfm> (June 17, 2010).

Sharing Best Practices. While certificate and online education programs certainly help homeland security professionals enhance their body of knowledge on security topics, these programs should not be the end of measures taken to develop a cadre of leaders. Homeland security professionals may also learn from one another by sharing best practices and lessons learned. As such, developing a method by which to share this information is vital for professional development within the field.

One existing model that could be built upon is the Homeland Security Digital Library at the Center for Homeland Defense and Security (CHDS), which disseminates the work of homeland security experts throughout the homeland security community.¹⁶ Not only is CHDS lauded as a “national homeland security educational support staff” for the advice, contacts, and experience it provides to institutions seeking to establish their own homeland security programs, but the Homeland Security Digital Library database serves as an easily accessible repository of information for homeland security professionals.¹⁷ This system could be built upon, in partnership with those universities helping to educate these professionals, to allow greater information sharing and participation throughout the homeland security enterprise.

Building a Corps of Professionals

Ensuring the future of the national homeland security enterprise requires the development of new leaders. Academia offers the ability to educate the students of today to allow them to pursue homeland security careers tomorrow through providing education at all levels from undergraduate to doctoral, as well as assisting in the creation and coordination of internship programs and other professional experiences. At the same time, community colleges may offer valuable training programs, and avenues for community education and forums, helping to enhance the overall homeland security enterprise.

Undergraduate Degrees. Many educators do not consider “homeland security” an appropriate subject for a college major. Objections range from the novelty of the subject to the absence of an agreed definition of homeland security to concerns that homeland security issues are more suited to a professional program rather than a liberal arts degree.

Notwithstanding these objections, numerous four-year institutions now grant degrees in homeland security and related disciplines such as emergency response. Most of these undergraduate degree programs require 30 to 40 credit hours to complete the major, with courses covering a variety of topics including: terrorism, intelligence operations and evaluations, infrastructure protection, strategic planning for security, international relations, American government, risk assessment, legal and constitutional issues, criminal justice, and emergency planning and incident management.

Beyond the traditional programs, several schools have also created certificate programs in homeland security for full-time residential students by combining them with traditional university education programs. Instead of establishing formal major degrees in homeland security, these institutions offer certificates or enable students to graduate with a “minor” in homeland security. These programs typically require students to take four to five courses directly related to homeland security in addition to their obligatory core academic courses and some electives, allowing them to obtain a basic homeland security education in a more flexible manner.

Despite the recent development of these programs, academics have yet to establish an accepted undergraduate curriculum in homeland security studies. A general consensus of the need to create a model curriculum exists, but agreement on which specific courses or skill sets should be required for a bachelor's degree in “homeland security” is lacking.¹⁸

15. Long Island University at Riverhead, “Homeland Security Management Institute,” at <http://www.southampton.liunet.edu/homeland/> (June 19, 2010).

16. The Naval Postgraduate School Center for Homeland Defense and Security, “Homeland Security Digital Library,” at <https://www.hsdl.org/> (June 17, 2010).

17. Supinski, “Homeland Security Education: The Current State.”

Nevertheless, organizations have already begun to form with the goal of strengthening and developing the nation's existing homeland security programs. The Homeland Security and Defense Education Consortium Association (HSDECA), for instance, is a newly designated association for accrediting homeland security and homeland defense educational programs.¹⁹ Schools that apply and receive its accreditation could enjoy an enhanced reputation, which would help attract qualified faculty and recruit students. Another such program, the Naval Postgraduate School Center for Homeland Defense and Security's University and Agency Partnership Initiative (UAPI), brings together institutions nationwide dedicated to advancing homeland security education.²⁰ Currently, 188 of the 269 educational and research institutions—including community colleges, private and public undergraduate and graduate schools, state agencies, and professional academies—are participating in the UAPI.²¹

Continuing Education. Beyond undergraduate programs, universities across the country have also begun to establish graduate programs in homeland security allowing students to continue their education in the field. One such program, through the Naval Postgraduate School and the U.S. Department of Homeland Security offers a unique university experience. The Center for Homeland Defense and Security's (CHDS) advanced education program is sponsored by FEMA's National Preparedness

Directorate and emphasizes counterterrorism. Through graduate-level and executive-level coursework, seminars, and research, homeland security leaders gain analytical skills and substantive expertise in countering terrorism.²² CHDS offers various academic programs, including a master's degree program, self-study courses, an Executive Leaders Program of seminars for public and private officials, and other educational outreach programs.²³

Furthermore, the National Defense University's College of International Security Affairs offers an M.A. in Strategic Security Studies with a concentration in homeland security strategy and leadership. This robust program focuses on providing executive and legislative branch staff, military, and civilians an international perspective on security.

The homeland security program at San Diego State University also offers key graduate education, collaborating extensively with local law enforcement professionals to provide students with a first-hand assessment of community homeland security plans and strategies. The objective is to achieve "meaningful community engagement projects and innovative applied research in the Homeland Security environment."²⁴ The university's Interdisciplinary Master's Degree in Homeland Security provides classes in areas, such as law enforcement, remote sensing, sensor networks, collaborative visualization, international terrorism, international security and conflict resolution, public health, and

18. The Naval Postgraduate School and the U.S. Department of Homeland Security, Center for Homeland Defense and Security, "Undergraduate Model Curriculum Conference for Homeland Security Held at CHDS," June 2009, at <http://www.chds.us/?press/release&id=1690> (June 17, 2010).

19. Homeland Security and Defense Education Consortium Association (HSDECA) Web site, at <https://www.hsdeca.org> (June 17, 2010).

20. The Naval Postgraduate School and the U.S. Department of Homeland Security, Center for Homeland Defense and Security, "University and Agency Partnership Initiative," at <http://www.chds.us/?special/info&pgm=Partner> (June 17, 2010).

21. The Naval Postgraduate School and the U.S. Department of Homeland Security, Center for Homeland Defense and Security, "Colleges and Universities Offering Homeland Security Programs," at <http://www.chds.us/?partners/institutions> (June 17, 2010).

22. The Naval Postgraduate School and the U.S. Department of Homeland Security, Center for Homeland Defense and Security, "About the Center for Homeland Defense and Security," at <http://www.chds.us/?about> (June 17, 2010).

23. The Naval Postgraduate School and the U.S. Department of Homeland Security, Center for Homeland Defense and Security, "Center for Homeland Defense and Security Fact Sheet," at <http://www.chds.us/?chds:press> (June 17, 2010).

24. San Diego State University, "Graduate Program in Homeland Security," 2009, at <http://homelandsecurity.sdsu.edu> (June 17, 2010).

information and decision systems, and aims to meet the community's need for graduates with a homeland security background.²⁵ The master's degree program enrolled 78 students in 2008 and 125 in 2009.²⁶

Only one full-time Ph.D. program exists in the country at Northcentral University in Arizona, however. The school offers a Doctor of Philosophy in Business Administration in "Homeland Security: Leadership and Policy," with courses in terrorism, strategy, intelligence, emergency management, and critical infrastructure.²⁷ In addition, Walden University offers an online Ph.D. program in Public Policy and Administration focusing on "Homeland Security Policy and Coordination."²⁸

Community Colleges. At the same time as the influx of undergraduate and graduate programs, community colleges have become a leading provider of specialized homeland security programs as well as a foundation for more general education efforts in this area. Their typically low fees offer inexpensive ways for local residents to receive formal education in homeland security through associate degree programs and other coursework. Furthermore, programs at community colleges allow the specialization of education and training to meet local needs, as homeland security requirements often vary greatly across the country. In addition to their education and training functions, community colleges provide a forum for citizen activism and debate in their localities.

There are currently almost 1,300 community colleges in the United States.²⁹ These colleges have a long history of training local first responders.³⁰ A particular niche of community colleges is that they offer technical degrees and courses not normally available at traditional, four-year institutions. Southwestern University at Shreveport's academic programs, for instance, range from emergency medical technician and nursing to criminal justice administration and power plant management.³¹ These course offerings enable community colleges to assume a more direct role than traditional universities in imparting valuable skills to current and new first responders, such as emergency medical technicians, firefighters, and nurses.

Many community colleges also have unique programs or assets related to the teaching and training of homeland security. Monroe Community College in Rochester, New York, has a Homeland Security Management Institute (HSMI) that offers local, regional, and national level courses in almost every practical aspect of homeland security. Its primary facility has the ability to instruct courses from bioterrorism to computer security and has unique additions, such as a three-story "burning building" and a Boeing 737 frame to replicate cabin fires.³² These additions ensure that students receive the most realistic training possible.

In terms of enhancing avenues for citizen activism, several of these homeland security programs are designed to enable students to become more effective members of the Citizen Corps. These emergency

25. *Ibid.*

26. Supinski, "Homeland Security Education: The Current State."

27. Northcentral University, "Doctor of Philosophy in Business Administration, Homeland Security: Leadership and Policy Specialization," 2010, at <http://www.ncu.edu/northcentral-programs/specializations/BUS/phd-ba/homeland-security-leadership-and-policy> (June 17, 2010).

28. Walden University, Degree Programs, "Homeland Security Policy and Coordination," 2010, at <http://www.waldenu.edu/Degree-Programs/Doctorate/17904.htm> (June 17, 2010).

29. CommunityCollege.org, "Community College Directory," at <http://www.community-college.org/> (June 17, 2010).

30. Julia Neyman, "Colleges Embrace Homeland Security Curriculum," *USA Today*, August 24, 2004, at http://www.usatoday.com/news/education/2004-08-24-homeland-usat_x.htm (June 17, 2010).

31. Southern University at Shreveport, "Academics," 2009, at <http://web.susla.edu/academics/Pages/academics-toc.aspx> (June 17, 2010).

32. Monroe Community College, "Homeland Security Management Institute," at <http://www.monroecc.edu/depts/hsmi/about.htm> (June 17, 2010).

responders receive special training to respond to local emergencies. They also educate the public, encourage cooperation among local leaders, develop targeted outreach programs, and coordinate citizen participation. Citizen Corps Councils exist in all 50 states and many cities and counties.³³ Furthermore, community colleges also provide unique forums to educate citizens on the nature of threats posed to the U.S. and means of preparedness and response, as well as fostering debate on current issues in homeland security through community education programs.

Internships and Other Professional Experience. The best academic institutions seek to establish close ties with public and private institutions engaged in activities related to the schools' areas of research. Both parties benefit from this exchange. Working with professional institutions and private corporations enriches the study and understanding of homeland security threats within the academic community. In addition, teachers and students can apply their skills and expertise to assisting their partners with their programs. Finally, having real-world experience enhances the employment credentials of academic graduates while giving government agencies and private corporations opportunities to recruit new employees already familiar with their needs and methods of operation.

To this end, many academic programs require some form of a practical or internship experience as part of their program. S&T university programs concur in the value of such exposure and offer summer research internships to undergraduate and graduate students. The Science and Technology Directorate has also established special programs with Minority Serving Institutions.³⁴ Furthermore, DHS has established a Scholarship and Fellowship

Program for undergraduate and graduate students pursuing degrees in one of 16 research disciplines critical for homeland security and institutional grants to students in homeland security science, technology, engineering, and mathematics programs.³⁵

These programs provide various financial rewards to attract qualified students for short-term positions within the DHS research community. Apart from the practical experience, these internships aim to increase students' interest in pursuing employment with DHS after graduation to counter concerns that students may not enter the homeland security field following the heavy investment of federal resources in their training. Other federal agencies involved in homeland security also offer their own internship programs and related apprenticeship opportunities, such as the FBI Visiting Scientist Program and the FBI Honors Internship Program.³⁶

Schools also enrich their course offerings by hiring homeland security professionals to teach classes and by hosting research conferences that include a mixture of academic and non-academic participants. The Homeland Security and Defense Education Consortium regularly sponsors conferences across the country where academics can meet and discuss current research projects and exchange ideas on how best to educate students in the field of homeland security.³⁷ Certain universities, such as George Washington University (GWU), have created or are affiliated with think tanks that focus on homeland security issues. The Homeland Security Policy Institute (HSPI), founded in 2003 by GWU, is a think tank of academics, policymakers, security experts, and students.³⁸ The HSPI also offers internships to non-affiliated GWU students to help train additional homeland security experts. The

33. Citizen Corps, "Citizen Corps Councils," at <http://www.citizencorps.gov/councils/> (June 17, 2010).

34. Homeland Security University Programs, "Minority Serving Institutions," 2010, at <http://www.hsuniversityprograms.org/msi/current.cfm> (June 17, 2010).

35. Homeland Security University Programs, "DHS Education Programs," 2010, at <http://www.hsuniversityprograms.org/sf/current.cfm> (June 17, 2010).

36. Federal Bureau of Investigation, "Careers: Student Center," at <http://www.fbijobs.gov/2.asp> (June 17, 2010).

37. Homeland Security and Defense Education Consortium Association (HSDECA), "Events," at <https://www.hsdeca.org/events/> (May 6, 2010).

38. The George Washington University, Homeland Security Policy Institute, *Mission Statement*, at <http://www.gwumc.edu/hspi/about/mission.cfm> (June 17, 2010).

Heritage Foundation, the Hudson Institute, and other think tanks also recruit interns to contribute to their homeland security–related research.³⁹

The Future of Academia and Homeland Security

Academic institutions have become a core member of the national homeland security enterprise. They help strengthen U.S. homeland security in several respects. First, they promote basic skills useful for averting and managing domestic emergencies for current and future professionals. As in many areas, the ability to think critically, communicate clearly, and learn new skills and information rapidly are essential characteristics of effective homeland security responders. Second, faculty and other members of the academic community conduct detailed basic and applied research in homeland security–related disciplines and contribute to innovation and analysis. Third, besides educating students, training current professionals, and fostering research, academia assists in homeland security planning and exercises and the sharing of best practices. In order to continue developing these vital roles, DHS, Congress, and academia must:

- **Build on the Centers of Excellence.** Schools could profitably emulate the best practices established by the Centers of Excellence even without becoming formal partners of the centers. In particular, they could become leaders in even more specialized homeland security areas, and follow the COEs’ model for fostering basic and applied research and complex systems analysis. The DHS Centers of Excellence have a proven relationship with DHS, the disparate federal agencies involved in homeland security, and with other members of academia that could be expanded and deepened by numerous colleges and universities throughout the United States to enhance innovation and knowledge throughout the homeland security enterprise.
- **Build partnerships between academia and state and local governments for planning and**

exercises. Universities can use planning and exercises to develop meaningful data for state and local responders that allow increased preparedness and response capabilities, removing the cost burden from the states and localities, and adding the knowledge and insight of university participants. DHS, the states, and localities should build additional partnerships with academia in conducting planning and exercises.

- **Build the capacity for sharing of best practices, exercises, and training.** Proliferation of publications related to some dimension of homeland security by academics, think tanks, and other research institutions has vastly expanded the realm of available knowledge on homeland security issues. What is needed now is a more comprehensive integrated database that enables users to easily access all of these materials. The wealth of research that has been conducted is of little use if few people can find it. The Homeland Security Digital Library at the Center for Homeland Defense and Security (CHDS) serves as one model that could be built upon to enhance collaboration and sharing between the homeland security community’s many actors. This model should be coupled with the development of a homeland security doctrine by DHS in partnership with academia.
- **Promote expansion of graduate-level and doctoral-level programs for homeland security.** Graduate and doctoral degrees offer enhanced homeland security education for both emerging and existing homeland security leaders, allowing for the furtherance of general homeland security knowledge, specialization in specific homeland security areas, and increased analytical skills. While academia and the Department of Homeland Security have begun to foster the creation of post-graduate programs, such partnerships should be enhanced to further promote expansion, particularly with regard to doctoral programs.

39. The Heritage Foundation, “Young Leaders Program,” 2010, at <http://www.heritage.org/About/Internships-Young-Leaders/Young-Leaders-Program>, and Hudson Institute, “Internship Programs,” 2010, at http://www.hudson.org/learn/index.cfm?fuseaction=internship_home (June 17, 2010).

- **Institutionalize homeland security education.** Many educators do not consider “homeland security” an appropriate subject for a college major due to the novelty of the subject, the absence of an agreed definition on homeland security, and concerns that homeland security issues are more suited to a professional program rather than a liberal arts degree. Nevertheless, programs are beginning to take form throughout the nation. Institutionalizing these programs and providing a framework for curriculum development will strengthen the ability of U.S. universities and colleges to produce qualified and knowledgeable future leaders in homeland security. The value of homeland security programs at

community colleges must also be further recognized as part of this process.

Education does not end in the classroom—but in order to build a strong cadre of 21st-century homeland security leaders, it is a good place to start.

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