



**BOARD OF REGENTS
COMMITTEE ON ECONOMIC DEVELOPMENT
AND TECHNOLOGY COMMERCIALIZATION**

Minutes of the Public Session

January 24, 2013

University of Maryland University College

Chairman Attman called the meeting of the Committee on Economic Development and Technology Commercialization of the University System of Maryland Board of Regents to order in public session at 1:27 p.m. Also, at 12:15 p.m., the Committee voted unanimously to go into closed session under State Government Article Section 10-508(a).

The regents in attendance included Mr. Attman, Ms. Gonzales (by phone), Mr. Gossett, Mr. Hershkowitz, Mr. Kelly, Mr. McMillen, and Dr. Young (by phone). Also present at the meeting were Chancellor Kirwan, Mr. Vivona, Mr. Balakrishnan, Mr. Hogan, Ms. Moultrie, Mr. Lurie, and Assistant Attorney General Alexander Short. Guests present included Ms. Eastman, Mr. Fink, Mr. Forzno, Ms. Giles, Ms. Hemmerly, Mr. Hughes, Dr. O'Shea, Dr. Smith, Mr. Spahr, Ms. Tonggarwee, and Ms. Varma.

1. Entrepreneurship and Innovation at the Comprehensive Universities (information item)

Dean Darlene Smith of the University of Baltimore's Merrick School of Business briefed the committee on the entrepreneurial programs and successes at UB and the other USM comprehensive universities. The University of Baltimore is building an entrepreneurial ecosystem through its students and alumni, faculty and scholars, and the entrepreneurial business community surrounding Baltimore. UB has an entrepreneur in residence program and other resources for potential entrepreneurs:

- The Maryland Small Business and Technology Development Center
- The Center for Entrepreneurship and Innovation
- The Mildred and Edward Attman Student Hatchery

In addition, UB has established cross-campus collaborations to incorporate entrepreneurship into multiple disciplines. UB offers a master's degree in Innovation Management and Technology Commercialization, an Entrepreneurial Fellows program, and specialized entrepreneurship minors for graduate and undergraduate students.

Dr. Smith also discussed best practices to enhance entrepreneurship at UB and the other comprehensive universities. These practices include developing entrepreneurially focused websites, tracking key indicators, advocating for outsourcing and collaboration, embedding entrepreneurship in the curriculum, and growing centers for

entrepreneurship and innovation, and business advisory services. Other recommended practices include holding business plan competitions; celebrating entrepreneurial achievements, partnering with industry, state and federal agencies; expanding mentoring programs, alumni networks and advisory boards; promoting networking events and raising money for seed and venture funds; and partnering with the SBDFCs.

2. USM Economic Impact Study (Information Item)

Mr. Attman announced and released the study conducted by the Jacob France Institute on the economic impact of the USM. Mr. Vivona summarized the key findings from this study. Using a human capital approach, the study analyzed the fiscal and economic impact of USM graduates through increased earnings from degree attainment. In addition, the study examined the system's contribution to workforce development, including its ability to produce graduates in areas of workforce shortages, as well as economic development through its research, partnerships with the private sector, and technology transfer.

The study concluded that the USM contributes to the state's economy in a variety of ways. It is a source of educated and skilled workers for Maryland employers. The workers' increased earnings generate significant additional revenues for the State of Maryland. Further, USM institutions provide valuable services to businesses, generate new technologies through research and development, and contribute to the quality of life in Maryland through community service activities. The positive economic impact of the USM on the State of Maryland considerably exceeds the state's investment in the system. More information is available at USM's web site (www.usmd.edu).

3. Cyber Security Task Force Recommendations -- Progress Report (Information Item)

Senator Mikulski had requested a progress report on the five recommendations in the Cyber Security Task Force report and Mr. Hogan briefed the Committee on the programs and initiatives underway at the USM institutions. In response to the first recommendation to conduct a comprehensive and scientific survey to evaluate employer needs in the area of cyber security, a study was recently completed by the Abell Foundation which determined that there are 19,000 cyber security related job openings in Maryland. Notably, Maryland leads the nation in the number of colleges and universities certified in cyber security by the National Security Agency (NSA).

The Cyber Security Task Force also recommended that the USM extend program offerings in cyber security. A survey determined that the USM Institutions are continuing to add courses, tracks, certificates, training programs, and degree programs in computer science, information systems, information technology, information assurance, cyber security, cyber forensics, and engineering.

The third recommendation encouraged the USM to establish more partnerships among education, government and private industry and leverage the resources available. In 2012, the Business Higher Education Forum (BHEF), of which Chancellor Kirwan is the chair, announced 12 regional projects involving collaborations between member companies and universities in key fields important to national competitiveness and

security such as cyber security. The USM is one of four BHEF member institutions focusing on cyber security. Many USM institutions have developed partnerships with corporations as well as research partnerships with government agencies, including Lockheed Martin, NSA, DoD, NIST, Department of Homeland Security, SAIC, MIT Lincoln Labs, Cisco, Tenable, Northrop Grumman, IBM and others.

Additionally, the Task Force recommended that the USM strengthen research and support innovation and technology transfer in cyber security. USM institutions, and UMCP in particular, continue to strengthen their engagement with cyber security research. The Maryland Cybersecurity Center (MC2) comprises 26 core faculty across campus actively engaged in cyber security research. The USM expects that UM Ventures will also fuel cyber security research.

Finally, the Task Force recommended that the USM expand the cyber security pipeline through collaborations between the USM and Maryland's community colleges. The USM/Maryland Community College Cyber Security Faculty Work Group has established common core cyber security topics to be embedded in computer science courses to enable the transition of students from community colleges to USM institutions. In addition, the work group will establish "concentrations" in Computer Science programs that focus on cyber security/information assurance and will explore new models and pathways to transition Associate of Applied Science students into information technology programs.

The public meeting was adjourned at 2:16 p.m.

Respectfully submitted,

Gary L. Attman, Chair
Committee on Economic Development
and Technology Commercialization