

# Homeland Security Academic Advisory Council

## Recommendations to the Department of Homeland Security

The Homeland Security Academic Advisory Council (HSAAC) is a Department of Homeland Security (DHS) federal advisory committee comprised of university presidents, academic leaders, and interagency partners that provides advice and recommendations to the Secretary and senior leadership in DHS on matters related to homeland security and the academic community, including: student and recent graduate recruitment; international students; academic research and faculty exchange; campus resilience; homeland security academic programs; and cybersecurity.

Since its establishment in 2012, the HSAAC has adopted 109 recommendations across its six subcommittees, which align to the aforementioned issue areas. The sections below provide a complete listing of those recommendations.

### **Full Council**

1. DHS should establish a formal internal executive steering committee comprised of representatives from DHS Components, responsible for managing implementation of our recommendations.

### **Subcommittees**

#### **Academic Research and Faculty Exchange**

*Taps into the expertise of the nation's colleges and universities to address pressing homeland security needs.*

1. DHS should conduct a survey within the Department that will identify all of the current R&D projects including information on the principal investigators, the institutions and the partner institutions associated with those projects.
2. DHS should establish a formal process that ensures its Component agencies regularly identify their research priorities and communicate them to S&T.
3. S&T should regularly compile and communicate both the long-term and short-term research priorities of the DHS Components across DHS and to the Centers of Excellence (COEs). S&T should also monitor and report on specifically how the COEs are addressing DHS research priorities.
4. DHS should further promote COE technologies and research projects across DHS and to its partners. For example, DHS should encourage and expand the use of activities that showcase COEs technologies and research projects.
5. DHS should leverage the IPA Mobility Program to formally establish an Academic Exchange Program that consists of the following three components: (1) Academic Speakers Bureau; (2) Guest Lecturer Series; and (3) Faculty Exchange Program.

6. The DHS Academic Exchange Program should include the following programmatic elements: (1) targeted outreach to IHEs to enhance visibility; (2) appropriate titles for program participants (i.e. Senior Fellows, Junior Fellows, etc.); and (3) when possible, a cost-sharing mechanism between DHS and participating institutions of higher education (IHEs).
7. DHS should compile a list of the specializations and/or priorities of its Components to determine the types of IHE faculty/staff and DHS personnel that should participate in the Academic Exchange Program. In support of this, DHS should use the list of 34 DHS priority research topics compiled by DHS' Science and Technology Directorate in July 2013 to identify potential program participants.
8. DHS should continue conducting needs assessments within each Component to identify program opportunities and priorities.
9. DHS should target outreach efforts to institutions of higher education with limited resources to increase opportunities for their participation in the Department's exchange programs.

### **Campus Resilience**

*Strengthens the ability of colleges and universities to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk.*

1. DHS should consider expanding the use of its existing resilience-related resources, where appropriate, to specifically include and be adapted to the higher education community (e.g., the “If You See Something, Say Something™” campaign).
2. DHS should increase the marketing efforts and visibility of the Federal Law Enforcement Training Center at institutions of higher education, through methods such as direct outreach, attendance at conferences, and information on DHS.gov.
3. DHS should establish a campus resilience program with corresponding funding, technical assistance, and training to work with campus officials in assessing their preparedness, developing and implementing related plans, and monitoring campus readiness over time. An online clearinghouse and inventory of available resources should be included as part of this program.
4. DHS should insert guidance specific to institutions of higher education into grants program guides and outreach materials, where appropriate, to clarify their ability to participate in these programs, and identify additional opportunities and uses for funding.
5. DHS should, in cooperation with its partner agencies, develop a reporting mechanism that provides senior leadership with the aggregate funding made available to higher education (directly and indirectly) for campus resilience programs.
6. DHS should organize and deploy national tabletop exercises and simulations specific to institutions of higher education and campus communities. These exercises will ensure better preparedness for natural and man-made incidents, and enhance campus resilience.
7. DHS should urge and collaborate with other federal agencies to develop a shared mechanism to ensure that colleges and universities receive timely alerts and response guidance when cyber attacks occur. In addition, DHS should strengthen its information sharing and response

- capabilities to the higher education community by establishing a standard feedback process following cyber attacks.
8. DHS should formalize its relationship with EDUCAUSE to support higher education cybersecurity efforts.
  9. DHS should market its cybersecurity capabilities and resources available to the higher education community:
    - a. Include the higher education community in DHS' Sector Outreach calls that are used to convene sector-specific communities for information sharing purposes in the event of a cybersecurity incident or threat.
  10. DHS should market its cybersecurity capabilities and resources available to the higher education community:
    - a. Provide the higher education community access to the Homeland Security Information Network-Critical Sectors (HSIN-CS) web-based portal for information sharing and collaboration.
  11. DHS should market its cybersecurity capabilities and resources available to the higher education community:
    - a. Participate in capacity-building efforts for smaller higher education institutions with limited cybersecurity resources in coordination with national organizations such as the American Indian Higher Education Consortium, the Hispanic Association of Colleges and Universities, the National Association for Equal Opportunity in Higher Education, the Asian Pacific Islander American Association of Colleges and Universities, and EDUCAUSE.
  12. DHS should develop best practices for mitigating internal cybersecurity threats that the higher education community may face from students and staff members.
  13. DHS should continue to support its Campus Resilience Pilot Program as funding allows.
  14. DHS should partner with the DOJ National Center for Campus Public Safety to promote campus resilience as well as offer the Campus Resilience Enhancement System as a resource to the broader higher education community.
  15. Through the HSAAC, DHS should establish a partnership with the DOJ/FBI National Security Higher Education Advisory Board to promote information sharing and collaboration on cybersecurity-related and other issues that are common to both groups.
  16. FEMA's Region 1 should be recognized as a DHS best practice for engagement with the higher education community on campus preparedness and resilience efforts.
  17. DHS should explore situational awareness and information sharing resources and tools such as DHS' Virtual USA and commercial solutions that enable IHEs to better share best practices and coordinate on campus resilience, preparedness and response issues.
  18. DHS should coordinate with the higher education community to identify and develop export control best practices.
  19. DHS should create an online repository of downloadable tabletop exercises specific to colleges and universities. This should include exercises developed by other IHEs that can be adapted and modified to fit the specific needs of the user.

## **Cybersecurity**

*Strengthens partnerships to enhance DHS's cybersecurity recruitment efforts and support resilient campus systems and networks.*

1. DHS should continue hosting monthly tours of DHS' National Cybersecurity and Communications Integration Center (NCCIC) for secondary, post-secondary and veteran students involved in cybersecurity and other STEM disciplines. DHS should arrange virtual tours of the NCCIC to accommodate students located outside of the National Capital Region.
2. The Summer 2013 Secretary's Honors Program Cyber Student Volunteer Initiative, in which community college students served in U.S. Immigration and Customs Enforcement cyber forensics labs, should be expanded and cited as a best practice.
3. DHS should promote and support cyber-related educational and career opportunities to engage students at the start of their formal education, beginning at the primary level and continuing through the middle school, secondary and postsecondary levels, in cybersecurity and other STEM disciplines. These efforts should include support of community college-based programs that provide hands-on, technical cybersecurity training and education.
4. DHS should compile a list of cyber competitions, including any measures of program success (i.e. amount of private sector dollars contributed, number of participants, and number of job offers extended to participants), to assess the return on investment and target proven programs to invest in and support.
5. DHS should target outreach efforts at underserved communities to improve their pathways to cyber-related educational and career opportunities.
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  - a. DHS should target outreach to women, people of color, and underserved communities to promote cybersecurity clubs/camps with an emphasis on individual and team-oriented projects as well as the growing impact of cybersecurity in our technologically integrated world. An emphasis on these aspects of cybersecurity and its social benefits will broaden the appeal of these clubs/camps.
7. DHS should foster the growth of the U.S. Coast Guard Academy's (CGA) cyber-related educational opportunities and programs:
  - a. Examine the feasibility of CGA applying as a DHS/NSA CAE in IA/Cyber Defense.
8. DHS should foster the growth of the U.S. Coast Guard Academy's (CGA) cyber-related educational opportunities and programs:
  - a. Partner with CGA on DHS' cyber-related initiatives, utilizing CGA as a test-bed for pilot programs.
9. DHS should foster the growth of the U.S. Coast Guard Academy's (CGA) cyber-related educational opportunities and programs:
  - a. Establish an internship program for CGA cadets, modeled after the Secretary's Honors Program Cyber Student Volunteer Initiative.
10. DHS should expand the NICCS website to include a comprehensive and interactive asset map of government cyber programs, careers, and educational and training resources.

11. DHS should establish analytics and/or a tracking program to gather data on the post-activities of students involved in cyber camps and other cyber programs, to determine ways to continually engage these students and encourage their entry into cyber careers.
12. DHS should establish analytics and/or a tracking program to gather data on the post-activities of students involved in cyber camps and other cyber programs, to determine ways to continually engage these students and encourage their entry into cyber careers.
  - a. DHS should track the succession of students from 2-year cyber-related degree programs to 4-year cyber-related degree programs and/or careers.
13. DHS should partner with VA and DOD to inform veterans and transitioning service members of how to use the College Level Examination Program (CLEP) to obtain credit for active duty experience and academic work while in service
14. DHS should partner with VA to enhance awareness of existing road mapping tools such as VA for Vets and MyCareer@VA, as well as incorporate DHS employment opportunities in such tools.
15. DHS should identify and leverage existing college and university cyber boot camps for ROTC cadets as a model for student veterans.
16. DHS should develop reciprocal partnerships with private companies to create an 'exchange program' for DHS employees and interns, in order to broaden the experience of entry-level cybersecurity professionals.
17. DHS should establish and support a Department-wide social media and outreach strategy directed at its cyber-related programs, initiatives and opportunities. The strategy should incorporate input from academic associations, students, faculty, and other higher education sources, and should target students, student veterans and recent graduates interested in cyber-related careers.
18. DHS should launch an internal campaign to educate program managers on the new Pathways Programs hiring authority for internships, including the options it presents for providing community college students with work experience.
19. DHS should ensure that its cyber internship programs include a structured career path where participants have the opportunity to be hired for permanent entry-level positions upon completion of the program.
20. DHS should expand its internship opportunities to include virtual internships and mentorships, in order to engage additional students and strengthen the Department's cybersecurity recruitment efforts.
21. DHS and NSA should align the KUs used as criteria for CAE designations to a set of learning outcomes to help institutions of higher education developing cyber-related degree and certificate programs better meet workforce needs.
22. DHS and NSA should formally deputize CAEs to act as representatives of the program at higher education conferences and meetings to conduct outreach and promote the program's benefits to academic institutions.

## **Homeland Security Academic Programs**

*Supports academic programs that help DHS create an educated and informed workforce now and in the future.*

1. DHS and CHDS should establish a definition of Homeland Security Academic Programs that could serve as a guide for overall program development, with an ancillary set of affiliated degree programs that support Homeland Security efforts.
2. In consultation with the DHS Office of Academic Engagement, CHDS should convene a workshop comprised of Homeland Security academics and practitioners to review and update the suggested master's degree program/curriculum outline.
3. In consultation with the DHS Office of Academic Engagement and TSA, CHDS should convene a national group to develop an outline for suggested bachelor's and associate's degree programs, as well as certificate programs and stackable credentials. These academic programs should provide a clear pathway for progressive movement from certificate and associate programs through the bachelor's degree level, while ensuring high quality standards and the use of best practices.
4. DHS should make available their list of key skill sets and map these to job opportunities and increasing levels of responsibility within DHS, and other potential employers.
5. DHS should expand its relationships with the DOD Senior Service Schools with the goal of having a DHS faculty chair at each school. This would allow DHS to increase its allotted student billets to each DOD Senior Service School.
6. To reduce costs and to encourage participation of DHS employees throughout the nation, DHS should consider models that increase accessibility for students and faculty at the DOD Senior Service Schools. These models could include regionalization in locations proximate to the Senior Service Schools, and online course offerings, among other options.
7. Given the importance of the DHS/DOD relationship, and to ensure underrepresented communities within DHS are made aware of DOD Senior Service School opportunities, DHS should increase marketing communications, announcements, and develop other support mechanisms to ensure participation in these communities.
8. DHS should develop faculty and subject matter expert exchange programs with the DOD Senior Service Schools and U.S. Service Academies to facilitate mission related interaction and understanding.
9. DHS should establish an internship program with U.S. Service Academies. This would expose aspiring junior military officers to DOD/DHS joint operations earlier in their service and educate those interested in employment opportunities within DHS.
10. DHS should make available a list of DHS training facilities to promote transparency in homeland security training options.
11. DHS should consider new partnerships between DHS training facilities and academic organizations and institutions that would provide participants the ability to earn academic credit for homeland security-focused coursework. These opportunities could include on-site and/or online training offered by colleges and universities.

12. DHS should explore opportunities to leverage an academic credit-based professional education model, such as DOD's DANTEs, to provide DHS employees with enhanced access to continuing education.
13. DHS should increase its promotion of CHDS and establish joint initiatives with CHDS that advance educational opportunities for DHS employees, while maturing the homeland security discipline.
14. To drive a positive return on investment, a Department-wide succession management plan is needed for DHS employees who graduate from DOD Senior Service Schools. For example, DHS should explore arrangements with the Office of Personnel Management to authorize DOD Senior Service School graduate degrees as meeting Senior Executive Service developmental requirements.

### **Student and Recent Graduate Recruitment**

*Focuses on the unique career opportunities that DHS offers in a variety of fields to build the next generation of homeland security leaders.*

1. DHS should expand the use of paid and unpaid internships to attract students at all appropriate career levels.
2. DHS should leverage the new hiring authority established by the federal Pathways Programs, specifically with regards to attracting recent graduates to fill critical occupations.
3. DHS should evaluate and assess the diversity of its student and entry-level programs.
4. DHS should offer targeted research and outreach grants to Historically Black Colleges and Universities (HBCUs), Minority Serving Institutions (MSIs), community colleges, and other institutions with high concentrations of veterans.
5. In consultation with private and public social media experts, DHS should establish and support a Department-wide social media and outreach strategy directed at its student and entry-level programs. The strategy should incorporate input from academic associations, students, faculty, and other higher education sources, and should target rural and underserved areas through the use of specialty media, radio, and local newspapers.
6. DHS should learn from best practices in other federal agencies, including NASA's "One Stop Shopping Initiative" Student Internships program, the (former) NASA Administrators Fellows program, and non-profit fee based student intern programs such as those of the Hispanic Association of Colleges and Universities and the National Association for Equal Opportunity in Higher Education.
7. DHS should support summer camps, cyber competitions, and K-12 schools to engage students early, particularly in the Science, Technology, Engineering and Math fields.
8. DHS should support middle-college programs that encourage students to complete an Associate's Degree at the same time that they obtain their high school diploma and provide an information module to educate students on careers and job opportunities within DHS.
9. DHS should establish regional cooperative agreements between community colleges and four-year universities to provide ongoing development and enhanced education outcomes for potential and existing DHS employees.

10. DHS should incentivize collaboration between community colleges, HBCUs, Hispanic Serving Institutions, Tribal Colleges and Universities and additional MSIs, to show students viable career pathways within DHS while they continue through their academic degree progression.
11. DHS should establish cooperative agreements and sponsorship support, where appropriate, with professional organizations, HBCUs and MSIs to engage their talent pools and take advantage of their marketing and outreach efforts.
12. DHS should strengthen its relationships with campus student organizations, career counselors, and recruiters through quarterly web-based seminars and career workshops.
13. DHS should continue to engage with the Departments of Defense and Veterans Affairs' exit programs and services in order to encourage veterans to work for DHS.
14. DHS should support capacity building programs at HBCUs and MSIs focused on improving retention and completion through research (for example, fund competitive grant programs for HBCUs and MSIs that lack the capacity to compete in existing R&D programs and/or designate HBCU and MSI Centers of Excellence).

### **International Students**

*Advances opportunities for international students to study in America while maintaining the integrity of the immigration process.*

1. DHS should streamline school recertification, utilizing carefully-devised risk factors.
2. DHS can enhance its effectiveness by receiving public input concerning planned changes. It should more carefully evaluate whether the rulemaking (notice and comment) process is required or would be beneficial before implementing a change. DHS should also improve its interpretations, policies, and procedures by publishing them in draft form prior to implementation and accepting public input. We note that USCIS has been quite successful in this area and would encourage CBP and SEVP to follow USCIS' example.
3. With input from stakeholders, DHS should issue guidance on creating international education programs so that they comply with current regulations, and should revise several key regulations and policies that hinder student mobility and prohibit colleges and universities from offering innovative programs and even fairly routine programs to international students.
4. All DHS entities should be encouraged to engage with stakeholders so that they can gain the benefit of stakeholder input as they develop regulations, policies, and procedures.
5. DHS should streamline the adjudication of schools' updates to their Form I-17 to support schools who attempt to offer new programs or experience staffing changes. DHS should refrain from implementing other adjudications that inhibit innovation in international education by conducting integrity reviews using the information it gathers.
6. DHS should expedite the development, review and publication of the following regulatory changes:
  - a. Allowing spouses to engage in a wide range of part-time educational activities and employment that will allow them to maintain or develop educational and professional qualifications.

7. DHS should expedite the development, review and publication of the following regulatory changes:
  - a. Increasing the number of Designated School Officials (DSOs) allowed per school or otherwise removing the current limit of 10 DSOs per school.
8. DHS should expedite the development, review and publication of the following regulatory changes:
  - a. Implementing regulations for the Border Commuter Student Act of 2002 to create the F-3 and M-3 categories.
9. DHS should implement throughout the agency the robust model of stakeholder engagement that USCIS has implemented so that all DHS entities can benefit from stakeholder input and more thoroughly engage stakeholders in developing and disseminating agency interpretations, policies, procedures, and anticipated changes.
10. DHS (SEVP in particular) should establish clear and reasonable adjudication criteria or clarify those already established, publish all but those that are clearly law enforcement sensitive, and publish estimated processing times so that educational institutions may plan accordingly.
11. DHS should continue reviewing all regulations, interpretations, policies, and procedures and reconsider those that might impede rather than facilitate the nation's ability to compete for the best and brightest international students, attract them to our programs, and enroll them in U.S. colleges and universities.
12. DHS should expedite the development, review and publication of the following regulatory changes:
  - a. Expanding the eligibility for a STEM extension of OPT to allow a prior course of study to establish eligibility (for example, an MBA who previously earned a bachelor's in Computer Science should be eligible).
13. DHS should continue to carefully develop the next generation SEVIS database so that it enhances security, reduces the burden on users, and facilitates international education.
14. DHS should prepare an annual report that examines the activities of international students while enrolled in U.S. schools and upon completion of their studies. DHS should use the annual reports as benchmarks to examine trends and conduct comparative analysis for use in future policy discussions.
15. Develop ICE SEVP guidance on "leaves of absence" from studies so that students are not penalized when they spend more than five months abroad, and develop Student and Exchange Visitor Information System (SEVIS) functionality to allow Designated School Officials (DSOs) to reactivate a SEVIS record after a leave of absence
16. DHS should expedite the development, review and publication of the following regulatory changes:
  - a. Revising the "full course of study" regulations to recognize international students with disabilities and chronic medical conditions.
17. DHS should expedite the development, review and publication of the following regulatory changes:

- a. Allowing for a wider range of experiential learning, such as off-campus employment separate from curricular and optional practical training.
18. DHS should expedite the development, review and publication of the following regulatory changes: Allowing certain limited educational activities in B-1/B-2 and other nonimmigrant statuses.
19. DHS should expedite the development, review and publication of the following regulatory changes:
  - a. Developing leave of absence provisions that do not penalize students who must leave the United States and interrupt their studies (for example, due to a family crisis like death of a parent) and want to return to continue their studies.
20. Since many other changes to DHS regulations, policies, and procedures are necessary to facilitate international education, and making extensive specific recommendations is beyond the scope of HSAAC, we recommend that DHS establish a formal working group, consisting of agency personnel and international education administrators from a diverse range of higher education institutions to thoroughly review DHS regulations, policies, and procedures and recommend necessary changes.
21. Revise the “full course of study requirement” to allow schools to determine what constitutes a “full course of study” consistent with their accreditation. Issue policy guidance to assist them in doing so.
22. Eliminate the restriction limiting international students to only one online course per term.
23. Allow international students to be eligible for Curricular Practical Training (CPT) during their first academic year in the United States, and clarify the regulations and agency policy to facilitate CPT.
24. Define “course of study” in the B visitor and Visa Waiver Program regulations to allow short-term education-related activities for Visitors (B-1/B-2 nonimmigrants and Visa Waiver Program entrants) and collaborate with the Department of State to clarify visa policy so that the Visitor classification may be used for brief education-related activities.
25. DHS should incorporate international student-specific modules into training for new and continuing employees of DHS components and agencies with a role in the international student process.
26. CBP should publicize the non-law enforcement sensitive policies and procedures related to international student entry to increase transparency and understanding of the operational procedures that guide CBP Officers in the entry process.
27. DHS should make public data related to international student entry at land, sea, and air ports of entry, to include rates of admission, denial, and deferred inspection.
28. DHS should promote existing customer service programs and resources available to assist international students and school officials in understanding DHS policies and procedures.
29. DHS should allow the U.S. Immigration and Customs Enforcement (ICE) Student and Exchange Visitor Program (SEVP) to use available funding from user fees to hire staff necessary to enhance SEVIS and implement other initiatives identified in ICE SEVP’s 2008 fee increase.
30. DHS should expedite plans to enhance SEVIS.