

UNIVERSITY SYSTEM OF MARYLAND INSTITUTION PROPOSAL FOR

- New Instructional Program
 Substantial Expansion/Major Modification
 Cooperative Degree Program

University of Maryland, Baltimore (UMB)
Institution Submitting Proposal

Master of Science (M.S.) in Cybersecurity Law
Title of Proposed Program

Master of Science (M.S.) in Cybersecurity Law
Degree to be Awarded

Spring 2017
Projected Implementation Date

Proposed HEGIS Code

220201
Proposed CIP Code

**University of Maryland
Francis King Carey School of Law**
Department in which program will be located

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Signature of President or Designee

August 24, 2016
Date

**The University of Maryland Francis King Carey School of
Law Proposal for a New Instructional Program
Master of Science (M.S.) in Cybersecurity Law**

A. Centrality to institutional mission statement and planning priorities

Charged by the legislature and approved by the University System of Maryland (USM) Regents in March, 2012, the *MPowering the State* initiative is an effort by the University of Maryland College Park (UMCP) and the University of Maryland Baltimore (UMB) to establish a new working relationship designed to promote innovation, support new programs, and enhance collaboration between the two institutions. One of the projects for which MPower funding was allocated is the Master of Science in Law (M.S.L.) Program, offering a master's degree designed for non-lawyer professionals who desire to enhance their careers by developing a competency in the law. The Master of Science in Law Program was approved by the MHEC and began accepting students in fall 2015. The Program is listed as MHEC Program ID 140101 and CIP 220201. Its inaugural class of 29 students will graduate in May 2017 at the end of their two-year sequence of courses. Courses are offered by UM Carey Law faculty at the UMCP campus. The Program is currently accepting applicants for its second cohort and is on track to have an enrollment of 50+ new students for fall 2016 in addition to the 29 continuing students. <http://www.law.umaryland.edu/academics/msl/>

The Program's goal is to enable working professionals with an undergraduate degree to gain fluency with legal structures, principles, concepts and modes of analysis to complement and augment their existing specialized professional expertise. It is designed for highly qualified students with work experience, who do not wish to pursue a J.D. degree in order to be allowed to practice law, but nonetheless desire a more focused and detailed engagement with the law than is available in other master's degree programs. The current M.S.L. program requires students to specialize in one of five substantive areas: (1) health law, (2) environmental law, (3) crisis management, (4) cybersecurity, or (5) patent law. In this new proposal, the School of Law requests approval to offer the cybersecurity specialization as an online degree program granting students a Master of Science (M.S.) in Cybersecurity Law.

Carey Law intends to continue its residential M.S.L. Program in College Park indefinitely for three of the existing five specialties: health law, environmental law, and patent law. However, after the current cohorts of residential students in the crisis management and cybersecurity specialties have completed their degrees (students beginning in fall 2015 and fall 2016), Carey Law proposes to convert those two specialties to online programs with two starts each year (one in August and one in January). If approvals for the online programs are granted and are received with sufficient time to market and enroll students, the goal is to have an incoming class for the online programs in January 2017. This will involve having three semesters in which there will be both a residential program and an online program for these two subject areas. Beginning in fall 2017, the crisis management and cybersecurity specialties will no longer take incoming students for a residential program.

The current program is a part-time, two-year residential evening program of thirty credits, structured to permit professionals to integrate their course of study into their work lives. The courses are taught by a mixture of full-time faculty members of UM Carey Law (principally

for the foundational courses), and other substantive experts. This proposal builds on coordination with the law school's internal resource, the Center for Health and Homeland Security (CHHS). CHHS is a university academic center that works side-by-side with the nation's top federal, state, and local emergency responders, assisting them in the development of plans, strategies, policies, regulations, and legislation to ensure the safety of citizens in the event of man-made or catastrophic events. CHHS has grown dramatically since its founding in 2002 with a current staff of more than 40 experts and professionals who focus on emergency preparedness planning, continuity of operations planning and training, cybersecurity, emergency communications systems, and grant writing assistance for governmental institutions seeking funding for planning efforts. <http://www.mdchhs.com/>. CHHS is an integral part of the law school's academic program. The Director of the Center, Professor Michael Greenberger, is a full-time faculty member of the Carey School of Law. Professor Greenberger and other staff attorneys of the Center with adjunct status have a long history of teaching courses in the J.D. program at the law school. Many of these same courses have already been adapted for the cybersecurity law specialty in the M.S.L. Program and are currently offered in College Park in addition to being offered in Baltimore at the law school. As part of this proposal, CHHS faculty will adapt and teach the online versions of the courses for the Master of Science in Cybersecurity Law.

The Master of Science in Cybersecurity Law is fully consistent with the mission of UM Carey Law, to promote a more just society by advancing understanding of law and legal institutions, and by enhancing access to justice. In the last few years, more than thirty law schools around the country have created a master's degree in law for non-lawyers in response to the changing dynamics of the marketplace for legal knowledge and services. The legal world is quickly changing and this high-quality master's degree in law will advance the strategic goals of UM Carey Law by equipping professionals with an increased knowledge of the law in areas in which that knowledge is both needed and missing. Offering the degree in the distance education format will substantially broaden the potential student body in appropriate fashion given the national and international nature of the topic. Maryland Carey Law's M.S. in Cybersecurity Law is designed to prepare students to lead their institution's response to crises with a special focus on the legal, regulatory and public issues associated with it. Cyberattacks and cybercrimes demand fast effective responses from governments, education institutions, non-profits and business. Administrators must be prepared to navigate swiftly through a maze of organizational structures, laws, regulations, directives, best practices and standard operating procedures.

B. Adequacy of curriculum design and delivery to related learning outcomes

The Master of Science in Law in Cybersecurity Law is designed for experienced, non-lawyer professionals who desire to enhance their careers by developing an understanding of and a competency in the law. It will provide students with an ability to understand the legal context for effectuating policy and program development, to recognize rules, statutes, and regulations that may apply when legal issues emerge, and to be more sophisticated directors and consumers of legal services. The program and marketing material will clearly convey to applicants and students that it is not a substitute for a J.D. and that successful completion will not permit graduates to practice law or otherwise undertake the legal representation of others.

The proposed degree is structured to ensure that students achieve core learning outcomes:

- (1) An ability to recognize and understand the legal regimes and structures that regulate or otherwise affect their professional roles, including the complementary and sometimes conflicting rules of federal, state, and local law as well as the allocation of jurisdiction among federal and state courts and administrative agencies;
- (2) A capacity to read and understand legal documents, including contracts, judicial opinions, statutes, regulations, executive orders, legislative commentaries, and legal opinion letters;
- (3) A familiarity with the major substantive and procedural issues of both public and private law, including the core principles of constitutional law, the procedures governing civil and criminal litigation, and the legal rules that apply to contracts for goods and services, business transactions, and the organization and operation of for-profit and non-profit corporate entities;
- (4) An ability to identify the legal context for effectuating policy, and thus to recognize and better appreciate the legal risks that may affect decision-making in public and private organizations;
- (5) An understanding of major modes of dispute avoidance and resolution, including negotiation, private settlement, mediation, arbitration, and litigation;
- (6) The ability to conduct basic legal research and draft basic documents for internal use;
- (7) The ability to assess more effectively when legal issues require or justify the engagement of legal professionals and then to communicate more effectively with those professionals in identifying and evaluating the range of options appropriate to specific circumstances.

The Program will be offered on a part-time basis over the course of two years. Students will be required to earn thirty credits spread out over four semesters. The program will begin with a day-long virtual orientation workshop that will include logistical information as well as a basic introduction to the structure of government, reading and briefing cases, sources of law, and the roles of various legal actors. The orientation will also give students the opportunity to get to know one another and do some preliminary thinking and planning about their courses of study.

Included in the course of study are key foundational courses that provide an overview of public and private law regimes in the United States. In the first semester, students will have an introduction to the U.S. legal system through a survey of fundamental areas of private law (torts, contracts, property). They will take a basic legal research course taught by a law librarian. Finally, in their legal methods course, they will study modes of legal analysis and argument, and complete substantial written work. Additional foundational courses include a

course in public law focusing on constitutional law and procedure as well as on key areas in administrative law; an ethics course; and a course on dispute resolution.

In their area of concentration, cybersecurity law, students will be required to take a total of sixteen credits: (a) one three-credit survey course providing an overview of cybersecurity law and policy in their second semester; (b) three three-credit special topic courses providing more in-depth study in their third and fourth semesters; and (c) four credits of a faculty-supervised capstone project that involves either research, writing, and a presentation on a legal problem or a field placement experience. Similar to the capstone course in the residential program, students will have the option to combine both academic knowledge and practical, “boots-on-the-ground” experience through externships.

An overview chart of the curriculum is found below.

Master of Science in Cybersecurity Law Curriculum Overview			
First Year		Second Year	
Fall	Cr.	Fall	Cr.
US Law & Legal System	3	Cybercrime	3
Legal Methods	3	NSA, Foreign Intelligence and Privacy	3
Legal Research	2	Dispute Resolution & Negotiation	2
Spring	Cr.	Spring	Cr.
Public Law & the Regulatory Process	3	Law & Policy of Emergency Management	3
Law & Policy of Cybersecurity	3	Capstone Project	4
Ethics in Law & Public Policy	1		
Total Credits	15	Total Credits	15

Please see Appendix A for more detailed course descriptions of the required courses.

The School of Law is also applying to the American Bar Association for its acquiescence in the offering of this Program.

The School of Law has entered into a collaborative agreement with iLawventures (iLaw) to deliver the online program in the Blackboard Collaborate setting. iLaw specializes in online enablement and instructional design specifically in legal education. Its leadership team includes former legal educators. Consistent with existing Master of Science in Law offerings, current law school faculty will design and teach the online courses with the support of an iLaw instructional designer. Appendix B contains a copy of the agreement with iLawventures, LLC.

C. Critical and compelling regional or Statewide need as identified in the State Plan

This degree program is completely aligned with the Maryland State Plan for Postsecondary Education, providing an affordable and highly relevant education to working professionals. The Program most closely tracks with the Plan Goal #5 to promote economic growth and vitality through the development of a highly qualified workforce. Ours is an increasingly

regulated society. As a public university system in close proximity to state and federal legislatures, USM has a special role to play in preparing graduates for careers in legislative, regulatory, and public program development. Developing the capacity of workers to navigate the complex legal and regulatory schemes that affect Maryland's economy is critical to future growth in key sectors – including areas such as cybersecurity. Professionals who acquire a solid understanding of the legal and regulatory frameworks in these areas fulfill a very unique and unmet need within the state and the region as a whole. Combining this specialized training with their professional experience creates an opportunity for mid-career professionals to develop a new credential to enhance their skills and abilities.

Offering a degree in cybersecurity law in an online education format is also consistent with the Maryland State Plan. Expanding the geographic reach of the program to serve students outside the immediate Baltimore Washington area and giving working professionals within this geographic area a flexible option for completing the degree requirements opens up opportunities to serve substantially more students in this important and growing area.

D. Quantifiable & reliable evidence and documentation of market supply & demand in the region and State

Student demand for master's degrees in the related fields of intellectual property law, cyber/computer forensics and counterterrorism, and computer and information systems security/information assurance is increasing. To further assess student demand, we closely examined degree conferral trends at the national level. The National Center for Education Statistics (NCES) tracks all postsecondary award completions in the country using a taxonomic system of numeric codes referred to as CIP codes. Though institutions report their award classifications independently, this system allows researchers to track the growth of student interest in specific course programs with a high level of accuracy.

Given the general lack of programs in cybersecurity law, the NCES does not track degree conferrals in this specific field, but two fields related to directly related to (or parts of) cybersecurity – Cyber/Computer Forensics and Counterterrorism and Computer and Information Systems Security/Information Assurance, have shown evidence of market demand. These are defined below.

Computer and Information Systems Security/Information Assurance (CIP-11.1003): A program that prepares individuals to assess the security needs of computer and network systems, recommend safeguard solutions, and manage the implementation and maintenance of security devices, systems, and procedures. Includes instruction in computer architecture, programming, and systems analysis; networking; telecommunications; cryptography; security system design; applicable law and regulations; risk assessment and policy analysis; contingency planning; user-access issues; investigation techniques; and troubleshooting.¹

Cyber/Computer Forensics and Counterterrorism (CIP 43.0116): A program focusing on the principles and techniques used to identify, search, seize and analyze digital media and to conduct cyber investigations against criminal and terrorist activity. Includes instruction in computer boot processes and drives, jumper setting, file access and reconstruction, hacking, network systems, cryptography, programming, investigative techniques, forensic imagery,

¹ Taken verbatim from: "Detail for CIP Code 11.1003." National Center for Education Statistics. <https://nces.ed.gov/ipeds/cipcode/CIPDetail.aspx?v=55&cipid=87263>

web-based investigation methods, cyberterrorism, and applicable laws and administrative procedures.²

Analyzing master's completions trends in these subjects provides a useful indication of whether student interest in cybersecurity education is growing in general. As shown below, each has seen significant growth over the past five years. The number of master's degree conferrals in Computer and Information Systems Security/Information Assurance has more than tripled between 2010 and 2014 and has continually increased from year to year. Master's conferrals in Cyber/Computer Forensics and Counterterrorism, a field more closely aligned with cybersecurity law, have also increased substantially – from just 12 completions in 2011 to 110 completions in 2014.

National Master's Degree Conferrals in Cybersecurity Fields, 2010-2014

FIELD	2010	2011	2012	2013	2014	CAGR	AAC	STDEV
Computer and Information Systems Security/Information Assurance	583	643	858	1,542	1,872	33.9%	322	230
Cyber/Computer Forensics and Counterterrorism	-	12	38	62	110	-	-	-

Source: NCES

Carey Law set a goal of 30 students for its residential Master of Science in Law Program which began in fall 2015. Twenty-nine students were in its inaugural class and three accepted students deferred enrollment until fall 2016. Based on acceptances and deposits for the entering class of fall 2016, the law school is expecting to enroll 50+ students for its second entering class. This is clear evidence that the Master of Science in Law is a viable degree program with a significant market. In addition to strategic marketing, Carey Law recently signed an agreement with the Office of Personnel Management which will give federal employees and spouses a discount for attendance in the MSL program. OPM will encourage federal government employees to apply and enroll in the Program using employee manuals, newsletters, intranet, and a link from the OPM website to the School of Law website.

UM Carey Law is one of the leading law schools in the country. The University of Maryland Center for Health and Homeland Security is nationally – and indeed internationally – recognized as a leader in providing training and technical assistance in crisis management. These resources make UM Carey Law well positioned to launch this new degree program.

The full market analysis is attached to this proposal as Appendix C.

E. Reasonableness of program duplication

² "Detail for CIP Code 43.0116." National Center for Education Statistics.
<https://nces.ed.gov/ipeds/cipcode/CIPDetail.aspx?y=55&cipid=89404>

This Program does not compete with non-law school-based master's programs as such programs do not offer substantial coursework in law or legal issues.

F. Relevance to Historically Black Institutions (HBIs)

There are no HBIs in Maryland or anywhere in the nation offering a degree similar to that of the Master of Science in Law. Thus, the degree program has no negative impact on HBIs.

G. Distance education program

The School of Law intends to deliver the online product in the Blackboard Collaborate setting as a joint venture with iLawventures (iLaw). iLaw specializes in online enablement and instructional design specifically in legal education. Its leadership team includes former legal educators. iLaw's distance legal education runs on the Blackboard Collaborate platform. A demonstration is available at <http://www.ilawventures.com>. Consistent with existing Master of Science in Law offerings, current law school faculty will design and teach the online courses with the support of an iLaw instructional designer.

Maryland Carey Law is committed to delivering the highest quality legal education to students served by online courses. This commitment requires that Maryland Carey Law, in partnership with iLaw, develop and implement standards for quality that cover all aspects of online course delivery, including teacher training, pedagogy, instructional design, technical support, exam administration, and related student administrative support. In establishing these quality standards, a primary goal is compliance with ABA Standard 306, Distance Education (Appendix D), particularly 306(d) (1)'s requirement that there be "opportunity for regular and substantive interaction between faculty members and student and among students" and 306(d) (2)'s requirement that there be "regular monitoring of student effort by the faculty member and opportunity for communication about that effort." Maryland's implementation standards owe a significant debt to the Working Group for Distance Learning in Legal Education and to its recommendations as set forth in "Distance Learning in Legal Education: A Summary of Delivery Models, Regulatory Issues, and Recommended Practices." These standards also are informed by the Quality Matters rubric and the standards set forth by the Distance Education Training Council. The standards fall into five categories: Teacher Training, Support and Responsibilities; Student Services; Technical Standards and Support; Course Delivery and Interactivity; and Miscellaneous. The full standards, as articulated by iLaw, are available at <http://www.ilawventures.com/best-practices/> and are attached as Appendix E.

This Program will comply with the Principles of Good Practice for Distance Education as set out in COMAR 13B.02.03.22C.

(a) Curriculum and Instruction.

(i) A distance education program shall be established and overseen by qualified faculty. The distance education program for Cybersecurity Law will be established and overseen by members of the University of Maryland Center for Health and Homeland Security and by academic program administrators at Carey Law. Professor Michael Greenberger, Director of the Center, has been a faculty member at Carey Law since 2001. Other professional staff at the

Center who will be involved in designing and teaching the online courses already hold adjunct appointments at Carey Law as they have been teaching similar courses in Carey Law's J.D. program for several years.

(ii) A program's curriculum shall be coherent, cohesive, and comparable in academic rigor to programs offered in traditional instructional formats. The curriculum for this online degree parallels the curriculum currently used in courses in the residential Master of Science in Law program. The curriculum for the residential program was designed by faculty members at the University of Maryland School of Law and professional staff members of the Center for Health and Homeland Security who also hold adjunct faculty appointments at Carey Law. CHHS is considered one of the nation's premier academic and professional centers in this subject area.

(iii) A program shall result in learning outcomes appropriate to the rigor and breadth of the program. The learning objectives and measurable student outcomes for each course will be clearly stated in the syllabus. Objectives and outcomes will be identified for each individual class session. In addition to placing this information in the syllabus, students will also receive the information in the Content area of the course in the applicable Learning Management System (LMS) for each class module. Again, this practice parallels the residential practice.

Learning objectives for students' in the Program are the same as for the current residential program as noted in Section B above:

- An ability to recognize and understand the legal regimes and structures that regulate or otherwise affect their professional roles;
- A capacity to read and understand legal documents, including contracts, judicial opinions, statutes, regulations, executive orders, legislative commentaries, and legal opinion letters;
- An ability to identify the legal context for effectuating policy, and thus to recognize and better appreciate the legal risks that may affect decision-making in public and private organizations;
- An understanding of major modes of dispute avoidance and resolution, including negotiation, private settlement, mediation, arbitration, and litigation;
- The ability to conduct basic legal research and draft documents for internal use; and
- The ability to assess more effectively when legal issues require or justify the engagement of legal professionals and the ability to communicate more effectively with those professionals in identifying and evaluating the range of options appropriate to specific circumstances.

(iv) A program shall provide for appropriate real-time or delayed interaction between faculty and students. The Cybersecurity Law Program will be developed primarily as an asynchronous distance education program, with interactivity and student engagement built into the program. The following requirements help assure interactivity within courses, but professors are encouraged to consider additional ideas that make pedagogical sense and advance course outcomes. In asynchronous classes, this interactivity requirement may be satisfied by the following types of activities: (1) discussion boards; (2) placing students into group breakout sessions to work on problems; (3) asking questions of specific students during

discussion boards and office hours; (4) asking students to answer yes/no or multiple choice polling questions or to provide short answer responses through discussion boards, chat rooms, and office hours; (5) calling on designated students to answer questions or make presentations to the class through discussion boards, chat rooms, and office hours. Students will have ample opportunities to interact directly with professors. Students will have direct access to professors during live office hours (at least two per week per professor), via email, and via discussion boards. Professors will monitor, and respond as necessary, to all discussion board posts made prior to 5 PM EDT on the same day; for discussion board posts made after 5 PM EDT, professors will monitor and respond as necessary by 10 AM EDT the following day. Professors will provide feedback to students about class assignments within a week of when the assignment is submitted.

(v) Faculty members in appropriate disciplines in collaboration with other institutional personnel shall participate in the design of courses offered through a distance education program. Professors will design classes in partnership with Instructional Designers, with the goal that students enjoy as much interactivity as in the traditional classroom. Students in online courses should have the opportunity for “regular and substantive interaction between the faculty member and student and among students.” Professors should include in their syllabi formal interactive spaces. These may include blogs, chat rooms, discussion groups, assignments, etc. There should be “regular monitoring of student effort” in these activities by the faculty member. There also should be opportunity for communication between the student and the faculty member about that effort. These goals will be accomplished through monitoring of activities in which students are participating and in faculty review of student work. The programs will follow Best Practices of the online enabler, whose team is trained in Quality Matters and are participants in the Harvard Working Group on Distance Legal Education.

(b) Role and Mission.

(i) A distance education program shall be consistent with the institution's mission. The University of Maryland Carey School of Law seeks to promote a more just society by educating outstanding lawyers, by advancing understanding of law and legal institutions, and by enhancing access to justice. Through excellence in teaching, Carey Law seeks to prepare students for productive leadership and professional success in a wide range of careers and to promote in both students and faculty the highest standards of public and professional service.

To achieve these objectives, the School of Law is dedicated to these commitments:

- Excellence in teaching, designed to produce exceptional student competence and achievement.
- The pursuit of justice through improving legal-delivery systems and serving those who have been disadvantaged by the legal system or denied access core to it.
- Innovative and interdisciplinary education designed to promote comprehensive understanding and to develop collaborative approaches to complex social and policy issues.

- The pursuit of diversity as a source of richness among our students, our faculty, and the legal profession as a whole.
- A sense of collegiality, collaboration, and engagement among all members of our community.

The Cybersecurity Law Program will meet the school's objectives by:

- Selecting instructors to teach the courses who are leaders in the field, bringing their expertise and knowledge of the subject area to give greater meaning to the content for students.
- Providing access to an education that expands access to students, primarily working professionals, who have commitments that prevent them from taking courses in a residential setting;
- Developing these courses in innovative ways allowing students to learn through a distance education asynchronous delivery method that allows students to access materials at times that work with their schedule. The LMS and collaboration tools will reach a variety of student learning styles as well as allow meaningful collaboration between professor/student and peers.
- Reaching students from a vast array of geographical, socio-economic, and life experiences in order to increase diversity in these programs. It allows students who may be limited by one or more factors to participate in residential program.
- Developing communities within cybersecurity law, allowing for rich collaboration among peers.

(ii) Review and approval processes should ensure the appropriateness of the technology being used to meet a program's objectives. The Curriculum Committee of the School of Law, which consists of faculty, academic administrators and students, is responsible for reviewing all law courses for appropriateness of proposed methods and technology.

(c) Faculty Support.

(i) An institution shall provide for training for faculty who teach with the use of technology in a distance education format, including training in the learning management system and the pedagogy of distance education. In order to teach in the program, faculty members must complete the e-certificate program in Blackboard. The e-certificate training must be completed before a faculty member's first day of class. This course provides ample instruction in online course delivery and design. As part of the e-certificate program faculty, at a minimum, complete two one-hour training sessions in the online classroom Blackboard prior to the first day of classes. This is a minimum standard, and more training sessions will be provided should faculty members need or request additional training. The purpose of the training sessions will be to provide faculty members multiple opportunities to use Blackboard Collaborate's various interactive features in a training environment.

(ii) Principles of best practice for teaching in a distance education format shall be developed and maintained by the faculty. As part of their orientation the faculty will be provided a list of 30 best practices for distance education from the online enabler, whose team is trained in

Quality Matters and participants in the Harvard Working Group on Distance Legal Education. The online enabler vendor provides online services to more than 15% of ABA approved law schools.

(iii) An institution shall provide faculty support services specifically related to teaching through a distance education format. From the beginning of the Orientation course through the end of the final examination period, professors will receive 24/7 technical support for the applicable LMS, Blackboard Collaborate, and any technical issues affecting their ability to participate in the online courses. This 24/7 support will be provided through a combination of staff and Blackboard's own tech support capabilities.

(d) An institution shall ensure that appropriate learning resources are available to students including appropriate and adequate library services and resources.

The University of Maryland Francis King Carey School of Law maintains a law library that is consistent with American Bar Association Standards 601-606. Its digital and print collection is continually updated, and library staff members provide full support to students. The law library currently effectively provides support to students in the school's residential M.S.L program which is taught in College Park, Maryland.

(e) Students and Student Services.

(i) A distance education program shall provide students with clear, complete, and timely information on the curriculum, course and degree requirements, nature of faculty/student interaction, assumptions about technology competence and skills, technical equipment requirements, learning management system, availability of academic support services and financial aid resources, and costs and payment policies.

Students will receive an online Orientation program, including an introduction to academic support and student services staff. They will have ready access to the curriculum and course requirements. The course syllabi will provide information about how each professor intends to accomplish student-to-faculty and student-to-student interaction. Technology requirements, including LMS information, will be posted on the program website and will be a part of the syllabus for each course. Costs and payment policies will be posted on the program website in addition to information about financial aid resources.

(ii) Enrolled students shall have reasonable and adequate access to the range of student services to support their distance education activities.

Students in the program will have the same range of academic and student affairs services as all residential students. This includes services under the Americans with Disabilities Act (ADA). Staff will provide exam accommodations and any and all other supports for students with disabilities. Students will have recourse for any complaints about a course, a professor, and any other aspect of their experience in online course materials. The process will parallel the process for residential programs.

Carey Law's Office of Technology provides the School of Law community with access to modern computing, teaching and learning resources. Services to students, faculty and staff encompass e-mail, web development, classroom technologies, virus and SPAM protection, application development, network security, computerized exams and web enhanced learning via Blackboard. All students will be provided with the email address and telephone number of the Help Desk available 24/7/365.

(iii) Accepted students shall have the background, knowledge, and technical skills needed to undertake a distance education program.

Students must complete a full orientation course. The student orientation course will provide full information about the administration of the online courses as well as comprehensive training in Blackboard. All students will be required to complete a mock examination as part of the orientation course. Also, all students will be required to meet with a staff member in Blackboard Collaborate prior to the first day of class. During this session, staff will verify that each student has access to a good Internet connection. Orientation also will include education on the applicable Code of Conduct and plagiarism. During Orientation students must acknowledge that they have read the applicable Code of Conduct and have agreed to abide by it. All courses, as noted, will receive 24/7/365 Technical Support. All contact information will be provided to students during the Student Orientation course and will be posted in each course.

(iv) Advertising, recruiting, and admissions materials shall clearly and accurately represent the program and the services available. Advertising, recruiting, and admissions materials shall clearly and accurately represent the program and services available for the Cybersecurity Law Program. The school, in addition, will conduct direct marketing to prospective students and outreach to relevant businesses, employers in the relevant fields, the U.S. military, and other educational systems. We refer to the latter as "B2B" recruiting: Business to Business recruiting. The University of Maryland Carey School of Law makes use of several list providers to aid in the recruitment of prospective students, using targeted demographic, interest, and education levels. All admissions practices will adhere to the campus' non-discrimination policy. Costs and payment policies will be a part of the program website, as well as all the academic support services available for students. Students in the program will have access to the Financial Aid Office at the Law School.

(f) Commitment to Support.

(i) Policies for faculty evaluation shall include appropriate consideration of teaching and scholarly activities related to distance education programs. Consistent with School of Law practices and procedures, full-time faculty are regularly evaluated based on teaching, scholarship and service activities. Adjunct faculty are regularly evaluated on quality of their teaching.

(ii) An institution shall demonstrate a commitment to ongoing support, both financial and technical, and to continuation of a program for a period sufficient to enable students to complete a degree or certificate. This Program has the full financial backing of the institution. The University of Maryland commits to providing support, both financial and technical to this

Program. In the event that the Program terminates, the University commits to continuing it for the period sufficient to ensure that all enrolled students are able to complete the degree.

(g) Evaluation and Assessment.

(i) An institution shall evaluate a distance education program's educational effectiveness, including assessments of student learning outcomes, student retention, student and faculty satisfaction, and cost-effectiveness.

Students will complete an end-of-course evaluation. Student anonymity will be strictly protected. The end-of-course evaluations will be shared with professors after grades are submitted and approved. Staff will conduct periodic surveys throughout each course to provide students with an opportunity to provide feedback about technical issues and course administration. Each Friday, staff will send out a brief via email to all enrolled students that will provide them with an opportunity to provide feedback.

Students will also complete an end-of-program evaluation, again with student anonymity strictly protected. The data from both the end-of-course evaluations and end-of-program evaluations will be reviewed by professors and administration and used to make modifications for future courses. The law school's Curriculum Committee chaired by a tenured faculty member will, in coordination with the school's academic administrators, evaluate the Program on a regular basis including educational effectiveness, assessment practices, student retention, student and faculty satisfaction, and cost-effectiveness. The school will monitor student outcomes via its well-established Office of Career Development. In addition, the Associate Dean for Student Affairs, in collaboration with the Director of Registration, will monitor student enrollment and retention.

(ii) An institution shall demonstrate an evidence-based approach to best online teaching practices.

The Program will use the online best teaching practices developed by the Working Group for Distance Learning in Legal Education, including those concerning evaluation and assessment. This group is composed of mostly law school faculty members who teach and develop blended and fully online courses. The Working Group was established in 2011 and meets three times a year to develop policies, best practices and standards and provide policy recommendations. The online enabler also is trained in Quality Matters. The school will designate the Assistant Dean for Academic Affairs and the Associate Dean for Academic Affairs as administrators of the distance education program which will give them full access to each course, including the ability to join in any and all live class sessions. iLaw encourages school administrators to provide feedback during courses.

(iii) An institution shall provide for assessment and documentation of student achievement of learning outcomes in a distance education program.

Professors will provide out-of-class assessment opportunities. In asynchronous courses, students will be required to participate in all of the assessments in order to satisfy the attendance requirements for the course. These out-of-class assessments may include the

following: (1) a discussion board question provided by the professor in advance of a class to prepare students for class; (2) a discussion board question provided by the professor after a class for review purposes; (3) a discussion thread initiated and moderated by a designated student or group of students (4) a short multiple choice review quiz in which feedback is provided on all possible answer choices; (5) a group assignment students submitted to the professor via the Dropbox; (6) an individual written assignment submitted to the professor via the Dropbox. This list is not meant to be exhaustive, and professors are encouraged to be creative in generating opportunities for out-of-class interaction.

All assessments, including those administered during the term as well as the final exam or final paper, will be tied to the course learning objectives. The assessments administered during the term will be tied to specific modules and will be designed to allow the professor to assess whether the student has achieved the specific learning outcomes for that module. The final assessment, which will be a timed examination, an untimed take-home examination, or a research paper, will be designed to assess whether the student has achieved the overall learning outcomes for the course. Exam security will follow cutting-edge practices and procedures and be fully supported.

H. Adequacy of faculty resources

The courses will be taught by a mixture of full-time and adjunct faculty members of UM Carey Law. The University of Maryland Center for Health and Homeland Security (CHHS) will work with Carey Law's Associate Dean for Academic Affairs to coordinate faculty resources. See Appendix F for the summary list of current faculty members assigned to this Program.

I. Adequacy of library resources

Students will have access to UM Carey Law's Thurgood Marshall Law Library in Baltimore as well as other libraries within the University System of Maryland, including eight libraries on the College Park Campus. As is the policy of the University System of Maryland and Affiliated Institutions, a 16-member consortium, students in this Program will benefit from the strong tradition of resource-sharing and the common library software system used to manage collections and transactions. A member of UM Carey Law's library team will be assigned to teach the online introduction to legal research course and the team will be available to Master's students for all research needs, including for the intensive Capstone project. The students will be easily accommodated by the existing library resources.

J. Adequacy of physical facilities, infrastructure and instructional equipment

The online Cybersecurity Law Program will use the existing infrastructure for Carey Law. The faculty for the program will be current UM Carey Law professors and adjunct faculty so existing office space at the Law School will be adequate and no new office space will be required.

K. Adequacy of financial resources with documentation

To support the launch of the residential Master of Science in Law Program, the *MPowering the State* Initiative guaranteed “seed funding” during the first several years of the program. The final year of “seed funding” will occur in 2016-2017. Now that students are enrolled in the residential program and the program is meeting its enrollment goals, a portion of the “seed money” and tuition revenue for 2016-17 may be allocated toward planning for conversion of the crisis management specialty in the existing M.S.L. Program to the corresponding online degree program.

As noted above, Carey Law intends to partner with iLawventures which will provide the support for marketing, technology, and instructional design. The Center for Health and Homeland Security will provide faculty and administrative support for the Program. Appendix G contains a detailed five-year financial plan for the Program including Table 1: Resources and Table 2: Expenditures. Both tables combine expenses for two degrees – the one addressed in this proposal and the M.S. in Cybersecurity Law that is addressed in a separate proposal. Also included in Appendix G is a chart containing the projected numbers of students in both programs over the five-year period.

L. Adequacy of provisions for evaluation of program

As part of the resolution approving the launch of the Master of Science in Law Program, the UM Carey Law faculty required that the faculty undertake a thorough review of the program after the admission of the second cohort of students. The faculty required that the review be guided by objective benchmarks and other factors developed by the UM Carey Law Faculty Council. The review is to assess the overall quality of the Program in operation; the number and quality of the students admitted to the Program; the employment status of participants in the Program; whether sufficient funding exists—from the MPowering the State initiative, the university, and tuition revenues—to support the Program in the future; how the teaching commitments in the Program have affected faculty capacities and faculty cohesion; the quality of adjuncts who have taught in the Program; the overall effect on the J.D. program; and the growth potential of the program. A formal faculty committee, comprised of faculty teaching in the program, faculty not involved in the program, and any necessary external reviewers, will conduct the review. Following that review, the program will be reviewed every seven years in keeping with UM Carey Law’s accreditation cycle. The School of Law will manage review of the online program in a similar fashion.

M. Consistency with the State’s minority student achievement goals

The new Master of Science in Law Program will remain consistent with UM Carey Law’s dedication to minority goals and achievement. For the legal system to function effectively, the profession must reflect the intellectual and cultural diversity that characterizes this nation. It is UM Carey Law’s institutional conviction that diversity of perspectives - shaped by economic or cultural background, by race, by gender, by sexual orientation, by disability and by philosophical outlook -- is an essential ingredient of the educational process. If the ideals of justice and the rule of law are to retain their power, then legal education must attract students as well as faculty who can challenge each other's ideas and perceptions and who can draw upon each other's strengths in resolving disputes and building consensus from a plurality of perspectives.

N. Relationship to low productivity programs identified by the

Commission

Not applicable

Appendix A

Master of Science in Law Course Descriptions General Courses

Dispute Resolution and Negotiation (2 credits): This course will examine methods of dispute resolution other than litigation, focusing on negotiation, mediation, and arbitration. It will also explore the use of various hybrid procedures and other mechanisms specifically designed to meet the needs of a particular controversy or categories of controversies. Simulations will be conducted to develop practice skills and as a basis for exploring the public policy and other issues that arise in this area.

Ethics in Law and Public Policy (1 credit): This course focuses on issues of practical professional ethics in legal, policy development, and program management contexts. The course will provoke critical thinking on value judgments underlying decision-making and public policy practices. It will introduce the fundamentals of ethics management and of analytic moral reasoning in policy contexts. It will focus on the responsibilities of policy makers in the context of competing obligations that guide their actions.

Legal Methods and Process: Analysis and Argument (3 credits): This course will introduce students to the structure of the American legal system and the sources of legal authority. It will cover the essentials of legal reasoning and the anatomy of a legal dispute. Students will also develop an understanding of various dispute resolution methods, including negotiation, mediation, arbitration, and litigation. The course will teach students to read and analyze statutes and to understand the relationships among cases, statutes, and regulations. Students will learn to distinguish among and evaluate various types of legal authority and to use that authority to analyze legal problems. Students will then learn to communicate effectively the results of their analysis, by completing a draft and final version of at least one written project, as well as an oral presentation.

Legal Research (2 credits): The goal of the Legal Research course is to introduce students to legal authorities and legal research resources and techniques. Students will develop an understanding of the sources of legal information and legal citation formats, as well as judgment in identifying appropriate authorities for specific research assignments. The course will also introduce students to the process and strategies involved in effective management of legal research projects. The course will be conducted in a hybrid format, combining online materials and exercises with classroom meetings. There will be several specific deadlines for completion of the course materials, which will include a variety of components such as guided exercises, tutorials, and short open-ended research projects. A portion of the grade may consist of performance on a final research project that relates to the subject matter of the respective student's chosen concentration.

Public Law and the Regulatory Process (3 credits): This course surveys the fundamental legal principles in the areas of administrative processes and statutory interpretation. The course will examine the roles of administrative agencies in promulgating, administering, and enforcing regulations. After considering the relationship of agencies to the judicial and

legislative branches of government, students will study the rule-making process, modes of administrative adjudication, and judicial review of agency decisions.

U.S. Law and the Legal System (3 credits): This course surveys the fundamental legal principles of American law in the areas of torts, contracts, and property. The development of the law will be explored, from common law roots to more recent legislation and judicial decisions, culminating with discussion of current legal topics in each area, and their implications for the workplace and society at large. This course will also introduce students to sources of law including Constitutions, statutes, case law, common law and regulations, as well as the structure and functions of U.S. courts at the federal and state levels, the jurisdiction of federal and state courts, and the role of law in society.

Cybersecurity Law

Cybercrime (3 credits): This course will explore the legal, regulatory, and policy issues of cybercrime. The course will define cybercrime, teach students about types of cybercrime, and inform them on the methods of cyber criminals. The course distinguishes itself from the introductory law and policy of cybersecurity course in that it will not only offer an analysis of the legal, regulatory, and policy issues with which students may be confronted in their places of work, but also offer them practical solutions to preventing and responding to cybercrime. Students will learn about resources and best practices that they can easily apply to the context of their own jobs and other practical, real-life situations.

Law and Policy of Cybersecurity (3 credits): This survey course will explore the legal, regulatory and policy framework of cybersecurity, cyber terrorism, cyber warfare, and cybercrime. Specifically, this course will examine the laws and policies designed to mitigate cyber threats, address cyber privacy concerns, criminalize cyber offenses, and govern cyber warfare. This course will provide students with a framework for understanding the myriad of federal and state laws and regulations that govern this emerging field. While the focus of the course will be on U.S. cyber law and policy, law and policy of foreign countries will also be addressed. Through the analysis of case studies, students will study the intersection of cyber law and policy in the domain of homeland security and learn about cybersecurity's role in the real world.

NSA, Foreign Intelligence and Privacy (3 credits): As a result of massive leaks of top secret information by contractor employee Edward Snowden, a substantial amount of previously secret information has been made public, which shows that either without judicial warrants or with warrants not premised on the traditional probable cause standards, the following examples of information are now readily accessible to the U.S. foreign intelligence community: (1) 100% of the metadata of U.S. phone calls; (2) 75% of the content of emails; (3) virtually all codes for breaking encryption used to keep internet data private; and the communications of over 35 world leaders, many of whom are longstanding allies of the U.S. Also made available by Snowden are previously secret rulings of the Foreign Intelligence Surveillance Court which authorize (and, in small measure, critique) much of this data collection, as well as Inspector General reports calling some of these practices into question. Looking at these secret court rulings and the existing "public" body of court rulings on the Fourth Amendment, as well as Congressional testimony and legislative proposals, this course

asks the question whether these massive data collection practices can be sustained under the Fourth Amendment. As a result of Snowden's leaks, avenues of judicial review may have opened up outside of the secret Foreign Intelligence Surveillance Court (FISC), presenting the likelihood that the Supreme Court may resolve this important Constitutional question.

Crisis Management

Law and Policy of Emergency Management (3 credits): This survey course will examine how federal, state and local government laws and policies govern responses to emergencies, whether caused by natural disasters or terror attacks. Students will also analyze the various directives and guidance that shape emergency management policy. Among the issues that will be studied are Emergency Operations Planning; Continuity of Operations (COOP) Planning and Continuity of Government (COG) planning; the Incident Command System (ICS); the Role of Emergency Management Agencies; Mass Evacuation and Sheltering Planning; Interoperability; Pandemics and Emergency Public Health Response; Port Security; Critical Infrastructure Protection (CIP); Planning for Individuals with Functional Needs; and Tests, Training, and Exercises.

Appendix B

COLLABORATION AGREEMENT

This Collaboration Agreement ("Agreement") is made and entered into by iLawventures, LLC ("iLaw") and the University of Maryland, Baltimore, ("UMB") a constituent institution of the University System of Maryland, a public corporation and an instrumentality of the State of Maryland, on behalf of its School of Law ("UMB"), and is effective this 14 day of April 2016. Each of iLaw and UMB will be known herein as a "Party," and collectively as the "Parties".

WHEREAS, the Parties wish to collaborate to develop and deliver online Master's Programs in Cybersecurity and Crisis Management;

WHEREAS, the Parties have certain capabilities and expertise that they intend to bring to advance the collaboration; and

NOW, THEREFORE, for good and valuable consideration further described herein, iLaw and UMB enter into this Agreement under the terms specified herein.

1. Scope of Work.

- a. The Parties will collaborate to create and deliver online Masters of Science in Law ("MSL") programs in the subject areas of Cybersecurity and Crisis Management (the "Programs"). The Parties will permit lawyers to join non-lawyers in these Programs. The Parties mutually may agree to expand this Agreement to additional MSL subject areas.
- b. The Parties agree that the Programs will be created and be ready for delivery in January 2017. The Parties mutually may agree that circumstances require a delayed starting date, but not later than September 1, 2017.
- c. The Parties will offer the Programs internationally and domestically. The Programs will be "asynchronous," although the Parties mutually may agree to synchronous components or delivery.

2. Term.

The term of this Agreement is for five (5) years after the launch of the Programs, but subject to early termination pursuant to Section 10 of this Agreement (the "Term").

3. Parties' Responsibilities.

- a. iLaw's Responsibilities:
 - i. Conduct market research on the Programs to fully understand market(s) needs, Programs' viability, future trending, and competition, among other areas;
 - ii. Provide guidance to UMB on the Programs' structure, based on market research and iLaw institutional knowledge of professional markets;
 - iii. Offer accreditation-related assistance;
 - iv. Design and implement a marketing strategy for the Programs, build on market research, and execute on the plan, including creating a value proposition,

building websites, SEO/SEM, ad buys, and providing traditional marketing collateral;

- v. Support recruitment, including setting up structure for lead generation and handoff to UMB for final admissions decisions;
- vi. Provide iLaw's Online Instructor Certification program, a 25-hour faculty training focused on best practices for online teaching;
- vii. Conduct instructional design and build of Programs, including close collaboration with faculty, oversight of course production, videotaping, and establishment of milestones and timetable for launch;
- viii. Provide LMS (Blackboard Collaborate + Desire2Learn) and integrate with UMB systems;
- ix. be. Offer accessibility support, in compliance with applicable law, regulations, and policies, including without limitation ADA, State of Maryland, and UMB policies;
- x. Administer the Programs from beginning to end including an early intervention for at-risk students, as well as administering exams;
- xi. Provide operational oversight post-launch, including student training and technical support.

b. UMB's Responsibilities:

- i. Review and have final authority over all academic matters and decisions including faculty, admissions/enrollment, curriculum, and academic policy;
- ii. Provide faculty for the Programs' courses and compensate such faculty;
- iii. Draft content for the Programs' courses, including lectures, course material, and assessments;
- iv. Ensure that each faculty member who provides copyrighted content for the Program's courses grants to UMB and iLaw royalty-free, non-exclusive, non-assignable, and non-transferable licenses to use his/her copyrighted material solely in the Program courses;
- v. Take the lead on accreditation, acquiescence, or other regulatory applications;
- vi. Provide a single contact person who will coordinate all of UMB's responsibilities and related deliverables under this Agreement, and make marketing and admissions staff available to support the Programs;
- vii. Recruit individual students from Haw's lead generation. UMB will have final decision-making authority on admissions criteria and which students to enroll in the Programs;
- viii. Provide non-technical, select student services, as agreed upon by the parties;
- ix. Provide electronic information services to students (e.g., Lexis; Westlaw).

4. Mutual Representations and Warranties.

Each Party hereby represents that (a) it has the authority and right to enter into this Agreement, and fulfill its obligations hereunder; (b) it will comply with all applicable laws, rules and regulations; (c) it will provide a high quality of instruction consistent with the best practices for teaching and presenting courses in a distance learning environment; (d) it will not discriminate against students on the basis of race, gender, age, religion, nationality, sexual orientation, and/or disability in any aspect of the delivery of services under this agreement; and (e) that its commitments under this Agreement do not and will not breach any agreement which it has with any third party.

5. Non-Competition.

During the term of this Agreement, neither party will collaborate on or produce a program substantially similar to the Programs covered by the scope of this Agreement, with a party outside this Agreement. Nothing in this Agreement prohibits the Parties from independently producing select non-MSL-length courses in Cybersecurity or Crisis Management. Nothing in this Agreement will prevent iLaw from contracting with third parties, domestically or internationally, to promote the Programs.

6. Finances.

- a. Each Party will pay for costs associated with its responsibilities as detailed in Section 3 of this Agreement, unless otherwise provided for in this Section 6.
- b. The following expenses, subject to annual maximum agreed to by the Parties, will be charged to the Programs' budget and paid for from Gross Revenue (defined as all Program tuition and other charges) before any remaining revenue is shared by the Parties:
 - i. All out-of-pocket marketing expenses (e.g., purchasing banner ads; email address list purchases; SEO/SEM);
 - ii. Cost of the personnel hired by UMB, if any, referred to in section 3(b)(vii), to recruit students to the Programs, at a cost agreed by the Parties.
- c. Programs Net Revenues, calculated as Programs Gross Revenues less Programs budget expenses as detailed in Section 6(b), will be shared on a 50/50% basis. To offset (Law's significant capital investment in undertaking its responsibilities in Section 3 of this Agreement, UMB will provide iLaw with \$50,000 no later than July 31, 2016 consistent with (Law's responsibilities under 3(a) undertaken by that date; (Law will not receive any distributions until after UMB first is distributed \$50,000; and should total net distributions not reach \$50,000 within the first eighteen months of the launch of the Programs, iLaw will pay to UMB the difference between \$50,000 and the net amount that has been distributed to UMB by that date.

7. Intellectual Property.

- a. Program content will be owned and regulated by UMB policy.

- b. Each Party will retain exclusively all ownership of, and rights to, (i) any of its pre-existing intellectual property ("IP") used in connection with the collaboration contemplated herein, and (ii) any material, other than described above, solely developed by it in the course, and pursuant to the terms, of this Agreement. iLaw will not use UMB's IP in marketing without UMB's review and prior approval.
- c. UMB's brand, and not iLaw's brand, will be used in marketing and promoting the Programs. Marketing materials using UMB's brand may not be distributed without UMB's permission.
- d. For purposes of this Agreement, inventorship or authorship of any IP shall be determined solely in accordance with U.S. intellectual property law, notwithstanding that the laws of other countries where patent, trademark, or copyright applications are filed may differ from U.S. intellectual property law.

8. Liability/Indemnification.

- a. iLaw will be responsible for, and will indemnify fully, defend and hold harmless UMB, its officers, agents, and employees, of and from, any and all claims, demands, causes of action, liabilities or damages, including legal costs and attorneys' fees, arising out of its breach of any provision of this Agreement or any of its negligent or willful acts or omissions or those of any of its officers, agents, employees or subcontractors pursuant to this Agreement.
- b. UMB and its employees and officers acting within the scope of their employment by UMB are subject to the Maryland Tort Claims Act (Title 12, Subtitle 1, State Government Article, Annotated Code of Maryland) (the "Maryland Tort Claims Act"). The Maryland Tort Claims Act permits claims in tort against the State of Maryland only under certain circumstances and subject to limits provided by law, based on the negligent acts or omissions of State employees and officials acting within the scope of their employment.
- c. iLaw warrants that its liability insurance covers the contractually assumed liabilities referred to herein, and agrees to maintain such coverage throughout the term of this Agreement. Upon request, iLaw shall deliver a certificate evidencing required insurance coverage to UMB.

9. Confidentiality/Conflict of interest.

- a. Each Party agrees that it will hold in confidence and not disclose to any third party any Confidential Information of the Party disclosing the Confidential Information (the "Disclosing Party"), except as approved in writing by the Disclosing Party, and will use the Confidential Information for no purpose other than in connection with collaboration activities under this Agreement as further contemplated herein. It will treat the Disclosing Party's Confidential Information with the same security as if its own Confidential and proprietary Information.

- b. Each Party will only permit access to Confidential Information of the other Party to those of Its employees or authorized representatives having a need to know such Information and who have signed confidentiality agreements or are otherwise bound by confidentiality obligations at least as restrictive as those contained in this Agreement.
- c. The Party to whom Confidential Information was disclosed (the "Recipient") will not be in violation of this Agreement with regard to a disclosure that was in response to a valid order by a court or other governmental body, provided that the Recipient provides the Disclosing Party with prior written notice of such disclosure in order to permit the Disclosing Party to seek confidential treatment of such Information.
- d. Each Party will immediately notify the other upon discovery of any loss or unauthorized disclosure of the Confidential Information of the other Party.
- e. Each Party's obligations under this Agreement with respect to any portion of the other Party's Confidential Information will terminate when the Recipient can document that such Information:
 - i. was in the public domain at the time it was communicated to the Recipient by the Disclosing Party through no breach of an obligation of confidentiality to the Disclosing Party;
 - ii. entered the public domain subsequent to the time it was communicated to the Recipient by the Disclosing Party through no fault of the Recipient or other breach of an obligation of confidentiality to the Disclosing Party;
 - iii. was in the Recipient's possession free of any obligation of confidence at the time it was communicated to the Recipient; or
 - iv. was developed by employees or agents of the Recipient independently of and without reference to any information communicated to the Recipient by the Disclosing Party.
- f. Confidential Information will not be reproduced in any form except as required to accomplish the collaboration contemplated under this Agreement Any reproduction of any Confidential Information of the other Party by either Party will remain the property of the Disclosing Party and will contain any and all confidential or proprietary notices or legends which appear on the original unless otherwise agreed in writing by the Disclosing Party.
- g. This Agreement and Confidential Information provided to UMB under this Agreement is a public record when in the possession of UMB, which may be subject to inspection pursuant to §4-101 et seq., General Provisions Article, Annotated Code of Maryland (the "Public Information Act"). Confidential Information provided to UMB under this Agreement which is a trade secret, confidential financial information, or confidential commercial information may be exempt from disclosure under §4-335 of the Public Information Act.

h. UMB is an educational institution with practices for protection of Confidential Information which may differ from (Law's standards and practices. UMB shall only be required to use reasonable efforts to protect the confidentiality of iLaw's Confidential Information in a manner consistent with the efforts used by UMB to protect its own confidential information.

10. Early Termination.

UMB or (Law may terminate this Agreement early if the other commits a material breach of this Agreement which remains uncured after a sixty-day notice. UMB or iLaw may terminate this Agreement early if, in each of two consecutive academic years, enrollments for the Programs together do not reach at least fifty students; the Parties may mutually agree to revise the enrollment minimum following market research.

11. Records.

Each Party will keep complete and accurate records of all of its relevant transactions related to this Agreement. Such records may be inspected, audited, and copied by the other Party or its agents at any time during normal business hours upon giving reasonable prior notice.

12. Independent Contractor.

The Parties agree that they are independent contractors hereunder. No agency, employment, partnership or joint venture relationship exists between, or is otherwise intended by, the Parties. Neither Party is an affiliate of the other, will have the authority to act for or bind the other, and will make any representation that would indicate apparent agency, employment, partnership or joint venture relationship.

13. Entire Agreement.

This writing, including the exhibit attached hereto, contains the entire agreement of the Parties regarding the subject matter hereof. No representations were made or relied upon by either Party, other than those that are expressly set forth herein.

14. Modification.

No agent, employee or other representative of either Party is empowered to alter any of the terms hereof, unless done in writing and signed by an authorized officer of the respective Parties.

15. Assignment.

Neither this Agreement nor any of the rights, interests, duties, or obligations thereof may be assigned or transferred by UMB in whole or in part without the prior written consent of iLaw.

16. Severability.

If any provisions of this Agreement or any portion thereof, are held to be invalid or unenforceable, the remainder of the Agreement will still remain in force, and any provisions or portion thereof held invalid will be revised and replaced by an enforceable provision which reflects, to the greatest extent possible, the original intention of the parties.

17. Survival.

Any provision of this Agreement which imposes an obligation after termination or expiration of this Agreement, will survive the termination or expiration of this Agreement.

18. Waiver.

Waiver by one party of a breach of any portion of this Agreement by the other will not be considered as a continuing waiver or a change to the terms and obligations of this Agreement.

19. Controlling Law & Venue.

The validity, interpretation and performance of this Agreement will be controlled and construed under the laws of the State of Maryland. Any claim or cause of action filed will be in a court of competent jurisdiction in Maryland. The parties consent to such venue and to the jurisdiction of such courts over the subject matter of the proceeding and over themselves.

20. Notice.

The Parties must provide written notice required under this Agreement via facsimile, electronically, or via overnight or certified mail to the persons designated below or as later modified in writing by the parties.

If to iLaw: iLawventures, LLC
 Attn: Ken Randall
 302 Merchants Walk; Suite 250
 Tuscaloosa, AL 35406
 Fax: 239-325-3189
 Email: ken.randall@ilawventures.com

If to UMB: Michael Rotor
 Assistant Vice President, CCT & CC
 Office of Research and Development
 University of Maryland, Baltimore
 620 West Lexington Street
 Baltimore, Maryland 21201-1508
 Email: mrollor@umaryland.edu

Copy to: University Counsel
 University of Maryland, Baltimore
 220 Arch Street 14th Floor, Room 03-110
 Baltimore, Maryland 21201-1531

21. Headings.

Section headings in this Agreement are for convenience only, and are not to be considered a part of this Agreement

22. Counterparts.

This Agreement may be executed in counterparts, each of which will be deemed an original and all of which will constitute one and the same agreement, and will become effective when counterparts have been signed by each party and delivered to the other party. Transmission of signature pages by facsimile or by e-mail in a "pdf format is acceptable.

LEFT BLANK INTENTIONALLY - SIGNATURE PAGE FOLLOWS

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their respective authorized officers, as of the date first set forth above.

UNIVERSITY OF MARYLAND, BALTIMORE

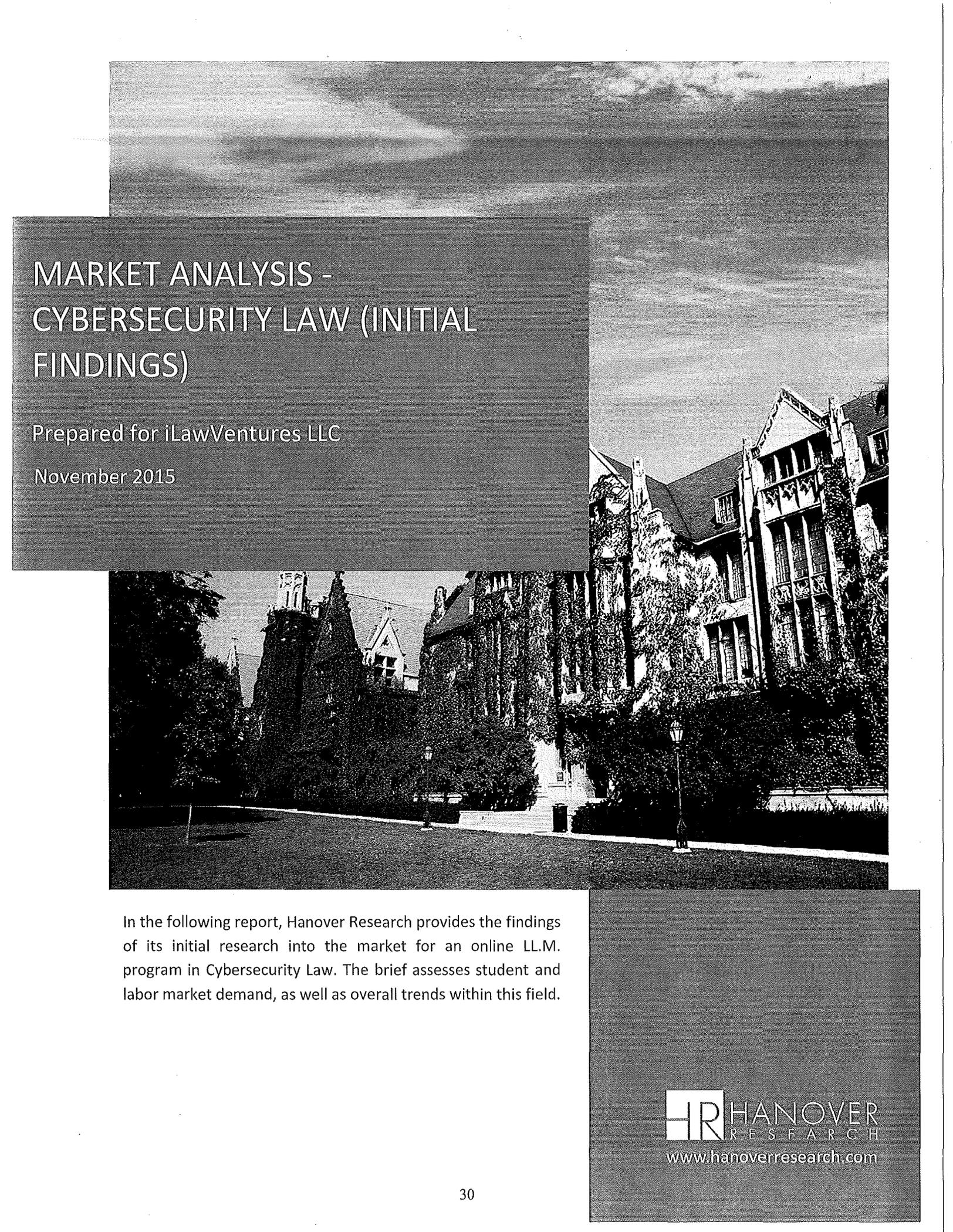
By: _____

Name: Michael Rollor
Title: Assistant Vice President

iLAWVENTURES, LLC

By: _____

Name: Kenneth C. Randall
Title: President and CEO



MARKET ANALYSIS - CYBERSECURITY LAW (INITIAL FINDINGS)

Prepared for iLawVentures LLC

November 2015

In the following report, Hanover Research provides the findings of its initial research into the market for an online LL.M. program in Cybersecurity Law. The brief assesses student and labor market demand, as well as overall trends within this field.

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INTRODUCTION

In this research brief, Hanover Research (Hanover) assesses key market indicators for an online LLM degree in cybersecurity law. The report examines student demand, industry trends, and employment outlook for cybersecurity lawyers. The key demand indicators for the degree program include:

- **Broadly positive market conditions exist for an online LL.M. in Cybersecurity.** Student demand for master's degrees in the related fields of intellectual property law, cyber/computer forensics and counterterrorism, and computer and information systems security/information assurance is increasing. While growing, however, the overall number of degrees conferred in fields related to cybersecurity law is small. A large percentage of master's degrees in cybersecurity are also offered online, suggesting the delivery method would be a viable option for the field.
- **The degree would likely align well with current and future labor market needs.** Cybersecurity is an increasing concern across the U.S. federal government as well as private sector corporations, which will increase the need for lawyers trained in this discipline. In recent years, major law firms have begun to establish or significantly bolstered practice groups in cybersecurity law. There is also evidence that in certain geographic areas, corporate demand for lawyers trained in cybersecurity issues currently outstrips supply. Nonetheless, it should be noted that cybersecurity law is a nascent field, which presents challenges to assessing long-term future trends.

SECTION I: STUDENT DEMAND

OVERVIEW OF COMPETITION AND CYBERSECURITY LEGAL EDUCATION

The University of Maryland Carey School of Law’s LL.M. in cybersecurity appears to be the only program. According to *The National Jurist*, it is the first LL.M. program “to cover all the various parts of cybersecurity.”¹ A number of law schools, however, do offer LL.M.’s in the related fields of national security and information technology, several of which contain cybersecurity components. However, these are usually limited to a smaller number of courses. According to lists compiled by the American Bar Association (ABA) and *The National Jurist*, 13 law schools currently offer LL.M. degrees in information technology and three law schools offer LL.M.’s in national security.²

These programs are listed in Figure 1.1 below. As shown, only two institutions (Western Michigan University’s LL.M. in Homeland and National Security Law and The John Marshall Law School’s LL.M. in Information Technology & Privacy) offer online options.

Figure 1.1: U.S. Law Schools Offering LL.M. Degrees in Ffields related to Cybersecurity

LAW SCHOOL	LL.M. TITLE	WEBSITE
<i>Information Technology</i>		
University of Dayton	Intellectual Property & Technology Law	https://www.udayton.edu/law/academics/pilt/index.php
Fordham University	Intellectual Property and Information Technology Law	http://www.fordham.edu/info/22607/intellectual_property_and_information_technology_law
University of New Hampshire	Commerce & Technology	https://law.unh.edu/degree/commerce-technology-llm
The John Marshall Law School	Information Technology & Privacy (<i>select courses available online</i>)	http://www.jmls.edu/academics/ip-privacy/llm-it-privacy-law.php
Suffolk University	Global Law and Technology	https://www.suffolk.edu/law/academics/degrees/llm/21768.php
Fordham University	Intellectual Property and Information Technology Law	https://www.fordham.edu/info/22607/intellectual_property_and_information_technology_law
Michigan State University	Intellectual Property, Information & Communications Law	http://www.law.msu.edu/llm/ip/academic-program.html
New York University	Competition, Innovation, and Information Law	http://www.law.nyu.edu/llmjsd/competitioninnovationinformationlaw

¹ “Maryland adds cybersecurity, crisis management LL.M.” *The National Jurist*. June 9, 2015. <http://www.nationaljurist.com/content/maryland-adds-cybersecurity-crisis-management-llm>

² [1] “Post J.D. Programs by Category.” American Bar Association. http://www.americanbar.org/groups/legal_education/resources/llm-degrees_post_j_d_non_j_d/programs_by_category.html [2] Martin, L. “The LL.M. Breakdown: Your Guide to the Master of Laws Degree.” *The National Jurist*, 24:1, September/October 2014. p. 36. <http://www.nxtbook.com/nxtbooks/cypress/nationaljurist0914/#/30>

The Ohio State University	Intellectual Property and Information Law	http://moritzlaw.osu.edu/admissions/llm/academic-information/intellectual-property-and-information-law/
University of Colorado	Information Technology and Intellectual Property Law	http://www.colorado.edu/academic/s/programs/masters-laws
University of Houston	Intellectual Property & Information Law	http://www.law.uh.edu/llm/ipil.asp
University of San Francisco	Intellectual Property & Technology Law	https://www.usfca.edu/law/admissions/llm/ipitech
Washington University	Intellectual Property & Technology Law	http://law.wustl.edu/llmip/index.aspx
National Security		
George Washington University	National Security & U.S. Foreign Relations Law	http://www.law.gwu.edu/Academics/FocusAreas/natsec/Pages/LLM.aspx
Georgetown University	National Security Law	https://www.law.georgetown.edu/academics/academic-programs/graduate-programs/degree-programs/national-security/
Western Michigan University	Homeland and National Security Law (<i>online</i>)	http://www.cooley.edu/homelandsecurity/index.html
Cyber Law (partial focus)		
University of Nebraska-Lincoln	Space, Cyber, and Telecom Law	http://law.unl.edu/spacecyberlaw/

Source: Institutional Websites, *The National Jurist*, American Bar Association

Georgetown Law also offers a two-day onsite Cybersecurity Law Institute with the option to access recorded sessions online. The Institute is intended to help “in-house and outside counsel (to) stay abreast of the most current developments and best practices in cybersecurity.”³ The ABA has recently begun to produce educational programs and handbooks on cybersecurity law through its Science and Technology Section’s Security, Privacy, and Information Law Division and its Public Contract Law Section’s Cybersecurity, Privacy, and Data Protection Committee.⁴

³ “Cybersecurity Law Institute.” Georgetown Law Continuing Legal Education. <http://www.law.georgetown.edu/continuing-legal-education/programs/cle/cybersecurity/>

⁴ See: [1] “Section on Public Contract Law: Cybersecurity, Privacy, and Data Protection.” American Bar Association. <http://apps.americanbar.org/dch/committee.cfm?com=PC802500> [2] “Section of Science & Technology Information Security Committee.” American Bar Association. <http://apps.americanbar.org/dch/committee.cfm?com=ST230002>

DEGREE CONFERRAL TRENDS

To assess student demand, Hanover examined degree conferral trends at the national level. The National Center for Education Statistics (NCES) tracks all postsecondary award completions in the country using a taxonomic system of numeric codes referred to as CIP codes. Though institutions report their award classifications independently, this system allows researchers to track the growth of student interest in specific course programs with a high level of accuracy. Hanover relies on three statistical metrics when considering year-to-year trends in completions data: Compound Annual Growth Rate (CAGR), Average Annual Change (AAC), and Standard Deviation (STDEV).

Given the general lack of programs in cybersecurity law, the NCES does not track degree conferrals in this specific field. The closest legal field the NCES does report data for is Intellectual Property (IP) Law, which is defined below.

Intellectual Property Law (CIP 22.0212): An advanced, professional study of the law, policies, and regulations related to copyrights, patents, trademarks, trade secrets, and related issues. Includes instruction in patent law, copyright law, trademark law, intellectual property licensing and litigation, and applications such as art and entertainment law, communications law, information technology law, sports law, and chemical and biotech patent law.⁵

As shown in Figure 1.2, master’s degree conferrals in Intellectual Property Law have increased substantially over the past five years, which points to increasing demand among students. Several law schools only began reporting completions over the last few years, which suggests many of the LLM degrees in this field are new. However, completions are still fairly low overall, indicating the number of students interested in pursuing master’s degrees in IP Law could be limited.

Figure 1.2: National Master’s Degree Conferrals in Intellectual Property Law, 2010-2014

2010	2011	2012	2013	2014	CAGR	AAC	STDEV
42	81	119	118	138	34.6%	24	16

Source: NCES

The NCES also provides degree conferrals data for two general fields related to cybersecurity – Cyber/Computer Forensics and Counterterrorism and Computer and Information Systems Security/Information Assurance. These are defined below.

⁵ Taken verbatim from: “Detail for CIP Code 22.0212.” National Center for Education Statistics. <https://nces.ed.gov/ipeds/cipcode/cipdetail.aspx?y=55&cipid=89429>

Computer and Information Systems Security/Information Assurance (CIP 11.1003): A program that prepares individuals to assess the security needs of computer and network systems, recommend safeguard solutions, and manage the implementation and maintenance of security devices, systems, and procedures. Includes instruction in computer architecture, programming, and systems analysis; networking; telecommunications; cryptography; security system design; applicable law and regulations; risk assessment and policy analysis; contingency planning; user access issues; investigation techniques; and troubleshooting.⁶

Cyber/Computer Forensics and Counterterrorism (CIP 43.0116): A program focusing on the principles and techniques used to identify, search, seize and analyze digital media and to conduct cyber investigations against criminal and terrorist activity. Includes instruction in computer boot processes and drives, jumper setting, file access and reconstruction, hacking, network systems, cryptography, programming, investigative techniques, forensic imagery, web-based investigation methods, cyberterrorism, and applicable laws and administrative procedures.⁷

Though neither of these fields is specific to cybersecurity law, analyzing master’s completions trends in these subjects can still provide a useful indication of whether student interest in cybersecurity education is growing in general. As shown in Figure 1.3, this has been the case for the past five years.

Figure 1.3: National Master’s Degree Conferrals in Cybersecurity Fields, 2010-2014

FIELD	2010	2011	2012	2013	2014	CAGR	AAC	STDEV
Computer and Information Systems Security/Information Assurance	583	643	858	1,542	1,872	33.9%	322	230
Cyber/Computer Forensics and Counterterrorism	-	12	38	62	110	-	-	-

Source: NCES

The number of master’s degree conferrals in Computer and Information Systems Security/Information Assurance has more than tripled between 2010 and 2014 and has continually increased from year to year. Master’s conferrals in Cyber/Computer Forensics and Counterterrorism, a field more closely aligned with cybersecurity law, have also increased substantially – from just 12 completions in 2011 to 110 completions in 2014. Though this is still a nascent field, with only a handful of institutions currently registering completions, it is promising that those which do report positive growth.

In addition, roughly half of the institutions reporting conferrals in Figure 1.3 also note that the programs can be completed in a wholly distance learning format. This indicates that it is possible and quite common for degrees in cybersecurity fields to be offered online.

⁶ Taken verbatim from: “Detail for CIP Code 11.1003.” National Center for Education Statistics. <https://nces.ed.gov/ipeds/cipcode/CIPDetail.aspx?y=55&cipid=87263>

⁷ “Detail for CIP Code 43.0116.” National Center for Education Statistics. <https://nces.ed.gov/ipeds/cipcode/CIPDetail.aspx?y=55&cipid=89404>

SECTION II: EMPLOYMENT OUTLOOK

In the United States, the general employment outlook for the field of cybersecurity shows signs of promise.⁸ For instance, the Bureau of Labor Statistics predicts job openings for Information Security Analysts to grow at rate far above average (36.5 percent) through the year 2022. Exact employment projections are shown in Figure 2.1 below. Industry research attributes this growth to the general expansion of computing technologies, the increasing rate of cyberattacks, and recent federal investments in cyber defense as an interest of national security.⁹

Figure 2.1: National Employment Projections for Information Security Analysts, 2012-2022 (numbers in thousands)

OCCUPATION	EMPLOYMENT		CHANGE 2012-2022		ANNUAL JOB OPENINGS
	2012	2022	#	%	
<i>Total All U.S. Occupations</i>	145,356	160,984	15,628	10.8%	5,056
15.1122 Information Security Analysts	75.1	102.5	27.4	36.5%	3.9

Source: Bureau of Labor Statistics

Hanover’s research suggests that the increasing need for cybersecurity analysts will likely translate to a growing need for cybersecurity attorneys. Dr. Orin Kerr, a professor at George Washington University School of Law and expert on computer crime law, recently noted that “corporations have begun to worry about cybersecurity risks.” In response, several major law firms have begun to “establish or significantly bolstered practice groups in cybersecurity law.”¹⁰ David Bodenheimer, former chairman of the ABA Public Contract Law Section’s Cybersecurity Committee, reiterates that law firms are increasingly recognizing cybersecurity law as a practice area with “great potential,” though one that is still developing and contingent upon companies fully realizing the cyber threats they face.¹¹

There is evidence that corporate demand for lawyers trained in cybersecurity issues currently outstrips supply. In California, for instance, law firms face a shortage of

⁸ [1] O’Hara, K. “The Future of Cybersecurity Jobs.” *Monster Worldwide*, December 23, 2014. <http://www.monster.com/technology/a/Future-of-Cybersecurity-Jobs> [2] “Job Outlook: Information Security Analysts,” *Occupational Outlook Handbook*, Bureau of Labor Statistics, May 2014. <http://www.bls.gov/ooh/computer-and-information-technology/information-security-analysts.htm> [3] Schwartz, M. “Best Paying IT Security Jobs in 2012.” *Information Week*, November 23, 2011. <http://www.networkcomputing.com/networking/best-paying-it-security-jobs-in-2012/d/d-id/1101522>

⁹ [1] “Job Outlook: Information Security Analysts,” *Op. cit.* [2] “Cybersecurity.” *Foreign Policy*. The White House. <http://www.whitehouse.gov/issues/foreign-policy/cybersecurity#section-cybersecurity-policies-initiatives>

¹⁰ Kerr, O. “What is Cybersecurity Law?” *The Washington Post*, May 14, 2015. <https://www.washingtonpost.com/news/volokh-conspiracy/wp/2015/05/14/what-is-cybersecurity-law/>

¹¹ [1] Lyons, K. “Law Firms Adding Cybersecurity Fields.” *Pittsburgh Post Gazette*, November 4, 2013. <http://www.post-gazette.com/business/legal/2013/11/04/VENTURING-INTO-THE-DATA-BREACH-Law-firms-adding-cybersecurity-fields/stories/201311040006> [2] For more information on this topic, see: “The Emergence of Cybersecurity Law.” Hanover Research, prepared for Indiana University Maurer School of Law, February 2015. <http://info.law.indiana.edu/faculty-publications/The-Emergence-of-Cybersecurity-Law.pdf>

practitioners qualified in cybersecurity, as they compete with Silicon Valley companies who often hire these lawyers as inside counsel.¹² The demand for cybersecurity lawyers who are familiar with international privacy laws and regulations is particularly great.¹³ Robert Denney, an expert on the U.S. legal job market, has also stated that “the demand for cyber security legal experts is absolutely through the roof and there aren’t enough of them.”¹⁴ A recent survey of executives across 15 industry sectors found that law firms were the number one external entity companies would consult in the event of a suspected cyber-related incident. 28 percent of respondents indicated they would consult a law firm first, followed by a consulting firm with cybersecurity advisory or an IT security company.¹⁵

Experts likewise suggest there is high demand for cybersecurity trained lawyers in the public sector. According to David Bodenheimer, “nowhere is cybersecurity hotter than in the federal public sector, given that the U.S. government is the world’s largest user, consumer and manager of data in the world.”¹⁶ The rise of homeland security issues has also increased the need for lawyers with such training.

¹² McNeal, G. “Cybersecurity and Privacy Specialists in Short Supply.” *Forbes*, August 26, 2013.

<http://www.forbes.com/sites/gregorymcneal/2013/08/26/cybersecurity-and-privacy-specialists-in-short-supply/>

¹³ *Ibid.*

¹⁴ “Cyber Security: the mother of all legal growth areas,” *Op. cit.*

¹⁵ “Perspectives on Cybersecurity and Its Legal Implications: A 2015 Survey of Corporate Executives.” Mayer Brown. p. 7. <https://www.mayerbrown.com/files/uploads/Documents/PDFs/2015/March/150407-WDC-Privacy-Survey-Results.pdf>

¹⁶ “Q&A with Crowell’s David Bodenheimer.” *Law360*, March 15, 2013. <http://www.law360.com/articles/421095/q-a-with-crowell-s-david-bodenheimer>

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Appendix D

American Bar Association Standard 306. DISTANCE EDUCATION

- (a) A distance education course is one in which students are separated from the faculty member or each other for more than one-third of the instruction and the instruction involves the use of technology to support regular and substantive interaction among students and between the students and the faculty member, either synchronously or asynchronously.
- (b) Credit for a distance education course shall be awarded only if the academic content, the method of course delivery, and the method of evaluating student performance are approved as part of the school's regular curriculum approval process.
- (c) A law school shall have the technological capacity, staff, information resources, and facilities necessary to assure the educational quality of distance education.
- (d) A law school may award credit for distance education and may count that credit toward the 64 credit hours of regularly scheduled classroom sessions or direct faculty instruction required by Standard 311(b) if:
 - (1) there is opportunity for regular and substantive interaction between faculty member and student and among students;
 - (2) there is regular monitoring of student effort by the faculty member and opportunity for communication about that effort; and
 - (3) the learning outcomes for the course are consistent with Standard 302.
- (e) A law school shall not grant a student more than a total of 15 credit hours toward the J.D. degree for courses qualifying under this Standard.
- (f) A law school shall not enroll a student in courses qualifying for credit under this Standard until that student has completed instruction equivalent to 28 credit hours toward the J.D. degree.
- (g) A law school shall establish an effective process for verifying the identity of students taking distance education courses and that also protects student privacy. If any additional student charges are associated with verification of student identity, students must be notified at the time of registration or enrollment.

Interpretation 306-1

Technology used to support a distance education course may include, for example:

- (a) The Internet;*
- (b) One-way and two-way transmissions through open broadcast, closed circuit, cable, microwave, broadband lines, fiber optics, satellite, or wireless communications devices;*
- (c) Audio and video conferencing; or*
- (d) Video cassettes, DVDs, and CD-ROMs, if the cassettes, DVDs, or CD-ROMs are used in a course in conjunction with any of the technologies listed in paragraphs (a) through (c).*

Interpretation 306-2

Methods to verify student identity as required in Standard 306(g) include, but are not limited to (i) a secure login and pass code, (ii) proctored examinations, and (Hi) other technologies and practices that are effective in verifying student identity. As part of the verification process, a law school shall verify that the student who registers for a class is the same student that participates and takes any examinations for the class.

Appendix E

Distance Learning Best Practices – iLaw
<http://www.ilawventures.com/best-practices/>

- **Teacher Training, Support, and Responsibilities**

Standard #1 – All Faculty members must complete the e-certificate program in Desire2Learn. The e-certificate training must be completed before a faculty member's first day of class. This course provides ample instruction in online course delivery and design. See ABA Standard 311.

Standard #2 – All Faculty members must spend, at a minimum, the equivalent of two full class sessions in training sessions in the online classroom Blackboard Collaborate prior to the first day of classes. This training will be conducted by an iLaw staff member. This is a minimum standard, and more training sessions will be provided should faculty members need or request additional training. The purpose of the training sessions will be to provide faculty members multiple opportunities to use Blackboard Collaborate's various interactive features in a training environment.

Standard #3 – All Faculty members must ensure access to a high quality, broadband Internet connection for all courses in collaboration with the Director of Operations. Faculty members are responsible for ensuring access to an Internet connection that supports the highest quality of audiovisual transmission in Blackboard Collaborate. The Internet connection must be secure and uninterrupted. While it is strongly preferred that professors teach all synchronous classes from the same location, professors who teach from multiple locations during the term must ensure a high quality connection at each location by testing the audiovisual transmission prior to class. An iLaw staff member will individually verify the quality of audiovisual transmission with each professor and each location from which a professor teaches. For both synchronous and asynchronous classes, access to a learning management system/Ethernet/Cable connection is required at all times.

Standard #4 – Faculty will make detailed course syllabi available to students no later than one week prior to the start of classes. The course syllabus will include information about the course objectives; assigned casebooks and readings; calculation of grades; attendance policy; professor availability and response times; contact information for the professor, Director of Operations, and tech support; dates of the final examination.

Standard #5 – Faculty members must submit grades that are in compliance with each partner law school's grading policies. Grades must be submitted no later than three weeks after the exam, or in less than three weeks if so required by a partner law school. The grades must comply with the curve applied at each individual school.

Standard #6 – Faculty members will be available to students for live office hours and via email and will closely monitor and participate in out-of-class discussions. Professors will be

available for at least two hours per week for live office hours. Professors will provide their email address to students in the syllabus and will respond to email daily throughout the term.

Professors will closely monitor the discussion boards in the applicable learning management system (“LMS”). Professors will monitor, and respond as necessary, all discussion board posts made prior to 5 PM EDT on the same day; for discussion board posts made after 5 PM EDT, professors will monitor and respond as necessary by 10 AM EDT the following day. Professors will provide feedback to students about class assignments within a week of when the assignment is submitted.

Standard #7 – All courses will be supported by an Instructional Designer. An instructional designer will be provided for each course beginning two months prior to the first day of classes. The instructional designer’s role will be to consult with the faculty member on all aspects of online course delivery and design, including the organization of modules and content, the creation of learning objectives, the creation and delivery of assessments, and the development and curating of course content (e.g. videos).

- **Student Services**

Standard #8 – Students will be promptly registered in all courses in Desire2Learn.

Ventures’ Staff (hereinafter “Staff”) will obtain a spreadsheet containing the names of all enrolled students in each course from each participating law school no later than one week prior to the start of classes in each term. The students will then be enrolled in the Student Orientation course and in the appropriate substantive courses one week prior to the start of classes. As students drop and add courses, both during and after the beginning of classes, law schools will update Staff at least once per day. Staff will manually enroll or drop students in courses within the hour upon receipt of notification from the participating law schools.

Standard #9 – The privacy of student information will be protected and will be shared with participating law schools only as necessary. iLaw will comply with all applicable rules governing the privacy of student information. Staff will share student information with participating law schools in three instances. (1) Staff will share information related to students’ compliance with course attendance policies with participating law schools. Information may be redacted from these reports to ensure that each participating law school receives attendance information related only to its own students and not to students from other participating law schools. (2) Staff may also share information about a student with the student’s law school in instances in which an exam proctor has furnished evidence that the student may have cheated on an examination or on a class assignment. (3) Staff will provide full support for the calculation of all grades to participating law schools, as requested.

Standard #10 – Students will have recourse for any complaints about a course, a professor, and any other aspect of their experience in iLaw online course materials. All students will be provided with the email address and telephone number of the iLaw Help Desk. Students may contact the iLaw Help Desk at any time with complaints about the administration of courses, technical problems, professors, or any other aspect of their experience as a student. While complaints may be handled informally, iLaw will provide students with a form for filing formal

complaints. iLaw will promptly investigate and resolve all complaints; all formal complaints will be processed in no more than one week's time.

Standard #11 – Students must complete a full orientation course. The student orientation course will provide full information about the administration of the online courses as well as comprehensive training in the appropriate LMS. See ABA Standard 311. All students will be required to complete a mock examination as part of the orientation course. Also, all students will be required to meet with a member of the iLaw Team in Blackboard Collaborate prior to the first day of class. During this session, Staff will verify that each student has (1) access to a good Internet connection, (2) a functioning web camera, and (3) a functioning microphone. Students will not be given access to the online classes until they have completed the Orientation course, including the mock examination and Blackboard Collaborate session. Orientation also will include some education on the applicable Code of Conduct and plagiarism. During Orientation students must acknowledge that they have read the applicable Code of Conduct and have agreed to abide by it.

Standard #12 – Students will have ample opportunities to interact directly with professors. Students will have direct access to professors during live office hours (at least two per week per professor), via email, and via discussion boards. Professors must also provide students one additional line of communication, such as a phone number. The Director of Operations will be responsible to ensure that professors respond to all student inquiries in a timely manner.

Standard #13 – Students will complete an end-of-course evaluation. It is anticipated that each participating law school will administer an end-of-course evaluation to its students and share the results with iLaw. If a law school so desires, iLaw may administer the evaluation and share the results with the law school. Student anonymity will be strictly protected. The end-of-course evaluations will be shared with professors after grades are submitted and approved.

Standard #14 – Students who are entitled to services under the Americans with Disabilities Act (ADA) will be fully supported. Staff will provide exam accommodations and any and all other supports for students with disabilities. Staff will request that participating law schools notify iLaw about ADA-eligible students on or before the first day of classes in each term.

Standard #15 – iLaw will provide each participating school with one Desire2Learn account and access to any and all courses in which students from that school are enrolled. A designated administrator at each school will be given full access to each course, including the ability to join any and all live class sessions. iLaw encourages law school administrators to provide feedback during courses.

- **Technical Standards and Support**

Standard #16 – Staff will monitor every minute of every synchronous class and will monitor synchronous classes on a daily basis. During every class, a member of the iLaw Team will be in the Blackboard Collaborate room to monitor classes and provide technical support to

students and professors. At least once a day during asynchronous classes, a member of the iLaw team will review the activity in the classroom and provide technical support where needed.

Standard #17 – All courses will receive 24/7 Technical Support. From the beginning of the Orientation course through the end of the final examination period, students and professors will receive 24/7 technical support for the applicable LMS, Blackboard Collaborate, and any technical issues affecting their ability to participate in the online courses. This 24/7 support will be provided through a combination of Staff and D2L and Blackboard's own tech support capabilities. Staff will provide a technical support email and phone number to students, and the phone number will be answered between 8 AM and 10 PM EDT, Monday-Friday. Students will be directed to phone the applicable LMS and/or Blackboard Collaborate directly between 10 PM EDT and 8 AM EDT. All contact information will be provided to students during the Student Orientation course and will be posted in each course in Desire2Learn.

Standard #18 – Staff will ensure that professors have appropriate hardware and software and that it has been repeatedly tested. Staff will ensure that professors have a professional background when teaching or recording classes, including appropriate lighting and camera positioning. For synchronous classes, a member of the iLaw Team will meet with each professor to test his or her existing computer, web camera, and microphone. In the event that the professor is unable to achieve high quality, synchronous audiovisual transmission with his or her existing equipment, then Staff will provide an external web camera and/or external microphone. In the event that the professor's computer and/or Internet connection does not suffice, then the professor will assume responsibility for purchasing suitable equipment. Each professor will have the necessary equipment in hand no later than two months prior to his or her first day of class. Professors may choose to use a headset but are not required to do so. If a professor chooses to use a headset rather than an external microphone and does not have a headset that is suitable, then Staff will provide a suitable headset.

Standard #19 – Staff will be proactive in contacting students who may have technical difficulties during classes or who are skipping classes. In instances where a student in a synchronous class joins and then exits a class, the in-class monitor will immediately reach out to that student via email to offer technical support as needed. Also, Staff will immediately contact students in all instances where Blackboard Collaborate indicates that the student's Internet connection is subpar in a given class session. Staff will initiate technical support in these instances rather than wait for the student to initiate it. Also, Staff will monitor each student's attendance and will contact any student who (1) misses two consecutive synchronous class sessions or (b) has not logged into the course in Desire2Learn within a 72-hour period.

Standard #20 – Staff will conduct periodic surveys throughout each course to provide students with an opportunity to provide feedback about technical issues and course administration. Each Friday, Staff will send out a brief via email to all enrolled students that will provide them with an opportunity to provide feedback.

Standard #21 – All course content will be provided through an LMS and will be password protected. Students will be provided with a unique username and password to log into the applicable LMS. Students are encouraged to change their password upon logging in.

- **Course Delivery and Interactivity**

Standard #22 – The learning objectives and measurable student outcomes for each course will be clearly stated in the syllabus. Objectives and outcomes will be identified for each individual class session. In addition to placing this information in the syllabus, students will also receive the information in the Content area of the course in the applicable LMS for each class module.

Standard #23 – Professors will design classes so that students in online courses enjoy at least as much interactivity as in the traditional classroom. Students in online courses should have the opportunity for “regular and substantive interaction between the faculty member and student and among students.” (See ABA Standard 306(d).) Professors should include in syllabi formal interactive spaces. These may include blogs, chat rooms, discussion groups, assignments, etc. There should be “regular monitoring of student effort” in these activities by the faculty member. There also should be opportunity for communication between the student and the faculty member about that effort.

The following requirements help assure interactivity, but professors are encouraged to consider additional ideas that make pedagogical sense with the course.

1. Students will be required to attend at least 80% (or a greater percentage if required by a school) of all synchronous classes in the course, and students in asynchronous classes must view all classes.

1. While recordings of every lecture in synchronous classes will be posted in Desire2Learn, students must attend at least 80% of classes synchronously. In order for class attendance to count in synchronous classes, students must join the class no later than five minutes after the start of class and stay for the duration. In stances in which iLaw verifies that the student is experiencing technical difficulties, and these technical difficulties prevent the student from joining all or a portion of the class, then iLaw will count the student as having attended the class provided that student views the entire recorded class within 24 hours.

2. Students in asynchronous classes will be required to view all recordings.

2. During synchronous classes, professors will initiate interaction with students at least once every eight minutes, and during asynchronous classes, professors will initiate interaction with students at least twice a week.

1. During synchronous classes, professors will initiate direct interaction with students at least ten times per class. During asynchronous classes, professors will initiate direct contact with students at least twice a week. These are minimum standards, and professors are encouraged to exceed these minimums. For synchronous classes, this interactivity may be satisfied by the following types of activities: (1) discussion boards; (2) placing students into group breakout session to work on a problem; (3) Yes/No polling questions; (4) Multiple Choice polling questions; (5) calling on designated students (see Standard #26) to answer questions or make presentations to the class; (6) cold-calling on students; (7) requiring students to provide short answer responses through the chat message board.

2. In asynchronous classes, this interactivity requirement may be satisfied by the following types of activities: (1) discussion boards; (2) placing students into group breakout sessions to work on a problem; (3) asking questions of specific students during

discussion boards and office hours; (4) asking students to answer yes/no or multiple choice polling questions or to provide short answer responses through discussion boards, chat rooms, and office hours; (5) calling on designated students to answer questions or make presentations to the class through discussion boards, chat rooms, and office hours.

Standard #24 – Professors will provide at least one out-of-class assessment opportunity per class session. In synchronous classes, students will be required to participate in at least half of the out-of-class assessments in order to satisfy the attendance requirements for the course. In asynchronous courses, students will be required to participate in all of the assessments in order to satisfy the attendance requirements for the course. Each class will have clearly stated learning objectives and feedback on progress to those goals. These out-of-class assessments may include the following: (1) a discussion board question provided by the professor in advance of a class to prepare students for class; (2) a discussion board question provided by the professor after a class for review purposes; (3) a short multiple choice review quiz in which feedback is provided on all possible answer choices; (4) a group assignment involving 3-5 students submitted to the professor via the Dropbox; (5) a discussion thread initiated and moderated by a designated student or group of students. This list is not meant to be exhaustive, and professors are encouraged to be creative in generating opportunities for out of class interaction.

Standard #25 – Classes must comply with ABA Standard 310. Minutes counted toward the credit hour include faculty instruction through synchronous and asynchronous teaching, synchronous and asynchronous contact with students, and online textual communications. Out-of-class work (readings and assignments) counts for credit at one-half the rate of faculty instruction.

Standard #26 – In synchronous courses, professors will transmit their video image at all times during class, and students are required to transmit their video image when using the microphone. Professors of asynchronous course should use live-video conferencing for office hours and evaluations of at least two class assignments.

Standard #27 – In synchronous classes, all students will be called on to use the microphone in a live class at least once in each course. Professors in synchronous courses will create a schedule of students who will be designated in advance of each class to be called upon. Professors may set this schedule for the entire course at the beginning of the course, or they may set it on a week-to-week basis. Students will be provided with at least one week's advance notice of the class or classes during which they will be called upon. Professors are encouraged to require students to use the microphone more often. **In asynchronous courses, students are required to participate in all class activities.**

Standard #28 – Visuals will be provided for every class session. Professors must provide power point slides and/or other visuals for every class. In instances in which students are presenting material to the class, professors will permit students to use the whiteboard area in making the presentation.

Standard #29 – A final examination will be administered in every J.D. course. Professors must provide samples of the question formats used in the final examination prior to the final examination. In LL.M. courses, the professor must clearly set out in the syllabus how cumulative assessment will be conducted. In some of the class-to-class assessments provided pursuant to Standard #24 (see above), it is expected that professors will provide questions in the format(s) that will be used on the final examination. However, professors may, at their discretion, provide mid-term examinations and feedback on these examinations.

- **Integrity**

Standard #30 – Professors will guard against plagiarism. It is suggested that at least one writing assignment for each student be processed through a plagiarism check during the course term.

Standard #31 – All examinations will be administered in a secure environment to ensure exam integrity. iLaw will use a third-party vendor to verify student identity and proctor all final examinations. If the exam proctor identifies suspicious behavior during a final examination, iLaw will share this information with the school so that the school can investigate and take disciplinary action as needed.

Appendix F

M.S. in Cybersecurity Law Current Faculty

Faculty Name	Status	Degree Title	Title	Courses to be taught
Michael Greenberger	Full-time	JD	Law School Professor and Director, Center for Health and Homeland Security	Crisis Management Survey, Crisis Management Seminar
Ellen Cornelius	Adjunct	JD	Adjunct Faculty, Senior Law and Policy Analyst at CHHS	Legal Methods,
John Greer	Adjunct	JD	Adjunct Faculty, Principal, Patuxent Mediation Services, LLC	Dispute Resolution and Negotiation
Susan Herrick	Full-Time	JD	Research Librarian, UM Carey Law	Legal Research
Laura McWeeney	Adjunct	JD	Adjunct Faculty, Associate Vice President, Procurement and Business Affairs, UMCP	Administrative Law and Regulation Survey
Angela Scott	Adjunct	JD, LLM	Adjunct Faculty, Attorney-Advisor for the Civil Rights Division of the Office of the General Counsel at US Dept. of Health and Human Services	Ethics and Public Policy
Markus Rauschecker	Adjunct	JD	Adjunct Faculty, Cyber Program Manager at CHHS	Cyber Crimes; Law and Policy of Cyber Security; Cyber Capstone
Michael Vesely	Adjunct	JD	Adjunct Faculty, Academic Program Manager at CHHS	Law and Policy of Crisis Management
Ben Yelin	Adjunct	JD	Adjunct Faculty, Senior Law and Policy Analyst at CHHS	US Law and Legal Systems; National Security, Electronic Surveillance, and the Fourth Amendment

Appendix G

Notes to accompany Table 1: Resources and Table 2: Expenditures

Reallocated funds

Reallocated funds are derived from tuition from the existing classroom Master of Science in Law program. They are needed for year 1 only and will not have an impact on the existing program.

Tuition and Fee Revenue

Year 1 includes spring 2017 term only. Years 2 to 5 include fall and spring terms.

For each program, 30 credits offered over four terms (15 credits per year).

Two entering cohorts per year per Table 1a, fall and spring, with both programs beginning Spring 2017.

Number of P/T students in any given year reflects average number of students taking 15 credits.

Example using Year 3 Data:

<u>Term</u>	<u>HC</u>	<u>Cr</u>	<u>Total</u>
Ongoing	72	15	1080
First term	32	8	256
Last term	20	7	140
Total			1476
/Credits			15
=P/T			98

Credit Hour Rate reflects 3% tuition increases each year.

Other Expenses

Other Expenses include estimated cost of scholarships (10% discount), marketing, and paying iLawventures their share of net revenue for developing and delivering the online programs per the Collaboration Agreement.

Appendix G (continued)

TABLE 1: RESOURCES					
Resource Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Reallocated Funds	34,088				
2. Tuition/Fee Revenue (c + g below)	120,000	614,535	1,170,120	1,562,100	1,924,320
a. Number of F/T Students					
b. Annual Tuition/Fee Rate					
c. Total F/T Revenue (a x b)					
d. Number of P/T Students	20	53	98	127	152
e. Credit Hour Rate	750	773	796	820	844
f. Annual Credit Hour Rate	8	15	15	15	15
g. Total P/T Revenue (d x e x f)	120,000	614,535	1,170,120	1,562,100	1,924,320
3. Grants, Contract & Other External Sources					
4. Other Sources					
TOTAL (Add 1 - 4)	154,088	614,535	1,170,120	1,562,100	1,924,320

TABLE 2: EXPENDITURES					
Expenditure Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Faculty (b + c below)	82,088	195,650	245,650	305,650	355,650
a. # FTE	0.66	1.75	3.25	4.25	5
b. Total Salary	66,005	157,619	197,176	241,812	281,369
c. Total Benefits	16,083	38,031	48,474	63,838	74,281
2. Admin. Staff (b + c below)	30,000	60,000	60,000	60,000	60,000
a. # FTE	.10	.20	.20	.20	.20
b. Total Salary	21,292	42,583	42,583	42,583	42,583
c. Total Benefits	8,708	17,417	17,417	17,417	17,417
3. Support Staff (b + c below)					
a. # FTE					
b. Total Salary					
c. Total Benefits					
4. Equipment					
5. Library					
6. New or Renovated Space					
7. Other Expenses	42,000	308,721	642,072	877,260	1,094,592
TOTAL (Add 1 - 7)	154,088	564,371	947,722	1,242,910	1,510,242

Appendix G (continued)

Table 1a	Year 1	Year 2		Year 3		Year 4		Year 5	
Term:	S17	F17	Sp18	F18	Sp19	F19	Sp20	F20	Sp21
Cyber - Cohort 1	10	10	10	10					
Cyber - Cohort 2		10	10	10	10				
Cyber - Cohort 3			13	13	13	13			
Cyber - Cohort 4				13	13	13	13		
Cyber - Cohort 5					16	16	16	16	
Cyber - Cohort 6						18	18	18	18
Cyber - Cohort 7							20	20	20
Cyber - Cohort 8								20	20
Cyber - Cohort 9									20
Cyber - Cohort 10									
Homeland - Cohort 1	10	10	10	10					
Homeland - Cohort 2		10	10	10	10				
Homeland - Cohort 3			13	13	13	13			
Homeland - Cohort 4				13	13	13	13		
Homeland - Cohort 5					16	16	16	16	
Homeland - Cohort 6						18	18	18	18
Homeland - Cohort 7							20	20	20
Homeland - Cohort 8								20	20
Homeland - Cohort 9									20
Homeland - Cohort 10									
Total Term I (8 cr)	20	20	26	26	32	36	40	40	40
Total Term II (7 cr)		20	20	26	26	32	36	40	40
Total Term III (8 cr)			20	20	26	26	32	36	40
Total Term IV (7 cr)				20	20	26	26	32	36
Total Headcount	20	40	66	92	104	120	134	148	156